

2025

PERFORMANCE PARTS & EQUIPMENT RACING • HOT ROD • STREET • OFF-ROAD



Scott Bloomquist

To say Scott Bloomquist was a great driver would be an understatement. His career as one of the best late model drivers in history spanned decades and made him a legend both on and off the track.

Scott partnered with Allstar Performance throughout his racing and car building career. He counted on our products to help him earn his wins both on the track and in the shop.

We dedicate this Allstar catalog to the enduring memory of Scott Bloomquist.



www.allstarperformance.com



ALLSTAR PERFORMANCE

Steel Spoiler/Body Brace

ALL23019



150 Foot Roll of Spring Steel

ALL23110-150

Page 12



Page 14



O-Ring Water Necks

ALL30376-ALL30377

Page 57



Low Pro le **Water Necks**

ALL30380-ALL30382

Page 57



1/16" Heat Shrink Tubing **ALL76161**

Page 63



Slotted Flat Tabs for Body Braces ALL60088

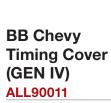
Page 39



Battery Box Ballast

ALL14208

Page 46



Page 80



Dual Pass Radiators with 1/4" NPT Bung ALL30333-

ALL30347

Page 50



SB Chevy 6-1/8" **Dia Balancers**

Timing Pointer for

Adjustable

ALL90033

Page 81



Lightweight **Dual Pass** Single Row **Radiators**

ALL30343-**ALL30347**

Page 50



Gaffers Tape ALL14265-ALL14268



ALLSTAF PERFORMANCE

Coated Braided Lines with 1/8" NPT and **Straight Steel Ends**

ALL48435-18 - ALL48445-48

Page 113



Aeromotive Fuel Pressure Regulator Bracket for Dirt Late Models

ALL54298

Page 122



36" Long Aluminum **Throttle Linkage with Return**

Spring Kit

ALL54178-ALL54179

Page 128



Heavy Wall 5/8" **Steel Axle Tubes**

ALL68262-24

ALL68262-26

Page 136



1-Ton Wide 5 Aluminum Axle Tubes

ALL68215-26

ALL68215-30

Page 136



Single-Layer Non-SFI **Outseam Driving Gloves**





ALL913041- ALL913045

Yellow

ALL913091- ALL913095

Page 145

Double-Layer SFI 3.3/5 **Outseam Driving Gloves**



Orange

ALL916041 - ALL916045

Yellow

ALL91609 - ALL916095

Page 145



Pro-Series Mid-Top SFI 3.3/5 **Driving Shoes**

Black

ALL918122 - ALL918134

Black/Blue

ALL918222 - ALL918234

Black/Red

ALL918722 - ALL918734







ALLSTAR' PERFORMANCE

SFI 3.3 Underwear Tops ALL926110-ALL926119

Page 146



Camera Mount

Page 150



SFI 3.3 Underwear Bottoms ALL926210-ALL926219

Page 146



3-Pack Box of Roll Bar Padding

ALL14100-3-ALL14106-3

Page 152



•

Thicker Flame Retardant SFI Driving Socks

ALL926411- ALL926415

Page 146



Non-SFI Ribbon Style Window Nets

ALL10283-ALL10293

Page 153



Build your own Take Apart Ball Joints

ALL56900-ALL56985

Page 175



Arm Restraints

ALL991212-

ALL991312

Page 147



Steering Wheel Hook

ALL10227

Page 150



Precision Lower Control Arm Kits

ALL57806-

ALL57809



ALLSTAF PERFORMANCE

Threaded Bump Washers

ALL64290-ALL64293

Page 184



Page 184



ALL64296-ALL64297

Page 204



ALL10133

Page 211



Utility Jug Filler Hose **ALL40128**

Page 215

11" Tall **Stack Stands**

ALL10253

Page 223



Nitrogen Air Tanks and Accessories

ALL10630

Page 224



New Styles!

Aluminum Wheel Covers for Weld and **Bassett Beadlock Wheels**

ALL44140-ALL44145

Page 241





ALL26890

Page 238



New Sizes! Tire Covers ALL44256-**ALL44257**

Page 245





ALL44272





Lightweight 14" Aluminum Air Cleaner Kits

Race and dyno proven air cleaners feature a low-pro le and free- owing design that creates more power over standard at air cleaner assemblies. Kits include a high owing dropped base with matching lid and a sure seal spacer with an integrated O-ring for a positive seal on carburetors with a 5-1/8" neck.

Kits without Element

These kits are sold without Iters. Select plain or black coated



nish and the correct height Sure Seal spacer.

Description	Plain Finish	Black Finish
Kit with 1/2" Sure Seal Spacer	ALL25900	ALL25901
Kit with 1" Sure Seal Spacer	ALL25902	ALL25903
Kit with 1-1/2" Sure Seal Spacer	ALL25904	ALL25905
Kit with 2" Sure Seal Spacer	ALL25906	ALL25907

Kits with Paper Element

Kits include a paper element lter in choice of 3", 3-1/2", 4", or 5" height and a 1" sure seal spacer. Choose from plain or black coated nish lid and base.

Description	Plain Finish	Black Finish
Kit with 3" Paper Element	ALL25910	ALL25911
Kit with 3-1/2" Paper Element	ALL25912	ALL25913
Kit with 4" Paper Element	ALL25914	ALL25915
Kit with 5" Paper Element	ALL25916	ALL25917

Kits with Washable Element

Kits include a preoiled washable element lter in choice of 3", 4", 5", or 6" height and a 1" Sure Seal spacer. Choose from plain or black coated nish lid and base.



Individual Components

ALL25940 14" Top Plain ALL25941 14" Bottom Plain ALL25942 14" Top Black ALL25943 14" Bottom Black

ALL25944 1/2" Sure Seal Spacer (places air cleaner base 1-1/8" below carb neck sealing ange)

ALL25945 1" Sure Seal Spacer (places air cleaner base 5/8" below carb neck sealing ange)

ALL25946 1-1/2" Sure Seal Spacer (places air cleaner base 1/8" below carb neck sealing ange)

ALL25947 2" Sure Seal Spacer (places air cleaner base 3/8" above carb neck sealing ange)

14" Aluminum Air Cleaner Kits

Low-pro le, spun aluminum air cleaner kits have a plain or black nished lid, a base for carburetors with 5-1/8" necks and O-ring spacers for a positive seal. Elements sold separately.



ALL26094 Plain Kit with 1/2" Spacer

ALL26097 Black Kit with 1/2" Spacer

ALL26095 Plain Offset Base Kit with 1/2" Spacer

ALL26098 Plain Kit with 1" Spacer ALL26099 Black Kit with 1" Spacer

Individual Components

ALL26090 Plain Top ALL26088 Black Top ALL26092 Standard Base ALL26091 Offset Base

ALL26085 1/2" Spacer (places base 1-3/8" below carb neck sealing ange)

ALL26086 1" Spacer (places base 7/8" below carb neck sealing ange)

ALL26087 1-1/2" Spacer (places base 3/8" below carb neck sealing ange)

ALL25947 2" Spacer (places base 1/8" above carb neck sealing ange)

ALL26084 Spacer O-ring

Offset Air Cleaner Base

ALL26091

14" base is offset 1" and commonly used for extra distributor clearance. Offset base has a 1-1/2" drop and will t carburetors with a 5-1/8" neck including Q-Jets, Holley 2bbl. and Edelbrock carburetors without choke. Base will not work with Holley 4bbl. carburetors. Offset air cleaner stud ALL26057 is required.

2BBL. Air Cleaner Base

ALL26081

Aluminum air cleaner base has 14" overall diameter. 5/8" drop, plain nish. 3" diameter carburetor ange.

Air Filter Sealing Foam

ALL26106

Soft neoprene foam material used for adding an extra seal between the air

Iter and the lid and base of an air cleaner assembly. Material features a self-adhesive glue on one side to keep seal in place. Material measures 1" wide x 1/4" thick and is 12 ft long.

Air Cleaner Gasket

ALL87207

OE style composite gasket fi s most popular carburetors with 5-1/8" neck. Gasket seals air cleaner base to carburetor neck helping prevent dirt and moisture from entering carburetors.



ALI 25945



14" Flat Base Air Cleaner Kits

Lightweight spun aluminum air cleaner kits have a at base to increase air ow. Kits include a lid, base and a 1/2" spacer with a built-in O-ring for a positive seal. Popular in crate engine classes when every horsepower counts! Elements sold separately.



ALL25950......Plain Air Cleaner Kit ALL25951.....Black Air Cleaner Kit

Individual Components

ALL25954 Plain Top ALL25955 Plain Base ALL25956 Black Top ALL25957 Black Base

ALL25944 1/2" Spacer with O-Ring

Air Pans

Lightweight aluminum air pans t between the carburetor and cowl area to keep engine heat away from and direct cool air to the carburetor. Cooler intake air means extra horsepower. Carb mounting ange is uncut.





ALL26100 Stepped Plenum ALL26101..... Flat Plenum

Universal Plastic Air Pan

ALL26104

Durable plastic pan fi s over the base of most 14" air cleaners and acts as a cold air box sealing off the air cleaner assembly from the engine heat.



Universal fi pan is designed for vehicles with air cleaner openings in the hood and will require additional trimming and sealing for a proper t. Pan measures 18" x 4" and includes a silicone air cleaner base seal.

Air Cleaner Nuts

Machined aluminum hold-down nut features an O-ring sealed base to help prevent water and



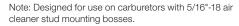
dirt from entering the top of most air cleaner lids and a knurled surface for easy removal and installation without tools.

Short Nut - 5/8" Tall ALL26045 ... 1/4"-20 Thread

Tall Nut - 1-1/4" Tall **ALL26046** ... 1/4"-20 Thread **ALL26047** ... 5/16"-18 Thread **ALL26048** ... 5/16"-18 Thread

Air Cleaner Stud Kit

Kit includes all components needed to attach an air cleaner assembly onto a carburetor including a 6" long 5/16"-18 threaded stud, an adjustable threaded stop and an air cleaner nut with a O-ring seal. The adjustable threaded stop allows the air cleaner lid to be secured against the stop without crushing the air lter.



ALL26014......Kit with Aluminum Stud ALL26015......Kit with Chrome Moly Stud

Air Cleaner Studs

Air cleaner studs feature 5/16"-18 threads with a machined hex base for tightening into carburetor to eliminate a separate jam nut.

ALL26054 Aluminum Stud 6" ALL26055 Chrome Moly Stud 6" ALL26077 Chrome Moly Stud 8"

Note: Designed for use on carburetors with 5/16"-18 air cleaner stud mounting bosses.

Air Cleaner Studs

Straight stud is 6" long with 1/4"-20 threads and includes a wing nut and an adapter for carburetors with 5/16"-18 threads.

ALL26056......Straight Stud with Adapter

ALL26058.....Adapter, 1/4" -20 to 5/16"-18

Offset Air Cleaner Studs

Offset studs work with offset air cleaner bases and some 2bbl carburetors that require offset studs. Studs include mounting hardware and have a 1-3/8" offset.

ALL26057 1/4"-20 (6" O.A.L.) **ALL26053** 5/16"-18 (5-3/4" O.A.L.) ALL26058 Adapter, 1/4" to 5/16"



ALL26054

ALL26053



Paper Air Filter Elements

High-performance paper air Iter elements increase air ow.





ALL26020 ALL26022





ALL26020 14" x 3" ALL26021 14" x 3-1/2" ALL26022 14" x 4" ALL26023 14" x 5" ALL26028 16" x 3" ALL26029 16" x 3-1/2" ALL26030 16" x 4"

Washable Air Filter Elements

Washable air Iter elements offer better engine protection and increase air ow for more power and torque. Elements are pre-oiled and available in four heights.









ALL26004 14" x 3" ALL26002 14" x 4" ALL26004 14" x 5" ALL26006 14" x 6"

Air Cleaner Top Element ALL26010

Unique 14" diameter element replaces traditional metal lid to increase air ow for more horse-



power and torque. Washable element may be cleaned and used over and over. Top element is pre-oiled and ready for installation.

Air Cleaner Filters

Mesh Iters t over an air cleaner assembly adding another layer of protection against dirt, dust and debris. Filters t Allstar paper and washable 14" air cleaners, and will not t oversized units like R2C.





Filters without Top Cover

ALL26220 14" x 3" ALL26221 14" x 4" ALL26222 14" x 5"

Filters with Top Cover

ALL26224 14" x 4" **ALL26225** 14" x 5"

Air Cleaner Cover

ALL26230

Water-repellent cover ts 14" diameter air cleaner assemblies from 3" to 6" tall. Perfect for washing or storage and includes a draw string.



Carb Hats

Carburetor hats are ideal to cover open carbs and prevent debris from falling into the engine while working in garage or pit area with air cleaner removed. 2-1/2" tall carb hats are designed to t most carbs or throttle bodies with a 5-1/8" diameter neck.







ALL26040 Plastic

ALL26042 Plastic with Screen

ALL26043 Aluminum

ALL26044 Aluminum, with Sealing O-Ring

Note: Hats will not clear choke linkage or shaft on Holley style carbs but will clear choke horn with choke linkage and shaft removed.

Dominator Carb Hat

ALL26041

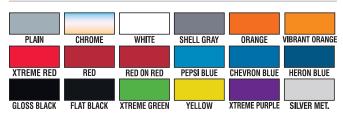
Plastic carb hat is 2-3/8" tall and ts over the 7-1/4" air cleaner opening of Holley Dominator



carburetors to prevent water or debris from entering the engine. Solid cover may be drilled when an air cleaner stud is used.



Aluminum Sheets



Aluminum sheets are .040" thick and available in most popular colors. Sheets with single-sided colors have a white painted backside and all sheets have a removable protective Im on one side to resist scratches.

Sheet product available for Pickup or Truck Freight. MOQ and pallet fees apply for truck orders. Call for details

4' x 10' (120")

ALL22200 Plain[†]

ALL22230 Satin ††

ALL22201 Chrome on Chrome (Bright Clear)§

ALL22202 White

ALL22203 Xtreme Red

ALL22204 Red

ALL22209 Red on Red

ALL22206 Gloss Black

ALL22207 Black on Black, Gloss

ALL22208 Flat Black

ALL22219 Black on Black, Flat

ALL22210 Shell Gray (Medium)

ALL22211 Xtreme Green

ALL22212 Pepsi Blue (Light)

ALL22213 Chevron Blue (Medium)

ALL22205 Chevron Blue on Chevron Blue (Medium)

ALL22214..... Heron Blue (Dark)

ALL22215 Orange

ALL22244 Vibrant Orange

ALL22216 Yellow

ALL22218 Yellow on Yellow

ALL22217..... Xtreme Purple

ALL22245 Silver Metallic

4' x 10'-6" (126")

ALL22480 White on White

ALL22482 Black on Black, Gloss

ALL22488 Black on Black, Flat

ALL22484 Red on Red

ALL22486 Chevron Blue on Chevron Blue (Medium)

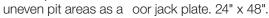
†Plain nish on both sides

††Satin on both sides

§Bright clear on both sides (side with protective Im has chrome appearance)

Aluminum Panels

Universal panels have many uses around the shop or at the track. Panels work well when fabricating spoiler sides, interior panels or on



ALL22236 0.063" Thick **ALL22237** 0.090" Thick **ALL22238** 0.125" Thick



Painted Sheet Steel

ALL22243

White painted 24-gauge (.024") steel is lightweight and perfect for building interiors in racing

classes that require steel panels or when Iling holes in rewalls or oor pans. 4' x 10' sheet is painted on both sides and one side has a removable protective Im to help prevent scratches during handling.

Plain Sheet Steel

Sheet steel is cold rolled with a plain nish making it great for metal fabrication and resto-

ration projects. Sheet steel has many uses including constructing or repairing body panels and lling holes in rewalls or oor pans. Sheets are 4' x 8'.

ALL22234 18 Gauge (.048") **ALL22233** 20 Gauge (.036") **ALL22242** 24 Gauge (.024")

Diamond Plate Aluminum ALL22240

4' x 8' sheets are .063" thick

and provide an attractive, shiny, non-slip nish for trailer oors, steps, etc.

Sheet product available for Pickup or Truck Freight. MOQ and pallet fees apply for truck orders. Call for details

Graphic Trim Tool

ALL23101

Unique tool allows you to easily

trim your graphics around wheel openings and other body panel edges. Adjustable width allows you to choose how far you want your material from the edge and the adjustable head gives you a wide range of options in tight or open areas.

Deburring Tool ALL11036

A fast and easy way to remove burrs from the edges of machined or cut metals. Five-

piece kit includes handle, telescopic blade holder and three unique blades. Handle has built-in storage for blades. Blade holder adjusts from 1" to 5".

Cleco Pin Fastener Kits

Cleco pins are reusable and easily make a temporary connection between pieces of sheet metal during tting. Pins will work with thicknesses up to 1/4". Kits include pliers and 10 pins.

ALL18221..... Kit with 1/8" Pins **ALL18225**..... Kit with 3/16" Pins





Sheet Plastic



HDPE sheet plastic is 4' x 8' and available in two thicknesses .070" and .100". The .070" thick sheets are the same thickness as our rolled plastic and available in black and white. The .100" thick sheets are available in many of the same colors as our rolled plastic.

ALL22246 0.070", White ALL22248 0.070", Black ALL22460 0.100", White ALL22461 0.100", Black ALL22462 0.100", Red

ALL22464 0.100", Chevron Blue (Med.)

ALL22465 0.100", Orange ALL22466 0.100", Yellow

3/16" Sheet Plastic

3/16" thick HDPE sheet plastic is sold in 4' x 8' sheets and commonly used to build door and



quarter panels along with many other uses.

ALL22470 White **ALL22471....** Black

1/4" Sheet Plastic

Plastic material is 1/4" thick and useful for



building custom nose supports or front splitters.

ALL22231 15" x 48" ALL22232 30" x 48"

Polycarbonate Sheeting

Scratch Proof - Material does not scratch easily when hit by debris, or when cleaned. Most popular for windshields, but also may be used for side and rear windows.

Standard - Less expensive, commonly used for side and rear windows. Can also be used for windshields, but scratches easily.

ALL22220 36" x 72", 0.118" Scratch Proof, 2-Sides ALL22223 40" x 72", 0.118" Scratch Proof, 2-Sides ALL22222 72" x 96", 0.118" Scratch Proof, 2-Sides* ALL22228 40" x 72", 0.093" Standard ALL22224 40" x 72", 0.118" Standard

ALL22226 72" x 96", 0.118" Standard*

*Must ship via Truck Freight

Rolled Plastic

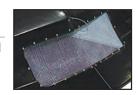
HDPE rolled plastic is 24" wide by .070" thick commonly used for spoilers, skirts, body patchwork, etc. Sold in precut lengths (10', 25', and 50').



Color	10' Roll	25' Roll	50' Roll
Black	ALL22400	ALL22401	ALL22402
White	ALL22405	ALL22406	ALL22407
Red	ALL22410	ALL22411	ALL22412
Orange	ALL22420	ALL22421	ALL22422
Yellow	ALL22425	ALL22426	ALL22427
Purple	ALL22430	ALL22431	ALL22432
Chevron Blue (Med.)	ALL22440	ALL22441	ALL22442

Stainless Wire Screen

Use screen to protect radiators, oil coolers or other items. Size referenced is the approximate opening of the screen.



5/64" (.025" Wire Diameter
ALL22260 12" x 36"
ALL22262 36" x 36"



1/8" (.035" Wire Diameter)
ALL22265 12" x 36"
ALL22267 36" x 36"
ALL22268 36" x 48"



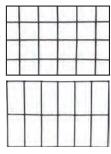
3/16" (.047" Wire Diameter)
ALL22270 12" x 36"
ALL22272 36" x 36"
ALL22273 36" x 48"



Steel Wire Screen

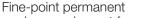
Electrically welded steel screen is used for a variety of applications when additional protection is needed. Screen is 2' x 2', constructed of .080" diameter wire and galvanized for corrosion resistance.

ALL22276 1" × 1" ALL22277 1" x 2"



Sharpie, For

Sharpie Markers





ALL12072..... Black **ALL12073** Silver

120°

120°

90°

End View

End View

End View



Late Model Body Brace Kits



Pre-drilled aluminum kits simplify installation of body panels. Both kits include the following braces: two 30" long 120° lower quarter, two 26" long 90° upper quarter and two 10" long 90° front fender. ALL23105 kit also includes three 66" long 90° door braces, where the

ALL23107 kit includes two 66" long 90° and one 66" long 120° door braces. Use at stock, spring steel, or slotted strapping

to complete assembly (sold separately).

ALL23105..... Body Brace Kit ALL23107.... Body Brace Kit

Modi ed Body Brace Kit ALL23106



Pre-drilled aluminum kit simpli es installation of body panels. Two 66" long 90° door braces, two 30" long 120° lower quarter



at stock, spring steel, or slotted strapping to complete assembly (sold separately).

Body Support Panel

ALL23068

Lightweight aluminum panel features punch/ are holes and 90° anges to easily connect body braces. Commonly used on template body asphalt car rear quarter panels yet universal enough for use in other locations. 4.5" tall x 30" long with 1" anges. Sold each.

Reinforced Aluminum Angle, 120°

Aluminum angle has many uses including strengthening body panels and providing a mounting point for strapping or body braces, typically used on the lower section of rear quarter panels and doors. The reinforced design adds additional strength over standard 120° angle with an extra bend which also allows easier access to body brace bolts. Angle allows supports or braces to angle upward toward the chassis. Angle is 1/8" thick x 1-1/2" wide and has predilled 1/4" holes on 1" centers.

ALL23140...........26" Long
ALL23140-5.......26" Long, 5-Pack
ALL23141........30" Long
ALL23141-5.....30" Long, 5-Pack
ALL23142.......66" Long
ALL23142-5.....66" Long, 5-Pack

Aluminum Angle, 120°

Aluminum angle has many uses including strengthening body panels and providing a mounting point for strapping or body braces, typically used on the lower section of rear quarter panels. 120° angle allows supports or braces to angle upward toward the chassis.

Angle is 1/8" thick x 1" wide and has predrilled 1/4" holes on 1" centers.

ALL23130..... 26" Long ALL23130-5. 26" Long, 5-Pack ALL23131..... 30" Long ALL23131-5. 30" Long, 5-Pack ALL23132..... 66" Long ALL23132-5. 66" Long, 5-Pack

Aluminum Angle, 90°

Aluminum angle has many uses including strengthening body panels and providing a mounting point for strapping or body braces, typically used on the upper section of rear quarter panels and door panels. 90° angle allows supports or braces to fasten directly to the chassis. Angle is 1/8" thick x 1" wide and has pre-drilled 1/4" holes on 1" centers.

ALL23134..... 26" Long ALL23134-5. 26" Long, 5-Pack ALL23135.... 30" Long ALL23135-5. 30" Long, 5-Pack ALL23138.... 66" Long ALL23138-5. 66" Long, 5-Pack

Slotted Aluminum Angle, 90°

ALL23124

Slotted angle aluminum brace connects and strengthens body panels. Brace is 1/8" thick x 1" wide x 72" long with 3/8" x 5/8" slots. Ideal for use along tops of spoilers.





Flexible Body Brace Kit



Flexible brace attaches to body or nose panels allowing them to bend then return to original shape, minimizing panel damage. Kit includes all components to build or assemble a exible body brace up to 33" long with 1/4" ends that crimp to exible rod with a standard impact crimper (ALL76135) or by using a hammer and punch.

ALL23080 Body Brace Kit ALL23080-4 Body Brace Kit 4-Pack

Flexible Body Brace



may be cut to t shorter applications. Commonly used to support lower quarter panel or nose sides. Aluminum brackets are adjustable to accommodate a variety of straight and angle applications.

ALL23075 Body Brace ALL23075-4. Body Brace 4-Pack

Spoiler/Body Brace



Solid body brace works well for securing panels or noses in position and features a tension bolt to adjust brace to desired length. Brace is painted black, has pre-drilled 3/16" mounting holes on each end and commonly cut-tolength.

ALL23020 ... Steel, Long Body (Adjusts up to 27")

ALL23019 ... Steel, Short Body (Adjusts up to 26") **ALL23021** ... Aluminum, Short Body (Adjusts up to 26")

Spring Steel

Use to make braces when hanging body and fender pieces. Hardened and tempered coil is 1"W x .062" thick.

ALL23110 40' Coil **ALL23110-150**.. 150' Coil **NEW**



Shrink sleeve works great when doubling up 1" wide spring steel.

ALL23112 25' Long Roll **ALL23113**..... 100' Long Roll

Hammer Type Spring Steel Punch ALL23116

Hammer type punch places a 1/4" diameter hole 1/2" from the end of most 1" x .062" thick spring steel material.

Punch features a built-in stop which positions the material for accurate hole placement. Punch needs to be placed on a hard surface (i.e. concrete oor, steel anvil, etc.) and struck lightly with a 3 to 4 lb. hammer.

Plastic Body Strap

Connect and support body panels to the chassis of most race cars. Durable plastic strap

is easily drilled and cut to length, making it an excellent choice for body strapping. Strap is 48"L x 1"W.

ALL23088 Body Strap, Single ALL23088-4 Body Strap, 4-Pack

Slotted Body Strap ALL23120

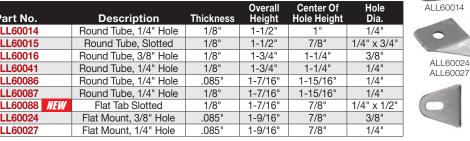
Connect and support body panels on the chassis of most race cars. 3/16" thick x 46"L

x 1"W aluminum strap has 1/4" slots every inch. Use with ALL23105 body brace kit for complete body installation.

Body Brace Tabs

Mlld steel tabs typically weld to chassis and provide a mounting point for body braces or mounting straps. Package of four.

Part No.	Description	Thickness	Overall Height	Center Of Hole Height	Hole Dia.
ALL60014	Round Tube, 1/4" Hole	1/8"	1-1/2"	1"	1/4"
ALL60015	Round Tube, Slotted	1/8"	1-1/2"	7/8"	1/4" x 3/4"
ALL60016	Round Tube, 3/8" Hole	1/8"	1-3/4"	1-1/4"	3/8"
ALL60041	Round Tube, 1/4" Hole	1/8"	1-3/4"	1-1/4"	1/4"
ALL60086	Round Tube, 1/4" Hole	.085"	1-7/16"	1-15/16"	1/4"
ALL60087	Round Tube, 1/4" Hole	1/8"	1-7/16"	1-15/16"	1/4"
ALL60088	Flat Tab Slotted	1/8"	1-7/16"	7/8"	1/4" x 1/2"
ALL60024	Flat Mount, 3/8" Hole	.085"	1-9/16"	7/8"	3/8"
ALL60027	Flat Mount, 1/4" Hole	.085"	1-9/16"	7/8"	1/4"









ALI 60088

ALI 60015

ALL60041



See page 39 for

additional tabs

ALL60016

Check Out Our Fasteners Section!

For more body related fasteners see pages 88-103

ALL54304

ERFORMANCE

Hood Scoops



Scoops are molded from durable high-impact plastic with carbon ber look and have a molded-in ange for easy mounting. Designed for use with 14" air cleaners, scoops protect air cleaners that protrude through the hood from dirt and debris. All scoops surround approximately half of the air cleaner assembly.

Part No.	Description	Height	Center of A/C to Front of Scoop
ALL23230	Short Tapered Front	2-1/2"	12"
ALL23232	Short Tapered Front	3-1/2"	13"
ALL23246	Long Tapered Front	3-1/2"	17"
ALL23248	Long Tapered Front	5-1/2"	18"
ALL23249	Long Tapered Front*	5-1/2"	18"
ALL23233	Open Front	3-1/2"	12-1/2"
ALL23235	Flat Front	3-1/2"	15-1/2"
ALL23237	Flat Front	5-1/2"	18"

^{*}Mounting ange has a slight curvature for rolled hoods

Aero Scoops

Aerodynamically designed berglass scoops are strong yet lightweight with a durable,



black high-gloss, seamless gelcoat nish and a 2" wide mounting ange. Open back scoops have an angled 6" tall rear opening to t most windshields.

		Overall	Overall	Width
Part No.	Description	Height	Length	w/o Flange
ALL23280	Open Back	13-1/2"	50"	14-1/2"
ALL23282	Open Back	13"	50"	14-1/2"
ALL23284	Closed Back	12"	38"	14-1/2"

Dragster Scoops

Strong yet lightweight, berglass scoops have a durable, black high-gloss, seamless gelcoat nish. Complete installation on 4500 series carburetors



requires a scoop tray mounting kit, which mounts between carb and intake manifold to secure ALL23288 scoop tray. Scoops are typically secured to tray with quick turn fasteners and hardware (sold separately).

		Overall	
Part No.	Overall Height	Length	Width
ALL23270	16"	33"	14"
ALL23272	15-1/2"	25-1/2"	14"
ALL23274	20-1/2"	29-1/2"	14"

Dragster Scoop Trays

ALL23268 Scoop tray is the lower portion of the scoop or plenum that directs air into the carburetor when used with dragster style scoops. Tray measures 21-5/8"L x 13-1/2"W and requires a separate scoop tray mount which supports the tray above the carburetor providing a secure mounting point for scoop.

Flat Mount

ALL23266 Aluminum Tray for 4150 Series Carb ALL23267 Aluminum Tray for 4500 Series Carb Raised - 3" Tall

ALL23268 Aluminum Tray for 4150 Series Carb ALL23269 Aluminum Tray for 4500 Series Carb ALL23288 Fiberglass Tray for 4500 Series Carb

Scoop Tray Mounts

Scoop tray mounts offer an all in one solution to mount a scoop tray, throttle, and nitrous solenoids. Mounts provide a clean look, eliminating the need to use multiple brackets, mounts and gaskets. CNC machined from 6061 aluminum, black anodized. Standard Mounts.

ALL54302 4150 (1.755" Bore) ALL54304 4500 (2.375" Bore)

Dial-In Boards

Dial-in boards are a great alternative to messy shoe polish when displaying your ET dial-in. Highly visible



3" tall white numerals help to ensure correct times are entered at the tower. Each numeral has seven pivoting sections that are easily changed to quickly adjust dial-in time. Available with mounting holes for a standard dial-in board bracket or ALL23293 with suction cups and hook/ loop tape.

ALL23291 3 Digit w/ Mount Holes ALL23292 4 Digit w/ Mount Holes ALL23293 4 Digit w/ Suction Cups and Hook/Loop Tape

Dial-In Board Mount

ALL23297

Two-piece billet aluminum mount ts dial-in boards with 8.75" x 3" mounting hole patterns. Top portion of bracket swivels to

position board at the best viewing angle.



ALL18514

Steel Hood Pin Kits with 1/2" Pins

Kits include two each: 4" long x 1/2" dia. chrome steel pins, chrome steel scuff plates, clips, and four steel jam nuts.

ALL18512 Kit with 3/16" Flip-Over Clips **ALL18514** Kit with 5/32" Hairpin Clips **ALL18513** Kit with 1/4" Flip-Over Clips



Kits include two each: 4" x 1/2" dia. aluminum pins, aluminum scuff plates, ip over style, 1/4" dia. steel clips, and four steel jam nuts. Clip ips over pin and overcenter action locks clip in place.

Kits with 3/16" Flip-Over Clips

Color	Complete Kit	Pins Only, 1-Pair
Silver	ALL18496	ALL18498
Black	ALL18497	ALL18499

Kits with 1/4" Flip-Over Clips

Complete Kit	Pins Only, 1-Pair
ALL18500	ALL18507
ALL18501	ALL18508
ALL18502	ALL18509
ALL18503	ALL18510
ALL18504	ALL18511
֡	ALL18500 ALL18501 ALL18502 ALL18503

Aluminum Hood Pin Kits with 3/8" Pins

Kits include two each: 3-1/2" x 3/8" dia. aluminum pins, aluminum scuff plates, 3/16" dia. steel ip over clips and four steel jam nuts. Clip ips over pin and over-center action locks clip in place.

Color	Complete Kit	Pins Only, 1-Pair
Silver	ALL18480	ALL18487
Red	ALL18481	ALL18488
Blue	ALL18482	ALL18489
Black	ALL18484	ALL18491

Lightweight Aluminum Hood Pin Kits

Kits include two each: 2-3/4" long gun-drilled aluminum pins, lightweight aluminum scuff plates, 3/16" steel ip-over clips and four steel jam nuts. Clip flip over pin and over-center action locks clip in place

Color	Kit with 3/8" Pins	Kit with 1/2" Pins
Silver (Plain)	ALL18472	ALL18476
Black Anodized	ALL18473	ALL18477

Hood Pin Supports

Supports thread onto hood pins (before installation) and are a good alternative to sections of rubber hose commonly used to support hoods and deck lids. Once supports are in place, a set screw prevents movement. Supports work with Allstar aluminum hood pins. Package of 2

ALL18478 3/8"-24 **ALL18479** 1/2"-20

Hood Pin Extensions

Aluminum extensions t into existing chassis mounts. 1/2"-20 male to 1/2"-20 female, with 13/16" thread depth. Sold each.

ALL18524..... 1-3/4" Tall **ALL18525**..... 2-3/4" Tall

Hood Pin Adapters

Aluminum adapters convert existing chassis mounts over to hood pin mounts. Sold each.

ALL18526..... 1/2" Hood Pin Mount to 3/8"

Hood Pin, 1/2"-20 Male to 3/8"-24 Female

ALL18527..... Converts 1/2" Coarse Mount to 1/2" Hood Pin,

1/2"-13 Male to 1/2"-20 Female



Universal Hood Pin Mount

ALL60067

Universal bracket with 1/4" mounting holes can be bolted on or welded in place. Bracket accepts 1/2" hood pins to secure hood and deck lids along with many other uses. Constructed of .100" steel, bracket has a built-in reinforcing gusset for added strength.

Hood Pin Mounts

Mounts ease hood pin installation. Choose from threaded boss or tab style.





ALI 18520

Part No.	Description	Qty. Per Package
ALL18521	3/8"-24 Hood Pin Boss	2
ALL18520	1/2"-20 Hood Pin Boss	2
ALL60005	1/8" Mounting Tab with 1/2" Hole	4
ALL60006	3/16" Mounting Tab with 1/2" Hole	4



Jeremy Young



Plastic Scuff Plates

Sturdy plastic scuff plates have a raised center for quick, easy removal of hood pin clips. Plates



have a 1/2" center hole and four recessed rivet holes for simpli ed installation.

Color	4-Pack	25-Pack
Black	ALL18430	ALL18430-25
White	ALL18431	ALL18431-25
Red	ALL18432	ALL18432-25
Blue	ALL18433	ALL18433-25
Orange	ALL18434	ALL18434-25
Silver	ALL18435	ALL18435-25
Pink	ALL18436	ALL18436-25
Purple	ALL18437	ALL18437-25
Fluorescent Yellow	ALL18438	ALL18438-25
Fluorescent Orange	ALL18439	ALL18439-25

Scuff Plates

Scuff plates are used to protect painted nishes from repeated hood pin clip use. Plates are drilled for mounting screws or 1/8" diameter rivets. Package of 4.

Description	1/2" Hole	3/8" Hole
Chrome Steel	ALL18517	_
Aluminum	ALL18518	ALL18519
L/W Aluminum	ALL18471	ALL18470





ALL18516

ALL18506



Hood Pin Clips

The same quick removal pins and clips included with Allstar's hood pin kits. Hair pin clip has a rotated loop for easy grasp and the ip-over clips have a loop with an over center locking feature to keep pin in place. Package of 2.

ALL18516 Hairpin Clip, 5/32" ALL18515 Flip-Over Clip, 3/16" ALL18506..... Flip-Over Clip, 1/4"

3/16" Flip-Over Clip with Lanyard

Our most popular size ip-over clip commonly used with hood pins is now available with an added steel lanvard which fastens to body panel for easy installation, and to prevent lost clips. Sold each.

ALL18460 Clip With 6" Lanyard ALL18462..... Clip With 10" Lanyard

Steel Lanyards

Steel lanyards feature 1/16" diameter cable with 3/4" loops on each end for light duty applications such as hood pins or retention of similar type fasteners to prevent loss. Sold each.

ALL18461 6" Long ALL18463..... 10" Long

Nylon Lanyards ALL18468

Nylon lanyards feature a molded end with a 3/16" hole on one end and a snap together open loop on the other end to quickly and easily secure a variety of components. Once snapped together, loop is permanently locked. 10" long, package of 4.

Hinge Kits

Use steel hinge kits on hoods and deck lids for quick, one person inspection of engine compartment

or trunk area. Universal kits include two complete hinges.

ALL18522..... 2-1/4" Long, 5/8" Tall, 1/4" Hole ALL18523..... 3" Long, 1-1/4" Tall, 1/4" Hole

Hood Prop ALL23260

Aluminum hood prop is a must for supporting lightweight aluminum and fi erglass hinged hoods or trunk lids commonly found on asphalt template body cars. Prop mounting hole distance is 17-1/4" when open. Sold each.

Car Covers

Covers are constructed of a waterproof material and designed for a precise t. The template body cover has zippers to access the interior and at the wheel well openings. The Dirt Late Model cover has zippers to access the engine and driver compartment. Full size covers have re ective silver nish to re ect heat, a soft cotton inner liner, built-in grommets and elastic banding. Not designed for outdoor storage.



Greenhouse Cover ALL23302 Dirt Late Model*

ALL23306 Modifi d (IMCA/ UMP Type) ALL23304 ... Back Half Cover

ALL23305 Mini Stock

*Cover is designed for cars with 8" spoiler and sides.





ALI 23305

ALL23301

ALL23302



Dirt Roofs

Popular berglass roofs found on many Dirt Late Models and Modifi ds. 46"L x 47"W.

ALL23180..... White **ALL23181**..... Black



Extended Dirt Roofs

Fiberglass roofs for Dirt Late Model and Modi eds are extended for maximum allowed coverage. 1/2" rolled side rails provide added strength. 54"L x 51"W.

ALL23170..... White **ALL23171**..... Black



Fiberglass Dash Panels

One-piece, sturdy berglass dash panel has four outer pods to accept 2-5/8" gauges and a center area which is perfect for tachometers up to 5" diameter. Wrap around style panel has upper and lower mounting anges and measures 29"W x 7" T.



ALL23242 White **ALL23243** Black

*Gauge Kits available to work with dash panels found on page 70.

Universal Dirt Roof Cap

ALL23215

Universal plastic cap has a simulated carbon ber look and is wide enough to t extended and 2-piece dirt roofs. Cap fastens to the leading edge of most roofs to reinforce and protect the leading edge from stone chips. Cap is 50" wide overall.

Rear Roof Support ALL23122

Drilled and slotted aluminum support strengthens Dirt Late Model and Modi ed rear roof area. Support is 42"L x 7/8"W x 1/8" thick and has 1/4" x 1/2" slots on 1" centers.



Accessory Clamps

Aluminum two-piece clamps are ideal for mounting small parts and accessories or creating an adjustable clamp-on



mount for supporting body or roof panels. Clamps are 1/2" wide and include two 1/4" button head fasteners.

		With 1/4"-20 Mount and a
Size	With 1/4"-20 Mount	1/4" Through Hole
1"	ALL10455	ALL10485
1-1/4"	ALL10456	ALL10486
1-3/8"	ALL10457	ALL10487
1-1/2"	ALL10458	ALL10488
1-5/8"	ALL10460	ALL10489
1-3/4"	ALL10459	ALL10490

Windshield ALL23240

Tinted scratch-proof material provides added protection to driver from wind and debris. Shield has rounded edges for a clean, smooth appear-

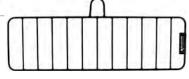
ance and measures 30" L x 4-1/4" tall. Commonly used on Dirt Late Models and Modi eds.

Windshield Support ALL23245

Aluminum support mounts behind polycarbonate style windshield to help prevent exing and improve aerodynamics. Support is 32"L x 1"W and includes 1/4" pre-drilled holes for a center support.

Rock Screens

Steel screen mounts to chassis providing driver added protection from rocks and debris. Black



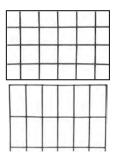
powder coated screen is 7-1/2" tall with 2" wide slots. Approximately 1.60 lbs.

ALL30165 25" Long **ALL30166** 23-3/4" Long

Steel Wire Screen

Electrically welded steel screen is used for a variety of applications when additional protection is needed. Screen is 2' x 2', constructed of .080" diameter wire and galvanized for corrosion resistance.

ALL22276 1" x 1" ALL22277 1" x 2"





Dirt Late Model Spoiler

ALL22999

Black powder-coated aluminum spoiler consists of two unequal length laser cut sections,

one 16" wide and the other 56" wide. Unequal length design blades provide more down force on the right rear of the car and allow more spoiler area in case of right side damage. Assembled spoilers measure 72" wide x 8" tall with a 1" reinforcing lip. Three vertical supports have 2" of adjustment. Mounting hinges included.

Modi ed Spoiler Kits

Aluminum spoiler kit includes all components to build a two-piece spoiler up to 67" wide.

Kit includes one 49" blade and one 18" blade with separate ends for building a custom width spoiler. Blades feature a reinforcing lip located on the trailing edge and a black powder-coated nish.

Complete spoiler kit includes two rear blades, four spoiler support brackets, two outer side panels, a center support and mounting hinges for each blade.

ALL22961 3" Tall Spoiler Kit **ALL22960** 3" Tall Spoiler without Sides or Center Support

Modi ed Spoilers

Aluminum spoiler is a two-piece design totaling 67" in width including one 49" blade and one 18" blade. Features include rear blades with pre-formed ends, a reinforcing lip located on the trailing edge and a black

powder-coated nish. Complete spoiler includes two rear blades, two outer side panels, a center support and mounting hinges for each blade.

ALL22992 3" Tall Spoiler Kit

ALL22973 3" Tall Spoiler without Sides or Center Support

Spoiler Supports

Aluminum support has strong 1/4" steel rod ends with hardware. Center tube has left- and right-hand threaded ends for quick adjustments. 1/4"-20 mounting hardware included. Sold each.



ALL23022 7-1/2" to 8-3/4" **ALL23023** 9-1/2" to 10-3/4"

Spoiler/Body Brace



ALL23019 / ALL23021

Solid body brace works well for securing panels or noses in position and features a tension bolt to adjust brace to desired length. Brace is painted black, has pre-drilled 3/16" mounting holes on each end and commonly cutto-length.

ALL23020.... Steel Long Body Adjusts up to 27"
ALL23019 ... Steel Short Body Adjusts up to 26"

ALL23021 ... Aluminum Short Body Adjusts up to 26"

Spoiler Brackets

Aluminum spoiler brackets rivet directly to the rear spoiler and bolt to the side supports. Curved slot allows quick spoiler adjustment. Brackets are sold at and require a 90° bend for LH or RH use. Package of 2.



ALL23251 4" Tall Bracket for 5" Spoiler **ALL23250** 6-1/2" Tall Bracket for 8" Spoiler

Rear T-Bar Breakaway

Aluminum breakaway mounts to the right rear t-bar found on most Late Models and Modifi ds. 1/8" thick with an overall length of 20" wide but it can easily be cut down to 14".



ALL23255 Plain **ALL23256** Black

Aluminum Hinges

Low pro le hinge is 2" wide when open and has 7/8" of at surface on each side of the center pin.

Available in 36" and 72" lengths. Commonly used when building spoilers and access doors.

Length/Color	Each	5-Pack
36" Long, Plain	ALL23125	ALL23125-5
72" Long, Plain	ALL23127	ALL23127-5
36" Long, Black	ALL23126	ALL23126-5
72" Long, Black	ALL23128	ALL23128-5

Access Panel Kits

Aluminum panels can be mounted to provide easy access to dry sump pump tanks, fuel cells or other under panel items. Kits include frame, access door, hinge, quick turn fastener and quick turn fastener

turn fastener and quick turn fastener spring. Sizes refer to door opening dimensions, add 2" for installed dimensions.

Size	Clear	Black
6" x 6"	ALL18530	ALL18540
8" x 8"	ALL18531	ALL18541
6" x 14"	ALL18532	ALL18542
10" x 14"	ALL18533	ALL18543
14" x 14"	ALL18534	ALL18544



Metric Brake Rotors

New stock replacement brake rotor includes new bearing races and studs for most intermediate sized Metric chassis cars including Monte Carlo, Grand Prix, and Regal. Rotors measure 10.5" O.D. x 1.03" thick. Bearings and seal not included.



Note: Both rotors will work with Allstar metric spindles ALL56318 or ALL56319.

1979-81*

ALL42086 Rotor With 5/8"-11 Wheel Studs, 5 on 5" B.C.

*Outer bearing race has a 1.97" O.D.

Related Components For 1979-81 Style Rotor

ALL72160..... Spindle Nut Kit

ALL72164..... Front Hub Dust Cap

ALL72305 Master Bearing and Seal Kit

ALL72128..... Hub Seal ALL72275..... Inner Bearing ALL72277..... Outer Bearing



1982-88[†]

ALL42087 Rotor With M12-1.50 Studs, 5 on 4-3/4" B.C. **ALL42088** Rotor With 5/8"-11 Wheel Studs, 5 on 5" B.C.

†Outer bearing race has a 1.78" O.D.

Related Components For 1982-88 Style Rotor

ALL72160..... Spindle Nut Kit **ALL72164**..... Front Hub Dust Cap

ALL72306 Master Bearing and Seal Kit

ALL72128..... Hub Seal ALL72275..... Inner Bearing ALL72278..... Outer Bearing



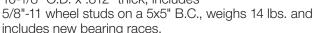
ALI 72306

TECH TIP

The term "Metric Chassis" commonly refers to the intermediate line of GM cars built from 1978 through 1988 including the Chevrolet Monte Carlo and Malibu, Oldsmobile Cutlass, Buick Regal, and the Pontiac Grand Prix. These chassis are very similar but they also have some differences. One of the major differences applies to the front steering spindles and brake rotors. There were three different brake rotors used and two different spindles. 1978 year vehicles used a spindle/rotor combination that was a one-year production. 1979-88 vehicles used the same spindle but utilized two different brake rotors. These rotors appear very similar but the 1979-81 use a brake rotor with a larger outer bearing and race than the 1982-88 model years. These rotors may be interchanged but will require the matching outer bearing for proper installation.

Hybrid Brake Rotor ALL42094

The hybrid rotor combines the versatility of the Granada style hub with a reduced diameter and width. Rotor is a popular choice when used with Mustang II spindles, metric style brake calipers and hybrid caliper brackets. Rotor measures 10-1/8" O.D. x .812" thick, includes



Related Components

ALL72161..... Spindle Nut Kit **ALL72164**..... Front Hub Dust Cap

ALL72309 Master Bearing and Seal Kit

ALL72126..... Hub Seal ALL72270..... Inner Bearing ALL72274..... Outer Bearing

ALI 42090

Granada Brake Rotor

Rotor is often used when converting stock Mustang II brake assemblies to 11" O.D. x .875" brake rotors and larger calipers. Rotors include new bearing races and install

directly to Mustang II spindles with stock bearings and seals (not included).

ALL42090 Rotor w/ 1/2"-20 Wheel Studs, 5 on 4-1/2" B.C. **ALL42091** Rotor w/ 1/2"-20 Wheel Studs, 5 on 4-3/4" B.C. **ALL42089** Rotor w/ 5/8"-11 Wheel Studs, 5 on 5" B.C.

Related Components

ALL72161 Spindle Nut Kit
ALL72165 Front Hub Dust Cap
ALL72308 Master Bearing and Seal Kit

ALL72126..... Hub Seal

ALL72270.... Inner Bearing **ALL72274....** Outer Bearing



ALL72308

ALL72161

GM Rear Brake Rotor ALL42095

Hat style brake rotor with 5 on 4-3/4" pattern can be used with ALL42180 and ALL42181 7.5" metric caliper brackets and stock type axles. 11-5/8" vented rotor is .790" thick and has a 2.800" I.D. center indexing hole to work with most metric style axle anges with a maximum O.D. of 6".



Late Model and Modi ed Brake Rotor ALL42011

Lightweight solid rotor for Late Models and Modifi ds. Use anywhere reduction of un-sprung weight is desirable. Rotor is scalloped to provide maximum weight loss without compromising braking performance or rotor durability. Rotor is steel 8-bolt with a 7" bolt circle, 11.75" diameter and .250" thickness.



ALI 42083

ALI 42079



32 Vane Non-Directional Brake Rotor

ALL42010

Popular 8-bolt brake rotor is commonly used on the rear of modi eds and stock cars and features a 32 non-directional vane design which allows this rotor to be used on either side of the vehicle. Rotor measures 11.75" x .810" wide and weighs just 8 lbs.



40 Vane Directional Rotors

Heavy-duty 40 vane brake rotors provide added strength and cooling over standard 36 vane rotors. 11.75" x 1.25" 8 bolt rotors weigh just 11 pounds and have ball milled slots to keep rotor clean.

ALL42004 LH 1.25" x 11.75" 8-Bolt ALL42005 RH 1.25" x 11.75" 8-Bolt



ALL42004

36 Vane Directional Rotors

Rotors have 36 directional cooling vanes and are 1-1/4" thick x 11-3/4" diameter. Directional cooling vanes allow brakes to run much cooler than conventional rotor designs. Rotors t solid mounting brake hats or hubs, and weighs 11.5 lbs

ALL42000 LH 1.25" x 11.75" 8-Bolt ALL42001 RH 1.25" x 11.75" 8-Bolt



ALL42000

Rotor Bolt Kit

Grade 5, 1" bolts fasten disc brake rotors to rotor hat or hub. Includes ten bolts, washers, and selflocking nuts.

ALL42026 5/16"-18 Kit ALL42036 ... 5/16"-24 Kit



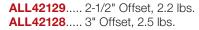


Stamped Steel Rotor Hat ALL42120

Brake hat ts 8-bolt rotors with 7" bolt circle mount. Made of stamped steel with a 3" offset and drilled for 4-1/2", 4-3/4", and 5" bolt circles. Hat has 3.060" diameter centering hole and ts axle anges with up to 5.75" diameter. Drilled for 1/2" wheel studs. IMCA Legal.

Cast Aluminum Rotor Hats

Cast aluminum hats are available in two offsets. t 8-bolt rotors with 7" bolt circle mount, have a 3.060" diameter centering hole and taxle anges with up to 6.050" diameter. Drilled for 1/2"





ALL42129

Brake Calipers

New, not re-manufactured stock style calipers are perfect replacements on most GM vehicles and will t up to 1" wide rotor. Metric inlet thread is M10-1.50. Big GM inlet thread is 7/16"-20.

ALL42081 RH 1973-77 Big GM D52 Series ALL42082 LH 1973-77 Big GM D52 Series

ALL42083 RH 1978-87 Metric GM D154 Series ALL42084 LH 1978-87 Metric GM D154 Series

Note: We reference RH (right-hand) or LH (left-hand) based on the caliper being mounted behind the rotor, however, all calipers may be mounted on the front or backside of the rotor.

GM Caliper Bolts

Replacement caliper bolts fi most GM calipers and allow for easy installation and removal. Bolts feature a built-in sleeve to allow for extra caliper travel. Package of 2.

ALL42079 Socket Head, 3/8" Allen **ALL42080** Hex Head, 5/8" Wrench

Caliper Bolt Lock Washers

ALL16133-25

Correct lock washer to be used with GM style caliper bolts. Washer also acts as a spacer in applications when there is reduced thread engagement in some fabricated brackets. Sold in a pack of 25.

Brake Line De ectors

De ectors mount on caliper or spindle on an open wheel car to protect brake lines and ttings from damage. Sold each.

ALL50250 LH Defl ctor

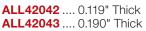
ALL50251 RH Defl ctor **GM Caliper Spacers**

Aluminum spacers for use with stock or stock design aftermarket calipers ALL42040 and thin rotors. Spacers keep the piston safely in the bore of the caliper. Choose from large GM style or midsized GM Metric caliper. Spacers are sold each and may need additional clearance depending on caliper used.

ALL42039 GM Metric, D154 series, 0,100" Thick **ALL42040** GM Metric, D154 series, 0.190" Thick ALL42041..... Big GM, D52 Series, 0.190" Thick

Caliper Spacers

Aluminum spacer is designed to work with non-bridge bolt pads such as Wilwood Superlite, Hawk HB101 series and Performance Friction 7751. Sold each.





*ALLSTAR

ALI 50250



Mustang II Caliper Brackets

Install 11" Granada style rotor and GM
Metric D154 series caliper on stock height or lowered Mustang II spindles with this bolt-on caliper
bracket. Lightweight steel bracket
weighs just over one pound and is sold
individually. Commonly used on modieds and stock cars.

ALL42110 LH ALL42111 RH

ALL42111

Hybrid Mustang II Caliper Brackets

Install 10-1/8" hybrid style rotor (ALL42094) and GM Metric D154 series caliper on stock height or lowered Mustang II spindles with this bolt-on caliper bracket. Lightweight steel bracket weighs just over one pound and is sold individually. Commonly used on modifi ds and stock cars.



ALL42118 LH ALL42119 RH

GM 7.5" Rear Caliper Brackets



Steel bolt-on bracket is used when converting drum brake equipped 7.5" GM style rear end to disc brakes. 1/4" thick bracket replaces the drum brake backing plate to provide secure mounting for GM Metric D154 series caliper. Use with ALL42095 brake rotor.

ALL42180..... LH Bracket ALL42181..... RH Bracket

Ford 9" Axle Spacer Plates

Spacer plate takes the place of drum brake backing plate and properly preloads the tapered style axle bearing. Spacers t large bearing Ford 9" housing ends. Sold each.



ALL72318

ALL72318..... Late Torino Style **ALL72319**..... Early Style

Related Component

ALL72042..... Backing Plate T-Bolts (Late Style), 8-Pack

Rear Caliper Brackets

Made from 1/4" thick steel, bracket ts 3" diameter axle tube and will work with most 11.75" diameter rotors.



Clamp-On Brackets

ALL42101..... Big GM, D52 Series

ALL42103..... GM Metric, D154 Series, Wide Clamp ALL42185..... GM Metric, D154 Series, Narrow Clamp ALL42186..... GM Metric, D154 Series, Narrow Clamp with Reinforcing Gussets

ALL42105.... Wilwood Dynalite, 5-1/4" Spacing **ALL42109....** Wilwood Superlite, 3-1/2" Spacing

Weld-On Brackets

ALL42100..... Big GM D52 Series **ALL42102**..... GM Metric D154 Series

ALL42104.... Wilwood Dynalite, 5-1/4" Spacing **ALL42108....** Wilwood Superlite, 3-1/2" Spacing

GM Metric Caliper Bracket

ALL42133

3-piece modular bracket has the caliper bracket bolted separately for easy installation to a 3" axle

tube without removing the rear hub assembly. Specially designed to mount a GM Metric D154 series caliper with 5-1/2" bolt spacing to axle tube when using a 11-3/4" diameter brake rotor. Additional locking bolts install into axle tube to help prevent bracket from rotating.

Replacement Component

ALL99433 Bolt-On Caliper Bracket

Wilwood Superlite Caliper Bracket ALL42134

Lightweight aluminum caliper bracket bolts together for easy installation to a 3" O.D. axle tube without removing the rear hub assembly. Specially designed to mount a Wilwood Superlite caliper with 3-1/2" bolt spacing to axle tube when using a 11-3/4" diameter brake rotor. Additional locking bolts install into axle tube to help prevent bracket from rotating.

Wilwood Superlite Caliper Bracket for Bolt-On Snouts ALL42137

Bracket is designed for use with 8-bolt axle tubes and bolt-on snouts where there is no room for a bracket to clamp on the tube. This bracket mates between the tube and the snout and has multiple holes for preference of caliper location.





Mustang II Front Disc Brake Kits

Improve the stopping power and safety of cars equipped with Mustang II spindles. Kits include large 11" brake rotors, caliper mounting brackets, calipers, brake pads



and installation hardware. Brake hose kits ALL42025 or ALL42032 will help complete the installation.

ALL42024 ... Disc Brake Kit Rotors with 1/2"-20 Wheel Studs 5 On 4.50" B.C.

ALL42029 Disc Brake Kit Rotors with 1/2"-20 Wheel Studs 5 On 4.75" B.C.

ALL42030 Disc Brake Kit Rotors with 5/8"-11 Studs 5 On 5" B.C. (Brake Pads Not Included)

Rear Disc Brake Kit ALL42019

Update and greatly improve braking power by converting standard drum brake rear ends to disc brakes. Universal rotor hat ts 5 on 4-1/2", 5 on 4-3/4" and 5 on 5" bolt patterns. Caliper mounting brackets weld onto 3" axle tubes. Rotor hats will not work



with some aftermarket axles. Axles with anges larger than 5-3/4" must use cast aluminum rotor hats, ALL42128 or ALL42129.

Kit includes rotors (.810" x 11.75"), universal rotor hats, rotor bolt kits, caliper mounting bolts and caliper mounting brackets for GM Metric D154 series calipers (ALL42083 and ALL42084).

Kit Does Not Have Provisions for Parking Brake

Brake Bleeder Bottles

Contain the mess of bleeding brakes by capturing uid in this 16-oz. bottle with a 15" long hose which attaches to most bleeder screws. The removable cap has a built-in tting to secure the hose during storage to help prevent spills. Choose from a steel lanyard retainer that



component, or a magnet retainer to secure the bottle to a steel object such as a brake drum or rotor during bleeding. ALL11017 has a magnet retainer and a built-in one way check valve for one person brake bleeding.

ALL11019 Bottle with Lanyard **ALL11018** Bottle with Magnet

suspends the bottle from

a chassis or suspension

ALL11017 Bottle with Magnet and Check Valve

ALL99435 Replacement Hose

Castrol SRF Brake Fluid ALL78115

Castrol SRF brake uid has a wet boiling point of 518°F (270°C) which exceeds DOT 3 and 4 standards. Do not mix Castrol SRF and other brake uids, as this will reduce the bene ts of Castrol SRF. Sold in 33.8-oz bottle.



AP Radi-CAL R3 Brake Fluid

ALL78116

Developed for extreme, high temperature racing conditions with a typical dry boiling point of 617°F and a wet boiling point of 383°F. Conforms to DOT 4 speci cations. Sold in 16.9-oz. bottle.



AP Radi-CAL R2 Brake Fluid

ALL78108

Designed for extreme, high temperature racing conditions with a dry boiling point of 594°F and a wet boiling point of 383°F. Conforms to DOT 4 speci cations. Sold in 16.9-oz. bottle.



Motul 600 Brake Fluid

ALL78117

100% synthetic brake uid has an extremely high boiling point helping to prevent vapor lock and brake fade during hard use. Motul 600 exceeds DOT 3 and DOT 4 speci cations. Dry boiling point 594°F, wet boiling point 421°F. Sold in 16.9-oz. bottle.



Motul 660 Brake Fluid

ALL78118

100% synthetic brake uid is speci cally designed to resist extreme temperature generated by racing carbon and ceramic brakes. Motul 660 exceeds DOT 3, DOT 4, and DOT 5.1 speci cations. Dry boiling point 617°F, wet boiling point 401°F. Sold in 16.9-oz. bottle.





Brake Duct Hose

Flexible, non-kink hose directs air from front ducts to spindle ducts. Available in 10 ft. lengths and three temperature ranges.

275°: 3" single-ply thermoplastic rubber wall with a spring steel wire support.



300°: 3" or 4" double-ply neoprene coated woven berglass hose with spring steel inner and berglass external supports. Smooth inner wall for unrestricted ow.

550°: 3" or 4" double-ply silicon coated berglass hose with spring steel inner and berglass external support. Smooth inner wall for unrestricted ow.

ALL42150..... 3"X10', 275° ALL42151..... 3"X10', 300° ALL42152.... 3"X10', 550° ALL42154..... 4"X10', 300° ALL42155..... 4"X10', 550°

Spindle Ducts









LL42113 ALL42112

ALL42117 ALL42116

Aluminum 3" ducts t most fabricated spindles. Available in dual or single inlet.

ALL42112...LH, Dual Inlet ALL42113...RH, Dual Inlet ALL42116...LH, Single Inlet ALL42117...RH, Single Inlet

In-Line Duct Blowers







Many uses include cooling brake systems or assisting helmet cooling efforts. CFM ratings at 13.6 volts with a 3.5 amp draw.

ALL13010..... 3" Compact, 5" Long, 140 CFM **ALL13008**..... 3" Heavy-Duty, 8" Long, 170 CFM **ALL13009**..... 4" Heavy-Duty, 6" Long, 240 CFM

Plastic Brake Ducts

Ducts direct outside air to brakes, oil coolers an the driver. 3" O.D. with centered, offset or dual outlets.



ALL42140..... Centered, 5-1/2" x 8" **ALL42141**..... Offset, 5" x 9-3/4" **ALL42142**..... Double Hole, 5" x 9-3/4" **ALL42143**..... Single Hole, Clear, 6" x 10-3/4" **ALL42144**..... Double Hole, Clear, 9" x 11"



Brake Duct Hose Flange

ALL42160

Flange rivets to nosepiece. 3" brake duct hose can then be hose clamped to ange.



Hanging Brake Pedal Mount ALL54060

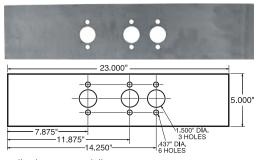
Welds to chassis to mount Wilwood and Tilton style hanging pedals. Notched to clear balance bar.



ALL41050

Floor Pedal Plate ALL54050

Weld-in pedal plate is 23" x 5" x 1/8" and speeds up race car construction by providing the proper spacing for mounting



pedal/master cylinder assemblies.

Pedal Extensions

Kits move oor mounted pedals closer to the driver and eliminate the need for extra long seat brackets used to move the driver forward. Now just leave the seat in the desired location and move the pedals closer to the driver.

ALL41050..... 2" Kit - Complete **ALL41051**..... 4" Kit - Complete



Hanging Brake Pedal Assembly ALL41014

Universal brake pedal assembly includes everything to install a new hanging brake pedal and is ideal when relocating older style oor mounted brake pedal with under oor master cylinder to a more convenient rewall location. Firewall mounted bracket is pre-drilled to accept Allstar power brake boosters or most manual brake master cylinders and includes a dash support bracket. Multiple pedal mounting holes allow arm to be positioned 5-7/8" to 11-7/8" from rewall mounting plate in 1-1/2" increments for desired pedal placement. Included 3/8"-24 clevis and threaded pushrod may be

cut and re-threaded as needed depending on nal pedal

90° Hanging Brake Pedal Assembly ALL41013

location.

Universal pedal mount positions the booster and master cylinder under the dash 90° to the rewall for a clean underhood appearance and is ideal for vehicles that simply do not have room in the engine compartment for a booster or master cylinder. Bracket has provisions to accept Allstar power brake boosters or to mount a master cylinder directly to the bracket for manual brake applications. Welding required to mount pedal tab to pedal.

Universal Floor Mounted Brake Pedal Assembly ALL41015

Pedal assembly is commonly used when converting under-fl or standard single reservoir master cylinder to a power, dual reservoir master cylinder brake system. Pedal assembly will accept Allstar 7" and 8" power brake boosters. Pedal arms feature bushings to resist wear and provide years of use. Pedal assembly does not have provisions for a clutch pedal.

*Universal pedal assembly will work on 1928-32 Fords with modi cations

Power Brake Boosters

Boosters are available in 7" or 8" diameter and t Allstar brake pedals as well as other aftermarket units. For use with ALL41060-41062 master cylinders. The 7" booster is 3-3/4" deep, the 8" booster is 5-1/2" deep.

ALL41005..... 7", Single Diaphragm, Universal **ALL41006**..... 8", Dual Diaphragm, Universal

ALL41007...... '55-64 Chevy, 7", Single Diaphragm, Std. Finish ALL41008..... '55-64 Chevy, 7", Single Diaphragm, Chrome ALL41009...... '55-64 Chevy, 8", Dual Diaphragm, Std. Finish

Corvette Style Master Cylinders

Dual reservoir master cylinders have 1" bores and outlet ports on both sides for easy plumbing and installation. Popular master cylinders are used with disc/disc and disc/drum manual or power brake applications. Slotted mounting holes on 3-1/4" centers work well with Allstar brake boosters.



ALL41060..... Cast Iron with 3/8" Ports ALL41061..... Aluminum with 3/8" Ports ALL41062..... Cast Iron with 1/2" and 9/16" Ports

Big Bore Master Cylinder

ALL41064

Master cylinder with large 1-1/4" bore works well on vehicles that require increased volume for proper braking or as an option when experiencing excessive pedal travel with standard 1" bore Corvette style master cylinders. Cast iron master cylinder features a deep hole piston for use with manual or power brakes. Front brake port accepts 3/16" steel brake line with 3/8"-24 inverted are nut. Rear brake port accepts 1/4" steel brake line with 1/2"-20 are nut (using included adapter) or 9/16"-18 are nut by removing adapter.

Master Cylinder Adapter Fittings ALL41012

Fittings adapt master cylinders or combination valves with 1/2"-20 and 9/16"-18 ports to accept 3/16" inverted are brake line with standard 3/8"-24 fi tings. Kit includes one of each tting.



Pedal Rod Extensions

Steel extensions have 3/8"-24 threads and are often used to connect the brake pedal to the master cylinder or booster using a female rod end or a clevis.

ALL41027..... 4-3/4" Long Overall with 3" of Male Thread **ALL41028**..... 8" Long overall with 1" of Male Thread

Brake Pedal Clevis ALL41026

Clevis fastens to the brake pedal arm to accept a threaded rod extension or power brake booster pushrod. Clevis is threaded for a 3/8"-24 rod and has a 3/8" pin.



Master Cylinder Remote Reservoir ALL42046

High-impact plastic remote reservoir is used with remote lled master cylinders for brake or hydraulic clutch systems. The reservoir features two 5/16" barbed outlet ttings supplied by two separate chambers within the housing to keep a small amount of uid in one side in the event of a line or component failure. The reservoir is 3"W x 4-1/2"H and has a capacity of approximately 10 fl z.



Plunger Style Brake Light Switch ALL76253

Popular two terminal brake light switch found in most vehicles from the 1950's to today. Ideal for most applications, switch is spring loaded



to the on position and turns off when contacted by the brake pedal assembly. Switch has 1/2" threads with jam nuts for easy mounting in a bracket, and two .250" blade type terminals.

Lever Style Brake Light Switch

ALL76250

Brake switch is commonly used with under-fl or mounted brake pedal assemblies when switch can contact the brake pedal arm. The switch is springloaded to the on position, turning off when brake pedal is released and contacts the switch lever. Mounting bracket features two #10-32 tapped mounting holes, 5/8" on centers. Designed for easy two wire connection, one "+" supply and the other to power brake lights or a brake light relay. Switch is rated at 4.5 amps and features two male bullet terminals.

Pressure-Activated Brake Light Switches

Switch is plumbed into the brake system and is activated by closing the electrical connection with rising brake pressure (60-120 PSI).



rising brake pressure (60-120 PSI). ALL76252 ALL76251 Designed for easy two wire connection, one "+" supply and the other to power brake lights or a brake light relay. Switches are rated at 4.5 amps and have 1/8"-27 dry seal mounting threads.

ALL76251..... Male Bullet Terminals **ALL76252**..... 6-32 Screw Terminals

Residual Check Valves

Residual check valves hold a small amount of pressure in the brake system to keep the brake system functioning properly while helping



to maintain a fi m pedal. Maintaining system pressure prevents uid from returning to the master cylinder when the master cylinder is positioned lower than or close to the same height as the calipers or wheel cylinders. Proper system pressure also keeps piston and wheel cylinder seals expanded, creating a positive seal and brake pads seated against the rotor. Valves include two 3/16" inverted are ttings.

ALL41048..... 2 lb. for Disc Brakes (Blue) **ALL41049**..... 10 lb. for Drum Brakes (Red)

Check Out Our Fittings and Hoses Section!
For more brake related fittings and hoses on pages 106-121

Distribution Block with Proportioning Valve and Brake Light Switch ALL48037

Distribution block connects brake lines from the master cylinder to front and rear brakes with the added bene t of a rear proportioning valve and built-in pressure activated brake light switch. The proportioning valve may be adjusted to limit rear brake pressure to help prevent rear brake lock-up. Block ports have 3/8"-24 threads that accept 3/16" inverted are style ttings. Block includes ttings, pigtail wiring harness and boot.

Related Component

ALL48038 Mounting Bracket for ALL48037

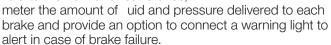
Proportioning Valve ALL48025

Adjust front-to-rear brake bias with the twist of a knob. Provides up to 57% reduction. Fitting ports are 1/8"NPT. Valve includes two tings to adapt to 3/16" brake line. 1"L, 1-3/4"W and 3-5/16" tall.

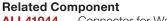


Combination Valves

Multi-purpose valves are used in the brake system to properly distribute uid to the front and rear brakes,



ALL41040..... Disc/Drum ALL41042..... Disc/Disc



ALL41044..... Connector for Warning Light



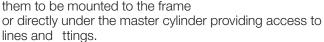
ALI 41046

Bleeder Tool ALL41043

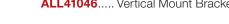
Tool temporarily replaces the warning light switch in ALL41040 and ALL41042 combination valves to keep the spool valve centered when bleeding the brake system. When bleeding the brake system, the spool valve may be forced to the front or rear and prevent proper system bleeding.

Combination Valve Mounting Brackets

Brackets provide a secure mount for combination valves allowing them to be mounted to the frame



ALL41045..... Horizontal Mount Bracket **ALL41046**..... Vertical Mount Bracket





Electric Line Lock Kit

Electrically controlled valve engages with a switch, and holds pressure to the front brakes on drag race vehicles. Commonly used to prevent



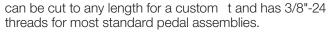
vehicles from rolling once they have staged or during burn outs in the water box. Detailed installation instructions included.

ALL48012 Electric Line Lock Master Kit ALL48013 Electric Line Lock Kit with Fittings

ALL48014..... Electrical Hardware Kit

Brake Bias Adjuster with Reference Pointer

Know exactly where brake adjustments are set, no more quessing the correct setting. When the adjusting knob is turned, the pointer moves along the reference scale. Adjuster body can be pivoted for easy viewing and multiple applications. Record where the pointer is located and use as baseline adjuster. Housing, internals, brackets, and knob with detent are all made of aluminum and includes a ve foot adjuster cable with 3/8" - 24 threads that



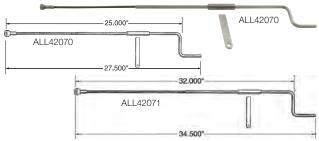
ALL42074..... Adjuster with Knob Silver ALL42073 Adjuster with Knob Black

ALL42078 Adjuster with Crank Handle Silver ALL42077 Adjuster with Crank Handle Black

Brake Bias Adjusters

Adjust brake bias from the driver seat to compensate for changing track conditions. Adjusters mount to balance bars with 3/8"-24 threads.





ALL42070 Crank-Style Adjuster 27-1/2" OAL ALL42071 Crank-Style Adjuster 34-1/2" OAL ALL42072 Knob Style Adjuster with 5' Cable ALL99116..... Replacement Cable Assembly

Electric Right Front Brake Shut-Off ALL48017

Disable right front brake with the ip of a switch, Commonly found on Dirt Modi ed and Late Models, electric shut-off helps turn the car on entry when track conditions are heavy/wet. Kit electronically disables the right front brake yet allows brake pressure to bleed off from the right front brake caliper, unlike manual shut-off valves. Detailed installation instructions are included.

Brake Shut-Off Valve

ALL48010

Valve has 1/8"NPT inlet and outlet and is rated at 2,000 PSI. Use Allstar ALL50120 tting for 3/16" inverted are brake line. Dimensions: 1/2"W x 1-3/4"L x 1-9/16"H.



RF Brake Shut-Off Valve Decal

ALL48011

ALL42078

ALL42073

PPPP

Decal has a 5/8" hole and is designed for use with the ALL48010 valve.



Brake Bias Gauge Panels

Gauges show actual front and rear line pressure for making brake bias changes before or during the race. Pre-assembled units have 0-1500 PSI liquid- lled gauges with 1/8"NPT male ttings and bleeder valves to evacuate air from the gauges. 2-3/4" x 4-1/2" predrilled panels are offered in horizontal or vertical versions.

ALL80170..... Vertical ALL80172..... Horizontal



Swivel Head Brake Pressure Gauge ALL11020

Gauge temporarily replaces the bleeder screw in most aftermarket brake calipers with 1/4"-28 thread bleeder screws to measure brake pressure. Swivel head positions the 2-3/4" diameter gauge for easy viewing. Convenient remote bleeder can be used to evacuate air in the system for accurate readings.



Related Component

ALL11022 Adapter converts ALL11020 and other gauges with 1/4"-28 thread to change to M10-1.50 thread for use with popular GM metric calipers.



Brake Pressure Gauge Kit ALL11026

Brake pressure gauge kit includes two gauges, allowing one gauge to be used in the front and one in the rear brake system. Compare front to rear pressures to help diagnose problems or to preset your brake bias. Gauges easily replace 1/4"-28 brake bleeders which are commonly found in most aftermarket calipers.



Dirt Late Model 1-Piece Front Bumpers

Our Dirt Late Model replacement bumpers are jig welded to meet OE manufacturer speci cations, but these are not OE manufactured bumpers, Constructed of 1-1/2" x .065" wall mild steel tubing. ALI 22377

ALL22380 Rocket 2005-2016* ALL22382 Rocket 2005-2015 ALL22379 Rocket 2022 ALL22381 Mastersbilt ALL22377 Longhorn

*Bumper has built-in rake for nose clearance. †Will also t 2005-2017 standard Rockets

Dirt Late Model 2-Piece Front Bumpers

Our 2-piece Dirt Late Model replacement bumpers are jig welded to meet OE manufacturer speci cations, but these are not OE

ALL22394

manufactured bumpers. Constructed of 1-1/2" x .065" wall mild steel tubing.

ALL22394... Mastersbilt ALL22393... Mastersbilt, Gen X ALL22395... Rocket 2005-2015** ALL22396... Rocket 2005-2015*

*Bumper has built-in rake for nose clearance. ‡Bumper has 2" added to left side.

Dirt Late Model Chrome Moly Bumpers



Our Chrome Moly Dirt Late Model replacement ALL22343 bumpers are jig welded to meet OE manufacturer speci cations, but these are not OE manufactured bumpers. Lightweight 1-1/2" x .049" wall chrome moly front bumpers offer added strength and about a 25-30% (5-6 lbs.) weight savings compared to similar mild steel bumpers.

ALL22343 Rocket 2022*† ALL22344 Longhorn *Bumper has built-in rake for nose clearance. †Will also t 2005-2017 standard Rockets.

Dirt Late Model Rear Bumpers

Our Dirt Late Model replacement rear bumpers are jig welded to meet OE

ALI 22384 manufacturer speci cations but these

are not OE manufactured bumpers. Constructed of 1-1/4" x .065" wall mild steel tubing.

ALL22384 Mastersbilt, Gen X, 1-1/2" x .065" Main Tube ALL22388 Rocket, 36" CTC

ALL22389 Rocket, 34" CTC ALL22385 Rocket 2022 ALL22386 Longhorn

Modi ed Universal Front Bumper

ALL22375

Bumper has 5" x 5" plate style mounts which measure 44" from outside to outside and can be modi ed to t most chassis.



Modi ed 2-Piece Extended Length Front Bumper

ALL22333

Extended length bumper features a 1-1/2" main tube with a 1-1/4" upper hoop that can be easily removed and reinstalled

when fabricating a nose. Universal t bumper extends out 21" from frame mounting brackets that are on 39" center, and weighs approximately 15 lbs.

Modi ed **Rear Bumper Kits**



ALL22336 Wide Rear Bumper Kit with straight main tube is built from 1-1/4" O.D. x

.065" wall mild steel tubing and measures 54" wide x 11-

1/2" tall with a 34" wide fuel cell guard.

ALL22337 Narrow Rear Bumper Kit with bent main tube is built from 1-1/2" O.D. \times .065" wall mild steel tubing and measures 43" wide \times 12-1/2" tall with a 39" wide fuel cell guard.

Sprint Stacked Front Bumper

ALL22300

Stacked front bumper for improved front end protection is precision bent from 1" O.D. steel tubing, 6" tall x 8" long overall x 19-1/4" wide on center. Weighs less than 4 lbs.





Aluminum ABC Template Front Bumper

ALL22350

Lightweight front bumper is 56" wide and weighs less than 2-1/2" pounds! Constructed of 1-1/2" x .083" wall aluminum tubing and pre-bent to

match the contours of the template noses.

ABC Template Front Bumper Kit ALL22372

Designed to fi the shape of the ABC style nosepieces, this un-welded bumper

kit is universal, can be built to any width and includes mounting sleeves that can be welded to the chassis. Bumper is constructed of 1-1/2" x .083" wall tubing and has an overall width of 58". Kit must be welded.

ABC Template Front Bumper

ALL22376

Designed to fi ABC style nosepieces, this fully welded front bumper is designed to t most chassis with 35-1/2" center-tocenter mounts. Bumper is constructed of 1-1/2" x .065" wall tubing and has an overall width of 48". Threaded inserts provide mounting points for a hood pin bar.

Asphalt Outlaw Front Bumper ALL22326 Designed to mount Camaro dirt style nose (FIV145-410) to most asphalt late models with 34" outside frame dimensions, including: Howe, Finishline, and Lefthander chassis.

Bumper Hookup Kit

ALL22315

Cable kit mounts through the nose and around the bumper for easy wrecker hook-ups. Kit should be mandatory at every race track. Kit includes 3 ft. of coated cable and two clamps.



1981 Camaro Front Bumper Kit

ALL22320

Universal bumper allows installation of most aftermarket 1981 Camaro nosepieces on any width chassis. Bumper is 1-3/4" x .095" wall mild steel tubing and includes 2" x 2" frame mounting slugs. Kit must be welded.

Mustang Front Bumper Kit

ALL22371



Universal bumper allows installation of aftermarket 1993 Mustang style nosepieces on any width chassis. Bumper is 1-3/4" x .095" wall mild steel tubing and includes 2" x 2" frame mounting slugs. Kit must be welded.

Universal Mini Stock Front Bumper

Universal bumper allows installation on a

ALL22329 variety of mini stock applica-

tions. Bumper includes 1-3/4" x .095" wall (mild steel tubing main bar, two adjustable length 1-1/2" x .083" corner pieces and two 6"x 6" frame mount plates. Bumper can be assembled with a minimum width of 56" and a maximum width of 72" overall.

ALL22328 Unwelded Kit ALL22329 Welded Kit (corners unwelded)

Crown Vic Front Bumper Kit

ALL22352

Bumper kit includes pre-cut and notched

tubing to create a

bumper designed to replace the factory impact bumper and bumper cover.

Kit is constructed of 1-3/4" x .095" wall tubing and includes mounting plates to mount to factory frame. Bumper kit is not designed to mount factory bumper cover and requires welding for assembly.





decal kit (sold separately).

MD3 Monte Carlo SS Nosepieces

Tough, plastic 1983-88 style nosepieces are perfect for Factory Stock and Sportsman circle track cars. Shown with

ALL23030 White

ALL23031 Black **ALL23032** Red **ALL23033** Yellow

ALL23034 Orange

ALL23035 Chevron Blue

Monte Carlo SS Nosepieces

Tough, plastic 1983-88 style nosepieces are perfect for Factory Stock and Sportsman circle track cars.

ALL23010 White **ALL23011.....** Black



Monte Carlo SS Headlight Decal Kits

Decal kits add a realistic look to most aftermarket nosepieces to replicate the popular 1983-88 Monte Carlo SS. Decals t standard and MD3 style nosepieces.



ALL23014..... Nose Decal Kit with Stock Grille ALL23038 Nose Decal Kit with Mesh Grille

Monte Carlo SS Front Bumper Kits



Universal bumper kit is adjustable to accommodate Monte Carlo nosepieces to any chassis. Kits are constructed of 1-3/4" x .095" wall tubing and require welding.

ALL22370 Standard Monte Carlo SS Kit ALL22369 MD3 Monte Carlo SS Kit

ALL22366 Standard Monte Carlo SS Kit, 2-Piece*

ALL22367 Upper Support Kit for ALL22366 (1-1/4" x .083")

*Kit includes a 2-piece main tube for more convenient handling and lower ship-

Monte Carlo SS Bolt-On **Front Bumper**

ALL22365

Bolt-on style bumper ts most tubular and stock stubs. Bumper accepts standard Monte Carlo SS nosepieces. Frame mounting brackets measure 30" center-tocenter and tover 2" x 3" rectangle tubing.

Flexible Body Brace



Flexible brace made from plastic extends up to 31" and may be cut to t shorter applications. Commonly used to support lower quarter panel or nose sides. Aluminum brackets are adjustable to accommodate a variety of straight and angle applications.

ALL23075 Body Brace, Each ALL23075-4....Body Brace, 4-Pack

Spoiler/Body Brace



ALL23019 / ALL23021

Solid body brace works well for securing panels or noses in position and features a tension bolt to adjust brace to desired length. Brace is painted black, has pre-drilled 3/16" mounting holes on each end and commonly cutto-length.

ALL23020 ... Steel, Long Body (Adjusts up to 27")

ALL23019 ... Steel, Short Body (Adjusts up to 26") ALL23021 ... Aluminum, Short Body (Adjusts up to 26")



Monte Carlo SS Rear Bumper Covers



Tough, plastic 1983-88 style rear bumper covers are perfect for Factory Stock and Sportsman circle track cars.

ALL23015 White ALL23016 Black **ALL23040** Red **ALL23041** Yellow **ALL23042** Orange ALL23043 Chevron Blue

Monte Carlo SS Tail Light Decal Kit

ALL23017

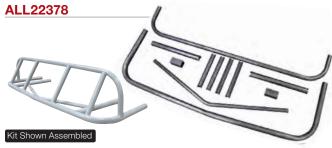
to the chassis.

Decal kit adds a realistic look to most aftermarket rear bumper covers to replicate the



popular 1983-88 Monte Carlo SS.

Monte Carlo SS Rear Bumper Kit



Kit includes pre-bent and notched 1-3/4" x .095" wall tubing to assemble a strong rear bumper that can be mounted to any width chassis and support the Allstar Performance and other aftermarket 1983-88 Monte Carlo SS rear bumper covers. Kit must be welded.

Universal Rear Bumper Kit ALL22373

Designed to fi any chassis. Corner pieces are slid inside rear section and then welded or bolted to required width. Includes 1-3/4" x .095" wall rear tube, two adjustable length 1-1/2" x .083" corner pieces, two lengths of tubing (connects bumper to any width chassis) and two sleeves which weld directly

Camaro SS Short Track Nosepieces

Designed specifi ally for short track use. in Stock Car, Sportsman and similar classes.



Noses feature

minimal recessed pockets, fl t lower valiance, corrected width and easier to mount fabricated fenders and hood.

ALL23045 White ALL23046 Black **ALL23047** Red

ALL23048 Chevron Blue

Camaro SS Decal Kit ALL23044



Decal kit adds a realistic look to most aftermarket nosepieces to replicate the popular Camaro SS short track nosepiece.

Camaro SS Nose Support ALL23058

Plastic nose support is speci cally designed to fi the underside curve of the Camaro SS nosepiece. Support fastens to the

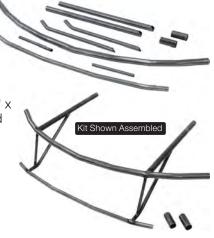


underside of the nosepiece to stiffen nose and allowing it to be bolted directly to the bumper. Support ts LH or RH sides and is sold each.

Camaro SS Bumper Kit

ALL22322

Universal bumper kit is adjustable to accommodate Camaro SS nosepiece to any chassis. Kit is constructed of 1-1/2" x .083" wall tubing and requires welding.





Sheet Plastic

Plastic material is 1/4" thick and useful for many projects including building



custom nose supports or front splitters.

ALL22231 15" x 48" **ALL22232** 30" x 48"

Lower Nose Support for MD3 Evolution

ALL23064

Plastic nose support is speci cally designed to fi the underside curve of the MD3 Evolution



style Dirt Late Model nose piece. Support fastens to the underside of the nose piece and bolts directly to the bumper of most Dirt Late Models. Support is just under 3/8" thick and measures 39" L x 7" W. Support ts LH or RH sides, weighs 3.3 lbs and is sold each.

Flexible Body Brace



Flexible brace made from plastic extends up to 31" and may be cut to t shorter applications. Commonly used to support lower quarter panel or nose sides. Aluminum brackets are adjustable to accommodate a variety of straight and angle applications.

ALL23075 Body Brace ALL23075-4. Body Brace 4-Pack



Dan Ebert

ED CALLAND LINES THE LINES

Rodney Sanders

Modi ed Nose Support

ALL23073

Spring steel support ts under the nose panel for structural support and eases mounting of nose valances.



Nose Support for Template Nose

Lightweight aluminum nose support features punch/ are holes and predrilled mounting holes for easy installation to the nose and the chassis. Sold each.

ALL23066 LH Support ALL23067 RH Support Related Components

ALL23020 Adjustable Steel Brace (16" to 27")
ALL23021 Adjustable Aluminum Brace (21" to 26")

Dragster Nose

ALL23278

Aerodynamic berglass nose is strong yet light-weight, with a durable, black high-gloss, seamless gelcoat fi ish. Nose is 10" tall x 11" W x 29" L with a 1" mounting ange.



Universal Tow Hooks

Universal hooks are designed to be mounted behind the bumper cover providing a quick access point for towing a vehicle to the pit area or back onto the track. Bracket has two 5/16" mounting holes to secure bracket to the frame or inner bumper.

ALL22311..... Solid Mount ALL22312..... Swivel Mount



Bumper Hookup Kit

ALL22315

Cable kit mounts through the nose and around the bumper for easy wrecker hook-ups. Kit should be mandatory at every race track. Kit includes 3 ft. of coated cable and two clamps.





8-Point Roll Bar Kits

Kits increase safety and the structural integrity of the vehicle. Main hoops are custom bent to teach application precisely. Hoop and bars constructed of .134" mild steel, 1-3/4" diameter tubing. Welding required. Floor plates sold separately for unibody cars.



8-Point Roll Bar Kits

ALL22600 Camaro/Firebird 1967-69 **ALL22601** Camaro/Firebird 1970-81 **ALL22602** Camaro/Firebird 1982-92 **ALL22603** Camaro/Firebird 1993-02

ALL22604 Camaro 2010-15

ALL22608 G-Body (Monte Carlo, Cutlass, Regal, Grand Prix) 1978-88

ALL22610 Mustang/Capri 1979-93

10-Point Roll Cage Kits

Kits increase safety and the structural integrity of the vehicle. Main hoops are custom bent to t each application precisely. Hoop and bars constructed of .134" mild steel, 1-5/8" diameter tubing. Welding required. Floor plates sold separately for unibody cars.



10-Point Roll Cage Kits

ALL22620 Camaro/Firebird 1967-69 **ALL22621** Camaro/Firebird 1970-81 **ALL22622** Camaro/Firebird 1982-92 **ALL22623** Camaro/Firebird 1993-02

ALL22628 G-Body (Monte Carlo, Cutlass, Regal, Grand Prix) 1978-88

ALL22630 Mustang/Capri 1979-93

Floor Plates ALL22640

Bolt or weld these steel plates to the oor pan as required by most sanctioning bodies when installing roll bars into unibody cars. Increase the structural integrity and provide a solid mounting point for the roll bar. 6" x 6" plates are 1/8" (.125") thick and may also be used for a variety of other uses including fabricating brackets or mounts. Package of 6.

Strut Bars ALL22642

Strut bars increase the rigidity and strength of a chassis eliminating exing and increasing reaction times. Bars can be installed to upgrade existing ten point cage kits or when building a new chassis. Pre-bent to ta variety of applications, bars are 65" long overall with a 14" leg and constructed from 1-5/8" x .134" wall mild steel tubing.

Mini Stock Roll Cage Kits

Cage kits are designed with safety in mind for mini enduro and four cylinder classes and feature pre-cut and formed tubing speci cally for the vehicles listed. Kits are constructed of .109" wall x 1-3/4" mild steel tubing and include a main hoop, halo, wind-



shield posts, front and rear dash bars, three door bars for the left side, and a Z-bar for the right side. Kits also include the components to build a sturdy foundation for installing the main cage, similar to the ALL22650 Welding required.

ALL22096 Honda Civic ALL22097 Dodge Neon ALL22098 Ford Focus

Replacement Component

ALL99466..... Door Bar for Civic **ALL22114......** Door Bar for Neon **ALL99468.....** Door Bar for Focus

Roll Cage Kit for Ford Escort

ALL22104

Designed with safety in mind for mini enduro and four cylinder classes. Universal design is built for two or four door



1991-2002 Ford Escort bodies. Kit is constructed of .095" wall 1-3/4" mild steel tubing and includes a main hoop, halo, windshield posts, front and rear dash bars, three door bars for the left side, and a Z-bar for the right side. Also included are two lengths of 1-3/4" tubing to weld to the factory pinch welds and two lengths of 1-1/2" tubing to connect the two sides, creating a solid foundation for the cage and seat mount.

Replacement Component

ALL22113 Door Bar

Mini Stock Roll Cage Installation Kit ALL22650

Universal installation kit for mini stock or front wheel drive cars provides a solid base or foundation to mount a roll cage.



Kit includes two 60" long 2" x 2" square outside rails, two 54" long 1-3/4" round support tubes for securely mounting the cage and an additional foot area support.

PERFORMANCE

Deluxe Roll Cage Kits

Kits include all pieces to assemble a Deluxe Roll Cage. Main hoop is tted and tack welded together allowing for changes or custom seat mounts. Curved windshield posts t closer to windshield pillar to increase driver visibility. Halo is curved and gusseted into the main hoop for maximum width, driver clear-



ance and support. Mild 1-3/4" x .109" wall steel tubing is notched and has uniform bends. Other features include four curved and one straight driver's side door bars, "Z" type right side door bars, additional lower cross bar added to main hoop for added side support and assist in seat mounting, and a center halo support.

ALL22100 '78-88 GM Metric Chassis (Monte Carlo, Regal, Etc.) '70-81 Camaro/Firebird

ALL22102 '70-77 Monte Carlo, Chevelle, Malibu, Etc.

ALL22105 '77-90 Caprice/Impala ALL22106 '79-93 Mini Stock Mustang

Offset Deluxe Roll Cage Kit

Ideal for use with template style or ABC bodies. Perimeter frame mount roll cage has the same features as other Allstar deluxe kits but includes



an offset main hoop and a narrow halo for cars with an offset body or narrow roof.

ALL22109 Offset Kit 54" Wide Frame ALL22099 Offset Kit 57" Wide Frame

Universal Support Bars

Support bars add extra strength wh needed by creating a triangular joint or gusset. Bars are constructed of .109" mild steel 1-3/4" tubing that is pre-notched for proper tment between most right-angle joints of 1-3/4" tubing, often added to the foot box area or when adding main hoop supports to the frame if permitted. Sold in pairs.

ALL22680 6" ALL22682 12" ALL22684 24"

Standard Roll Cage Kits

Kits include all pieces to assemble a standard cage. Mild steel tubing is 1-3/4" x .109" wall, is notched and has uniform bends. Four driver's side curved door bars, "Z" type right side door bar and gussets are included.



ALL22101..... '78-88 GM Metric Chassis (Monte Carlo, Regal, Etc.) '70-81 Camaro/Firebird

ALL22103 '70-77 Monte Carlo, Chevelle, Malibu, Etc.

ALL22107..... Mini Stock Universal

Roll Cage Kit for Crown Vic

ALL22095

Kit includes all pieces to assemble a roll cage for 1992-2012 Ford Crown Victoria models that is specially designed with safety in mind. Kit is constructed of 1-3/4" x .109" wall mild steel tubing which is prenotched and has uniform bends



Replacement Components ALL22114..... Door Bar ALL22116..... Door Bar Spacer

rules permit.

A-Pillar Support Bars ALL22678

Bars add extra support to the windshield post of our Standard and Deluxe roll cage kits by creating a triangular joint in this area. Support bars are constructed of .109" mild steel 1-3/4" tubing that is pre-notched for proper tment between the windshield post and the top door bar.





Curved Door Bar ALL22114

Curved door bar is constructed of 1-3/4" O.D. x .109" wall mild



Door Bar Spacers

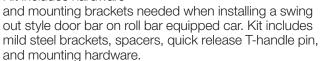
Spacers t between two door bars for added support and to equally space door bars apart. Constructed of 1-3/4" O.D. x .109" wall mild steel tubina.

adds approximately 6" to the width of the cage.

ALL22115..... 4" Spacer, spaces door bars 3" apart. ALL22116..... 5" Spacer, spaces door bars 4" apart.

Swing-Out Door Bar Kit ALL22670





Door Plate

Plates are designed to be welded

between the driver's side door

bars. Plates may also be used to box "C"-type frame rails to add support and strength at critical roll cage mounting points. Plate is 1/8" thick x 48" long to meet requirements mandated by most sanctioning bodies and tracks.

ALL22118..... 4" x 48" **ALL22122** 5" x 48"

Steel Plate

Steel plate is useful for many building projects or fabricating brackets. 10 gauge (1/8" thick) mild Steel plate is



ideal for adding a protective cover to the driver's side oor or door bar area of circle track cars.

ALL54070 18" x 26" ALL54071 24" x 24" ALL54072 24" x 36"

Door Bar Clamp ALL14198

Clamp fastens around a 1-1/2" door bar, allowing a steel door plate to be mounted to the outside of the door bar area. Clamp eliminates the need to weld mounting tabs or door plate directly to a nished chassis. Sold each and includes 1/2" mounting hardware.





Windshield Support Bar ALL22675

The windshield support bar is installed centered between the dash bar and halo bar to provide extra support to the halo bar and provide additional frontal protection to the windshield area. This style of bar is often referred to as an "Earnhardt Bar" and mandated in many classes due to the added support and safety it provides when properly installed. The bar is constructed of .109" mild steel 1-3/4" tubing that is formed and notched for the halo bar on one end for easier installation.

Crown Vic Seat Mount Kit

ALL22126

Kit includes pre-bent and notched tubes to build the lower portion of a seat mount kit for our Crown Vic and Deluxe roll cage kits or other kits that use the LH straight lower door and cross bar located on the main hoop. Mount kit is constructed of 1-1/4"

x .120" wall tubing and includes gusset style lower seat mounting tabs and seatbelt mounting tabs.

Universal Seat Mount Kit

ALL22110

1-1/2" diameter x .095" wall mild steel tubing attaches to roll cage, to safely and effectively mount a seat. Use with Allstar roll cage kits. Kit is sold unassembled and requires welding.



Seat Mount Brackets

Made from 1/8" thick mild steel. Upper bracket is angled to t against the back of most aluminum racing seats. Two-piece design allows front-to-back and side-to-side adjustment. Upper mount brackets may be bolted or welded. Lower mount welds to 1-1/2" or 1-3/4" tubing.

ALL60032 Upper, 2-Piece **ALL60033** Lower

Double-Shear Seat Belt Tab ALL60031

Bracket welds to chassis for solid seat belt mount to the chassis, vet still able to pivot. Double-shear design provides twice the strength of a single tab style mount. Steel bracket accepts 1/2" hardware.





Universal Front Hoop

ALL22108

Front support kit adds strength to the front section of race car by reducing excessive ex. Pre-cut and notched pieces of 1-3/4" x .095" wall mild steel tubing fasten to the existing roll cage and extend to the front of the chassis to strengthen vulnerable steering and radiator areas. Lower radiator mounting brackets are included. Kit requires the addi-



tion of two front arch supports (ALL22119) sold separately to complete installation. Some modi cations may be required for installation.

Front Arch Support

ALL22119

Arch supports are required when installing Allstar front support kits. They add strength to suspension

mounting area and create mounting points for shock brackets. Arches are constructed of 1-3/4" x .095" wall mild steel tubing, 24" wide at the mounting points and 16" tall but may be trimmed to t many applications. Sold each.



Narrow Front Arch Support

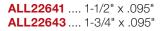
ALL22645

Arch supports replace the front arches found on many asphalt late models and modifi ds or when fabricating a new chassis. Narrow triangular design arches are constructed of 1-3/4" x .095" wall, D.O.M. steel tubing, are 30" wide at the mounting points and 17" tall, but may be trimmed to t many applications. Sold as a pair*.

*LH support features a small kick out for added header clearance.

Universal Strut Bars

Strut bars increase the rigidity and strength of a chassis to help eliminate ex and increase safety. Bars are constructed from .095" wall mild steel tubing to t a variety of applications measuring 65" long overall with a 14" leg. Sold in pairs.





Universal Front Hoops

Universal front hoops come in 3 widths to ta variety of mini stock chassis. Mild steel tubing is 1-1/2" x .083".



Part No.	Overall Width	Overall Length
ALL22652	40-1/2"	28"
ALL22653	46-1/2"	25"
ALL22654	51-1/4"	28"

Universal Rear Support

ALL22112

Rear support adds strength to the rear section of race car by reducing excessive ex. Kit includes pre-cut and notched pieces of 1-3/4" x .095" wall mild steel tubing which fasten to the existing roll cage and extend to the rear of the chassis. Some modi cations may be required for installation.



Frame Repair Plate for Metric Chassis ALL60085

1/8" steel rear frame plate ts 1978-88 GM metric cars. Plate is cut to t stock frames and measures 4-1/4" x 27".

Door Bar Components for Rocket Dirt Late Models

ALL22390/22391
three-point door bar
mounts are constructed
of 1" steel tubing and bolt to
the frame. Each mount has a prewelded sleeve sized to accept posts of
the ALL22392 steel door bar.

ALL22390 Front Door Bar Mount ALL22391 Rear Door Bar Mount ALL22392 Right Door Bar, 60"L x 1-1/4"

Right Hand Jack Post Kit ALL22111

Bolt-on kit fi s most Howe, Port City, Lefthander, Finish Line, and other offset chassis requiring a jack post to raise vehicle. Includes an assembled bar loop with lift post and pre-cut mounting bars to be



welded in place. The mounting bars then bolt to chassis tabs (not included) for removal and installation.



Steering Column Brackets

Stamped-steel brackets weld to dash bars to create a mounting point for steering shaft when using a 3/4" oversized rod end.
Brackets are 3-1/8" wide and available in a variety of lengths to t most applications. 4" and longer brackets are pre-

notched for 1-1/2" dash bars but are easily modi ed to t other size bars.

ALL52120..... 2-1/2" Long **ALL52122**..... 4" Long **ALL52124**..... 8" Long **ALL52126**..... 10" Long



ALL52133

Gusseted weld-on tab provides an excellent mounting point for the 3/4" oversized rod end (ALL52132) when building custom steering shaft assemblies. Tab is designed to cradle into round chassis tubing with built-in gussets adding strength and reducing ex.

Related Component

ALL52132..... Oversized 3/4" Rod End Kit

Steering Quickener Bracket

ALL60028

Mounts all popular steering quickeners including AFCO, Coleman, Howe, and others. Bracket has two holes, spaced 1-3/4" apart, and may be welded to 1-1/2" or 1-3/4" diameter tubing.

Floor Pedal Plate ALL54050



Weld-in pedal plate is 23" x 5" x 1/8" and speeds up race car construction by providing the proper spacing for mounting pedal/master cylinder assemblies.

Hanging Brake Pedal Mount

ALL54060

Welds to chassis to mount Wilwood and Tilton style hanging pedals. Notched to clear balance bar.



Tubing Notcher ALL10411

Notcher works with most standard hole saws to create a notch on the end of round tubing for properly attaching round tubing to round tubing, often used when building roll cages, bumpers or custom chassis. Notcher features an adjustable holding xture which automatically centers tubing to create a notch from 90-45 degrees in tubing up to 2". Notcher is commonly clamped into a bench vise or bench mounted and used with a hand drill.

Note: Hole saw used should be the size of tube accepting notched tube.

Replacement Component

ALL10402..... 5/8"-18 Thread Adapter

Note: Tubing notcher includes a 1/2"-20 arbor thread and 5/8"-18
adapter. Most hole saws up to 1-1/8" diameter use 1/2"-20, larger hole saws use
5/8"-18 thread

Hole Saw Set ALL10412

Use with tubing notchers. Does not include an arbor for a hand drill. Set includes one of each size: 3/4", 1", 1-1/4", 1-1/2" 1-5/8", and 1-3/4". Hole saws up to 1" diameter use 1/2"-20 thread; larger hole saws use 5/8"-18 thread.

Individual Hole Saws

ALL10413 3/4" ALL10414 1" ALL10416 1-1/4" ALL10417 1-1/2" ALL10418 1-5/8" ALL10419 1-3/4"

Note: Hole saws up to 1" diameter use 1/2"-20 thread, larger hole saws use 5/8"-18 thread.



Ken Schrader



Mike Marlar

NEW LENGTHS FOR REDUCED SHIPPING COSTS COMPARED TO 8FT. LENGTHS WITH OVERSIZE FEES



Mild Steel Tubing

Sold only in pre-cut lengths. Always check wall thickness tolerance before cutting or welding, especially if the car is to be certified. Tubing wall thickness will vary.

Round Mild Steel Tubing



Description	4' Length	7.5' Length	12' Length	19' or 20' Length
3/8" x .065"	ALL22117-4	ALL22117-7	ALL22117-12	_
1/2" x .065"	ALL22120-4	ALL22120-7	ALL22120-12	ALL22120-20
3/4" x .065"	ALL22124-4	ALL22124-7	ALL22124-12	ALL22124-19
1" x .065"	ALL22128-4	ALL22128-7	ALL22128-12	ALL22128-20
1" x .083"	ALL22129-4	ALL22129-7	ALL22129-12	ALL22129-20
1-1/4" x .083"	ALL22132-4	ALL22132-7	ALL22132-12	ALL22132-20
1-1/4" x .120"	ALL22134-4	ALL22134-7	ALL22134-12	ALL22134-20
1-1/2" x .065"	ALL22136-4	ALL22136-7	ALL22136-12	ALL22136-20
1-1/2" x .083"	ALL22130-4	ALL22130-7	ALL22130-12	ALL22130-20
1-1/2" x .095"	ALL22138-4	ALL22138-7	ALL22138-12	ALL22138-20
1-1/2" x .120"	ALL22137-4	ALL22137-7	ALL22137-12	ALL22137-20
1-5/8" x .120"	ALL22139-4	ALL22139-7	ALL22139-12	_
1-5/8" x .134"	-	ALL22141-7	ALL22141-12	-
1-3/4" x .065"	ALL22144-4	ALL22144-7	ALL22144-12	ALL22144-20
1-3/4" x .095"	ALL22146-4	ALL22146-7	ALL22146-12	ALL22146-20
1-3/4" x .109"	ALL22149-4	ALL22149-7	ALL22149-12	ALL22149-20
1-3/4" x .134"	_	ALL22148-7	ALL22148-12	-

Round D.O.M. Mild Steel Tubing



Description	4' Length	7.5' Length	12' Length	17' or 20' Length
1" x .120"*	ALL22127-4	ALL22127-7	ALL22127-12	ALL22127-(17 or 20)†
1-1/2" x .083"*	ALL22133-4	ALL22133-7	ALL22133-12	ALL22133-(17 or 20)†
1-1/2" x .095"*	ALL22135-4	ALL22135-7	ALL22135-12	ALL22135-17 [†]
1-5/8" x .120"*	ALL22140-4	ALL22140-7	ALL22140-12	ALL22140-17 [†]
1-3/4" x .095"*	ALL22145-4	ALL22145-7	ALL22145-12	ALL22145-17 [†]
1-3/4" x .120"*	ALL22147-4	ALL22147-7	ALL22147-12	ALL22147-17 [†]

^{*}Tubing is drawn over mandrel (D.O.M.) and has tighter wall thickness tolerance. †Length is determined by mill run. Call for availability.

Square Mild Steel Tubing



Description	4' Length	7.5' Length	12' Length	19' or 20' Length	
1/2" x .065"	ALL22160-4	ALL22160-7	ALL22160-12	ALL22160-20	
3/4" x .049"	ALL22163-4	ALL22163-7	ALL22163-12	-	
3/4" x .065"	ALL22164-4	ALL22164-7	ALL22164-12	ALL22164-19	
1" x .083"	ALL22169-4	ALL22169-7	ALL22169-12	ALL22169-20	
1-1/2" x .083"	ALL22175-4	ALL22175-7	ALL22175-12	ALL22175-20	
2" x .083"	ALL22182-4	ALL22182-7	ALL22182-12	ALL22182-20	

Rectangular Mild Steel (1018)



Description	4' Length	7.5' Length	12' Length	20' Length
1" x 2" x .120"	ALL22183-4	ALL22183-7	ALL22183-12	ALL22183-20
2" x 3" x .083"	ALL22184-4	ALL22184-7	ALL22184-12	ALL22184-20

12 FT. AND LONGER LENGTHS FOR LOCAL PICKUP ONLY!

NEW LENGTHS FOR REDUCED SHIPPING COSTS COMPARED TO 8FT. LENGTHS WITH OVERSIZE FEES



Round Chrome Moly Steel Tubing (4130N)

Sold only in pre-cut lengths. Always check wall thickness tolerance before cutting or welding, especially if the car is to be certified. Tubing wall thickness will vary.



Description	4' Length	7.5' Length	12' Length	17', 19' or 20' Length
1/4" x .035"	ALL22000-4	ALL22000-7	ALL22000-12	_
3/8" x .058"	ALL22005-4	ALL22005-7	_	-
1/2" x .049"	ALL22010-4	ALL22010-7	_	-
1/2" x .058"	ALL22012-4	ALL22012-7	_	-
5/8" x .049"	ALL22015-4	ALL22015-7	_	-
5/8" x .058"	ALL22017-4	ALL22017-7	_	_
3/4" x .049"	ALL22020-4	ALL22020-7	ALL22020-12	_
3/4" x .058"	ALL22022-4	ALL22022-7	ALL22022-12	ALL22022-20†
3/4" x .095"	ALL22024-4	ALL22024-7	_	_
3/4" x .120"	ALL22026-4	ALL22026-7	_	-
7/8" x .058"	ALL22030-4	ALL22030-7	ALL22030-12	-
7/8" x .095"	ALL22032-4	ALL22032-7	_	-
1" x .049"	ALL22040-4	ALL22040-7	ALL22040-12	-
1" x .058"	ALL22042-4	ALL22042-7	ALL22042-12	-
1" x .065"	ALL22044-4	ALL22044-7	ALL22044-12	ALL22044-17 [†]
1" x .083"	ALL22045-4	ALL22045-7	_	-
1" x .095"	ALL22046-4	ALL22046-7	_	ALL22046-20†
1-1/8" x .058"	ALL22050-4	ALL22050-7	ALL22050-12	-
1-1/8" x .083"	ALL22054-4	ALL22054-7	ALL22054-12	-
1-1/4" x .058"	ALL22060-4	ALL22060-7	ALL22060-12	ALL22060-20†
1-1/4" x .065"	ALL22062-4	ALL22062-7	ALL22062-12	ALL22062-20†
1-1/4" x .083"	ALL22061-4	ALL22061-7	ALL22061-12	ALL22061-19 [†]
1-1/4" x .095"	ALL22063-4	ALL22063-7	ALL22063-12	ALL22063-20†
1-1/4" x .120"	ALL22064-4	ALL22064-7	_	-
1-3/8" x .058"	ALL22070-4	ALL22070-7	_	-
1-3/8" x .095"	ALL22072-4	ALL22072-7	_	-
1-1/2" x .049"	ALL22079-4	ALL22079-7	_	-
1-1/2" x .058"	ALL22080-4	ALL22080-7	_	-
1-1/2" x .065"	ALL22082-4	ALL22082-7	ALL22082-12	
1-1/2" x .083"	ALL22084-4	ALL22084-7	ALL22084-12	ALL22084-17 [†]
1-1/2" x .095"	ALL22086-4	ALL22086-7	ALL22086-12	-
1-5/8" x .083"	ALL22090-4	ALL22090-7	ALL22090-12	ALL22090-17 [†]
1-3/4" x .083"	ALL22093-4	ALL22093-7	ALL22093-12	ALL22093-20

[†]Length is determined by mill run. Please call for availability.

Threaded Tubing Ends

Chrome moly 4130 steel tubing ends are ideal for building custom length suspension tubes. Available in RH and LH threads.





Thread Size	Tubing Size	Tube End Insert O.D.	RH Part No.	LH Part No.
10-32	3/8" x .058"	.259"	ALL22500	_
5/16"-24	1/2" x .058"	.384"	ALL22504	_
3/8"-24	5/8" x. 058"	.509"	ALL22508	ALL22509
3/8"-24	3/4" x .058"	.634"	ALL22512	ALL22513
1/2"-20	7/8" x .058"	.759"	ALL22518	ALL22519
1/2"-20	1" x .058"	.884"	ALL22522	ALL22523
1/2"-20	1" x .065"	.870"	ALL22526	ALL22527
1/2"-20	1-1/8" x .058"	1.00"	ALL22530	ALL22531
5/8"-18	1" x .058"	.884"	ALL22534	ALL22535
5/8"-18	1" x .095"	.810"	ALL22538	ALL22539
5/8"-18	1-1/4" x .095"	1.060"	ALL22542	ALL22543 [‡]
5/8"-18	1-1/4" x .120"	1.010"	ALL22546	ALL22547‡
3/4"-16	1-1/4" x .065"	1.120"	ALL22548	ALL22549 [‡]
3/4"-16	1-1/4" x .095"	1.060"	ALL22550	ALL22551‡
3/4"-16	1-1/4" x .120"	1.010"	ALL22554	ALL22555‡
3/4"-16	1-3/8" x .095"	1.185"	ALL22558	ALL22559 [‡]

[‡]Tube end has built-in hex for adjusting.

12 FT. AND LONGER LENGTHS FOR LOCAL PICKUP ONLY!



120°

120°

90°

End View

End View

End View

Reinforced Aluminum Angle, 120°

Aluminum angle has many uses including strengthening body panels and providing a mounting point for strapping or body braces, typically used on the lower section of rear quarter panels and doors. The reinforced design adds additional strength over standard 120° angle with an extra bend which also allows easier access to body brace bolts. Angle allows supports or braces to angle upward toward the chassis. Angle is 1/8" thick x 1-1/2" wide and has predrilled 1/4" holes on 1" centers.

ALL23140...... 26" Long ALL23140-5...... 26" Long, 5-Pack ALL23141 30" Long ALL23141-5 30" Long, 5-Pack ALL23142..... 66" Long ALL23142-5 66" Long, 5-Pack

Aluminum Angle, 120°

Aluminum angle has many uses including strengthening body panels and providing a mounting point for strapping or body braces, typically used on the lower section of rear quarter panels. 120° angle allows supports or braces to angle upward toward the chassis. Angle is 1/8" thick x 1" wide and has predrilled 1/4" holes on 1" centers.

ALL23130 26" Long **ALL23130-5**. 26" Long, 5-Pack ALL23131 30" Long ALL23131-5.30" Long, 5-Pack ALL23132..... 66" Long ALL23132-5. 66" Long, 5-Pack

Aluminum Angle, 90°

Aluminum angle has many uses including strengthening body panels and providing a mounting point for strapping or body braces, typically used on the upper section of rear quarter panels and door panels. 90° angle allows supports or braces to fasten directly to the chassis. Angle is 1/8" thick x 1" wide and has pre-drilled 1/4" holes on 1" centers.

ALL23134..... 26" Long ALL23134-5. 26" Long, 5-Pack ALL23135..... 30" Long ALL23135-5. 30" Long, 5-Pack ALL23138..... 66" Long ALL23138-5. 66" Long, 5-Pack

Slotted Aluminum Angle, 90°

ALL23124

Slotted angle aluminum brace connects and strengthens body panels. Brace is 1/8" thick x 1"W x 72"L with 3/8" x 5/8" slots. Ideal for use along tops of spoilers.



12 FT. AND LONGER LENGTHS FOR LOCAL PICKUP ONLY!

Aluminum Flat Stock

6063-T5 aluminum at stock is ideal for fabricating mounting brackets, etc.

Description	4' Length	7.5' Length	12' Length	16' Length				
Flat Stock 1"	Flat Stock 1" Wide							
1/8" Thick	ALL22250-4	ALL22250-7	ALL22250-12	ALL22250-16				
3/16" Thick	ALL22251-4	ALL22251-7	ALL22251-12	ALL22251-16				

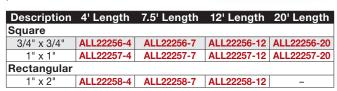
Aluminum Angled Stock

1" x 1" 6063-T5 aluminum stock is ideal for fabricating mounting brackets, etc.

Description	4' Length	7.5' Length	16' Length
1" x 1" x 1/16" Thick	ALL22253-4	ALL22253-7	ALL22253-16
1" x 1" x 1/8" Thick	ALL22254-4	ALL22254-7	ALL22254-16
1" x 1" x 3/16" Thick	ALL22255-4	ALL22255-7	ALL22255-16

Aluminum Square and Rectangular Tubing

Tubing is 6063-T5 grade alloy with .125" wall thickness. Ideal for fabricating rub rails or building shop, trailer or pit equipment like ladders, pit carts and tire racks.



Aluminum Round Tubing

Round 1-1/2" x .083" tubing is 6061-T6 grade alloy which is ideal for building bumpers.

ALL22085-44' Length **ALL22085-7**......7.5' Length ALL22085-12 12' Length

Steel Flat Stock

Steel at stock is ideal for building projects around the shop or creating supports when needed. Standard grade steel has excellent welding characteristics and is easily cut and shaped.

Description	4' Length	7.5' Length	12' Length
1" x 1/8"	ALL22150-4	ALL22150-7	ALL22150-12
1" x 3/16"	ALL22151-4	ALL22151-7	ALL22151-12
1-1/2" x 1/8"	ALL22152-4	ALL22152-7	ALL22152-12
2" x 1/8"	ALL22154-4	ALL22154-7	ALL22154-12
2" x 3/16"	ALL22155-4	ALL22155-7	ALL22155-12

Steel Angled Stock

Steel angled stock is ideal for building projects around the shop or creating supports when needed. Standard grade steel has excellent

welding characteristics and is easily cut and shaped. 4' Length 7.5' Length Description 1" x 1" x 1/8" ALL22156-4 ALL22156-7





Flat Tabs

Mild steel at tabs have a straight edge and can be welded to round tubing, square tubing or fl t plate.

Part No.	Description	Quantity Per Pack	Thickness	Overall Height	Center Of Hole Height	Hole Diameter
ALL60004	1/8" Tab, 5/8" Hole	4	1/8"	2-5/16"	1-11/16"	5/8"
ALL60005	1/8" Tab, 1/2" Hole	4	1/8"	1-7/8"	1-5/16"	1/2"
ALL60006	3/16" Tab, 1/2" Hole	4	3/16"	1-7/8"	1-5/16"	1/2"
ALL60007	1/4" Tab, 3/8" Hole	4	1/4"	2"	1-3/8"	3/8"
ALL60008	1/4" Tab, 1/2" Hole	4	1/4"	2"	1-3/8"	1/2"
ALL60009	1/8" Tab, 1/4" Hole	4	1/8"	1-5/8"	1-1/4"	1/4"
ALL60012	1/8" Tab, 1/4" Hole	4	1/8"	1-7/16"	7/8"	1/4"
ALL60088	1/8" Tab, 1/4" Slotted Hole	4	1/8"	1-7/16"	7/8"	1/4" x 1/2"
ALL60013	1/8" Tab, 3/8" Hole	4	1/8"	1-7/16"	7/8"	3/8"
ALL60018	3/16" Seat Tab	4	3/16"	1-1/2"	7/8"	1/2"
ALL60019	1/4" Seat Tab	4	1/4"	1-1/2"	7/8"	1/2"
ALL60020	Window Frame Tab	10	1/16"	1"	3/4"	3/16"
ALL60021	Window Frame Tab	10	1/16"	3/4"	1/2"	3/16"
ALL60022	Bumper Tab	4	1/8"	1-1/4"	15/16"	1/4"
ALL60076	Chassis Tab	4	1/8"	1-3/4"	1-3/16"	3/8"
ALL60030	Mounting Tab	4	.100"	1-1/4"	3/4"	5/8"
ALL60090	Mounting Tab	4	.100"	1-1/4"	3/4"	3/8"
ALL60091	Mounting Tab	4	.100"	1-1/4"	3/4"	7/16"
ALL60092	Mounting Tab	4	.100"	1-1/4"	3/4"	9/16"

ALI 60005 ALL60004 ALI 60007 ALL 60009 ALL 60006 ALL 60008 ALL60012 ALL60018 ALL60020 ALI 60013 ALL60019 ALL60021 ALL60022 ALL60076 ALL60030 ALL60090 ALL60091 NEW ALL60092

Radius Tabs

Mild steel radius tabs have a contoured edge to t various sizes of round tubing.

Part No.	Description	Quantity Per Pack	Thickness	Overall Height	Center Of Hole Height	Hole Dia.
ALL60000	3/16" Tab, No Hole	4	3/16"	2-3/8"		-
ALL60001	3/16" Tab, 3/8" Hole	4	3/16"	2-3/8"	1-3/4"	3/8"
ALL60002	3/16" Tab, 1/2" Hole	4	3/16"	2-3/8"	1-3/4"	1/2"
ALL60003	1/8" Tab, 1/4" Hole	4	1/8"	2"	15/16"	1/4"
ALL60010	1/8" Tab, 1/4" Hole	4	1/8"	1-1/8"	9/16"	1/4"
ALL60011	1/8" Tab, 3/8" Hole	4	1/8"	1-1/8"	9/16"	3/8"



ALL 60088

Gusset Tabs

Mild steel tabs have built-in gussets for added support. Choose tabs that mount parallel or perpendicular to tubing. Package of 4.

<u> </u>					
Part No.	Description	Thickness	Overall Height	Center Of Hole Height	Hole Dia.
ALL60014	Round Tube, 1/4" Hole	1/8"	1-1/2"	1"	1/4"
ALL60015	Round Tube, Slotted	1/8"	1-1/2"	7/8"	1/4" x 3/4"
ALL60016	Round Tube, 3/8" Hole	1/8"	1-3/4"	1-1/4"	3/8"
ALL60017	Round Tube, 1/2" Hole	1/8"	1-3/4"	1-1/4"	1/2"
ALL60041	Round Tube, 1/4" Hole	1/8"	1-3/4"	1-1/4"	1/4"
ALL60086	Round Tube, 1/4" Hole	.085"	1-7/16"	1-15/16"	1/4"
ALL60087	Round Tube, 1/4" Hole	1/8"	1-7/16"	1-15/16"	1/4"
ALL60024	Flat Mount, 3/8" Hole	.085"	1-9/16"	7/8"	3/8"
ALL60027	Flat Mount, 1/4" Hole	.085"	1-9/16"	7/8"	1/4"



Universal Hood Pin Mount

ALL60067

Universal bracket with 1/4" mounting holes can be bolted on or welded in place. Bracket accepts 1/2" hood pins to secure hood and deck lids along with many other uses. Constructed of .100" steel, bracket has a built-in reinforcing gusset for added strength.

Universal Chassis Bracket

ALL60068

Universal gusseted bracket is 3/16" thick and welds on for many uses including engine and body mounts. Bracket is 2-1/4" wide x 3-1/4" long and has a 1/2" hole located 1" from the end of the bracket.

Universal Mounting Bracket ALL60072

Universal formed bracket is 1/8" thick and welds on for many uses, including a body mount when modifying or fabricating chassis or as a rear engine mount bracket when used with rear engine mounts. Bracket is 2-1/4"W x 6-1/2"L and may be drilled for a variety of uses.

Brake Line Adapter Mounting Tabs

Secure brake line adapters or bulkhead ttings, or use as a mounting tab for a variety of uses.

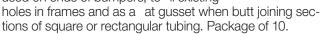
ALL60029..... Bolt-On with 5/8" Hole, 2-Pack **ALL60030.....** Weld-On with 5/8" Hole, 4-Pack **ALL60092.....** Weld-On with 9/16" Hole, 4-Pack **ALL60091.....** Weld-On with 7/16" Hole, 4-Pack **ALL60090.....** Weld-On with 3/8" Hole, 4-Pack





Tubing End Caps

Steel end caps weld to the end or inside of tubing to provide a clean look, prevent sharp exposed edges, and seal tubes to keep out dirt and debris. Caps are commonly used on ends of bumpers, to Il existing holes in frames and as a at gusset when butt jo



Part No.	Description	Thickness			
Round End Caps	Round End Caps				
ALL22280	7/8" O.D.	.125"			
ALL22285	1" O.D.	.125"			
ALL22281	1-1/4" O.D.	.125"			
ALL22286	1-3/8" O.D.	.125"			
ALL22282	1-1/2" O.D.	.125"			
ALL22283	1-5/8" O.D.	.125"			
ALL22287	1-11/16" O.D.	.125"			
ALL22284	1-3/4" O.D.	.125"			
Square End Caps					
ALL22290	1" x 1"	.085"			
ALL22291	1-1/2" x 1-1/2"	.085"			
ALL22292	2" x 2"	.085"			
Rectangle End Cap					
ALL22294	2" x 3"	.085"			

Gussets

Gussets add support and strength to tubing joints when building roll cages or



chassis mounts. Solid, one-, or three-hole gussets are 1-7/8" tall x 1/8" thick.

Description	10-Pack	100-Pack
Solid	ALL22192	ALL22192-100
With One Hole	ALL22194	ALL22194-100
With Three Holes	ALL22196	ALL22196-100

Wrap-Around Gussets

Gussets t 1.50" to 1.75" tubing and can be used to join tubing from 70° to 110°. Wrap-around gussets are 1/16" thick and provide more support and rigidity than a standard fl t gusset.



ALL22199 10-Pack **ALL22199-50**.... 50-Pack

Rub Rail Flange ALL60023

Flanges are 3/16" thick and commonly used when building bolt-on style rub rails. Center hole accepts 1-1/4" tubing and has two 3/8" mounting holes spaced 2-1/4" apart. Package of 4.

Charging Post Bracket ALL60064

Securely mount Allstar charging posts on vehicles where battery is not easily accessible. Predrilled holes allow quick mounting to frame or body. Double-D hole design positions posts close together, but provides enough room for charging or jumper cable clamps. Charging posts sold separately.

Weld-On Nuts

Weld these steel nuts into a predrilled hole to provide a strong and easy method of bolting brackets or accessories to chassis. Nuts are often used when the back side of a fastener is not accessible and they allow quicker installation and/or removal of chassis components.

1/4"-20 Nut for 3/8" Hole

ALL18546............ (5/16" UHL), 4-Pack **ALL18546-25**..... (5/16" UHL), 25-Pack

3/8"-16 Nut for 3/4" Hole

ALL18549........... Short (3/8" UHL), 4-Pack **ALL18549-25**..... Short (3/8" UHL), 25-Pack **ALL18550**......... Long (7/8" UHL), 4-Pack **ALL18550-25**..... Long (7/8" UHL), 25-Pack

1/2"-13 Nut for 3/4" Hole

ALL18551 Short (3/8" UHL), 4-Pack **ALL18551-25** Short (3/8" UHL), 25-Pack **ALL18552** Long (7/8" UHL), 4-Pack **ALL18552-25** Long (7/8" UHL), 25-Pack

Battery Boxes

Universal, lightweight steel battery boxes may be welded or bolted to the frame. Boxes are available in two sizes and include hold-down hardware.



ALI 18546

ALL76100..... 12" Wide x 7-1/4" Deep **ALL76101**..... 10" Wide x 7-1/4" Deep

Battery Disconnect Switch Mounting Bracket ALL60365

The weld-on bracket provides a secure mounting location for most battery disconnect switches so they can be mounted directly to the cage within easy reach of the driver or track safety team in the event of an emergency. The bracket is pre-notched for welding to 1-1/2" round tubing and features a 5/8" mounting hole for most battery disconnect switches or our switch with panel.

Remote Starter Button Shroud Kits

Kit mounts a remote starter button directly to chassis tubing. Kit includes a shroud to help protect against accidental activation, tab, and starter button.







Coil Spring Spacer ALL56116

Spacer for 5" racing spring welds into spring pocket, enabling chassis adjustments on street stock and other race cars that are not allowed to use weight jack bolts or threaded adjusters. 3" tall spacer may be cut to desired height before installation. Use coil shim spacers to make chassis adjustments.

Related Components ALL56120..... 3/16" Shim ALL56121..... 1/8" Shim

Adjustable Coil Spring Spacers

Adjustable spacers for 5" racing springs weld into spring pockets, enabling chassis adjustments on street stock and other race cars that are not allowed to use weight jack bolts.



ALI 56098

ALL56073

ALL56119

ALL56118

Weight Jack Bolt Collars

Steel collar typically welds onto frame or chassis for installation of a threaded jack bolt. Collar includes grease fi ting.



Weight Jack Bolt Sleeves

Weld-in mild steel sleeve provides a mounting point for jack bolts or adjustable shock mounts. Sleeves are 2" long and have a 1-3/8" O.D. for welding onto chassis tubing.

ALL56073 1-1/8"-12 ALL56109 1"-8



Steel coarse thread nut with sleeve has 1"-8 coarse threads.

Weight Jack Plate ALL56112

Heavy-duty steel plate has a threaded boss welded to the center to accept iack bolts with 1"-8 coarse threads. O.D. is 5".



Chassis Tie Down Brackets

ALL60075

Steel brackets weld to chassis and provide a secure mounting location to hook a tie-down strap or winch cable. Package of 2.

Slotted Upper Control Arm Bracket Kit ALL60077

Kits contain (2) slotted brackets, (2) centered bushings, (2) reducer spacers for 5/8" rod end and a 1/2" bolt and nyloc nut. Offset aluminum bushings (sold separately) allow for plenty of adjustment options.

Insert Bushings

ALL60080	Centered Bushings (Pair)
ALL60081	1/8" Offset Bushings (Pair)
ALL60082	1/4" Offset Bushings (Pair)
ALL60083	3/8" Offset Bushings (Pair)
ALL60084	1/2" Offset Bushings (Pair)

Upper Control Arm Brackets

ALL60025

Stamped, 3/16" thick mild steel brackets weld to chassis to provide a mounting point for upper control arm. Brackets are sold in pairs and have two 5/8" mounting holes, spaced 7/8" apart for adjustment. May be trimmed to desired height.



Bracket

ALL60190

Bracket is ame cut from 1/2" thick steel, with 6" bolt spacing. Welds to frame and accepts upper A-arm.

Front Strut Mounting Bracket

ALL60215

Designed for use with any stud mount coil-over

strut, mounting brackets attach to the front strut bars. Brackets are also at for universal applications and may be bent to t multiple con gurations of tubes and angles on varying chassis options.



CJ Greaves



Weld-On Shock Brackets

Weld-on shock brackets mount standard and coil-over shocks with 1/2" I.D. inner bushing or 1/2" rod end to chassis as well as many other uses. 1/8" thick mild steel brackets include 1/2" bolt, spacer and locknut.

Notched Tube Mount

Bracket is notched for 1-1/2" - 1-3/4" round tubing to create a gusset style mount that welds on three sides. Notched design positions the bracket perpendicular to the tubing at a 90° angle for straight mount and approximately a 75° angle for angled mounts.

Straight Mount



Angle Mount







ALL60100 Left-Hand Single **ALL60101** Right-Hand Single

Round Tube Mount

Bracket welds parallel onto tubing. Typically mounted above or below tubing and includes 1/2" shock mounting hardware. Mounting positions are on 1" centers.

ALL60107..... Single
ALL60114..... Two Position
ALL60115..... Three Position



ALL60106

Flat Mount

Bracket mounts to a at surface or square tubing.

ALL60106 Single Replacement Components

ALL99100 Bolt, locknut, and bushing

ALL99101..... Bushing only

Clamp-On Shock Brackets

Clamp-on shock brackets mount standard and coil-over shocks with 1/2" I.D. inner bushings to round tubing without welding. Easily add additional mount or pivot





mount when experimenting or trying different set-ups. Standard brackets position the shock approximately 1" below the chassis tubing. Drop mount brackets position the shock approximately 2-1/2" below the chassis tubing. Brackets include mounting hardware with nyloc locking nuts.

Clamp-On

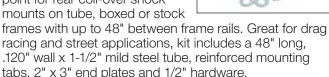
ALL60220 1.75" ALL60221 1.50" ALL60222 1.25" Drop Mount Clamp-On ALL60225 1.50"

Upper Coil-Over Shock Mount Kit

ALL60230

ALL60113

Weld-in kit provides a mounting point for rear coil-over shock mounts on tube, boxed or stock



1/2" Rod End Mount ALL60073

3/16" thick steel mount with 1/2" holes accepts rod ends up to 5/8" wide. Mount is 1-5/8" tall overall.



Track Bar Locator Brackets

Track bar locator brackets are an ideal bolton mounting point for rod ends commonly found on Panhard bars, track bars or rear axle housing track locators. Steel brackets are fabricated from 3/16" material and accept 1/2" rod ends.

ALL60079 5/8" Hole, 1" Spacing **ALL60089** 3/4" Hole, 1-3/16" Spacing

Wheelie Bar Wheel Bracket Kit

ALL60500

Wheelie bar wheel brackets are a great start to building a custom set of wheelie bars featuring double shear strut mounting tabs with two 3/8" holes. Kit accepts wheelie bar wheels up to 1.625" w x 4" diameter with a 3/8" I.D. axle. Welding is required.







Lower Spring Cups

Steel spring cup has a 7" wide curved base that welds to the top of a 3" diameter rear end axle tube creating a at mounting surface for a 5" O.D. racing springs. Commonly used to replace OE style "pigtail" lower spring mount. Sold each.



Ford 9" Truss Support

reduces unwanted ex during



ALL56123

Panhard Bar/Third Link **Brackets**

Brackets have a built-in arch for adjustment of the Panhard bar or third link angle without changing the length of the arm. Brackets are 1/8" thick. Sold as a pair.



ALL60163..... 6-Hole Brackets with 5/8" Holes

ALL60165..... 6-Hole Brackets with 3/4" Holes ALL60167..... 5-Hole Brackets with 3/4" Holes

Ford 9" Upper **Link Brackets**

Ford 9" housing brackets provide a mounting point for upper link. Weld-on brackets t standard steel Ford housings.



ALL60162 ALL60167

ALI 60163

ALI 60165

Leaf Spring Pad ALL56126

Steel pad welds to 3" diameter rear end axle tube when mounting rear end to most leaf springs. Pad is 2-1/2" W by 5-3/4" L and has a 5/8" center pilot hole. Sold each.

extreme torque. Constructed of 12 gauge (.108") steel.

36" L x 2" W. Additional trimming required to properly t

Leaf Spring Slider Box

ALL60034

ALL68330

housing.

Weld-on support

adds strength to

rear axle housing and

Replace rear leaf spring shackles with Allstar's leaf spring slider box. Bolt-in slider box with roller bearing design eliminates leaf spring binding, freeing up car. Fits 2-1/2" wide Chrysler type leaf springs.

Replacement Components ALL99055 Bushings, 2-Pack

Leaf Spring Slider Box

ALL60035

Replace rear leaf spring shackles with Allstar's leaf spring slider box. Bolt-in slider box with roller bearing design eliminates leaf spring binding, freeing up car. Fits 2-1/2" wide Chrysler type leaf springs.



ALL60160 1" Diameter Holes, Sold in Pairs ALL60166 3/4" Diameter Holes, Set of 2

Ford 9" Upper **Link Brackets**

ALL60157

Brackets are designed to weld to most Ford 9" style center sections. Steel brackets are 3/16" thick and provide multiple mounting locations for

90/10 shock, upper link, third link or pull bar. Sold as a set.

Upper Link Chassis Brackets

Weld-on brackets have curved 3/4" slots to maintain pinion angle as the 3rd link is raised or lowered. Both brackets are

notched for 1-3/4" round tubing and are 3/16" thick.

ALL60065

ALL60065 Short **ALL60066** Long

90/10 Shock Brackets

ALL60026

Brackets weld to the chassis to mount a shock between the chassis and the differential to control "unloading" during deceleration of hard braking. 1/8" thick

steel brackets t 1-1/2" diameter tubing and have four 1/2" holes, spaced 1" apart. One pair.



Jerrad Krick



Trailing Arm Brackets

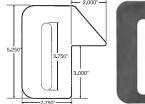
Steel brackets can be used as front mount for leaf spring or trailing arm. Assorted styles are available. Sold each.

ALL60043

5/8" slot, 3/16" thick, 3-3/4" long.

ALL60044

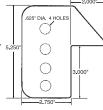
3/4" slot, 3/16" thick, 3-3/4" long.





ALL60045

5/8" holes, 1/8" thick.





ALL60046

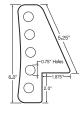
5/8" holes, 3/16" thick.





ALL60048

3/4" holes, 1/8" thick.





Trailing Arm Bracket ALL60042

Weld-on bracket has a curved 3/4" slot so rear end remains square as the trailing arm is raised or lowered. Notched for 2" x 3" square tubing. 1/4" thick.



Slider Boxes

Slider boxes weld to the chassis and provide an adjustable mount for trailing arms, Panhard bars and upper links. Boxes are constructed of .120" wall material and are 1-1/2" wide x 2-1/2" deep x 6" tall with a 4" slot that provides 3" of adjustment.

See Page 201 for Slider Box Accessories.





Metric Upper Trailing Arm Mounts

ALL60059

Mounts weld to the top of Ford 9" housing creating a mounting point for GM Metric chassis upper trailing arms. Bushings not included.





GM Metric Chassis Trailing Arm Bracket Kits

Bracket kits include rear upper and lower trailing arm mounts that accept O.E. style bushings (included) and 1/2" hardware. Upper mount must be cut into two pieces (LH/RH) and trimmed to desired height depending upon where housing is located in the chassis.



ALL60052 Kit with Single Hole Lower (Stock Location) **ALL99282** Lower Brackets Only, (Stock Hole Location)

ALL60053 Kit with Single Hole Lower, (1"Lowered) **ALL99283** Lower Brackets Only, (1" Lowered)

ALL60054 Kit with Multi-Hole Lower (Stock to 4" Lowered) **ALL99284** Lower Brackets Only, (Multi-Hole)

Universal Trailing Arm Brackets

Brackets have three 1/2" mounting holes spaced 1-1/4" apart and may be welded to 3" axle tubes to provide three trailing arm mount locations. ALL60058 is made of 3/16" steel and welds to the top of the rear end housing, providing a point of attachment for upper trailing arms.







ALL60050

ALL60050 Lower Bracket **ALL60051** Shock Bracket for Lower

ALL60058 Upper Bracket



Transmission Mount Bracket

ALL38072

May be welded to chassis to support manual or automatic transmissions. Steel bracket is 1/8" thick with 1" x 7/16" slots for mounting bolts.



Unwelded Driveshaft

Loop ALL69004

Made from 3/16" at steel, loop is 9-1/2" tall and 5-1/2" wide with a 16" wide mounting strap that can be cut and welded for each installation.



180° Driveshaft Loop ALL69002

Pre-bent 1" diameter x .083" wall mild steel tubing is designed for chassis style cars to help retain the driveshaft in the event of a U-joint failure. Loop is 10" tall overall and has a 5" I.D.



Fuel Cell Mounting Bracket ALL60063

Steel bracket is radiused to t 1-1/2" tubing and has (8) 3/8" holes on 1/2" centers. Bracket is .085" thick and 1-1/2" wide x 4-3/4" tall.



Fuel Cell Mounting Brackets

Steel brackets are .125" thick. 1-3/4" wide and available in three lengths. All have 3/8" holes.

ALL60060 2" Long ALL60061 3" Long ALL60062 4-3/4" Long



Fuel Cell Guard ALL22374



Guard adds protection to the fuel cell and acts as a lifting point for rear of vehicle. Universal kit is constructed of 1-3/4" x .095" wall, mild steel tubing. Parts are pre-cut and notched, ready to be welded together. Height is 8-3/4" and mounting width is 42".

Round Tank and Bottle Mount Brackets

Hinged aluminum bracket is uniquely designed to simplify tank installation and removal. Offered in a wide variety of sizes to fi many applications including NOS and re bottles. Bracket base measures 1/2" wide x 3-1/4" long and feature a at bottom with two 1/4"-20 threaded mounting holes spaced 2-1/2" apart. Use with our Chassis Brackets (ALL14450-14459) when mounting to round chassis tubing.

Size	Polished	Black
2.00"	ALL14408	ALL14409
4.00"	ALL14414	ALL14415
4.25"	ALL14418	ALL14419
4.375"	ALL14422	ALL14423
5.25"	ALL14430	ALL14431
6.90"	ALL14436	ALL14437



Neck Mount Brackets

Two-piece aluminum bottle mounting brackets are designed for 1.525" diameter necks. Bracket base measures 1/2" wide x 3-1/4" long and feature a at bottom with two 1/4"-20 threaded mounting holes spaced 2-1/2" apart. Use with our Chassis Brackets (ALL14450-14459) when mounting to round chassis tubing.

ALL14474 Polished Bracket ALL14475 Black Bracket



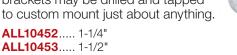
Aluminum 2-piece brackets are designed to clamp around chassis tubing and features two straight through mounting hole with 1/4"-20 hardware spaced 2-1/2" apart. Bracket base measures 1/2" wide x 3-1/4" long. Use with our Round Tank Brackets (ALL14408-ALL14437) and Neo Mount Brackets (ALL14474-ALL14475) o may be used to mount other items with threaded mount.

ed	
-	~
es	3
Э	
ck	
or a	6
а	1

Size	Polished	Black
1.00"	ALL14450	ALL14451
1.25"	ALL14452	ALL14453
1.50"	ALL14454	ALL14455
1.625"	ALL14456	ALL14457
1.725"	ALL14458	ALL14459

Universal Brackets

Universal 1/4" thick aluminum brackets may be drilled and tapped to custom mount just about anything.



ALL10453..... 1-1/2" ALL10454..... 1-3/4"



ALL10445..... Reducer Bushing 1-3/4" to 1-5/8"



Accessory Clamps

Aluminum two-piece clamps are ideal for mounting small parts and accessories or creating





ALI 10464

an adjustable clamp-on mount for supporting body or roof panels. Clamps are 1/2" wide and include two 1/4" button head fasteners.

		With 1/4"-20 Mount and a
Size	With 1/4"-20 Mount	1/4" Through Hole
1"	ALL10455	ALL10485
1-1/4"	ALL10456	ALL10486
1-3/8"	ALL10457	ALL10487
1-1/2"	ALL10458	ALL10488
1-5/8"	ALL10460	ALL10489
1-3/4"	ALL10459	ALL10490

Half Clamp Brackets

Unique brackets are a must when clamping completely around tubing isn't possible. Bracket clamps just over halfway around tubing and tightens to create a secure mount for many accessories.

3" bracket can clamp to rear end axle tubes to neatly secure braided lines. Brackets have 3/8" mounting holes.



Tube Clamps

2-piece tube clamp bolts to round tubing and provides a removable welding point for many uses. Clamps are constructed of 1/8" mild steel that is 2" wide. Includes two 3/8" grade 8 bolts with nyloc nuts.



Scale Buddy ALL13115

The Scale Buddy is a water- lled bladder that may be placed directly into the seat of the car to represent the weight of the driver when setting up and scaling your racecar. Bladder may be lled and emptied in the car using a standard garden hose and weighs up to 100 lbs. when lled.



Note: Designed for set-up purposes only, not designed to be used as ballast during racing.

Battery Box Ballast

ALL14208

Ballast weighs 25 lbs. and features a at pro le that is designed to t in a battery box or a location where a larger brick may not be an option. Ballast measures 9-1/2" x 6-3/4" x 1" tall.

Ballast

Add weight where it's needed. Sizes listed are approximate.

ALL14176 2.5 lbs. 3-1/2" Round x 3/4" Tall*

ALL14177 5 lbs. 3-1/2" Round x 1-3/8" Tall*

ALL14180 25 lbs. 4" x 8" x 2"

ALL14179 30 lbs. 2-1/2" x 2-1/2" x 12" **ALL14182** 40 lbs. 12" x 3-1/2" x 2-3/4"

*Pre-drilled with 1/2" Mounting Hole



ALL14177

Clamp-On 10-lb. Ballast ALL14205

Designed for safely adding weight to small tube chassis found on mini wedges, mini sprints or jr dragsters. Clamp-on design is formed of two halves which bolt together around 1" to 1-1/4" round tubing. Mounting hardware included.



Clamp-On 25-lb. Ballast ALL14181

Securely add weight where it's needed. Clamp-on design is formed of two halves which bolt together around 1" to 1-3/4" round tubing, allowing easy installation and removal. Bolts are included for use on tubing up to 1-5/8". When clamping to 1-3/4" tubing, longer bolts (not included) are required.



Ballast Brackets

Black anodized two-piece aluminum bracket clamps around tubing with included 5/16" fasteners and features a





1/2"-13 tapped hole on each side for mounting ballast. Mounting stud and nut sold separately.

	Recessed 5/16"	Exposed 5/16"
	Socket Head	Hex Head
Description	Fasteners	Fasteners
1" O.D. Round Tubing	ALL14178	ALL14192
1-1/4" O.D. Round Tubing	ALL14183	ALL14193
1-3/8" O.D. Round Tubing	ALL14184	ALL14194
1-1/2" O.D. Round Tubing	ALL14185	ALL14195
1-5/8" O.D. Round Tubing	ALL14186	ALL14196
1-3/4" O.D. Round Tubing	ALL14187	ALL14197
2" O.D. Round Tubing	ALL14188	_
2" x 2" Square Tubing	ALL14189	_

Threaded Stud and Lock Nut for Mounting Ballast ALL14190

1/2"-13 x 6" threaded rod is often used with clamp-on ballast brackets when mounting ballast or may be used to bolt ballast directly to frame or chassis.



Threaded rod may be cut to desired length and includes a nylon lock nut and at washer.



Oil Eater Degreaser

The cleaner/degreaser that really works! We can't say enough about this cleaner; it can be used as a pre-wash on greasy clothing, to clean engine components, transmission cases and engine compartments, and is even strong enough to clean the





shop and trailer oors! You won't be disappointed! Cleaner is non-toxic, non-corrosive and biodegradable so it is safe for the environment.

ALL78213..... 32 oz. Spray Bottle ALL78211 1 Gallon Container

Dirt Tire Soap

ALL78236

Clean your tires like the Pros! Simply mix with water and spray on your tires before washing them, and the mud almost falls off. Cleaner also works for pre-treating your chassis and body before cleaning to help loosen dirt and clay. 1-gallon container.



Ultrasonic Cleaning Solution ALL10644

Ready-to-use detergent based cleaning solution designed for use in most ultrasonic cleaning machines can be used full strength or diluted with water.



Novus Plastic Cleaner And Polish

Novus plastic polish will restore the nish of plastics. including polycarbonate windows and windshields. Offered in three formulas.

Cleaner 1 – ALL78201

Gently cleans all plastics without scratching. Leaves a lustrous shine that resists fogging, repels dust, and eliminates static. 8 oz. spray bottle.



Polish 2 - ALL78202

Removes ne scratches, haziness, and abrasions from most plastics. With repeated use, polish 2 will restore faded and discolored plastics. 8 oz. squeeze bottle.



Polish 3 – ALL78203

Removes heavy scratches and abrasions from most acrylic surfaces. Requires both #1 and #2 polishes for nal nishing. 8 oz. squeeze bottle.



Mud-X Cleaner ALL78232

Cleans and shines plastic, polycarbonate, chrome, berglass, paint, vinyl and leather and leaves an invisible coating that protects surfaces and repels dirt, dust, fin erprints, smudges and bugs. Spray it on and wipe it off. Excellent antifog coating for helmet shields. 14-oz. can.



Ground Shipment Only

Mud-X Concentrate ALL78230

Mix concentrate with up to ten quarts of water to produce a coating that prevents mud, dirt, oil, rubber, and exhaust residue from sticking to body panels. Safe for metal, plastic, rubber, and painted surfaces. One-quart container.



Pressurized Sprayers

Sprayers are great for applying bulk cleaners, degreasers, solvents, penetrating oils and other lubricants. Sprayer has a capacity of 32 ounces and includes a versatile nozzle adjustable from mist to a ne stream.





Spray directly on the body and underside of your car before entering the racetrack. Helps prevent dirt, oil and rubber from sticking to the frame and body panels. Use direct without water. Half-gallon container.



Towels

Soft, absorbent terry cloth towels can be used for



eral detailing. Shop towels belong in every tool box as well as in the shop, garage or trailer.

ALL12010 Red Shop Towels, 25-Pack ALL12011 White Shop Towels, 25-Pack ALL12012 White Terry Towels, 12-Pack



Dial-In Window Marker ALL78205

Easy on, easy off white marker works well on glass and plastic. 3-oz. bottle has a built-in felt applicator.



Castrol SRF Brake Fluid

ALL78115

Castrol SRF Brake Fluid has a wet boiling point of 518°F (270°C) which exceeds DOT 3 and 4 standards. Do not mix Castrol SRF and other brake uids, as this will reduce the bene ts of Castrol SRF. Sold in 33.8 oz. bottle.



AP Radi-CAL R2 Brake Fluid

ALL78108

Designed for extreme, high temperature racing conditions with a dry boiling point of 594°F and a wet boiling point of 383°F. Conforms to DOT 4 speci cations. Sold in 16.9-oz. bottle.



AP Radi-CAL R3 Brake Fluid

ALL78116

Developed for extreme, high temperature racing conditions with a typical dry boiling point of 617°F and a wet boiling point of 383°F. Conforms to DOT 4 speci cations. Sold in 16.9-oz. bottle.



Motul 600 Brake Fluid

ALL78117

100% synthetic brake uid has an extremely high boiling point, helping to prevent vapor lock and brake fade during hard use. Motul 600 exceeds DOT 3 and DOT 4 speci cations. Dry boiling point 594°F, wet boiling point 421°F. Sold in 16.9-oz. bottle.



Motul 660 Brake Fluid

ALL78118

100% synthetic brake uid is speci cally designed to resist extreme temperatures generated by racing carbon and ceramic brakes. Motul 660 exceeds DOT 3, DOT 4 and DOT 5.1 speci cations. Dry boiling point 617°F, wet boiling point 401°F. Sold in 16.9-oz. bottle.



Nitrile Gloves

Nitrile gloves protect against dirt and grime and help prevent oil and harsh chemicals from contacting the skin. Chemical resistant gloves work well for general purpose as



well as jobs that involve oil, fuel, brake uid and most cleaning chemicals such as brake and carb cleaners. Package of 100.

ALL12024..... Medium **ALL12025**..... Large **ALL12026**..... X-Large **ALL12027**..... XX-Large

Brake Bleeder Bottles

Contain the mess of bleeding brakes by capturing uid in this 16-oz. bottle with a 15" long hose which attaches to most bleeder screws. The removable cap has a built-in tting to secure the hose during storage to help prevent spills. Choose from a steel lanyard retainer that suspends the bottle from a chassis or suspension component, or a magnet



retainer to secure the bottle to a steel object such as a brake drum or rotor during bleeding. ALL11017 has a magnet retainer and a built-in one way check valve for one person brake bleeding.

ALL11019 Bottle with Lanyard ALL11018 Bottle with Magnet

ALL11017 Bottle with Magnet and Check Valve

ALL99435 Replacement Hose

Shop Towels ALL12006

Shop towels are much heavier than standard paper towels and work great for numerous tasks around the shop or track. Rolls contain 60 individually perforated 11" x 9-1/2" disposable sheets.



Cleaning Wipes

Disposable wipes are great for cleaning hands when washing is not an option. Perfect for use after fueling vehicles, making roadside repairs or even as a preclean to remove stubborn grease. Durable textured wipes are pre-moistened, citrus scented and enriched with aloe and vitamin E to deep clean and promote soft skin. Resealable package prevents product from drying out.



ALL12016 30 Ct. Pop-Up Dispenser ALL12017 60 Ct. Pop-Up Dispenser

Multi-Purpose Absorbent ALL12035

Organic material is a dust free alternative when cleaning up spills. Sprinkle product on spills and sweep up. 5-lb. resealable bag.





Competitive Edge Tire Conditioner

Ground Shipment Only

Ground

Chemically treats and softens race tires to increase traction without making tires greasy. Apply race day or night before on new or old tires, can be used on the inside or outside. One gallon container treats 4 to 6 tires.



ALL78105...... Single **ALL78105-4**..... 4-Pack

Fuel Fragrances

Fuel fragrances can be added to most types of fuels including methanol, nitromethane, gasoline and also may be used in 2-cycle mixtures.

Available in many scents in a resealable 4-oz. bottle—enough to treat 30-55 gallons of alcohol or 20 gallons of



Ground Shipment Only

30-55 gallons of alcohol or 20 gallons of gasoline. Mixes clear with fuel. **ALL78123**..... Cinnamon **ALL78132** C **ALL78133** ... R

ALL78123 Cinnamon
ALL78124 Cherry
ALL78125 Blueberry
ALL78126 Grape
ALL78127 Banana
ALL78128 Fruit Punch
ALL78129 Pina Colada
ALL78130 Root Beer
ALL78131 Bubble Gum

ALL78132 ... Cotton Candy ALL78133 ... Raspberry ALL78134 ... Tangerine ALL78135 ... Reefer Madness ALL78136 ... Vanilla ALL78137 ... Green Apple ALL78138 ... Strawberry ALL78139 ... Watermelon



Increase tire life by 20% over other softeners and reduce lap times by 2-3 tenths. Hot Lap relies on a special formula and will provide instant results. Formulated to pass tire "sniffer" tests.

ALL78101 One-Gallon Hot Lap, Quick for 200 Laps ALL78107 One-Pint Hot Lap

Upper Lube Fuel Additive

Ground Shipment Only

Upper Lube is a high-temperature cylinder lube that protects and extends engine life. Added directly to the fuel, Upper Lube reduces fuel wash down, chalky residue and corrosion, while lubricating



cylinders, valves, guides, and fuel system components. It mixes completely, won't separate from fuel, leaves no varnish residue and does not contain a ame agent. One 16-oz. bottle treats 55 gallons of alcohol, 150 gallons of gasoline, or 110 gallons of ethanol.

ALL78100..... Upper Lube

ALL78120..... Upper Lube with Cherry Fragrance **ALL78122**..... Upper Lube with Grape Fragrance

Track Claw Tire Strengthener

Ground Shipment Only

Strengthens the rubber and will work on all tires. Undetectable. Reduces lap times 0.2 to 0.3 seconds. One gallon container.

ALL78110 180°-220°F Tire Temps **ALL78111** Up to 150°F Tire Temps

Tire Wrap

Tires lose solvents and moisture over time but keeping them covered helps prevent tires from drying out. Wrap



also helps contain or reduce the amount of chemicals used during "soaking" by minimizing evaporation. Wrap is 18"W x 1500'L.

ALL44221 Black **ALL44224** Clear

Fogging Oil ALL78220

Ground Shipment Only

Spray aerosol lubricant (with special additives) into the intake and spark plug holes to coat and lubricate the cylinders, valves and valve seats. Prevents horsepower-robbing corrosion and eliminates scuffin at start-up after periods of storage. May be used in all 2- or 4-cycle carbureted or fuel injected gasoline engines in cars, trucks, motorhomes, ATV's, etc. Sold in a 12-oz. can.



Apron ALL99962

Black cloth apron has pockets to keep tools close at hand.
Reverse apron to place pockets on the inside when grinding tires.
Adjustable strap allows one size to t all.



Extreme Pressure Lube

ALL78246

Originally used throughout the tool and die industry,

this lube provides superior durability and wear protection taking the place of anti-seize in many applications. Recommended for spline-to-spline contact, threaded adjusters, and engine fasteners. 4-oz. tube.





Aluminum Radiators

Aluminum radiators are fully welded units designed to hold up to the stresses of most motorsports and street use applications. Radiators feature two rows of 1" wide tubes that are furnace brazed to the tanks and a fully welded billet aluminum ller neck with a removable over ow ting. All radiators feature a slightly raised and inward angled 1-3/4" beaded lower outlet for applications that require the radiator to be mounted lower in the chassis. Sizes listed are overall dimensions, core widths are approximately 5" less than overall width. Radiator caps rated at 28lbs or less are recommended for all aluminum radiators.

Single Pass Radiators

Our most popular radiator, this design allows coolant to enter the top inlet and ow from one side of the radiator

to the other and exit the opposite side. These radiators feature beaded standard hose ttings for push-on style radiator hoses, 1-1/2" upper inlet and 1-3/4" lower outlet.

ii ii c t ai iu	1-5/4 10Wei Ouliel.
Part No:	Overall Dimensions
GM	
ALL30010	19" x 22"
ALL30011	19" x 24"
ALL30012	19" x 26"
ALL30014	19" x 28"
ALL30016	19" x 31"
ALL30042	16" x 28"
Ford	
ALL30020	19" x 22"
ALL30021	19" x 24"
ALL30022	19" x 26"
ALL30024	19" x 28"
ALL30026	19" x 31"
ALL30043	16" x 28"





Dual Pass Radiators

Dual pass radiators are basi-

cally two radiators in one, coolant enters through the inlet and passes through the top half of the radiator and then passes back through the lower portion of the radiator. These radiators feature a universal 1-5/8"-12 ORB tting

inlet design that allows for multiple inlet titing options (sold separately). The lower outlet is a fully welded 1-3/4" standard hose titing for push-on style radiator hoses.

adiator rioses.		
Part No:	Overall Dimensions	
ALL30033	19" x 24"	
ALL30035	19" x 26"	
ALL30036	19" x 28"	
ALL30037	19" x 31"	



Dual Pass Radiators with 1/4" NPT Bung

This radiator offers the same bene ts as our standard dual pass radiator but also features a 1/4" NPT bung in

LH tank which is commonly used as an accessory port for installing an electric cooling fan switch or a coolant pressure switch.

Part No:	Overall Dimensions
ALL30333	19" x 24"
ALL30335	19" x 26"
ALL30336	19" x 28"
ALL30337	19" x 31"



Triple Pass Radiators

Triple pass radiators circulate coolant across the top portion of the radiator, back across the mid-section and through the bottom allowing maximum heat dissipation. This style radiator requires a high ow water pump to be most effective. These radia-



tors feature a universal 1-5/8"-12 ORB tting inlet design that allows for multiple inlet tting options (sold separately). The lower outlet is a fully welded 1-3/4" standard hose tting for push-on style radiator hoses.

Part No:	Overall Dimensions
ALL30045	19" x 24"
ALL30046	19" x 26"
ALL30047	19" x 28"
ALL30048	19" x 31"

Radiator Inlet Fittings

Inlet tings thread into Allstar dual and triple pass radiators offering different connection options for one radiator.

Aluminum titings have a o-ring seal and a built-in hex with a 1-5/8" -12 thread.

ALL30038 1-1/2" Hose Fitting **ALL30041** 1-3/4" Hose Fitting* **ALL30039** -16AN Fitting **ALL30040** -20AN Fitting

*Use with lower radiator hose as an upper hose



Lightweight Dual Pass Single Row Aluminum Radiators

Dual pass radiators feature an all-aluminum construction including a 1-1/2" wide single row core that is furnace brazed, a fully welded billet fil er neck with a removable over ow tting, 1/4" NPT bung for an accessory port and fi ished with a heat-resistant black



coating. These radiators feature a universal 1-5/8"-12 ORB tting inlet design that allows for multiple inlet t-ting options (sold separately). The lower outlet is a fully welded 1-3/4" standard hose tting for push-on style radiator hoses.

Part No:	Overall Dimensions
ALL30343	19" x 24"
ALL30345	19" x 26"
ALL30346	19" x 28"
ALL30347	19" x 31"

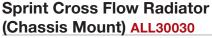


Asphalt Late Model Radiator ALL30044

Aluminum dual pass radiator measures 16" x 28" overall featuring two rows of 15/16" tubes, a core width of 2-1/4" and an overall tank width of 2-3/4". The outlet is designed for a standard 1-3/4" hose connection and welded 90 degrees to the tank not angled upward. The inlet is a universal design to accept ttings for 1-1/2" standard hose, 1-3/4" hose, -16AN, or -20AN fi tings (sold separately). Radiator is designed for use with a surge tank, so it does not have a ller neck. A 1/4" petcock located near the top on the driver's side to release possible trapped air in the system when lling.

Sprint Radiator ALL30028

Aluminum radiator with furnace brazed tanks provides superior cooling in sprint applications. Features machined ller neck, 1-1/2" RH bottom outlet and (4) female top outlet ports for use with -10AN O-ring ttings. Radiator uses a smaller diameter cap (not included) such as ALL30124 or ALL30125. 20" wide x 22" tall x 2" wide. 9.7 lbs.



Aluminum radiator with a unique black thermal coating provides superior cooling! Built-in mounting brackets enable the radiator to be quick-turn fastened directly to frame tabs. Radiator with -10AN O-ring inlets and 1-1/2" outlet is 20-1/2" wide x 18-1/2" tall (including outlet neck) x 2-3/8" thick core. Recommended radiator cap is ALL30126 (28-32 lbs.) sold separately. Approximate weight 8.5 lbs.

Upper Mount Kit for Two Row Radiators ALL30121

Channel rests on top of the core and two at aluminum straps may be bolted or welded to

the channel. Hook the steel springs into provided hole and connect to a lower chassis location.

Related Components:

ALL30123 Channel for Two Row Radiators **ALL30153** ... Channel for Single Row Radiators

Upper Radiator Support Bracket

ALL30120

Universal upper support bracket is preformed to t over the top of most radiator cores (up to 2-1/2" thick) to keep radiator secured in saddle style lower mounts. Steel bracket is .085" thick and has a 3/16" hole for riveting or bolting in place.

Radiator Honeycomb

ALL30158

Honeycomb screen mounts to front of radiator to protect ns/core from rocks and debris. Secure directly to radiator using ALL30085 mounting kit, sold separately. 19" x 26" x 1/2" thick.



Mounting kits are commonly used to mount electric fans, oil coolers, transmission coolers or honeycomb screen directly to a radiator. Kits include four 8" nylon mounting bolts with washers, rubber spacer blocks and retaining nuts. Bolts are pressed through the ns of the radiator to

mount accessory.

Radiator Shaker Screen ALL30160

Commonly used on Dirt Late
Models, universal shaker screen
is mounted in front of the radiator on most dirt
cars. Unit includes black powder-coated aluminum
frame, screen, 1/2" x 32" cross rod, springs and retaining
clips. Frame dimensions are 17" tall and 25" wide.

Sprint Car Radiator Rock Screen ALL30163

Aluminum rock screen helps to protect radiators from heavy rocks and mud. Mounting tabs are integrated into the frame for quick and easy installation to the front air box. Measures 20-1/2" wide x 12" tall and



weighs just under 1 lb. Quick turn springs are included.

Stainless Wire Screen

Use screen to protect radiators, oil coolers or other items. Size referenced is the approximate opening of the screen.



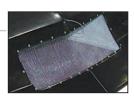
1/8" (.035" Wire Diameter) ALL22265 12" x 36"

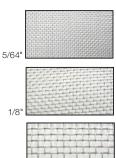
ALL22267 36" × 36" **ALL22268** 36" × 48"

ALL22262 36" x 36"

3/16" (.047" Wire Diameter)

ALL22270 12" x 36" ALL22272 36" x 36" ALL22273 36" x 48"







1955-56 Chevy Aluminum Radiator ALL30005

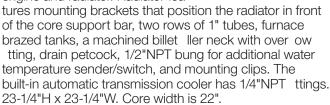
A direct replacement for all 1955-56 Chevy passenger cars with six cylinder engines, also ideal for 1955-57 Chevy V8's with long style water pumps. Radiator has mounting brackets that position it in front of the core support bar, two rows of 1" tubes, furnace brazed tanks, a



machined billet ller neck with over ow tting, drain petcock, 1/2"NPT bung for additional temperature sender/ switch and mounting clips. The built-in automatic transmission cooler has 1/4"NPT ttings. 23-1/4"H x 23-1/4"W. Core width is 22".

1957 Chevy Aluminum **Radiator ALL30007**

A direct replacement for all 1957 Chevy passenger cars with sixcylinder engines, also ideal for V8's with long style water pumps that require additional space between engine and radiator. Radiator fea-



1955-57 Chevy Aluminum Radiator

ALL30006

A direct replacement radiator for all 1955-57 Chevy passenger cars with a V8 engine using a short style water pump. Radiator has mounting brackets that position it behind the core support bar, two rows of 1" tubes, furnace brazed tanks, a machined billet ller neck with over ow tting, drain petcock, 1/2"NPT bung for additional



temperature sender/switch, and mounting clips. The builtin automatic transmission cooler has 1/4"NPT ttings. 23"H x 24-1/2"W. Core width is 22".

Radiator Fin Tool Kit





ns in most radiators, coolers, and air conditioning condensers. Repairing damaged in sprovides better air ow through core, increasing cooling ability. Six interchangeable heads in 13, 15, 16, 17, 18, and 20 fi s per inch.

Direct-Fit Radiators

Aluminum direct- t radiators provide increased cooling over original copper radiator. Designed for performance vehicles, features include machined billet aluminum ller necks, fully welded construction and two rows



of large 1" tubes properly spaced for maximum air ow and cooling on the street, even at lower speeds. Built-in automatic transmission coolers. O.E. fan shrouds may require modi cation for installation.

ALL30300 1967-69 GM F-Body (Camaro and Firebird) PS Outlet, DS Inlet, 31"W x 19-1/2"H Overall, 23"W x 18"H Core

ALL30301 1970-81 GM F-Body (Camaro and Firebird) PS Outlet, DS Inlet, 26"W x 19-1/2"H Overall, 20-1/2"W x 18"H Core

ALL30302 1982-92 GM F-Body (Camaro and Firebird) PS Outlet, DS Inlet, 30"W x 19-1/2"H Overall, 24-1/2"W x 18"H Core

ALL30304 1968-77 GM A-Body (Chevelle, Cutlass, LeMans)

PS Outlet, DS Inlet, 34"W x 19-1/2"H Overall, 28-1/2"W x 18"H Core

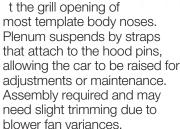
ALL30306 1966-80 Mopar DS Outlet, PS Inlet, 29"W x 19-1/2"H Overall, 22-1/2"W x 18"H Core

ALL30308 1964-66 Mustang PS Outlet, PS Inlet, 19-3/4"W x 21"H Overall, 18"W x 16"H Core

ALL30310 **1979-93 Mustang** DS Outlet, PS Inlet, 29-3/4"W x 19-1/2"H Overall, 24-1/2"W x 18"H Core

Blower Fan Cool Box ALL30001

Help cool down engine between practice sessions or races. Outside plenum works with Allstar's ALL30002 blower fan, creating a forced air cooling system designed to







Blower Fan ALL30002

Compact, plastic blower moves up to 300 CFM of air. The quiet electric blower has three speeds and can be adjusted to move cooling air wherever it's needed, up to 30 ft. away. Weighs just 8 lbs. with two built-in receptacles and a 12' long power cord.





Radiator Caps

Radiator caps are an often-overlooked component of the cooling system that should be checked and replaced often. Higher cooling system pressure raises the boiling point of coolant to help reduce the risk of overheating. Caps allow coolant to exit the cooling system into an over ow or recovery bottle as coolant heats and expands. Recovery style caps work when the over ow hose is properly connected to the recovery bottle, as the system cools, coolant from the recovery bottle will be drawn back into the radiator to keep the cooling system full. Standard diameter caps t 2-1/8" O.D. x 3/4" deep necks, and small diameter caps t 1-5/8" O.D. x 5/8" deep necks (dimensions are approximate).

Part No.	Pressure
Standard Di	iameter Caps (2-1/8")
ALL30132	14-18 PSI
ALL30133	14-18 PSI w/ Lever
ALL30134	18-22 PSI
ALL30130	18-22 PSI w/ Lever
ALL30136	20-24 PSI
ALL30131	20-24 PSI w/ Lever
ALL30129	28-32 PSI
Small Diam	eter Caps (1-5/8")
ALL30124	14-18 PSI
ALL30125	18-22 PSI
ALL30126	28-32 PSI



ALI 30129



*Warning: High-pressure radiator caps are made for use on race vehicles only. Do not use these caps on passenger vehicle cars with stock type radiators. It is recommended to pressure test the complete cooling system to the maximum level of pressure indicated on the cap. Failure to test cooling system to the proper pressure prior to installing the cap may result in damage to the cooling system and/or bodily injury.

Billet Aluminum Radiator Cap ALL30139

Polished billet aluminum cover is permanently pressed onto a 16-lb. recovery style radiator cap for enhanced appearance within any engine compartment. Cap is a suitable choice for most street driven vehicles.

Radiator Tank Heating Pad ALL76420



Fasten pad directly to the side of radiator tank to help add heat to your engine on cool nights. 2" x 15" high temperature silicone heating pad externally pre-heats coolant in the radiator and reduces overall warm up time. These are not thermostatically controlled, units will continue to heat as long as they are plugged in.

Note: Additional pads are located in the Engine section for oil pan and oil tank applications to add additional heat to the engine before start-up.

Electric Fan Shrouds

Aluminum shrouds are designed to work with electric fans mounted as a puller behind the radiator. Special air release aps allow additional air ow to pass through the core and shroud as the vehicle is moving, and close to allow fan to draw air through the core of the radiator at rest. Dimensions are overall including a 1/2" top and bottom mounting ange and all pans are 1" deep.



ALI 30062



Fan Sold Separately

ALL30060 16-3/4" x 18-3/4" Single 16" Fan **ALL30061** 18-3/4" x 18-3/4" Single 16" Fan **ALL30062** 20-3/4" x 18-3/4" Single 16" Fan **ALL30063** 25-3/4" x 18-3/4" Single 16" Fan **ALL30064** 25-3/4" x 18-3/4" Dual 12" Fans

Curved Blade Electric Fans

Electric fans require very little amperage and are suitable for use in race car or tow vehicle. Fans are set up as "puller" units, mounted behind the radiator. By ipping blades, reversing wires, and mounting in front of radiator, fans will operate in "pusher" con guration. Each unit includes a mounting kit.



ALL30074

ALL30070 10", 775 CFM **ALL30072** 12", 925 CFM **ALL30074** 14", 1530 CFM **ALL30076** 16", 1980 CFM

ALL30085 Replacement Mounting Kit



Kody Swanson



Fan Shrouds

Allows fan to pull more air through the radiator for increased cooling. Aluminum and impact-resistant plastic shrouds t fans up to 17" diameter. Radiator size reference is based on outside tank dimension.



Part No.	Radiator Size*	Shroud Width	Shroud Depth	Max Fan Dia.
Fits Allstar Ra	diators			
ALL30107	22"	17-3/8"	9-3/4"	15"
ALL30112	24"	19"	9-3/4"	15"
ALL30109	26"	20-3/4"	9-3/4"	17"
ALL30110	28"	23"	9-3/4"	17"
ALL30115	31"	25-3/4"	9-3/4"	17"
Fits Grif n Ra	diators			
ALL30106	26"	21-1/8"	11"	17"
ALL30108	28"	23"	11"	17"
ALL30111	31"	26-1/4"	11"	17"
Fits Howe Radiators				
ALL30114	26"	22-1/2"	11"	17"
ALL30116	28"	24"	11"	17"
ALL30111	31"	26-1/4"	11"	17"

^{*}Radiator size reference is based on outside tank dimension.

Molded Nylon Fans

Lightweight 6-blade fans are economical and very durable. Universal bolt pattern with a 5/8" pilot hole.





Plate installs beneath the mounting hardware to strengthen fan mounting location and prevent hardware from damaging the fan.

6-Blade Fans

Heavy-duty, 27° 6-blade fans, available with aluminum or steel blades, can move the volume of air needed to keep race engines cool. Universal bolt pattern with a 5/8" pilot hole.

ALL30096 15" Dia. Aluminum Blades ALL30097 17" Dia. Aluminum Blades ALL30102 15" Dia. Steel Blades ALL30103 17" Dia. Steel Blades ALL30100 18" Dia. Steel Blades







GM Style 4-Blade Steel Fan

ALL30099

Steel 4-blade fan is a direct replacement for the popular GM 4-blade fan. Fan features a 60° blade design, a universal bolt pattern with a 5/8" pilot hole and weighs approximately 3 lbs. Small

diameter at washers included for proper installation.

Tech Tip:

This 4-blade fan was originally designed for use in O.E. production vehicles. When this fan is used in high-performance applications it is recommended that fan and mounting fasteners be inspected as a part of regular vehicle maintenance.

4-Blade Steel Fans

Steel high RPM fans are available in 15", 18", or 19". All have a universal bolt pattern with a 5/8" pilot hole. Riveted reinforcement plate adds strength and high-pitch 32° blades increase airfl w. Painted black to resist corrosion.



Fan Spacer Kits

Fan spacers position fan closer to radiator or fan shroud and away from pulleys. 1-1/2" and larger spacers are uniquely designed allowing spacer to remain bolted to water pump while changing fans. Aluminum spacers include 3/4" to 5/8" water pump shaft reducer bushing, four Allen bolts to secure spacer to water pump and four hex bolts with washers to secure fan to spacer. Spacers work with 1-3/4" bolt circle



*Includes one set of four bolts for fan and spacer installation.

Replacement Component:

ALL99026......Reducer Bushing (3/4" to 5/8") 1/4" Long (ALL30180 only) **ALL99027......**Reducer Bushing (3/4" to 5/8") 1/2" Long







Aluminum SB Chevy "Short Style"

Water Pump ALL31100

Popular "short style" water pump that was originally used on pre-1969 small block Chevrolets. Pumps are built using all new components and an aluminum body for added weight savings



over original cast iron pumps. Pump features a 3/4" main shaft and bearings with a 5/8" pilot and a billet steel hub drilled for both small and large fan bolt patterns, making this a good choice for street and mild performance vehicles. Block mount to fan hub dimension is 5-5/8". This pump is not recommended for use with mechanical fans over 5,000 RPM. Above this RPM, use the ALL31105 pump with a 3/4" shaft/bearing. Note: Water pump may need to be clearanced for use with 8" dampers.

Aluminum SB Chevy "Corvette Style" Water Pumps

This aluminum version of "Corvette style" water pump was originally used on 1971-82 small block Chevrolet Corvette, but is now used throughout the motorsports industry. Pump is built using all new components and an aluminum body for added weight savings over original cast iron pumps. Pump features a 3/4" main shaft and bearings with a 3/4" pilot and a billet steel hub that has a set screw retainer for



use on higher RPM applications. Block mount to fan hub dimension is 5-13/16".

ALL31105..... Water Pump

ALL31106..... Water Pump with 3/8"NPT Bypass Ports and Cam Stop Hardware

Note: Water pumps may need to be clearanced for use with 8" dampers.

Water Pump Cam Stop Kit ALL99415

Water pump cam stop kit includes a

2" long 3/8"-24 threaded stud, washer and nut to replace or add a cam stop bolt to a water pump equipped with a stud mounting boss. Stud can be tightened against timing cover when cam buttons are used to help prevent "cam walk".

SB Chevy Water Pump Spacer Kits

Kits provide additional clearance needed for belt or gear drive timing systems. Gaskets are included.





LS Electric Water Pump

ALL31122

- Fits LS Gen III/IV
- Black **Anodized Finish**
- Machined from 6061 T6 Billet Aluminum
- High- ow electric motor perfect for race applications
- F-Body inlet/outlet location

Pair with our Allstar inline thermostat housing if a thermostat is required! (ALL31160)

GM LS Coolant Bypass/Crossover Plugs

ALL31170

Plugs provide a location to bleed air from cooling system of most GM LS engines. Replace factory original plugs or use in place of factory crossover steam tubes. Kit includes two plugs with O-rings.



Pulley Shim Kits

Use shim kits to properly align pulleys. Water pump shims have dual bolt hole pattern to t most GM and Ford water pumps. Crank pulley spacers are for small block Chevys.



ALL31064 Water Pump, 1/16", 1/16", 1/8" (3 Shims) **ALL31066** Crankshaft, 1/16", 5/64", 1/8" (3 Shims)

Aluminum SB Chevy Reduction Pulleys

Speci cally for short or Corvette water pumps, pulleys work with power steering pump and pulley to provide a ratio within the GM speci ed RPM range. Race engine RPM differs greatly from street engines.





ALL31040 ALL31030

For 30% less water pump speed and reduced weight and inertia, the crankshaft and water pump pulleys are smaller in diameter than standard reduction pulleys. Acceleration capabilities are greatly enhanced.

ALL31030.. Crankshaft Pulley (4-3/4" Diameter)

ALL31040.. Water Pump Pulley, Short Pump with 5/8" Pilot Hole (6-5/8" Dia.)

ALL31050...Water Pump Pulley, Corvette Pump with 3/4" Pilot Hole (6-5/8" Dia.)

ALL86120.. Belt, Crank to Water Pump, 31.5"

ALL86122.. Belt, Crank/Water Pump/Block Mount P/S Pump, 39" ALL86124.. Belt, Crank/Water Pump/Head Mount P/S Pump, 42"

Note: Crankshaft pulley will work with either water pump pulley without spacers.



SB Chevy 1:1 Ratio Pulley Kits

Double groove aluminum pulley kits feature 6-5/8" diameter pulleys and include common 15/32"
V-belts to work with



block or head-mounted Allstar power steering kits. Pulley kits are designed to work with short style water pumps with a 5/8" shaft that measure 5-5/8" from block mount to hub face. Components also sold separately.

ALL31080 Kit for Block Mount Power Steering Pump ALL31082.... Kit for Head Mount Power Steering Pump ALL31083 Kit for No Power Steering

Individual Components

ALL31084 1:1 Crank Pulley (6-5/8") **ALL31085** 1:1 Water Pump Pulley (6-5/8") **ALL86121**..... Belt, Crank to Water Pump, 34"

ALL86123 Belt, Crank/Water Pump/Block Mount P/S Pump, 41"
ALL86125 Belt, Crank/Water Pump/Head Mount P/S Pump, 44"

V-Belts

Premium quality V-belts are perfect replacements for worn or cracked belts.

ALL86120 31.5" ALL86121 34" ALL86122 39" ALL86123 41" ALL86124 42" ALL86125 44"



SB Chevy Premium Reduction Pulley Kits

Premium reduction pulley kit features a 4-3/4" diameter crankshaft pulley and a 5-1/8" water pump pulley with 1/2" wide grooves for use with industrial grade belts. The increased belt width helps reduce belt slippage when used with high performance mechanical fans. The small diameter pulley combina-



ALL31090

tion provides less than 10% RPM reduction in fan speed while providing a 30% RPM reduction when using a power steering pump with a 6" pulley

Note: Pulleys are designed to use with short "Corvette Style" 3/4" shaft water pump (ALL31105 or ALL31106).

ALL31090 Kit for Block Mount Power Steering Pump **ALL31092**.... Kit for Head Mount Power Steering Pump **ALL31093**.... Kit for No Power Steering

Individual Components

ALL31094 Crank Pulley (4-3/4")
ALL31095..... Water Pump Pulley 5-1/8"
ALL86127 29" Performance V-Belt*
ALL86128 ... 37" Performance V-Belt*
ALL86129 ... 41" Performance V-Belt*

*These will not work with standard width pulleys that are designed for 7/16" wide V-belts

Crank Pulley Mandrel Kit

ALL31031

Kit prevents mandrel bolt breakage and is made speci cally for use with Allstar ALL31030 crank pulley. Mandrel is attached to the



crankshaft pulley with three bolts, while the vibration damper is retained with the stock bolt. The mandrel bolt is then connected to the mandrel – not to the crankshaft – to reduce engine harmonics (helps prevent loosening or breaking). Kit includes spacers, pulley guides, and bolts to work effectively with most 3-, 4-, and 5-stage dry sump pumps, alone or with belt-driven fuel pumps. Pulleys sold separately.

Mandrel Spacers

Aluminum spacers properly space and align pulleys when used with a 1/8" keyed mandrel. The same spacers are found in the ALL31031 Mandrel Kit. Sold each.



Gilmer Belts

1" wide, assorted lengths.

ALL86130 21.0" ALL86132.....22.5" ALL8613424.0" ALL86136 25.5" ALL86138 27.0"



TECH TIP

Belt Tension - Gilmer style belts are properly tensioned when belt can be twisted $1/2\ \mathrm{turn}.$

Remote Mount Electric Water Pump ALL31120

Compact water pump will ow up to 25 GPM which is perfect for intercoolers, dragsters or compact engines. Pump can be used on 12-16 volt systems and only draws 8 amps. Electric motor is sealed to help prevent damage or corrosion and 6061-T6 billet aluminum housing is black hard coat anodized with threaded mounting holes for easy mounting. Accepts -12AN ORB ttings, complete unit weighs only 5 lbs.





Inline Electric Water Pump ALL31130

Inline water pump will ow up to 50 GPM, which is suitable for many applications throughout the motorsports industry. Pumps are designed to provide better cooling and space savings over most mechanical pumps. Pump can be used on 12-16 volt systems and only draws 6 amps. Electric motor is sealed to help prevent damage or corrosion and billet 6061-T6 aluminum housing is black hard coat anodized with threaded mounting holes for easy mounting. Use with Allstar ALL31135-31140 adapter fi tings. Complete unit weighs 6 lbs. Wire harness with 20-amp inline fuse included.

ALL31135..... 1-1/4" Hose Fitting ALL31136..... 1-1/2" Hose Fitting ALL31137..... 1-3/4" Hose Fitting ALL31138.....-12AN Fitting ALL31139.....-16AN Fitting ALL31140.....-20AN Fitting

Y-Block Adapter ALL31159

Billet aluminum Y-block is commonly used when connecting inline or remote electric water pumps to AN block adapters. 1-1/4"-12 inlet port accepts Allstar ALL31135-31140 O-ring style tings for direct hose or AN style connections. Outlet ports accept standard -12AN ORB tings to connect to block adapters.

Water Pump AN Block Adapters

Adapters mount in place of standard mechanical water pumps when using inline or remote electric water pumps. Ford pump adapters require water pump back plates for complete installation.

ALL31150 SB Chevy -12AN **ALL31151** BB Chevy -12AN **ALL31152** SB Ford -12AN

ALL31153..... SB Ford Water Pump Back Plate (Early) **ALL31154**..... SB Ford Water Pump Back Plate (Late)

Inline Thermostat Housing ALL31160

Black anodized aluminum inline thermostat housing ts GM-style thermostats. Use with 1.5" hose size.

Billet Water Neck Spacer

ALL30375

Billet aluminum spacer ts between intake manifold and water neck, providing connection options for temperature senders or additional water lines. 1" tall spacer fi s most Chevrolet V8's. Includes four 1/2"NPT ports with plugs and an O-ring seal on one side, eliminating the need for a gasket.

Water Necks

Aluminum water necks t most Chevrolet V8's. Two-piece design necks swivel 360° to accommodate LH and RH radiator inlets. An O-ring seal and two chrome-plated socket head cap screws are included.

		Black Powder
	Polished	Coated
90° Neck	ALL30170	ALL30270
75° Neck	ALL30173	ALL30273
45° Neck	ALL30171	ALL30271
Straight Neck	ALL30172*	ALL30272



One-Piece Fixed Neck

Billet Aluminum Swivel Water Necks

Billet aluminum water necks t most Chevrolet V8's, accept most standard thermostats and swivel a full 360° to simplify connection of LH or RH radiator hoses to engine. Black anodized nish helps protect against corrosion.



Stainless steel hardware and an O-ring for sealing the base of the water neck to engine are included.

ALL30370 1-1/2" ALL30371 1-3/4" ALL30372 -16AN ALL30373 -20AN

O-Ring Water Necks NEW

Aluminum O-ring water neck bolts to SB Chevy intake. Black in color.

ALL30376 -16AN **ALL30377** ... -20AN



Low Pro le Water Necks

Aluminum Chevrolet V-8 style water neck sits only 1.75" above the intake ange and features a front exiting tting. Black anodized nish helps protect against corrosion. Stainless steel hard-



ware and an O-ring for sealing the base of the water neck to engine are included.

ALL 30380 ... -16 AN Kit **ALL 30381** ... -20 AN Kit **ALL 30382** ... Housing only

SB Ford Chrome-Plated Water Neck ALL30174

Cast aluminum 45° water neck ts small block Ford. Includes an O-ring for sealing the base ange and two hex-head bolts.





Water Outlet Restrictor Kit

ALL30241

Restrictor replaces the thermostat to control the ow of water through the cooling system. Kit contains three 2-1/8"
O.D. aluminum restrictors with 5/8", 3/4", and a 1" center I.D. hole that t most GM V8 or V6 and SB Ford water outlets.

Aluminum Radiator Hose Restrictor ALL30242

Lower radiator hose restrictor helps keep the water in your radiator longer to improve cooling. Machined aluminum restrictor has a 5/8" I.D. and will tinto most 1-3/4" radiator outlets or radiator hose.



Upper hose kit eliminates the concern of the upper hose collapsing and ts a variety of radiator widths. 1-1/2" hose kit includes a 90° steel tube and two silicone hoses.

Radiator Hose I.D. Reducer ALL30240

Rubber reducer allows a lower radiator hose with a molded-in spring to be used as an upper radiator hose. In continuous high RPM applications, the upper hose can collapse limiting coolant fl w. Upper hoses with an internal spring support can also collapse if the spring is drawn into the radiator tank. Reducer ts inside 1-3/4" lower radiator hoses which have molded-in reinforcement springs and reduces the I.D. from 1-3/4" to 1-1/2".

Billet Aluminum Hose Clamps

Billet aluminum clamps provide a lightweight nished look for securing popular standard and silicone style radiator hoses.



ALL18326.... Clamp for 1-1/2" I.D. Hose **ALL18327....** Clamp for 1-3/4" I.D. Hose

T-Bolt Band Clamps

Stainless steel constructed band clamps provide a better sealing option over traditional hose clamps in performance applications. Clamps feature a 3/4" wide band and are sold in pairs.



ALL18345..... Clamp for 1-1/2" I.D. Hose **ALL18347**..... Clamp for 1-3/4" I.D. Hose

See page 105 for additional sizes.

Radiator Hoses

Two-ply coolant hose is exible and adapts to a variety of applications. Abrasion-resistant cover will not crack or harden.

1-1/2" I.D. Upper Hose

ALL30200 ... 12" ALL30202 ... 14" ALL30204 ... 15-1/2" ALL30206 ... 17" ALL30208 ... 20" ALL30210 ... 22" ALL30212.... 25" ALL30214.... 30" 1-3/4" I.D. Lower Hose ALL30220 ... 11"

ALL30222 ... 13-1/2" ALL30224.... 16-1/2" ALL30226 ... 19" ALL30228 ... 23-1/2"

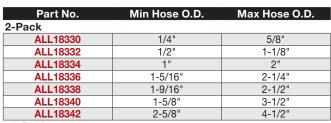
Hose Clamps (2-Packs):

ALL18334.... Clamps, Upper Hose **ALL18336**.... Clamps, Lower Hose

Hose Clamps

Heavy-duty all stainless steel construction clamps are easily tightened with a deep-slot hexhead screw. Superior to standard hardware store clamps. For best

connection, select the clamp which fi s within the range of hose O.D.



10-Pack

ALL18330-10	1/4"	5/8"
ALL18332-10	1/2"	1-1/8"
ALL18334-10	1"	2"
ALL18336-10	1-5/16"	2-1/4"
ALL18338-10	1-9/16"	2-1/2"

Power Grip Clamps

Gates Power Grip Clamps seal when heated with a standard heat gun, forming a tight band around standard rubber and silicone coolant hoses to provide





a secure connection, even under harsh race conditions. Installed clamps provide a smooth, ush t around hoses and eliminate exposed sharp edges associated with standard hose clamps. Select the band clamp which fi s within range of hose O.D. for best connection. Sold each.

Part No.	Min Hose O.D.	Max Hose O.D.
ALL30250	1/2"	11/16"
ALL30251	11/16"	13/16"
ALL30252	13/16"	15/16"
ALL30253	15/16"	1-1/16"
ALL30254	1-1/16"	1-3/16"
ALL30255	1-3/16"	1-1/2"
ALL30256	1-1/2"	1-3/4"
ALL30257	1-3/4"	2"
ALL30258	2"	2-1/4"

Note: Clamps are not designed for use with ammable liquids or fuel line connections.



BITTE

Expansion Tanks

Aluminum expansion tanks are commonly mounted as the highest point of the cooling system and used as a II point on vehicles that have a low mounted radiator or when the II point on the radiator is not accessible. The 1/2"NPT bottom supply ting is commonly connected to the low pressure side of the cooling system and the return ting is connected to a port located high on the engine to help release any air trapped in the system. Tanks feature a machined Iler neck to accept most standard radiator caps and a 1/8"NPT port for connecting to an over ow tank.

ALL36115..... Tank with Attached Mounting Bracket 28-oz. Capacity with a 3/8"NPT Return Fitting ALL36116..... Tank with Separate Mounting Bracket 20-oz.

Capacity with a 1/4"NPT Return Fitting

Plastic Overfl w Tanks

Plastic tanks have a one-quart capacity and help prevent coolant from spilling onto the ground. Tanks have swivel tings that accept 5/16" over ow hose and have 1/4"-20 molded inserts for easy mounting.

ALL36154..... Tank with Drain Valve (Non-Recovery) **ALL36155**..... Tank with 90° Fitting (Recovery)

Plastic Over ow Tank Brackets

Billet aluminum bracket mounts most popular plastic over ow tanks to round chassis tubing and pivot to any angle. Tank mounting holes accept 1/4" fasteners and are slotted to tanks with mounting holes between 3-1/2" to 4" CTC.

ALL14200..... Bracket for 1-1/2" Tubing **ALL14201**..... Bracket for 1-3/4" Tubing

Over ow Tank ALL36112

Aluminum tank has a 3/8"NPT bung on the side and a 1/2"NPT bung on the bottom that includes tting and petcock. One-quart capacity tank can be used in many forms of competition and is mandated by most sanctioning bodies to prevent coolant from spilling on the racing surface.

Stainless Over ow Tanks

Stainless steel tanks capture coolant over ow and recirculates it to the radiator. Machined aluminum cap twists into the ller neck and seals with an O-ring. Inlet/outlet ttings accept 1/4" diameter hose. Unit includes mounting brackets and hardware. Measurements are of tank body; add 2" for overall length.

ALL36150..... 2" x 13" **ALL36151**..... 2" x 15"

Petcock ALL99030

Replacement petcock for Allstar breather and over ow tanks is also perfect for draining coolant from engines. 1/4"NPT threads.



Aluminum nozzle acts as a signal to the driver to indicate a possible ALL30178 ALL30170 overheating condition as the cooling system pushes out water. Nozzle with threaded body mounts in a body panel outside the drivers compartment and is available with a 1/4" barb or a -4AN male fi ting.

ALL30178..... Nozzle with 1/4" Barb Fitting **ALL30179**..... Nozzle with -4AN Male Fitting

Radiator Over ow Fitting

ALL99312

Commonly used ting threads into the ller neck on most radiators allowing connection to an over ow tank. Aluminum ting has 1/8"NPT threads and accepts a 5/16" hose.

Over ow Hose

Over ow hose, also referred to as fuel line is reinforced to help prevent kinking and is rated up to 50PSI. Size indicated is I.D. of hose.



Hose I.D.	3' Length	25' Length
1/4"	ALL40350	ALL40351
5/16"	ALL40353	ALL40354
3/8"	ALL40356	ALL40357

Water Pressure Warning Kit

ALL80250

Warning kit senses pressure in the cooling system and alerts driver of a

problem when coolant pressure drops below 4 PSI. In the event of coolant loss (i.e. blown radiator hose). The temperature gauge probe is no longer surrounded by coolant to detect the engine temperature, this will lead to a false temperature gauge reading and major engine damage.

Temperature Gauge Probe Adapters

Aluminum adapters are a nice upgrade from brass adapters and feature a longer length for use in shallow applications when the mechanical temperature gauge probe may contact the inside of a cylinder head or intake manifold. Extra length of ting will still allow end of probe to protrude into the coolant for accurate readings.

ALL50203 3/8"NPT **ALL50204** 1/2"NPT

Mechanical Gauges

Allstar Performance 2-5/8" mechanical gauges feature

a full 270° sweeping needle, silver faced background, black bezel and are backlit for easy reading, even in low light conditions. Perfect for building custom dash panels or when adding mechanical gauges to replace existing gauges or warning lights.

gaug







Primary Wire

Single conductor stranded copper wire with polyvinyl insulation remains exible and is abrasion resistant. Stranded copper is the wire of choice for many projects when building custom wire harnesses or adding accessories.



20AWG

Used for low-voltage sensors, indicator lights, instrument panel or dash lighting.

Color	50' Coil	100' Spool
Red	ALL76500	ALL76510
Black	ALL76501	ALL76511
White	ALL76502	ALL76512
Green	ALL76503	ALL76513
Yellow	ALL76504	ALL76514
Brown	ALL76505	ALL76515
Blue	ALL76506	ALL76516

14AWG

Most popular when fabricating harnesses for general use including lighting of headlights, taillights and brake lights, ignition systems and interior accessories such as radios, interior fans and gauge panels.

Color	20' Coil	100' Spool
Red	ALL76540	ALL76550
Black	ALL76541	ALL76551
White	ALL76542	ALL76552
Green	ALL76543	ALL76553
Yellow	ALL76544	ALL76554
Brown	ALL76545	ALL76555
Blue	ALL76546	ALL76556

12AWG

Wire can be used to supply power to ignition boxes, cooling fans, fuel pumps and other higher amperage accessories including power to electric trailer brakes.

Color	12' Coil	100' Spool
Red	ALL76560	ALL76565
Black	ALL76561	ALL76566
White	ALL76562	ALL76567
Blue	ALL76563	ALL76568

10AWG

Commonly used for higher amperage applications including alternator charging wire and supplying power to trailer for interior lighting or charging trailer batteries when utilizing tow vehicle charging system.

Color	10' Coil	75' Spool
Red	ALL76570	ALL76575
Black	ALL76571	ALL76576
White	ALL76572	ALL76577

Wire and Cable Cutters ALL11003

Capable of cutting copper stranded wire from 20-gauge primary wire to 1/0-gauge battery cable. These specially designed cutters will not atten wire during cutting, which is helpful when installing connectors and building battery cables. Cutters are not designed to cut steel wire.

Heat Sleeve

High-temperature silicone-coated berglass sleeving is non-ammable and



ALI 34284

resists temperatures up to 500°F. An excellent choice for protection of fuel lines, wiring, cables and various similar uses. Sleeving is resistant to gasoline and many other chemicals. Sold in 3' lengths. Size referenced is sleeve I.D. or O.D. of hose to be covered.

ALL34280 1/4" Red	ALL34290 1/4" Black
ALL34282 1/2" Red	ALL34292 1/2" Black
ALL34284 3/4" Red	ALL34294 3/4" Black
ALL34285 7/8" Red	ALL34295 7/8" Black
ALL34286 1" Red	ALL34296 1" Black

Braided Wire Wrap

Split loom braided wrap is easily applied over existing hoses or wiring to conceal



and protect against wear or abrasion. Wrap features a 25% overlap based on the nominal size listed, allowing the wrap to bend and ex without opening. Wrap is constructed of polyethylene material, heat resistant up to 250°F, and easily cuts with a hot knife or a soldering iron with knife attachment.

ALL76610 1/8" x 20'	ALL76616 3/4" x 5
ALL76612 1/4" x 15'	ALL76618 1" x 10'
ALL76614 1/2" x 10'	

Spiral Wire Loom

Loom keeps wiring bundled together for a neat appearance



and can be easily removed when adding or removing wires during wiring harness changes. Open design makes identifying or locating a wire simple and will not hold dirt and moisture like solid looms. Loom also provides abrasion resistance to protect wiring or hoses. High-density polyethylene material is rated from -30°F to 165°F and sold in 10' lengths.

ALL76600	1/4"
ALL76602	1/2"
ALL76604	3/4"

Line Clamps

Aluminum clamps have a protective neoprene cushion



to prevent abrasion and a 1/4" mounting hole to secure electrical wiring, hoses, or cables to a panel or frame.

Black nylon clamps have a 3/16" mounting hole to secure electrical wiring, hoses or cables to a panel or frame.

	Aluminum		Ny	lon
Clamp Size	10-Pack	50-Pack	10-Pack	50-Pack
1/8"	-	-	ALL18309	ALL18309-50
3/16"	ALL18300	ALL18300-50	ALL18310	ALL18310-50
1/4"	ALL18301	ALL18301-50	ALL18311	ALL18311-50
3/8"	ALL18302	ALL18302-50	ALL18312	ALL18312-50
1/2"	ALL18303	ALL18303-50	ALL18313	ALL18313-50
5/8"	ALL18304	ALL18304-50	ALL18314	ALL18314-50
3/4"	ALL18305	ALL18305-50	ALL18315	ALL18315-50
7/8"	ALL18306	ALL18306-50	_	_
1"	ALL18307	ALL18307-50	ALL18317	ALL18317-50
1-1/4"	ALL18308	ALL18308-50	_	_



Weather Pack Kits

Kits include a variety of tower housings, shroud housings, seals and terminals to build 1, 2, 3, 4, and 6 pin connectors for standard 16-14 gauge wire. Kits also include a pin removal tool and convenient carrying case.



ALL76262

ALL76260..... Weather Pack Starter Kit ALL76262..... Weather Pack Master Kit

Quantity ALL76260	Quantity ALL76262	Description
1	3	1-Pin Tower Housing
1	3	1-Pin Shroud Housing
2	4	2-Pin Tower Housing
2	4	2-Pin Shroud Housing
1	3	3-Pin Tower Housing
1	3	3-Pin Shroud Housing
1	2	4-Pin Tower Housing
1	2	4-Pin Shroud Housing
1	2	6-Pin Tower Housing
1	2	6-Pin Shroud Housing
40	100	Seals (50% Blue/50% Green)
40	100	Terminal Pins 16-14GA (50% Male/50% Female)
1	1	Pin Removal Tool
1	1	Carrying Case

Weather Pack Connector Individual Kits

Weather Pack connectors are designed for harsh weather conditions. Originally used by top vehicle manufacturers, the reliability of these connectors has been proven for years and they have become common in many applications requiring a weather-proof connection. Snap-lock feature assures positive connection and allows connector to be easily separated as needed. Connectors are rated up to 20A at 12V DC and include tower housing, seals and terminals for standard 16-14 gauge wire.

ALL76265..... 1-Wire ALL76266..... 2-Wire ALL76267..... 3-Wire ALL76268..... 4-Wire Flat **ALL76269....** 4-Wire Square ALL76270..... 6-Wire



Weather Pack Individual Components

Terminals and Seals, 10-Packs				
0	Tower	Shroud	01	

Gauge	Tower (Female)	Shroud (Male)	Seal Part No.
22-20	-	_	ALL76280 (Purple)
20-18	ALL76272	ALL76275	ALL76281 (Green)
16-14	ALL76273	ALL76276	ALL76282 (Gray)
12	ALL76274	ALL76277	ALL76283 (Blue)



Female

ALL76284..... Seal Plug, 10-Pack

Housings, Each

J - ,			
Description	Tower (Female)	Shroud (Male)	
1-Pin	ALL76288	ALL76289	7.50
2-Pin	ALL76290	ALL76291	1
3-Pin	ALL76292	ALL76293	
4-Pin	ALL76294	ALL76295	
4-Pin Square	ALL76296	ALL76297	
6-Pin	ALL76298	ALL76299	



Weather Pack Terminal Tool

ALL76264

Tool removes male and female pin terminals from weather pack connectors without damage.

Weather Pack Pliers ALL76221

Weather pack pliers will crimp most popular 22-10 gauge non-insulated terminals. 8" overall length.

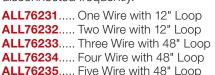
Test Leads with **Alligator Clips ALL76216**

30" long test leads are color coded red and black. Clips are 5-amp rated.



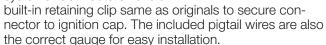
Universal Wire Connectors

Molded connectors include a male and female end, joined by a loop of 16 gauge primary wire which may be cut to length. Useful for switch and gauge panels or accessories that are disconnected frequently.



HEI Connectors

The proper connector when repairing or wiring HEI ignition systems. Connectors have a



ALL81214..... 12V Ignition Connector ALL81215 Tach Connector

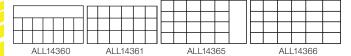




Storage Cases

These handy storage cases help organize many items around the shop, trailer or home such as electrical connectors, quick turn fasteners, tire groover blades, small fasteners and

many more items. Curved bottom compartments create a smooth scoop, making it easy to remove the smallest of items. Molded-in dividers prevent items from slipping under dividers and accidentally mixing product.



ALL14360..... Plastic Case 15 Compartment, 11" x 7" x 1-3/4" **ALL14361**..... Plastic Case 18 Compartment, 11" x 7" x 1-3/4" **ALL14365**..... Metal Case 21 Compartment, 9-1/2" x 13-1/2" x 2" **ALL14366**..... Metal Case 24 Compartment, 9-1/2" x 13-1/2" x 2"

Wire Terminal Kit

ALL76224

A 100-piece terminal kit with a generous supply of the most commonly used connectors for automotive wiring. A sturdy plastic case with divided compartments helps keep connectors organized.



Each Kit Includes:

22-18ga.	16-14ga.	12-10ga.
(10) Butt Connectors	(10) Butt Connectors	(10) Butt Connectors
(8) Ring Terminals #6	(10) Ring Terminals #10	(8) Ring Terminals #10
(8) Ring Terminals #8	(8) Ring Terminals 1/4"	(7) Ring Terminals 3/8"
- (7) Female Blade		_
-	(7) Male Blade	-
– (7) Spade		-

Ratcheting Crimp Pliers

ALL76220

Perform professional quality crimps on most standard electrical connectors. Pliers include jaws for 22-18, 16-14, and 12-10 gauge connectors and are easily compressed with help from the ratcheting mechanism which releases when connector is fully crimped.



Protect electrical connections and secure wires. 3/4" x 60' roll. UL approved.



Crimp style connectors work great when building custom wire harnesses or making repairs to existing wiring. Tinplated copper terminals are available in a variety of types and sizes.



Non-insulated terminals are designed to be crimped but may also be soldered for a more secure complete connection. Often used with separate heat shrink that is applied after connection is made. Package of 20.

Non-Insulated	Terminals	22-18	16-14	12-10
Butt Connectors		ALL76000	ALL76010	ALL76020
	#6 Hole	ALL76001	ALL76011	ALL76021
	#8 Hole	ALL76002	ALL76012	ALL76022
Ring Terminals	#10 Hole	ALL76003	ALL76013	ALL76023
ning terminals	1/4" Hole	ALL76004	ALL76014	ALL76024
	5/16" Hole	ALL76005	ALL76015	ALL76025
	3/8" Hole	ALL76006	ALL76016	ALL76026
Blade Terminals	Male 1/4"	ALL76007	ALL76017	ALL76027
Diage Terminais	Female 1/4"	ALL76008	ALL76018	ALL76028



Vinyl-insulated terminals are the most popular crimp terminal used in a variety of applications. PVC insulated sleeve is securely attached to terminal and has a ared end for easy installation. Package of 20.

Vinyl Insulated	Terminals	22-18	16-14	12-10
Butt Connectors		ALL76030	ALL76040	ALL76050
	#6 Hole	ALL76031	ALL76041	ALL76051
	#8 Hole	ALL76032	ALL76042	ALL76052
Ding Torminals	#10 Hole	ALL76033	ALL76043	ALL76053
Ring Terminals	1/4" Hole	ALL76034	ALL76044	ALL76054
	5/16" Hole	ALL76035	ALL76045	ALL76055
	3/8" Hole	ALL76036	ALL76046	ALL76056
Blade Terminals	Male 1/4"	ALL76037	ALL76047	ALL76057
Diaue ierminais	Female 1/4"	ALL76038	ALL76048	ALL76058



Heat shrink terminals protect connections from corrosion. Terminals with attached shrink tube are adhesive lined to grip wire insulation and conform to crimp when heated, sealing out moisture. Package of 10.

Heat Shrink	Terminals -	22-18	16-14	12-10
Butt Connectors		ALL76060	ALL76070	ALL76080
	#6 Hole	ALL76061	ALL76071	ALL76081
	#8 Hole	ALL76062	ALL76072	ALL76082
Ring Terminals	#10 Hole	ALL76063	ALL76073	ALL76083
Ring terminals	1/4" Hole	ALL76064	ALL76074	ALL76084
	5/16" Hole	ALL76065	ALL76075	ALL76085
	3/8" Hole	ALL76066	ALL76076	ALL76086
Blade Terminals	Male 1/4"	ALL76067	ALL76077	ALL76087
Diaue ierminais	Female 1/4"	ALL76068	ALL76078	ALL76088



Heat-Shrink Tubing

Single-wall tubing is placed over wiring and electrical connectors to seal and strengthen electrical connections. Tubing is pre-cut



to 6" and has a 2:1 shrink ratio, meaning this with shrink to approximately half the size when heat is applied using a heat gun or other heat source.

Heat-Shrink Assortment Kit

ALL76160..... Includes 9 pcs. of 1/8" and 3/16", 6 pcs. of 1/4", and 3 pcs. of 3/8" and 1/2"

Individual Sizes (Pack of 20)

ALL76161 1/16" NEW	ALL76165 3/8
ALL76162 1/8"	ALL76166 1/2
ALL76163 3/16"	ALL76167 3/4
ALL76164 1/4"	

Grommet Set ALL18360

Grommets are perfect for protecting wiring and hoses that pass through panels up to 1/16" (.062") thick. Kit includes 36 grommets (6 of each size: 1/4", 5/16", 3/8", 1/2", 5/8", and 11/16"). Grommets are also available in size speci c 10-packs.

Individual Sizes (Pack of 10)

Part No.	Grommet Hole I.D.	Panel Hole I.D.
ALL18362	3/16"	5/16"
ALL18363	1/4"	3/8"
ALL18364	5/16"	7/16"
ALL18365	3/8"	1/2"
ALL18366	1/2"	5/8"
ALL18367	5/8"	7/8"
ALL18368	11/16"	1"

Step Drill Sets

Drill multiple size holes with one bit. Drill sheet metal and aluminum without deforming or distorting. Bits start on contact, deburr, and chamfer while drilling, and does not require a center punch. Titanium nitride coated high speed steel. 1/4" shank.

ALL11040 (3-Piece Set)

Drill Bit	Sizes
Six Step	3/16", 1/4", 5/16", 3/8", 7/16", 1/2"
Nine Step	1/4", 5/16", 3/8", 7/16", 1/2", 9/16", 5/8", 11/16", 3/4"
	1/8", 5/32", 3/16", 7/32", 1/4", 9/32", 5/16", 11/32", 3/8", 13/32", 7/16", 15/32", 1/2"

ALL11041 (2-Piece Set)

ALLITO41 (2-Piece Set)	
Drill Bit	Sizes
I FIAMAN STAN	1/4", 25/64", 35/64", 11/16", 13/16", 7/8", 1", 1-1/8", 1-7/32", 1-1/4", 1-3/8"
I IWAIVA STAN	3/16", 1/4", 5/16", 3/8", 7/16", 1/2", 9/16", 5/8", 11/16", 3/4". 13/16". 7/8"

Test Light ALL76215

Quickly diagnose electrical problems by testing for current in electrical



circuits, relays, switches, or fuses. Handheld test light has a 36" lead wire with an insulated clip which fastens to a common ground and a sharp piercing point to probe insulated wire or terminals. Indicator light illuminates to identify powered circuits in 6-12V systems.

Nylon Tie Wraps

Secure electrical wiring, gauge lines, and roll bar padding. 100 per bag.



Black	Red
ALL14120 3-1/2"	ALL14126 7"
ALL14122 5"	ALL14127 14"
ALL14123 7"	Blue
ALL14124 11"	ALL14128 7"
ALL14125 14"	ALL14129 14"
Natural	Yellow
ALL14130 3-1/2"	ALL14136 7"
ALL14132 5"	ALL14137 14"
ALL14133 7"	Purple
ALL14134 11"	ALL14138 7"
ALL14135 14"	ALL14139 14"

Nylon Flush-Fit Tie Wraps

Flush-fi design ties have the excess portion of the tie exit in the same direction as the original tie, helping to eliminate the protruding sharp portion remaining as found in standard ties. Package of 100.



ALL14395..... 8" ALL14396..... 11"

Nylon Tie Wraps with Mounting Holes

Built-in tab with mounting hole to easily secure wiring harnesses, hoses or cables to a panel with rivets or other fasteners. Package of 25.



ALL14390..... 8" with 3/16" Mounting Hole **ALL14391**..... 11" with 3/16" Mounting Hole **ALL14392**..... 14" with 1/4" Mounting Hole

Wire Tie Mounting Bases

Self-adhesive mounting bases provide a location for attaching standard wire ties to secure wiring, cables and hoses. Bases mount to clean at surfaces and accept most standard wire ties. Package of 10.



ALL14116..... 3/4" × 3/4" **ALL14117**..... 1-1/8" × 1-1/8"



ALL11041



6-Circuit Fuse Block

ALL76180

This fuse block is a great power distribution starting point for up to six individual circuits which are protected by ATC/ATO style fuses (sold



Fuses not included

ALL76091

separately). Block features a #10 power supply and six 1/4" male spade terminals for individual circuit connections. Fuse block is rated at 150 amps at 12 volts, maximum of 25 amps per circuit.

ATC Fuse Assortment Kit ALL76360

Kit includes an assortment of the most popular fuses in a plastic case. Kit includes 7 pcs. each of the following sizes: 5, 10, 15, 20, 25, and 30 amp.

Individual Components (Packs of 5)

ALL76362..... 3 amp ALL76363..... 5 amp **ALL76364** 7.5 amp ALL76365..... 10 amp ALL76366 15 amp ALL76367..... 20 amp ALL76368 25 amp ALL76369 30 amp



Fuse Terminals

Terminals attach to cartridge style fuses installed

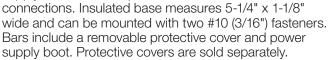
in fuse blocks to create an addi-

tional circuit to power accessories. Terminals slide over the protected leg or "fused" side (side of fuse block that does not have power when fuse is removed) of the fuse. Package of 5.

ALL76090 Mini Fuse Style Terminal ALL76091..... ATC/ATO Fuse Style Terminal

Buss Bars

Buss bars create a remote power source for powering multiple accessories. Bar features a 1/4" power supply stud and 12 separate #8



ALL76170 Red Buss Bar Kit ALL76172 Black Buss Bar Kit

Junction Block ALL76146

Junction block with single M10-1.50 thread (3/8") stud offers a location to power multiple accessories from one



30-Amp Relays

Relavs are commonly used to control higher amperage components such as electric fuel pumps, cooling fans or water pumps rated up to 30 amps. Relays allow the use of a lower amp switch to turn on or control a component with a higher amp draw. A connector with a wiring harness and installation instructions are included.

ALL76186..... Standard Relay ALL76188..... Weatherproof Relay

30-Amp Circuit Breaker

ALL76212

Circuit breaker protects electrical circuits similar to fuses but will cool and self-reset to maintain power to critical items such as headlights or ignition systems. Use circuit breaker to power accessories in a race car and to keep constant power to ignition. Steel case and mounting bracket provide durability and ease mounting to panels. #10-32 threaded stud terminals include nuts and lock washers.

Plunger Style **Brake Light Switch**



ALL76253

Popular two terminal brake light switch found in most vehicles from the 1950's to today. Ideal for most applications, switch is spring loaded to the on position and turns off when contacted by the brake pedal assembly. Switch has 1/2" threads with jam nuts for easy mounting in a bracket, and two .250" blade type terminals.

Lever Style Brake Light Switch ALL76250

Switch is commonly used with under- oor mounted brake pedal assemblies where switch can contact the brake pedal arm. Spring loaded switch is designed to return to the open position and has two #10-32 tapped mounting holes, 5/8" on centers. Designed for easy two wire connection, one "+" supply and the other to power brake lights or a brake light relay. Switch is rated at 4.5 amps and features two male bullet terminals.

Pressure Activated Brake Light Switches

ALL76252



Switch is plumbed into the brake system and is activated by closing

the electrical connection with rising brake pressure (60-120 PSI). Designed for easy two wire connection, one "+" supply and the other to power brake lights or a brake light relay. Switches are rated at 4.5 amps and have 1/8"-27 dry seal mounting threads.

ALL76251 Male Bullet Terminals ALL76252..... 6-32 Screw Terminals

ALL76110



Battery Boxes

Universal, lightweight steel battery boxes may be welded or bolted to the frame. Boxes are available in two sizes and include hold-down hardware.



ALL76100..... 12" Wide x 7-1/4" Deep **ALL76101**..... 10" Wide x 7-1/4" Deep

Replacement Components

ALL99175..... J-Bolts with Nuts, 1 Pair ALL99177..... Hold-Down Strap for ALL76100 ALL99176..... Hold-Down Strap for ALL76101

Bolt-On Battery Boxes

Battery box has multiple 1/2" mounting holes to bolt box directly to the frame rail, inner fender or rewall. Box can also be fastened to round tubing using clamp-on ballast brackets. Constructed of 13-gauge steel, measures 11" wide x 7" deep and includes 3/8" hold-down hardware.

ALL76102..... Clear Zinc ALL76103..... Black

Stainless Steel Drop-Out Battery Box ALL76105

The perfect battery box where battery mounts under flor.
Eases battery service and replacement. Box is 10-1/2" wide x 7" deep x 9-1/2" tall and will accept most standard batteries.

Battery Hold-Down Kit for Optima ALL76107

Aluminum hold-down kit provides an attractive option for keeping Optima 34/78 series batteries in place. Battery not included.



Plastic Battery Box ALL76099

Two-piece battery box ts up to group 27 size batteries and includes nylon strap with plastic mounting brackets. Box may be bolted through the bottom for more permanent mounting. Cover is designed with quick lock snaps to keep cover securely in place. Outside box dimensions 16-1/8" x 9-5/8" x 10-7/8" tall. Inside dimensions 12-3/4" x 7-1/4" x 10" tall.

Battery Cable Kits

Kits have everything needed to connect a top post style battery to starter and include ne stranded, rope-lay copper cable for best current carrying capabilities. Kits are offered with traditional red and black cables or all black cables.

Single Battery Kits Include:

- 15' Positive Battery Cable
- 2' Negative Battery Cable
- 1 Pair Battery Terminals
- 8 Pcs. Ring Terminals (4) 5/16' & (4) 3/8"
- 8 Pcs. Heat Shrink Tubing

ALL76110 2-Gauge Cable Kit with Red and Black Cables
ALL76111 2-Gauge Cable Kit with All Black Cables
ALL76114 4-Gauge Cable Kit with Red and Black Cables
ALL76115 4-Gauge Cable Kit with All Black Cables

Dual Battery Kits Include:

- •25' Positive Battery Cable
- •8' Negative Battery Cable
- •2 Pair Battery Terminals
- •14 Pcs. Ring Terminals (7) 5/16" & (7) 3/8"
- •14 Pcs. Heat Shrink Tubing

ALL76112 2-Gauge Cable Kit with Red and Black Cables

ALL76112

Battery Cables

Pre-made black cables are built using PVC-insulated 4-gauge copper stranded wire and include ring terminals on each end with 3/8" mounting holes. Cables are ideal for adding additional ground connections or installing remote starter solenoids. Dimensions listed are approximate center to center of terminal ends.

ALL76341-10...... 10" ALL76341-15...... 15" ALL76341-20..... 20" ALL76341-25..... 25" ALL76341-35.... 35" ALL76341-40.... 40"

Ground Stud ALL76147

Steel ground stud welds to round tubing providing a secure location for mounting a negative battery cable. Weld stud directly to the chassis or create a secure ground wire location in the foot box or engine compartment. Stud accepts battery cables with 3/8" ring terminals.







Ring Terminals

Use to repair or build customlength battery cables, or when installing a battery disconnect



switch. Terminals may be crimped or soldered to wire. Sold in pairs with heat shrink sleeving for a waterproof connection.

Wire Size	5/16" Hole	3/8" Hole	1/2" Hole
2 Gauge	ALL76116	ALL76117	ALL76128
4 Gauge	ALL76118	ALL76119	ALL76129

Impact Crimper ALL76135

Excellent for permanently crimping standard cable ends to battery cables.



Solder Slugs

Use solder slugs to secure ring terminal ends to battery cable. Individual pieces are the correct amount of solder to be used for each size of cable. Package of 10.



ALL76131 Slug for 2-Gauge Terminals ALL76132..... Slug for 4-Gauge Terminals **ALL76133**..... Slug for 6-Gauge Terminals

Ground Straps

The number one problem with electrical systems is often related to poor ground connections. Straps are similar to OE applications which is perfect for various 6 or 12- volt grounding applications. Flexible, braided copper 12-gauge ground straps have non-insulated ring terminals on each end.

Straps with 1/4" Ring Terminals:

ALL76328-6...... 6" ALL76328-9...... 9" ALL76328-12 12" ALL76328-18 18" ALL76328-24 24"

Straps with 1/4" and 3/8" Ring Terminals:

ALL76329-6...... 6" ALL76329-9......9" ALL76329-12 12" ALL76329-18 18" ALL76329-24..... 24"

Straps with 3/8" Ring Terminals:

ALL76330-6...... 6" ALL76330-9...... 9" ALL76330-12 12" ALL76330-18 18" ALL76330-24 24"

Gold Battery Terminals

Terminals are machined from solid brass stock, 24K gold plated for maximum conductivity, and feature 5/16" fasteners to secure battery cables with ring terminal ends. Top post terminals have additional provisions for attaching accessory or ground wires for a clean appearance. Sold in pairs.



ALI 76122

ALL76120..... Top Post ALL76122..... Side Post

ALL76150

Covers slip over battery cables and cover battery terminals to prevent accidental shorting. Fit

most top post mount batteries. Required by many sanctioning racing bodies. Package of 2 includes one black and one red cover.

Battery Terminal Covers

Battery Cable Boots

ALL76154

Battery cable boots can be used for a variety of applications including covering battery terminals on smaller terminal batteries

and starter solenoid connections. Boots have an opening that will accept up to 2-gauge cable. Sold as a pair, one red and one black.

Battery Cable Thru-Stud

ALL76142

Run battery cable through rewall or any body panel safely. 3/8"-16 thread.

Firewall Cable Bushing

Mounts securely to the rewall and locks onto the wire for a waterproof and vibration-proof seal.







WARNING: PROP. 65

The products on this page can expose you to lead. which is known to the State of California to cause cancer, birth defects or other reproductive harm. For more information, go to: www.P65Warnings.ca.gov



Battery Disconnect Switches

Battery disconnect switches shut down the vehicle in an emergency or secure it when not in use. Offered as a single and double pole version.

Single Pole Disconnect has two terminals and is recommended **for vehicles not using an alternator** that need the ability to be shut down in an emergency or when securing a vehicle by shutting off all power to the vehicle.

Note: When attempting to shut down a vehicle with an alternator using a single circuit battery disconnect, the alternator may continue supplying power to the vehicle ignition system, allowing vehicle to continue to run.

Double Pole Disconnect has four terminals with two separate circuits, which is recommended **for vehicles with an alternator** that need to be shut down in the event of an emergency.

Standard-Duty Switch with Decal

Standard-duty switch mounts in a 3/4" hole in a panel up to 1/4" thick and includes a decal to indicate on/off position. Switch has 3/8"-24 terminals and is rated at 175 amps continuous duty. Double pole switch also has #10-32 studs rated at 20 amps continuous duty.

ALL80156 Switch w/ Decal (Single Pole) **ALL80157** Switch w/ Decal (Double Pole)

Severe-Duty Switch with Decal

Heavy-duty switch mounts in a 3/4" hole in a panel up to 1/4" thick and include a decal to indicate on/off position. Switch has 1/2"-20 terminals, is rated at 300 amps continuous duty and is sealed to resist weather and help prevent internal corrosion. Double pole switch also has #10-32 studs rated at 20 amps continuous duty.

ALL80154 Switch w/ Decal (Single Pole) **ALL80155** Switch w/ Decal (Double Pole)

Battery Disconnect Boots

Protect the terminals on battery disconnects from being accidentally shorted.

ALL76152..... Red, 2-Pack **ALL76153**..... Black, 2-Pack



ALL80155

Battery Disconnect Switch Mounting Bracket

ALL60365

Steel weld-on bracket provides a secure mounting location for most battery disconnect switches so they can be mounted directly to the cage within easy reach of the driver or track safety team in the event of an emergency. The dual mount bracket is pre-notched for welding to 1-1/2" round tubing (easily modi ed to t other sizes) and features a 3/4" mounting hole for most battery disconnect switches.

Standard-Duty Switch with Panel

Standard duty switch is pre-mounted in a 2-3/4" x 3-1/4" aluminum panel with bright screen printed graphics to indicate the on/off position. Switch has 3/8"-24 terminals and is rated at 175 amps continuous duty. Double pole switch also has #10-32 studs rated at 20 amps continuous duty.



ALL80158

ALL80158 Switch w/ Panel (Single Pole) **ALL80159** Switch w/ Panel (Double Pole)

Battery Disconnect Switch with Removable Key

Battery disconnect features a removable metal key allowing vehicle to be shut down in the event of an emergency or to secure vehicle when not in use. Disconnect is rated at 160 amps continuous duty and features two 3/8"-24 terminals for installing battery cables with ring terminals. Ideal for use in street cars as a theft deterrent.



ALL80152..... Switch w/ Decal ALL80153 Switch w/ Panel

Battery Disconnect Panel ALL80129

Aluminum panel is pre-drilled and labeled with on/off to easily identify the position of most standard battery disconnects. Panel features four 3/16"" mounting holes and a 3/4" disconnect mounting hole.



Battery Disconnect Decal

ALL99045

Required by most sanctioning bodies to help track and safety crew identify the battery disconnect switch in the event of an emergency. Replacement vinyl decal works for most battery disconnects.





WARNING: PROP. 65

The products on this page can expose you to lead, which is known to the State of California to cause cancer, birth defects or other reproductive harm. For more information, go to: www.P65Warnings.ca.gov



Street Performance Chevy Mini-Starter ALL80525

SB Chevy clockable starter has twelve mounting positions and is a good choice for street or crate engines. Starter has 1.4kw permanent magnet and weighs only 7.5 lbs. Clears most kickout oil pans and works with 153- and 168-tooth ywheels or explates. Use with compression ratios up to 10.5:1. Mounting bolts and shim kit included.

Chevy Mini-Starter ALL80520

It's smaller, lighter and offers several mounting options. Perfect starter for race cars with clearance problems in the chassis or around header pipes. Chevy 153- and 168-tooth applications. Starter has 1.4kw permanent magnet, weighs just 9.6 lbs. and includes bolts and shims.

Chevy Mini-Starter ALL80515

3HP high-torque gear reduction, block mount Chevy mini-starter. In-line mounting block will t either 153- or 168-tooth ywheels and has rotation holes for added clearance. Mounting bolts and shim kit included.



Block mount GM LS gear reduction mini-starter works with 168-tooth ywheels and provides increased starting performance over OE style starters. Starter features a 3-position mounting block which allows the starter motor to be rotated for additional clearance around exhaust and frame obstructions. A high-torque, 3HP motor combined with 3.75:1 gear reduction is ideal for engines with up to 11:1 compression ratio. Mounting hardware and shims not included.

Heavy-Duty Bert/Brinn Starter ALL80532

Heavy-duty starter with a 3HP motor is designed to handle up to 16:1 compression engines.



Bert/Brinn Starter

ALL80530

Bert/Brinn Starter can handle up to 16:1 compression. 4.4:1 gear reduction starter has a 1.4kw motor that produces 1.9 hp and 200 ft./lbs of torque.

Starter Cover

ALL26236

Protective water repellent cover for the ALL80530 Bert/Brinn style starter helps prevent dirt and water from entering starter motor causing premature damage to starter. Nylon cover features an elastic band to t tightly around starter body and a terminal window with openings for solenoid connections.

Universal **Heat Wrap ALL34238**

Heat-resistant material measures 7" x 22", making it ideal for wrapping starter motor or other components that are close to high heat areas. Wrap features a re ective material on one side to protect against radiant heat and includes two 24" long stainless steel tie wraps for securing material.

Starter Solenoid ALL76203

Ford-style solenoid is perfect for use with high torque racing starters. Flat base eases mounting, and a remote under-hood starter switch or

timing light hook-up can be easily adapted. Solenoid is offered separately, or may be ordered with installation kit (ALL76202) that includes wiring, terminals, and hardware.

Solenoid and Installation Kit **ALL76202**

Relocate starter solenoid away from direct engine heat to provide easy access and eliminate hot start problems common on General Motors vehicles. An under-hood starter switch can also be added. Includes standard duty, Ford-style solenoid, mounting screws, terminals, and wiring kit.

Individual Component ALL76201..... Installation Kit Only

Solenoid Jumper Wires

Jumper wire completes the circuit to the starter solenoid when using remote mounted solenoids such as ALL76203.

ALL76208..... Jumper Wire with Spade Terminal ALL76209..... Jumper Wire with Ring Terminal







Electrical Outlets

Universal outlets provide remote 110V connection when powering block heaters,

tank heaters or other accessories

mounted in a race car. Outlets accept standard three prong extension cords and mount directly into decking or to a chassis mounted bracket. ALL76432 and ALL76436 outlet kits are prewired with 5 feet of 14 AWG wiring.

ALL76430 Outlet

ALL76432..... Outlet w/Wiring ALL76434 Covered Outlet

ALL76436 Covered Outlet w/Wiring

Brackets for Electrical Outlet And Quick Disconnect

Steel bracket mounts to the chassis. providing a single convenient location to install an electrical outlet and a battery quick disconnect (ALL76320).

ALL60352 Weld-On Bracket ALL60353 Bolt-On Bracket



ALI 76436



Sold Separately

Battery Quick Disconnects

Disconnects provide a connection for battery charging, or for quick battery changes during a race. Prevent accidental reverse polarity.



Choose from 50- or 175-amp ratings. Sold in pairs and include cable terminals.

ALL76320..... 50-Amp Gray Disconnects, 1 Pair ALL76322..... 175-Amp Red Disconnects, 1 Pair

Replacement Components

ALL76321..... 6-Gauge Terminals for ALL76320, 1 Pair ALL76323..... 2-Gauge Terminals for ALL76322, 1 Pair

Related Components

ALL76133..... Solder Slugs for 6-Gauge Terminals 10pk ALL76131 Solder Slugs for 2-Gauge Terminals 10pk

Bracket for Quick Disconnects

ALL60350

Steel bracket mounts battery disconnect (ALL76320) to the bend on the underside of deck panels found on Late Models and Modi eds.

Quick Disconnect Covers

Covers install over the end of the quick disconnects to help prevent dirt and debris from entering the connections. Covers have a built



in lanyard to keep the cover close to connector and for easy assembly.

ALL76324..... Cover for 50-Amp Quick Disconnect ALL76325..... Cover for 175-Amp Quick Disconnect

Remote Starter Button

ALL76206

Remote button is helpful when performing valve lash maintenance if the ignition panel can't be reached. Leads are 60" long and come complete with gator clamps to connect to starter solenoid.

Quick-Connect Battery Charging Posts

Two-piece, color-coded connectors make safe, out-of-car connection to battery charger quick and easy. Female ends have 1/2"-20 threaded studs that connect to battery cables and pass through a 5/8" hole in a panel up to 1/8" thick. Male ends of connectors t on battery charger cables. Shafts are tapered for tight, secure connections.

ALL76300 Red ALL76310 Black

ALL76301..... Red Female Connector Only ALL76302..... Red Male Connector Only ALL76311 Black Female Connector Only ALL76312..... Black Male Connector Only

Battery Charging Posts

Mount remote charging posts through a body panel for access to battery terminals and quick, easy battery charging. Posts have 3/8" studs and have color-coded caps for safety. Posts require a 1.25" mounting hole.

ALL76139 Kit (1 Red and 1 Black) ALL76140 Red Post Only ALL76141 Black Post Only

Charging Post Bracket ALL60064

Securely mount Allstar charging posts on vehicles where battery is not easily accessible. Pre-drilled holes allow quick mounting to frame or body. Double-D hole design positions posts close together, but provides enough room for charging or jumper cable clamps. Charging posts sold separately. (ALL76140 and ALL76141).

GM Single Wire Alternators

Completely remanufactured GM Delco single wire alternators are easily hooked up. Housings are natural fi ish aluminum. Choose from 63- or 80-amp capacities.

ALI 80500

ALL80500 63 Amp, Full Size, 10.3 Lbs. ALL80501 80 Amp, Compact Size, 9 Lbs.

GM Single Wire Chrome Alternator ALL80505

Chrome nish, single wire GM alternator with aluminum housing has a 100-amp capacity.





Gauge Panels

Gauge panels are completely assembled, pre-wired, and



include lighted mechanical gauges, warning indicator lights with senders to alert you of problems, detailed instructions and installation template. Select from panels tted with Allstar, AutoMeter Sport-Comp or Pro-Comp liquid-fil ed 2-5/8" gauges. Panels are available in two-, three-, or four-gauge con gurations.

Note: Pressure gauges feature a male 1/8"-27 NPT port tting, adapter ttings and line kits sold separately.

Note: Fuel pressure isolator such as AutoMeter ATM5282 or QuickCar QRP61-300 is always recommended when mounting a fuel pressure gauge

Part No.	Description	
Allstar		
ALL80090	2-Gauge Panel (OP/WT)	
ALL80091	3-Gauge Panel (OP/WT/OT)	
ALL80092	3-Gauge Panel (OP/WT/FP)	
ALL80093	4-Gauge Panel(OP/WT/OT/FP)	
AutoMeter Sport Comp		
ALL80110	2-Gauge (OP/WT)	
ALL80113	3-Gauge (OP/WT/FP)	
ALL80114	4-Gauge Panel (OP/WT/OT/FP)	
AutoMeter Pro-Comp (Liquid Filled)		
ALL80120	2-Gauge (OP/WT)	
ALL80123	3-Gauge (OP/WT/FP)	

Mechanical Gauges

Allstar Performance 2-5/8" mechanical gauges feature a full 270° sweeping needle, silver faced background, black bezel and are backlit for easy reading even during low light conditions. Perfect for building custom dash panels or when adding mechanical gauges to replace existing gauges or warning lights.

ALL80095 Oil Pressure Gauge 0-100 PSI ALL80096 Water Temperature Gauge 140-280°F ALL80097 Oil Temperature Gauge 140-340°F ALL80098 Fuel Pressure Gauge 0-15 PSI

ALL80099 Volt Gauge 8-18V

Note: Pressure gauges feature a male 1/8"-27 NPT port tting, adapter ttings and line kits sold separately.

Gauge Kits

Kits include all the components of our popular gauge panels while offering



the exibility of installing gauges and warning lights into a custom dash or prefabricated dash panel. Kits feature 2-5/8" 270° sweeping mechanical gauges which are prewired with warning indicator lights and senders to alert you of problems.

ALL80080 2-Gauge Kit OP/WT ALL80081 3-Gauge Kit OP/WT/OT ALL80082 3-Gauge Kit OP/WT/FP ALL80083 4-Gauge Kit OP/WT/OT/FP

Note: Pressure gauges feature a male 1/8"-27 NPT port tting, adapter ttings and line kits sold separately.

LED Bulbs for Gauge Panels



ALL99147

LED bulbs offer a brighter lighting solution and will hold up much longer than standard incandescent bulbs on 16 volt systems. Bulbs replace standard 53 bulbs and t gauge backlight and warning light sockets on all Allstar gauge panels. Package of 2.

Warning Lights

Warning lights or indicator lights inform the driver of a possible problem before major damage occurs when used with temperature or pressure switches. Lights snap into a 3/4" hole in material up to .065" thick. Lights have standard male blade electrical connections and are designed for 12V systems.

ALL99062 Amber Light ALL99063 Blue Light ALL99064 Green Light ALL99065 Red Light

Temperature Switches

Temperature switches are commonly used to turn on indicator lights to warn the driver of a possible overheating condition. Switches complete

a circuit to ground when the pre-set temperature is reached so they may also be used to control a relay for electric fans. Switches have male 1/2"-14NPT threads and a standard male blade electrical connector.

ALL99057 235°F **ALL99056** 280°F

Pressure Switches

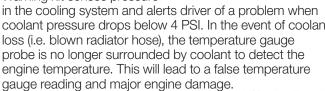
Pressure switches are commonly used to turn on indicator lights warning of a low pressure condition to help prevent engine damage. Switches complete a circuit to ground until the pre-set pressure is reached. Switches have male 1/8"-27NPT threads and a standard male blade electrical connector.

ALL99058 4 PSI ALL99059 20 PSI

Water Pressure Warning Kit ALL80250

Warning kit senses pressure

in the cooling system and alerts driver of a problem when coolant pressure drops below 4 PSI. In the event of coolant loss (i.e. blown radiator hose), the temperature gauge probe is no longer surrounded by coolant to detect the engine temperature. This will lead to a false temperature



Tel-Tac Mount ALL81332

Aluminum mount accepts Tel-Tac digital tachometers and recesses into a dash for clean nished look. Mount attaches to backside of dash with quick turn fasteners (buttons sold separately) for simple tachometer removal and installation.





Switch Panels

Designed with the racer in mind, panels feature well marked switches and indicator lights. Units are completely wired for easy installation and include detailed instructions. Choose from panels with standard or weatherproof switches.

Switch Panels with Standard Switches









ALI 80140 ALI 80150

ALL80141

ALL80142

ALL80146

ALL80140..... Panel without Light ALL80141 Panel with Flip-Up Cover ALL80142..... Panel with Light, One Switch ALL80146..... Panel with Lights, Two Switches ALL80150 Magneto Ignition Panel

Switch Panels with Weatherproof Switches







ALI 80160

ALI 80162

ALL80164

ALL80160 Panel without Light

ALL80162 Panel with Light, One Switch

ALL80164 Panel with Two Lights, Two Switches

Weatherproof Switch Panel ALL80165

Compact three switch panel has sealed weatherproof toggle switches for use in open cockpit vehicles or when exposed to harsh conditions. Panel measures 2-1/2" tall x 4-5/8" wide and



includes one momentary start switch, one ignition switch and one accessory switch. Switches are rated up to 20 amps and each circuit includes 60" of 14AWG wire for easy connections.

Fused Switch Panel ALL80138

Universal 4" x 7" switch panel includes one momentary start switch, one fused ignition switch and four fused accessory switches. Ideal for many motorsports applications, this panel features separately fused



and switched circuits for a variety of uses including electric fuel pumps, water pumps, cooling fans, brake duct fans, and lighting. Individual circuits are rated up to 20 amps and include pre-terminated pigtails for easy connection.

Spiral Corded Momentary Buttons

Buttons are designed for fast, consistent and reliable trans-brake release. Sealed spiral cord leads are ideal for steering wheel mounting or into a 5/8" hole. Momentary buttons may also be used in many other applications such as nitrous and line lock systems. 18" spiral cords stretch to approximately 5'.

ALL80180 Cord with Small Green Button ALL80181..... Cord with Large Red Button

Heavy Duty Toggle Switches

On/off, two-position togale switches are used in Allstar Performance ignition panels. Rated up to 20 amps.



ALL80177

ALL80175..... Standard Switch ALL80176..... Weatherproof Switch

ALL80177..... Weatherproof Switch Momentary

Start/Return to Off

Toggle Extensions

Toggle extensions increase the length of toggle switches in Allstar switch panels and other switches with a standard type end. Push-on extensions are 1-7/8" long, offered in red or black. Package of 2.

ALL80167.... Red **ALL80168** ... Black

Toggle Switch Cover ALL99068

Cover fastens onto the front of most standard-length toggle switches to help seal out the elements. Cover features a molded-in brass nut to secure tight to the switch.

Starter Button ALL99069

This same momentary-on starter button used in Allstar Performance switch panels is a good alternative to a key style starter switch. Button mounts in a 5/8" hole and has #8 terminal mounting screws. Rubber boot threads on after installation to help seal out the elements.

Remote Starter Button Shroud Kits

Kit mounts a remote starter button directly to chassis tubing. Kit includes a shroud to help protect against accidental activation, tab, and starter button.



ALL60360 Welded Kit ALL60361 Unwelded Kit

Indicator Lights

Indicator lights are used in Allstar Performance ignition panels to indicate when the ignition or an accessory is on. Lights may be used in a variety of other applications as needed. Lights snap into 1/2" holes in up to 0.065" thick material, have ring terminal connectors and are designed for 12V systems.

ALL99066 ... Red Indicator Light ALL99146.... Green Indicator Light



Street/Strip Distributors

These distributors are a great choice for street/strip applications. A performance distributor combined with the added benefi of an adjustable vacuum advance for street use. Simple three-wire connection only requires a 12V power source and an external coil such as the ALL81232, which is designed speci cally for ready to install distributors. The small bodied design is perfect for early muscle cars where rewall clearance is often a concern. CNCmachined 6061-T6 aluminum housing has a sealed upper support bearing and an extra-long lower bronze bushing for smooth operation and accurate timing at

higher RPMs. Distributors include a molded cap and rotor with brass and stainless steel contacts, a vacuum advance lock out, a mechanical curve kit with advance springs and stop bushings, spark plug wire retainer cap with screws, and instructions.

ALL81222..... Chevrolet V8*

ALL81240..... Ford V8 221-302 (Non-EFI)

ALL81242..... Ford V8 351W

ALL81244..... Ford 351C, 400C/M, 429-460

ALL81252..... Ford V8 332-428 FE ALL81254..... Pontiac V8 326-455

*Excluding 348-409 CID

Note: Chevrolet distributors include melonized drive gears compatible with most at tappet or hydraulic roller camshafts. If used with a mechanical roller camshaft, a bronze or other compatible gear should be used as recommended by cam manufacturer.

Replacement Components









ALL81224..... Cap and Retainer (Chevrolet) **ALL81226....** Cap and Retainer (Ford)

ALL81225..... Rotor

ALL81228..... Magnetic Pick-Up

ALL81229..... Complete Module Assembly Chevrolet ALL81227..... Complete Module Assembly Ford

High-Output Coil ALL81232

this coil has a male secondary

High-output coil is speci cally designed for use with the high-output inductive storage ignition module found in Allstar Performance Street/Strip series distributors. Delivering up to 40,000 volts,

tower which offers superior boot and terminal retention and brass primary terminals for maximum conductivity. Includes mounting hardware, ring terminals, and high temperature silicone boot.

High-Performance Distributors for Use with Ignition Box

This high-performance distributor is an excellent choice for many types of motorsports. Requires an aftermarket ignition box (such as an MSD, Accel, Crane or Mallory) and an external coil such as ALL81230. Housing is CNC-machined 6061-T6 aluminum with an upper support bearing and an extra-long lower bronze bushing for smooth operation and accurate timing at higher RPMs. Distributor includes a molded cap and rotor with brass and stainless steel contacts, a mechanical curve kit with advance springs and stop bushings, mani-

fold gasket, housing O-rings, spark plug wire retainer cap with screws, and instructions.

ALL81220..... Chevrolet V8*

ALL81216..... Chevrolet V8* w/Vacuum Advance ALL81221..... Chevrolet V8* w/Adjustable Collar

ALL81218..... Chevrolet V8* w/Adjustable Collar, Dual Pick-Up

ALL81246..... Ford V8 221-302 (Non-EFI)

ALL81248..... Ford V8 351W

ALL81250..... Ford V8 351C, 400C/M, 429-460

*Excluding 348-409 CID

Note: Chevrolet distributors include melonized drive gears compatible with most at tappet or hydraulic roller camshafts. If used with a mechanical roller camshaft, a bronze or other compatible gear should be used as recommended by cam manufacturer.

Replacement Components









ALL81224..... Cap and Retainer (Chevrolet)

ALL81226.... Cap and Retainer (Ford)

ALL81225..... Rotor

ALL81228..... Magnetic Pick-Up

CD Ignition Coil ALL81230

High-output ignition coil is speci cally designed for use with capacitive discharge ignition systems.

40,000 volt coil is recommended for use with Allstar Performance HP series distributors. Sturdy, high-impact housing is epoxy lled to protect against vibration. Extruded aluminum bracket eases mounting. Mounting hardware, anti-vibration mounting pads, ring terminals, and high temperature silicone boot are included.

Jeep/AMC 6-Cylinder Performance Distributor ALL81255

Replace troublesome point or OE computercontrolled distributors in most 3.8L and 4.2L engines with a more reliable electronic ignition distributor, plus an adjustable vacuum advance. Three-wire connection requires only a 12V power source and an external coil such as the ALL81232 or ALL81234.





Chevy HEI Performance Distributors

Distributors have high-output coils and adjustable vacuum advances, perfect for upgrading stock HEI distributors for higher RPM. Fit small and big block Chevy (except 348 and 409). Housings are CNC-machined 6061-T6 aluminum with an upper support bearing to provide accurate timing at higher RPM. Include snap-on spark plug wire retainer and instructions.

ALL81200 Distributor with Red Cap ALL81202.... Distributor with Black Cap

Replacement Component









ALL81200

ALL81204 ALL81212 ALL81206 ALL81207

ALL81204..... Distributor Cap, Red ALL81205..... Distributor Cap, Black

ALL81206 Distributor Rotor **ALL81207** Coil

ALL81208..... Module

ALL81210..... Coil Cover, Red ALL81211..... Coil Cover, Black ALL81212..... Wire Retainer, Red ALL81213..... Wire Retainer, Black



HEI Connectors

The proper connector when repairing or wiring HEI ignition systems.

Connectors have a built-in retaining clip same as originals to secure connector to ignition cap. The included pigtail wires are also the correct gauge for easy installation.

ALL81214..... 12V Ignition Connector **ALL81215**..... Tach Connector

HEI Advance Curve Kit

ALL81300

Advance kit ts all '74-79 GM HEI distributors except those that are computer controlled. Includes two weights, center plate, three sets of color-coded springs, two pairs of nylon bushings, and complete instructions.

Chevy Distributor/Magneto Hold-Down ALL27500

Aluminum hold-down fi s most aftermarket distributors and magnetos. An Allen head bolt prevents distributor from turning in the clamp so distributor can be removed and reinstalled without resetting the timing. Fits all Chevy V8 except 348-409. Will not t Mallory magnetos.

Low-Pro le Chevy Distributor Hold-Down ALL27505

Strong steel hold-down clamp with gold iridite nish ts small and big block Chevy V8 and 90° Chevy V6. Flat design provides extra distributor clearance and easy access to hold down fastener. Stud and nut included.

Chevy Distributor Hold-Down

Aluminum hold-down keeps distributor secured at high RPM. Fits small or big block Chevy V8 and 90° Chevy V6. Stainless steel stud, nut and washer are included. Choose blue, clear, or red anodized.

ALL27502 Blue Chevy Distributor Hold-Down ALL27503 Clear Chevy Distributor Hold-Down ALL27504 Red Chevy Distributor Hold-Down

Chevy Iron Distributor Gears

Melonized or Melonite coated gears are direct replacement for Allstar Performance and other stock and performance distributors. Iron gears are suitable for applications using high-volume oil pumps.

ALL81308 0.491" Dia. Shaft Chevy V8 **ALL81309** 0.500" Dia. Shaft Chevy V8

Chevy Bronze Distributor Gears

When installing a steel billet roller camshaft, a bronze distributor gear must be installed in place of the original cast iron gear. Gears made of premium aluminum bronze offer high strength to withstand the stresses created by high-pressure oil pumps. Roll pins are included.

ALL81310..... 0.491" Dia. Shaft Chevy V-8 **ALL81311**..... 0.500" Dia. Shaft Chevy V-8

Spark Plug Gap Tool ALL96515

Tool properly cradles the spark plug to consistently set plug gaps using a standard feeler gauge. Insert plug into holder, place desired thickness of feeler gauge between ground



strap and electrode then gently turn the knob until feeler gauge is snug.

Spark Plug Gap Tool Kit ALL96516

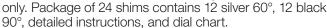
Spark plug gap tool quickly and accurately gaps 14mm threaded spark plugs. Thread spark plug into tool, place the correct size feeler gauge beneath the ground strap then tighten knob to set plug gap. Includes 17 different feeler gauge sizes 0.010" thru 0.035".





Spark Plug Index Shims

Stackable shims index spark plugs at 30° intervals up to 360°, properly positioning ground strap in cylinder head for increased power and clearance between spark plug and piston. Shims are intended for use with 14mm fl t seat spark plugs only Package of 24 shims contains 12 silve



ALL96505 Shim Kit, Standard O.D. (0.800") **ALL96506** Shim Kit, Small O.D. (0.720")*

*Shims are designed for close tolerance spark plug pockets such as those on ALL-PRO cylinder heads.

Spark Plug Indexing Tool ALL96510



Indexing positions the ground strap of the spark plug properly for best piston dome clearance and un-shrouds the electrode for a more even burn and possible gains of 5-15 horsepower. Works with at gasket or taper seat 14mm spark plugs. Includes instructions.

Coil Wire Kits

Kit includes 36" of 8mm spiral core race wire, ends, connectors, and wire stripping/crimp tool.

ALL81380 Kit without Sleeving **ALL81381**..... Kit with Sleeving



Coil Wires



Pre-terminated versions of our 8mm sleeved coil wires found in our kits and sets feature ends for HEI tower style terminals. Often overlooked when performing maintenance or diagnosing a problem, coil wires are susceptible to damage or weakening over time.

ALL81382-12 12" ALL81382-18 18" ALL81382-24 24" ALL81382-36 36" ALL81382-42 42"

Spark Plug Race Wire Sets

Custom length SBC wire sets feature 8mm spiral core race wire with pre-terminated ends and universal coil wire. Sets feature shrink sleeved ends and cylinder identifi ation numbers.



ALL81365.... Set without Sleeving, Under Header ALL81366.... Set without Sleeving, Over Valve Cover ALL81370.... Set with Sleeving, Under Header ALL81371.... Set with Sleeving, Over Valve Cover

Universal Spark Plug Race Wire Sets

Universal length 8mm spiral core wire sets include a non-terminated end, ends, and boots for a build-to-length option.

ALL81360 Set with 90° HEI Ends **ALL81361** Set with 135° HEI Ends

Spark Plug Boot Sleeves

Fiberglass braided sleeves are heat resistant to protect spark plug boots from header heat up to 1,200°F. 7-1/2" long sleeves slide over a variety of boots.

ALL34272 Natural, 8-Pack **ALL34273** Natural, 2-Pack **ALL34274**..... Black, 8-Pack **ALL34275** Black, 2-Pack



SB Chevy Spark Plug Wire Loom Set ALL81340

Polished aluminum spark plug wire loom ts wires up to 9.5mm. Includes mounting hardware. Engines with center bolt style valve covers require ALL81341 mounting kit. Package of 2.

Note: May not clear oil dipstick or exhaust manifolds on some later model engines with "log" style manifolds.

Related Component

ALL81341 Mounting Kit For Centerbolt Covers



Spark Plug Wire Separator Set ALL81345

Black plastic set will tup to 9mm wires. Includes two of each 2-, 3-, and 4-hole separators.



Spark Plug Wire Retainer

ALL81350

No more melted plug wires from hot exhaust. These aluminum retainers will neatly mount separated 4-wire sets to the front or rear of cylinder head. Package of 2.



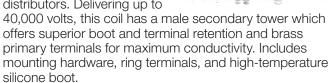
CD Ignition Coil ALL81230

High-output ignition coil is speci cally designed for use with capacitive discharge ignition systems. 40,000 volt coil is recommended for use with Allstar Performance HP series distributors. Sturdy, high-impact housing is epoxy lled

to protect against vibration. Extruded aluminum bracket eases mounting. Mounting hardware, anti-vibration mounting pads, ring terminals, and high-temperature silicone boot are included.

High-Output Coil ALL81232

High-output coil is speci cally designed for use with the high-output inductive storage ignition module found in Allstar Performance Street/Strip series distributors. Delivering up to





45,000 volt, oil- lled coil for electronic breakerless ignitions has low primary resistance and 112:1 turn ratio for improved throttle response and more power at higher rpms. Coil ts all standard O.E.M. brackets or Allstar ALL81324 coil bracket.

Coil Mounting Bracket ALL81324

Aluminum canister style coil mounting bracket features a at mount for securing to a at panel or rewall. Bracket includes a tension screw to secure coil in bracket before mounting.



Universal Coil Mounting Bracket ALL81326

Universal bracket is an OE style bracket that mounts canister style coils to some popular V8 intake manifolds or may be used to mount coil to a at panel or rewall. Bracket includes a tension screw to secure coil in bracket before mounting.



LS Ignition Coils









Direct replacement 40,000V coils are a good choice when upgrading the OE ignition system in high-performance applications or when power adders are used.

ALL81400 1997-05 LS1/LS6 (Delco D580) **ALL81401** 1999-07 4.8/5.3/6.0L Truck (Round Style Delco D585) **ALL81402** 1999-07 4.8/5.3/6.0L Truck (Square Style Delco D581)

ALL81403 2005-13 4.8/5.3/6.0/6.2/7.0L (Delco D510C/D514A)

LS Coil Mounting **Brackets ALL26212**

OE style steel mounting brackets t OE and fabricated valve covers with factory mounting bosses and have a black epoxycoated nish. Brackets are for





Designed for remote mounting LS Coils. Black anodized billet aluminum brackets



ALL 26217

come complete with stainless hardware and standoffs for easy removal.

ALL26216..... Fit Delco D580, LS1/LS6 Coils (ALL81400) ALL26217..... Fit Delco D581 and D510C, LS2,LS3,LS7 Coils (ALL81402 & ALL81403)

MSD/FAST Ignition Box Mount

ALL81330

Box mount provides a quick release method for replacing MSD or **FAST** ignition boxes with 7-1/2" x 3-1/2" or 4-1/8" x 6-1/2" center to center mounting dimensions. Kit includes aluminum box mount, (4) quick turn



fasteners, springs, and 1/8" aluminum rivets.

PERFORMANCE

LS Oil Pan Kits

Cast aluminum oil pan kits ease the installation of LS series engines into early production vehicles by providing addi-ALL26240 tional clearance between the oil

pan and frame crossmember. Kits include oil pan, pick-up tube, gaskets, and mounting hardware required for installation.

Note: These kits may not t all applications; additional engine mount adapters and possible frame modi cation may be required for installation in some

ALL26240 Natural **ALL26241....** Black

6-Qt. Claimer Oil Pans and Pick-Ups

Small block Chevy pans have a 6-quart capacity and are 7" deep. Two swinging trap doors

and a built-in baf e provide consistent oil control. Oil pan ts pre-'86 blocks with 2-pc rear main seal.

ALL26132..... L.H. (Driver's Side) Dipstick ALL26133 R.H. (Passenger's Side) Dipstick

ALL26134 Pick-Up for Use with Standard Volume Pumps

ALL26135 Pick-Up for Use with High Volume Pumps

Magnetic Drain Plug ALL87040

Replacement plug for standard 1/2"-20 drain holes has a magnetic end to capture small particles in oil or to help identify a problem early.



ALI 26132

Engine Diaper

ALL69011

Engine diaper will help contain engine oil and fragments if an engine failure occurs. Increase safety and reduce the chance of



control loss due to debris on the racing surface. Diaper wraps around oil pan and secures to header bolts. Diaper is NHRA approved but is not designed for vehicles that require SFI approved diapers. Diaper features a sewn-in, non-replaceable oil absorbent pad and is 23" long x 12-1/2" high x 12" wide.

Replacement Components ALL99043 Tabs, 4-Pack

ALL99347 Buckle, 1 Set

ALL69013..... Engine Diaper Pad, 22" x 30"



ALL99043

SB Chevy Rear Main Seal Adapters

Billet aluminum adapter allows installation of a two-piece style crankshaft seal and early (pre-



1986) crankshaft into a

1986 and newer SB Chevy (pre-LS) engine. Adapters include mounting hardware. Alignment tool ALL26127 (sold separately), is recommended to ensure proper installation and centering of adapter plate.

ALL26125..... Seal Adapter for Early (Pre-'86) Oil Pan ALL26126..... Seal Adapter for Late (86'-Up) Oil Pan ALL26127..... Alignment Tool

Balancing Plate ALL26120

Plate is installed between crankshaft ange and the ywheel allowing a popular internally balanced Chevy 350 ywheel to be used with an externally balanced



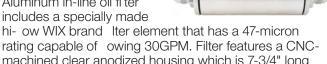
400 crankshaft. Note: These are not designed to be used with an automatic transmission explate.

Plastigage® Kit ALL96475

Plastigage strings are a simple and accurate way to verify crankshaft, main, and rod bearing clearances. Kit includes two green .001" to .003" and one red .002" to .006" (12" long strings) individually packaged inside calibrated sleeves. Detailed instructions are included.

In-Line Oil Filter

Aluminum in-line oil fi ter includes a specially made



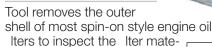
machined clear anodized housing which is 7-3/4" long x 2-1/2" in diameter with removable O-ring sealed end caps for easy disassembly and cleaning.

Note: Not recommended for dirt racing applications, the high- ow capacity of this Iter will not stop small contaminants found in dirt racing.

ALL92040 -16AN ALL92041 -12AN

Replacement Component ALL92043 Filter Element

Oil Filter Cutter **ALL10538**



rial for contamination or debris.







Oil Filter **Adapters**

Oil Iter adapters are OE style replacement mounts for securina

oil Iter to engine block or oil pan when rebuilding or replacing an engine.



ALI 92004 ALL92000 1968-96 SB Chevy Including LT1 and 1968-90 Gen IV BB Chevy Engines Aluminum adapter with bypass valve bolts to block and has 13/16"-16 threads to accept oil Iter.

ALL92001 Bolt kit for ALL92000

ALL92004 Gen V and VI 1991-Up BB Chevy Engines Adapter threads into block with 1"-12 threads and has 13/16"-16 threads to accept oil Iter.

ALL92005 2006-2019 LS Series Engines Hex body adapter threads into oil pan with 20mm x 1.50 thread and has 22mm x 1.50 thread to accept oil Iter (PH10575).

ALL92006 1998-2009 LS Series Engines Round body with internal hex adapter threads into oil pan with 20mm x 1.50 thread and has 13/16"-16 thread to accept oil Iter (PH3506).

ALL92003 Most SB Ford 302-351W Engines. Adapter threads into block with 1-1/16"-12 threads and has 3/4"-16 threads to accept oil Iter.

Chevy Billet Oil Filter Adapter

ALL92020

Billet aluminum adapter replaces the stock cast aluminum adapter and eliminates the bypass found in OE adapters. Adapter ts most 1968-96 SB Chevy and 1968-90 Gen IV BB Chevy engines, has 13/16"-16 threads for spin-on style oil Iters and includes mounting hardware.

Chevy Oil Filter Sandwich Adapter ALL92022

Aluminum adapter installs in place of the OE style oil Iter adapter, elimi-

nating the bypass found in OE adapter and providing 1/2" NPT inlet and outlet ports for connecting an external oil cooler. Adapter lowers the oil lter 1-1/2" and directs oil rst to the oil cooler and then through the lter before entering the engine. Adapter ts most 1968-96 SB Chevy and 1968-90 Gen IV BB Chevy engines, has 13/16"-16 threads for spin-on style oil Iters and includes mounting hardware and O-rings.

Chevy Remote Oil Filter Adapter ALL92025

Aluminum adapter installs in place of the OE style oil Iter adapter, providing 1/2"NPT



inlet and outlet ports for connecting to an external oil Iter mount. Adapter is commonly used when header clearance does not allow easy access to block mounted oil Iter. Adapter ts most 1968-96 SB Chevy and 1968-90 Gen IV BB Chevy engines and includes mounting hardware and O-rings.

Remote Oil Filter Mount Kit ALL92027

Kit includes a machined billet aluminum mount for relocating an oil Iter to a location that is easier to access and protected from possible damage. Mount



features top mounted -12 ORB ports for easy connection and hose routing, a 1/8" NPT pressure port, and multiple oil Iter ttings. Fittings included are 3/4"-16, 13/16"-16, and 1-1/8"-16 for most popular 3-5/8" O.D. oil Iters.

Aluminum Oil Inlet Fittings

Aluminum ttings adapt NPT to the AN threads commonly used when connecting oil lines and for other applications. Length stated is overall length. ALL90045 features two additional 1/8"NPT ports commonly used when plumbing valve spring oilers.



ALL 90044 ALL 90045

ALL90048 3/8"NPT to -10AN, 3" Long ALL90043 1/2"NPT to -10AN, 3" Long ALL90044 1/2"NPT to -12AN, 3" Long ALL90045 1/2"NPT to -12AN, 3-1/2" Long (With 1/8"NPT Ports)

Inline Oil Temperature Tees

Install in the oil return line (pumpto-tank) to adapt a probe for an oil temperature gauge. All inline tees have 1/2"NPT threads for probe ttings and 1/4" holes for mounting.



ALL90039

ALL90039 -8AN ALL90040 -10AN **ALL90041** -12AN ALL90042 -16AN

Reducer Fittings

Reducer ttings are an economical way to reduce the male AN thread size on items such as oil coolers and inline temperature T- ttings.



ALL90075 -10AN to -8AN ALL90076 -12AN to -10AN

1/8"NPT to -4AN Tall Fittings

Steel ttings allow easier access when plumbing oil pressure lines on many engine blocks.







Engine Oil Pressure Primer Tank ALL10535

Primer tank supplies initial oil to the oil pump in engines equipped with a crank-driven oil pump. Fill primer tank with engine oil then apply compressed air to force the uid throughout the engine via the oil pressure sender/switch port to pre-lube the entire engine, including the oil pump. Tank



features II cap with safety pressure release slot (sealed by O-ring), an easy to read pressure gauge and a quarter turn on/off supply valve. The oil supply line is a durable 90" long steel braided hose with -4AN ends and includes a tting with male 1/8"-27NPT threads. Adapter ttings sold separately.

Chevy Oil Restrictors

Oil restrictors reduce the amount of oil ow to the top of the engine, reducing the risk of evacuating the oil pan in continuous high rpm engines while allowing more oil to be directed to the main and rod bearings. Restrictors have a .055" I.D. hole and include two extra O-ring seals. Package of 2.



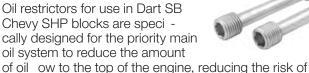
ALL90071

ALL90070 SB/BB Chevy, Aluminum with Hex Head ALL90071 SB/BB Chevy and Bowtie Block, Steel with Allen Head

Note: Not recommended for hydraulic lifter engines.

Dart/Chevy SHP Oil Restrictors

Chevy SHP blocks are speci oil system to reduce the amount



evacuating the oil pan in continuous high rpm engines. Kit includes two restrictors, an extra O-ring, and detailed installation instructions.

ALL90072 Restrictor Kit With .090" I.D. Hole ALL90073[†] ... Restrictor Kit With .030" I.D. Hole

†Smaller port size may be modi ed as needed for preferred amount of oiling.

GM LS Oil Galley Plug

Galley plugs, commonly referred to as "Barbells", are used by the factory to divert oil to the factory oil Iter and prevent un Itered oil from circulating through the engine. The original GM barbells are a nylon material that may



become brittle over time and should be replaced when performing a rebuild or upgrades.

ALL90067 OE Style Nylon ALL90068 Billet Aluminum

Immersion Heaters

Immersion style heater preheats oil in wet sump oil pan or dry sump tanks to reduce overall warm up time and improve lubrication during initial start up. 5/8"



diameter stainless steel sleeve inserts into pan or tank and secures with a welded on 1/2"NPT brass screw-in tting. 120-volt operation. These are not thermostatically controlled, units will continue to heat as long as they are plugged in.

ALL76415..... 4-3/4" Long Heater Element w/ 3' Long Cord, 400W **ALL76416....** 7-1/2" Long Heater Element w/ 12" Long Cord, 250W

Heating Pads

High-temperature silicone heating pads externally preheat oil in wet sump oil pans, dry sump tanks and



automatic transmission pans, reducing overall warm up time and improving lubrication during initial start up. 3" cord, 120-volt operation. These are not thermostatically controlled, units will continue to heat as long as they are plugged in.

ALL76420..... 2"x15", Self-Adhesive Pad, 200W ALL76422..... 5"x7", Self-Adhesive Pad, 375W

ALL76424..... 6"x12", Velcro-Strapped Pad for 6" O.D. Tanks, 435W

WARNING! Do not plug heater in without being installed on tank or metallic surface to absorb heat. Element heats up quickly and damage will result.

Flange Mount Oil Coolers

Adding an oil cooler to a vehicle increases engine life and reduces engine operating temperature. Engine oil not only lubricates but also removes a large amount of



heat from the engine. Top engine builders recommend and often require use of an oil cooler. Coolers have a 1/2"NPT female bung commonly used for connecting a temperature sending unit or similar accessories and have built in anges for mounting to the deck underside of most Dirt Late Models, Modifi ds, or other vehicles that would bene t from use of an oil cooler.

ALL30146.... Cooler with -10AN Fittings, 4" x 15" x 3-1/2" Tall for Most Wet Sump Systems

ALL30145..... Cooler with -12AN Fittings, 8-3/4" x 15" x 3-1/2" Tall for Most Dry Sump Systems

Oil Cooler Scoops

Scoop mounts to the deck of most race cars above the oil cooler forcing air through the oil cooler to aid cooling. Black plastic scoop has a carbon ber look and measures 11" x 7" with a 3" tall opening and approximately a 1" mounting lip.

ALL23228 Scoop with 7" Wide Opening ALL23229 Scoop with 11" Wide Opening



Linear Oil Coolers

Finned aluminum coolers have 3/4"NPT ends and T-slots for easy mounting.

ALL30142.....3' ALL30143..... 4' ALL30144..... 5'



Sprint Car Dry Sump Tank Mounting Brackets

Mounting brackets are designed to mount 6" diameter tanks to the left front corner of standard small block

Chevy engines. Commonly mounted with ALL38145 sprint engine plate, the upper bracket utilizes the water pump mounting holes and the lower bracket fastens to the early front engine mount mounting hole.

ALL36092 Upper Tank Mount ALL36093 Lower Tank Mount

LS Lifter Valley Covers

Billet aluminum covers come complete with stainless hardware and O-ring. Black anodized.

ALL90106..... Gen III ALL90107..... Gen IV/LSX



SB Chevy Lifter Valley Vents

ALL90065

Lifter valley vents positively vent the crankcase and eliminate oil drain-through and windage losses. When used with valley screens, vents prevent damage



from broken valvetrain components. Vents have 1/4"NPT threads and a 9/16" hex head to ease installation. Package of 8.

Mini Breather Tanks

Small capacity, aluminum tank will vent dry sump tank, transmission, or rear end. Tank measures 6-3/4" overall, features a 1/4" NPT bung on bottom for connecting a vent hose and includes a washable breather element. Tanks are offered with a clamp style bracket for mounting to chassis tubing, or a at mount for mounting to a panel or rewall.

ALL36140..... Tank for 1-1/2" Dia. Tubing **ALL36141** Tank for 1-3/4" Dia. Tubing ALL36142..... Tank with Flat Mount ALL36103 Replacement Filter



ALL36140

Breather Tanks

Aluminum breather tanks are 11-1/2" x 3", include mounting bracket, clamp on breather element, drain, and one or two 3/8"NPT bung(s). ALL36109 can vent two systems. Ideal for dry sumps and rear ends.

ALL36108 Tank with One RH Bung ALL36117 Tank with One LH Bung ALL36109 Tank with Two Bungs



SB Chevy Fuel Pump Mount Plate ALL40254

O.E. style plate replaces lost or missing mounting plate required to mount mechanical style fuel pump to most small block Chevrolet engines. Clear zinc-plated nish may also be painted to match original appearance. Mounting hardware included.

SB Chevy Fuel Pump Block-Off Plate ALL40255

Plate covers mechanical fuel pump engine opening on most small block Chevrolets when omitting a mechanical style fuel pump. Plate is often used when converting to electric or belt driven fuel pumps. Clear zincplated nish may also be painted.

Billet Aluminum Fuel Pump Block-Off Plates

CNC-machined billet aluminum plates cover the mechanical pump opening in the engine block and include a gasket and stainless steel fasteners.



ALL40305

Description	Blue	Clear	Red	Black
SB Chevy	ALL40300	ALL40301	ALL40302	ALL40306
BB Chevy,				
SB/BB Ford*,	ALL40303	ALL40304	ALL40305	ALL40307
SR/RR Chrysler				

*Will not t Ford 351C, 351M-400.



LS Timing Cover Conversion Kit ALL90090

LS timing cover conversion kit adapts a standard small block Ford distributor into CT525 crate and LS series engines, allowing adjustment of timing and the mechanical advance curve and also provides an alternative to installing complete computer and fuel injection systems when placing a late model LS engine into an older street performance vehicle.

Enjoy the performance and durability of the GM LS series engine with the simplicity and tune-ability of a distributor and carburetor. Kit includes all internal components and new timing cover for converting LS series engines to utilize a standard distributor ignition system and a carburetor with a belt-driven or electric fuel pump.



Excellent replacement for distorted or leaking OE style timing covers.

ALL90010 SB Chevy

ALL90011..... BB Chevy (Gen IV)



Aluminum Timing Covers

Polished cast aluminum covers resist warping and leaking that is common with OE style stamped steel covers. Recessed mounting holes are designed for button head fasteners (ALL99390) for proper installation. Covers clear most double roller style timing chains.





ALL90008 SB Chevy ALL90009 BB Chevy

Related Component

ALL99390 Timing Cover Fasteners

Timing Cover Seals

Seal works with stamped steel or aluminum covers.

ALL87280 SB Chevy **ALL87282** BB Chevy



Pontiac Aluminum Timing Cover ALL90019

Cast aluminum cover with timing marks includes water pump backing plate and two coolant inserts. Fits most 1969-79 Pontiac V8 engine models including 350, 400, and 455.



SB Mopar Timing Cover ALL90028

Aluminum timing cover ts most SB Mopar "LA" series blocks with driver's side timing marks including 273, 318, 340, and 360 CID engines.



SB Ford 302/351 Timing Covers



New cast aluminum stock replacement timing covers are available in several styles.

ALL90014..... Early Style, with Fuel Pump Mounting Boss and Dipstick Tube Opening

ALL90015 1995 Mustang/1996-01 Explorer/Mountaineer Rev. Rotation with Short Water Pump

ALL90016 1983-89 Cars/Trucks/SUV's, with ECC Sensor Mount and Fuel Pump Mounting Boss

ALL90017..... 1985-94 Mustang with EFI

ALL90018 1987-96 Trucks with EFI, Reverse Rotation

BB Ford Timing Cover

ALL90029

Aluminum timing cover ts most 429-460cid engines. Cover has provisions for a dipstick tube and mechanical fuel pump for early applications. A dipstick tube plug and a fuel pump block off plate for use with later model fuel injected engines are included.





SB Chevy Billet Timing Covers (for Sprint Cars)

Machined billet aluminum timing cover is lightweight, durable and weighs over one lb. less than cast aluminum covers. Fits major brand oil pumps. Mounting hardware included.





Aluminum Cam Seal Plates

Aluminum cam seal plate provides a reliable seal and tight t.



Part No.	Size	Color	Application	
ALL90085	2.103"	Black	GM Small Block	
ALL90086	2.253"	Gold	Rodeck Block w/ 1.875" Roller Cam Bear- ing	
ALL90087	2.310"	Blue	Most Blocks w/ 50mm Roller Cam Bearing	
ALL90088	2.382"	Silver	Dart Small Block, Aluminum	
ALL90089	_	-	Replacement Cam Plate Seal	

Chevy Cam Lock Plate and Bolts ALL90060

Kit includes camshaft retaining plate with locking tabs and three alloy steel, 150,000 PSI bolts. Fits all small and big block Chevys.



Cam Button Spacers

Buttons limit lateral movement of the camshaft in engines without cam thrust plates and reduce friction for "free" horse-



power. Machining of the cam sprocket may be required.

ALL90050..... SB Chevy Aluminum, Early with Flat Cover ALL90052.... SB Chevy Aluminum, Late with Reinforced Cover

ALL90054 SB Chevy Steel, Roller Bearing

ALL90053 BB Chevy Aluminum

ALL90055 BB Chevy Steel, Roller Bearing

SB Chevy Cam Bearing Tool ALL96470



For installing cam bearings quickly and easily without damage. Shaft is steel; pilot and driver are aluminum.

Crankshaft Keys

Replace worn crankshaft keys for proper timing gear and dampener positioning.

ALL87030 Chevy Short, 2-Pack

ALL87032 Chevy Long

ALL87034 Chevy Vortec, LS1/LS2/LS6

SB Chevy Gear Drive Assemblies

Aluminum gear drive provides accurate cam timing and the ability to adjust valve timing without removing the oil pan. Aluminum frame features a built-in front oil pan gasket retainer and an idler gear cradle for accurate



cam timing throughout the RPM range. Gear drive are complete with cam, crankshaft and idler gears, needle bearing thrust kits, offset degree bushing kit, extra-long dowel pins and installation instructions. Gear drives are commonly used with ALL90080 and ALL90081 Billet Timing Covers or may be used with most stock-type covers such as the ALL90010 with slight modi cation.

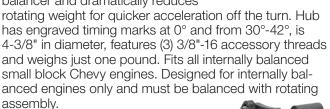
ALL90000..Standard Cam Gear Drive **ALL90100**..Raised Cam Gear Drive (+.391")

Replacement Components

ALL90001..Cam Gear ALL90002..Crank Gear ALL90003..Idler Gear ALL90007.Thrust Washer Set

SB Chevy Aluminum Crankshaft Hub ALL90030

Designed speci cally for circle track racers, this SB Chevy aluminum crank hub is NOT a harmonic damper. Hub is signi cantly lighter than a harmonic balancer and dramatically reduces



Related Component

ALL90031 Adjustable Aluminum Timing Pointer

Timing Pointers

Black anodized billet aluminum timing pointers are adjustable to precise timing increments



ALL90021..... SB Chevy 7" Dia. Balancers
ALL90023..... SB Chevy 6-1/4" Dia. Balancers
ALL90024..... SB Chevy 7-1/4" Dia. Balancers
ALL90025..... SB Chevy 8" Dia. Balancers
ALL90022..... BB Chevy 7" Dia. Balancers
ALL90027..... BB Chevy 8" Dia. Balancers
ALL90033..... SB Chevy 6-1/8" Dia Balancers

ALL90036* SB Ford Stock B, 5/16" Bolt **ALL90037*** SB Ford Stock C, 5/16" Bolt

*11-O'Clock Tab Position, Will Not Fit Cleveland Engines †10-O'Clock Tab Position, Will Not Fit Cleveland Engines









SB Chevy Fabricated Aluminum Valve Covers

TIG-welded covers are lightweight with a thick rail for gasket support. Covers without tubes are perfect for custom modi cation



ALL26170..... Standard Covers without Tubes ALL26171..... Standard Covers with Tubes ALL26172..... Centerbolt Covers without Tubes

Related Components

ALL36204 Non-Shielded Breather, 1-3/8" ALL36205 Shielded Breather, 1-3/8"

Chevy LS Fabricated Aluminum Valve Covers

Fabricated valve covers for most 1997-2005 LS1/LS6 engines feature a thick billet rail, an O-ring sealed threaded Il cap and include O-ring



style gaskets and mounting bolts. Valve covers have an inside height of 2-1/4" to clear most aftermarket valvetrain. Coil mounting brackets sold separately.

ALL26210..... Valve Covers without Coil Mount ALL26211 Valve Covers with Coil Mount

ALL26212..... Coil Mounting Brackets 1997-2005 LS1/LS6 Coils Steel Stamped Brackets for Use with Delco D580 Coils (ALL 81400)

BB Chevy Fabricated Aluminum Valve Covers

TIG-welded valve covers with a thick billet rail are available with or without breather holes for custom modi cation such as vacuum



pump ttings. Recessed bolt pockets and tall design to clear most aftermarket valvetrains. Hardware included.

ALL26176..... Valve Covers without Holes **ALL26177.....** Valve Covers with Holes

SB Chevy Cast Aluminum Valve Covers

Tall polished aluminum valve covers are sold in pairs, with two 1-3/8" baf ed breather tubes on one cover. Breathers sold separately.



ALL26137

ALL26137..... Centerbolt Covers

ALL26139..... Standard Covers **Related Components**

ALL36204 Non-Shielded Breather, 1-3/8" ALL36205 Shielded Breather, 1-3/8"

SB Chevy Steel Valve Covers

Steel small block Chevy valve covers are an excellent alternative to more expensive and heavier aluminum valve covers. Sold in pairs, one cover is solid without holes



and one cover includes two fully welded, 1-1/2" baf ed breather tubes for proper crankcase venting. Breathers sold separately.

ALL26143..... Raw Unpainted ALL26145..... Yellow Zinc Plated ALL26147..... Black Painted

Valve Cover Hold-Down Nuts

Easily remove these hold-down nuts with a 1/4" extension. The spring ball on your extension holds the nut in place, no wrench or socket needed! Package

ALL26320 1/4"-20 Coarse Thread Nuts ALL26322 1/4"-28 Fine Thread Nuts

SB Chevy Cork Valve Cover Gaskets

Natural cork material gaskets conform to irregular castings to provide a leak free t. Coated



gaskets feature an additional layer of protection against leaking and are reusable. Gaskets are sold in pairs.

ALL87210..... 5/16" Thick

ALL87212..... 5/16" Thick with Steel Core

ALL87214..... 5/16" Thick with Steel Core (Coated)

ALL87216..... 3/16" Thick with Steel Core Centerbolt/Vortec (Coated)

SB Chevy Rubber Valve Cover Gaskets



ALL87215

Reusable rubber gaskets are 3/16" thick and feature a molded-in steel reinforcing layer to help gasket keep its shape and provide a leak-free t. Package of 2.

Silicone Valve Cover Gaskets

Reusable silicone rubber gaskets are 3/16" thick and feature a molded-in steel rein-



forcing layer and mounting hole inserts to help gaskets keep their shape and prevent overtightening. Gaskets also feature a multi-ribbed surface for use with composite or aluminum valve covers, not recommended for stamped steel valve covers. Package of 2.

ALL87217..... SB Chevy **ALL87218.....** BB Chevy



Breathers

Shielded or non-shielded clamp-on breathers will fi valve cover tubes.

Non-Shielded ALL36202 1-1/2" ALL36204 1-3/8"

Shielded ALL36203 1-1/2" ALL36205 1-3/8"



Breather Sock ALL36208

The breather sock ts over standard 3" diameter. 2-1/2" tall valve cover breathers to help catch residual oil discharged from the engine through valve cover breathers. A practical alternative to wrapping dirty shop rags around valve cover breathers! Socks are easily cleaned with a mild detergent.



Breather Filters

Mesh Iters add another layer of protection against dirt, dust and debris. Fits 3" diameter breathers typically used on valve covers, breather tanks and helmet systems.

ALL26227 Fits Non-Shielded Breathers ALL26228 Fits Shielded Breathers



Breather Cover ALL26232

Water-repellent cover ts 3" diameter breathers commonly found on valve covers. breather tanks and helmet systems. Cover with drawstring ts both shielded and nonshielded breathers.



Large Fill Plug Kits

Kits include a weld-in bung and an easy grip O-ring cap with positive seal. Kits are often used as an inspection plug or a ller plug. Large II plugs have a 3" opening. 3"-12 thread.

Kit With Aluminum Weld-In Bung

ALL36170.... Silver Kit ALL36171 Black Kit **ALL36172**..... Red Kit ALL36173..... Polished Kit



ALL36174 Silver Kit ALL36175..... Black Kit **ALL36176.....** Red Kit ALL36177..... Polished Kit



ALL36173



Small Fill Plug Kits

Kits include a weld-in or bolt-in bung and an easy grip O-ring cap with positive seal. Kits are often used as an

inspection plug or a ller plug. Small Il plugs have a 1-3/8" opening with 1-1/2"-12 threads.

Kit with Aluminum Weld-In Bung

ALL36160 Silver Kit ALL36164 Black Kit **ALL36165** Red Kit ALL36166 Polished Kit

Kit with Steel Weld-In Bung

ALL36161 Silver Kit ALL36167..... Black Kit **ALL36168** Red Kit ALL36169 Polished Kit

Kit with Aluminum **Bolt-In Bung**

ALL36180 Silver Kit ALL36181 Black Kit **ALL36182.....** Red Kit ALL36183 Polished Kit



ALI 36182

Weld Bungs

Weld-on bungs are available in 6061 aluminum or mild steel and allow additional ttings to be added to radiators, or oil pans and building of custom tanks or other components.

Female NPT

Size	O.D.	Aluminum	Steel		
1/8"-27NPT	3/4"	ALL50740	ALL50750		
1/4"-18NPT	7/8"	ALL50741	ALL50751		
3/8"-18NPT	1"	ALL50742	ALL50752		
1/2"-14NPT	1-1/4"	ALL50743	ALL50753		
3/4"-14NPT	1-3/8"	ALL50744	ALL50754		
1"-11-1/2NPT	1-5/8"	ALL50745	_		



Male AN

Size	Thread	Flange O.D.	Aluminum	Steel
-4AN	7/16"-20	3/4"	ALL50760	ALL50770
-6AN	9/16"-18	7/8"	ALL50761	ALL50771
-8AN	3/4"-16	1"	ALL50762	ALL50772
-10AN	7/8"-14	1-1/8"	ALL50763	ALL50773
-12AN	1-1/16"-12	1-3/8"	ALL50764	ALL50774
-16AN	1-5/16"-12	1-5/8"	ALL50765	ALL50775
-20AN	1-5/8"-12	1-3/4"	ALL50766	ALL50776



Female AN ORB

Size	Thread	O.D.	Aluminum			
-4AN	7/16"-20	3/4"	ALL50780			
-6AN	9/16"-18	7/8"	ALL50781			
-8AN	3/4"-16	1"	ALL50782			
-10AN	7/8"-14	1-1/8"	ALL50783			
-12AN	1-1/16"-12	1-3/8"	ALL50784			
-16AN	1-5/16"-12	1-5/8"	ALL50785			





LS Cylinder Head Bolt Kits

LS head bolt kits are direct replacement OE style Torque-To-Yield (TTY) head bolts which make them ideal for use on stock and mild performance rebuilds. Follow OEM torque sequence and speci cations for proper installation.



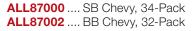
ALL87004.....1997-2003 Gen III

ALL87005.... 2004-06 Gen III (Fully-threaded)

ALL87006.... 2004-2019 Gen III & IV

Chevy Cylinder Head Bolts

Original equipment Grade 8 cylinder head bolts are ideal for stock or budget performance rebuilds.





Head Dowel Pin Kits

Dowel pins are an often overlooked item when performing a rebuild or upgrading cylinder heads. Dowel pins keep gaskets in position and properly align cylinder heads to the engine block. Kits include four pins.

ALL87020 SB Chevy ALL87026 BB Chevy ALL87024 LS GM ALL87028 SB Ford



Port and Polish Kit ALL11052

Kit includes an assortment of 60, 80, and 120 grit cartridge rolls for cleaning and modifying intake and exhaust ports to match gaskets, remove casting marks and for smoothing out runners. Two 1/4" mandrels are included with each kit.



Dykem Layout Fluid ALL12070

Apply layout uid to the work surface to enhance visibility of scribes during fabrication. Blue uid dries in minutes to a uniform,

thin Im without cracking or chipping. 4 oz. container has a built-in brush under cap. Not intended for use in set up of ring and pinion gear sets.

High-Performance 11/32" Umbrella Valve Seals

ALL90235

High quality umbrella style seal moves with valve and de ects oil away from valve guide area. Seals have an O.D. of .750" to t under most stock or larger diameter valve springs and a .580" I.D. to clear valve guides on most engines. Seals require no machining for installation. Set of 16.

High-Performance PTFE Valve Seals

Seals have spring loaded wipers for maximum oil control.

Machining is required for most installations. Set of 16.

ALL90240 11/32" Valve Seals, 0.620" Seal O.D., 0.531" Mach. Tool Guide O.D.

ALL90241..... 11/32" Valve Seals, 0.600" Seal O.D., 0.500" Mach. Tool Guide O.D.

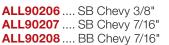
ALL90242 3/8" Valve Seals, 0.620" Seal O.D.,

0.531" Mach. Tool Guide O.D.

ALL90244 5/16" Valve Seals, 0.620" Seal O.D., 0.531" Mach. Tool Guide O.D.

Rocker Arm Nut Kits

Sets include 16 matched rocker arm nuts which are direct replacements for many stud girdles.



SB Chevy Rocker Arm Stud Kit

ALL90230

Grade 8, 3/8"-24 original equipment style studs require a 7/16"-14 tapped hole in the head. Studs have a 2.375" overall length. Package of 8.

教

SB Chevy Flat Pushrod Guide Plate ALL90250

Guide plates are designed for 5/16" hardened pushrods and stabilize valvetrains using highlift camshafts and high-pressure valve springs. Package of 8.

Valve Lash Wrenches

Allstar valve lash wrenches save precious time and make valve adjustment easy. No more fumbling with

two separate wrenches. Available for Jesel, T&D, and other poly-lock style rocker assemblies.

ALL96400 7/16" Adjuster Wrench, 1/8" Allen Wrench, Jesel Assemblies

ALL96401 1/2" Adjuster Wrench, 3/16" Allen Wrench, T&D Assemblies

ALL96402 9/16" Adjuster Wrench, 3/16" and 7/32"
Allen Wrenches, for Stud Girdle Assemblies

ALL96403 5/8" Adjuster Wrench, 3/16" and 7/32" Allen Wrenches, Poly Lock

Intake Manifold Bolt Kit ALL87010

Grade 8, 12-point ange clear zinc bolts are 3/8" x 1-1/8" long to t small block Chevys and Chrysler "A" and "B" engines where clearance is insufficient for standard hexhead bolts. Sets of 12 include stainless washers.







SB Chevy Gaskets

Popular gaskets and gasket sets for most 1955 to 1985 SB Chevy engines.



ALLO1240
ALL87220 Oil Pan Set, 1975 and later*
ALL87240 Front Of Engine Set
ALL87230 Water Pump To Block
ALL87230-10 Water Pump To Block 10-Pack
ALL87231Thermostat Housing
ALL87231-10 Thermostat Housing 10-Pack
ALL87236 Fuel Pump
ALL87236-10 Fuel Pump 10-Pack
ALL87238 Fuel Pump Plate
ALL87238-10 Fuel Pump Plate 10-Pack
ALL87250 Distributor Gasket
ALL87250-10 Distributor Gasket 10-Pack

*This set only includes the thick front oil pan seal which is designed for 1975 and later engines and most aftermarket pans.

Chevy Aluminum Exhaust Block-Off Plates



Aluminum block-off plates seal exhaust ports during engine storage or repairs. Plates help protect against moisture, dust, and dirt. Sold in pairs.

ALL34212..... SB Chevy

ALL34214..... SB Chevy Spread Port

ALL34218..... LS **ALL34219**..... BB Chevy

SB Chevy Plastic Exhaust Block-Off Plates

One-piece design 1/4" thick block-off plates seal exhaust ports during engine storage or repairs. Plates protect against moisture, dust and dirt. Sold in pairs.



ALL34213..... Standard 23°

ALL34215..... Spread Port and Dart (Excluding 23°)

ALL34217..... SB2

Carburetor Gaskets



ALL87200 4150 Open **ALL87202** 4150 4-Hole **ALL87204** 4412 2-Hole, 2bbl. **ALL87206** 4500 Open, Dominator

SB Chevy Header Gaskets

Durable reinforced steel core and graphite composite gaskets remain soft and pliable to conform to header and ALL87264

head surfaces, providing an excellent, long lasting seal. Sold each.

ALL87260 1-5/8" Square Port (Stock) **ALL87262** 1-3/4" D-Port (Standard)

ALL87264 Spread Port (Staggered Bolt Pattern) **ALL87266** Crate Engines (Non LS/Fast Burn) **ALL87268** LS Series Engines (Excluding LS7)

Fogging Oil ALL78220

Spray aerosol lubricant (with special additives) into the intake and spark plug holes to coat and lubricate the cylinders, valves, and valve seats. Prevents horsepower-robbing corrosion and eliminates scuffin at start-up after periods of storage. May be used in all 2- or 4-cycle, carbureted or fuel-injected gasoline engines in cars, trucks, motorhomes, ATV's, etc. Sold in a 12-oz. can.



ALI 34213

Engine Cover

ALL26234

Water-repellent cover with bottom draw string is perfect for storage or transportation. 32" long x 23" wide x 28" tall.





Header Wrap

Reduce under hood temperature while containing header tube heat for increased power. Fiberglass woven wrap is available in natural or black rolls.



1" Wide Rolls				
ALL34240 Natural 15'				
ALL34241 Natural 25'				
ALL34242 Natural 50'				
ALL34243 Natural 100'				
ALL34250 Black 15'				
ALL34251 Black 25'				
ALL34252 Black 50'				
ALL34253 Black 100'				

2" Wide Rolls ALL34244 Natural 15' ALL34245 Natural 25' ALL34246 Natural 50' ALL34247 Natural 100' ALL34254 Black 15' ALL34255 Black 25' ALL34256 Black 50' ALL34257 Black 100'

Stainless Steel Cable Ties

ALL34262 7-1/2" Long. Package of 8 ALL34264 14-1/2" Long, Package of 4

Universal Heat Wrap

ALL34238

Heat-resistant material measures 7" x 22", making it ideal for wrapping starter motor or other compo-

nents that are close to high-heat areas. Wrap features a re ective material on one side to protect against radiant heat and includes two 24" long stainless steel tie wraps for securing material.

Replacement Component

ALL34266 24" Stainless Steel Ladder Ties, 2-Pack

Exhaust Shields

Aluminum shields protect body panels from exhaust exiting through the passenger door and provide a clean, nished look from the outside, simplifying exhaust routing. Round shield I.D. is 6", commonly used for exiting one 5" diameter exhaust pipe.



Oval shield I.D. is 5" x 9", commonly used for exiting two 3-1/2" diameter exhaust pipes.

ALL34180 Round Flange, 55° to Door ALL34181 Round Flange, 90° to Door ALL34182..... Oval Flange, 55° to Door ALL34183..... Oval Flange, 90° to Door

Header Tab Kits

ALL60040 Weld to headers to hold slip-on collectors in place or use to retain pri-

mary tubes on adjustable headers. Kit includes two pairs of tabs, two bolts, and two hex nuts. Two tabs are recommended to secure each collector. Tabs are .085" thick.

ALL60039 3/4" Tall Tabs x 1-1/2" Long

(When Combined 2-1/2" Long), 2-Pack

ALL60040 1" Tall Tabs x 2-1/2" Long

(When Combined 4" Long), 2-Pack

Crankcase Evacuation System ALL34145

Reduce crankcase pressure for optimum piston ring seal, fewer oil leaks and better engine performance. System includes two of each: chrome plated push-in breathers, check valves, weldin 3-1/2" long threaded pipe adapters, rubber breather grommets

and four hose clamps. Evacuation hoses not included. Use with 5/8" diameter hose.

Replacement Component

ALL34146 Check Valve

Electric Exhaust Cutouts

Eliminate the need to manually uncap the exhaust. 12V electric cutout bolts to a standard 3-bolt collector ange and



uses a powerful geared motor to open and close a butter y valve to direct exhaust. Sold each.

ALL34230 3" Collector Pattern (3-7/8" B.C.) ALL34231 2-1/2" Collector Pattern (3-1/2" B.C.)

IMPORTANT! ALL34232 or ALL34233 harness (sold separately) is required for proper operation.

Related Components

ALL34232 Single System Harness ALL34233 Dual System Harness



O₂ Sensor Plug And Bung

Hard-to-fin O₂ sensor ttings work in a variety of uses.







ALL34150..... 18mm Sensor Plug

ALL34152..... 18mm Sensor Bung, Angled ALL34153..... 18mm Sensor Bung, Straight

Swivel Exhaust Hanger ALL34220

Hanger swivels horizontally and vertically to simplify mounting in any position. Bolt or weld to chassis to support additional weight of muffl rs, turndowns, etc. Steel strapping is 1/8" thick.





Universal Front Engine Plates

ALL38120

Engine plates are

used to replace the front engine mounts allowing relocation of the engine in the chassis, including lowering or when moving the engine back in the chassis. Plates prevent engine movement and reinforce the front suspension for better handling and increased reaction times. Fabricated from 1/4" thick 6061-T6 aluminum, plates are often trimmed to fit the chassis or frame mounts. Plates are machined for a perfect fit to mount between the water pump and engine block.

ALL38120..... SB Chevy 10" x 36" **ALL38124**..... BB Chevy 12" x 36"

Universal Dragster Front Engine Plates

Universal width engine plate includes separate frame saddles for the engine plate to rest on allowing installation of



engine into any width dragster style chassis. Saddles feature machined ats which allow the engine plate to rest directly on the saddle securing the engine plate between the saddle and the existing frame mounting tab. Plate is 1/4" thick and includes saddles for chassis up to 1-3/8" in diameter. Note: Drilling will be required to fasten saddles and engine plate to existing frame mounts once plate is positioned on frame.

ALL38142..... SB Chevy **ALL38143**..... BB Chevy

Engine Lift Plate

ALL10123

Ease engine swaps
with the Allstar engine
lift plate. Bolts to manifold in place of carburetor.
Yellow zinc-coated plate ts

standard Holley 4150/4160 and 4500

Dominator, Rochester Quadrajet, Carter, Motorcraft, Edelbrock, Edelbrock Q-Jet, and Carter AFB carburetors.

Bellhousing Dowel Pins

Steel dowel pins are approximately 1/2" longer than stock pins and are required when running an engine mid-plate, rear engine mounts or an aftermarket bellhousing. Pins t most GM blocks and are sold in pairs.



ALL38150..... Solid Pins ALL38152..... Hollow Pins

Universal Engine Mid-Plates

Universal plates are positioned between the engine and transmission to provide a mid-engine mounting location and help stiffen the chassis. These mid



plates are great for drag racing and street cars, allowing easier engine or transmission removal, and installation of engine/transmission into almost any chassis. Plates t most GM V8 applications and measure 15"H x 29"W.

ALL38121..... Steel (0.090") **ALL38122**..... Aluminum (0.250")

Engine Mid-Plate

ALL38132

An engine mid-plate locates between the engine block and transmission to provide



a center mounting point in a fabricated chassis. Plate is 1/4" thick 6061 aluminum, black powder coated and pro led to keep weight at a minimum without compromising strength or durability. Mid-plate features multiple mounting holes spaced 1/2" apart and a 5/8" offset to work with many different chassis.

Engine Cradles

Engine cradles are available in standard duty or heavy-duty, both with provisions for mounting wheels and are made of 1" square tubing with black powder coating.

All cradles are for V8



engines, include Grade 5 fasteners and may be easily disassembled for storage.

Standard-duty cradles accept wheel kits with 3/8" studs. Heavy-duty cradles accept wheel kits with 1/2" studs. Wheel kits sold separately.

Standard Duty

ALL10130 SB and BB Chevy ALL10138 GM LS Series ALL10145 SB Ford** ALL10147 SB Ford

Modular/Coyote

ALL10150 SB Mopar **ALL10151** Hemi (5.7 And 6.1)



Accepts Bolt-On Wheel Kits

Standard Duty Wheel Mount

Heavy Duty

ALL10132 SB and BB Chevy ALL10139 GM LS Series

ALL10142 Oldsmobile ALL10144 Pontiac

ALL10148 SB Ford** **ALL10149** SB Ford

SB Ford Modular/Coyote

ALL10152 SB Mopar **ALL10154** BB Ford **ALL10156** BB Mopar



Heavy Duty Wheel Mount

**Designed to work with stock and most aftermarket blocks including Dart, World, and Ford Boss with ribbed engine mount bosses and bulged water jackets.



Standard Chevy Front Engine Mounts

Mounts are designed for fabricated chassis or stock chassis that have fabricated engine mounts attached to the frame. Solid style mounts bolt in place of stock engine mounts on standard Chevy engines and features a frame mounting hole that is centered on the original mounting loca-

tion. Frame mounting holes are designed for 1/2" fasteners and slotted for universal t in many applications. Sold each.

ALL38100 Steel **ALL38098** Aluminum

Offset Chevy Front Engine Mounts

Mounts are designed for fabricated chassis or stock chassis that have fabricated engine mounts attached to the frame. Solid style mounts bolt in place of stock engine mounts on standard



Chevy engines and features a frame mounting hole that is offset to the original mounting location. Frame mounting holes are designed for 1/2" fasteners and slotted for a universal tin many applications. Sold in pairs.

ALL38108 1" Offset **ALL38109** 2" Offset **ALL38110** 3-3/8" Offset

Chevy Rear Engine Mounts

Solid style mounts bolt between the engine and transmission of most Chevy V8's creating a middle support. Unwelded version allows tab to be installed in any location. Commonly used with solid front engine mounts. Extended bellhousing dowel pins recommended, extended pilot bearings or other spacers may be required.

ALL38101..... Welded
ALL38102..... Unwelded Universal Kit

Chevy Raised Engine Mounts

Use these mounts to raise the engine in the chassis instead of spacers and longer bolts. Use when changing from a dry sump to a wet sump engine or when extra clearance is required. 1" or 1-1/2" raised steel mounts are 1/4" thick and slotted for easy installation. Mounts are sold each.

ALL38060 Front, Raised 1" **ALL38061** Front, Raised 1-1/2" **ALL38064** Rear, Raised 1" **ALL38065** Rear, Raised 1-1/2"



Ford Engine Mounts

Steel mounts have been updated and now t the newer and original 302-351W small blocks. Sold in pairs.

ALL38112..... Rear **ALL38113**..... Front

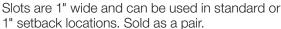


ALL38113

CT525 Engine Mounts

ALL38085

Steel mounts allow a CT525 crate or other LS series engine to tin, most circle track cars.





GM Engine Mount Kit

ALL38082

Bolt-in steel mounts for GM metric chassis bolt to crossmember and accept Allstar steel engine mounts (ALL38100). A "captured" 1/2"-13 nut eases engine installation. Sold in pairs.



LS Engine Adapters

ALL38084

Adapters allow bolting an early GM 3-bolt engine mount to the late model LS style block with a 4-bolt pattern. Adapters place the early mount in approximately the same location as found on the original



SB/BB Chevy engines and also features optional holes for moving the engine forward up to 2-1/4" for additional rewall clearance. Sold in pairs and includes mounting hardware.

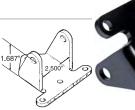
Chevy Solid Engine Mount

ALL38080

ALL38101

ALI 38065

Solid engine mount is 1/4" thick steel and replaces stock Chevy rubber mount to eliminate torque loss and prevent engine movement. Sold each.





Engine Mount Spacers

Aluminum spacers are pro led for weight reduction and are 1-1/2" O.D. x 1/2" I.D. Use with pedestal style engine mounts. Sold each.

ALL18620 1/4" ALL18621 1/2" ALL18622 1" ALL18623 1-1/2" ALL18624 2"

High-Vibration Engine Mount Spacer Kit (Big Bar Soft Spring Cars)

ALL18626

Ever wonder what happens to many race car components when you continually bottom out your chassis? Spacers are made from a unique material that won't let your engine vibrate around under normal conditions yet will give some when you bottom out making life a little easier on your

vibrate around under normal conditions yet will give some when you bottom out, making life a little easier on your engine and driveline components. Spacers are 1/4" thick, 1-1/2" O.D. with a 1/2" hole. Set of two.

Chevy Engine Mount Pads ALL38090

Steel pads are 3/16" thick and traditionally used as shims to gain extra oil pan or header clearance. May also be used for building custom engine mounts or engine stands. Sold in pairs.



GM Engine Mount ALL38114

Replacement stock mount for most GM engines. Mount bolts to chassis.

Fits:

1970-88 Monte Carlo

1970-87 El Camino

1971-92 Camaro

1977-87 Regal1970-85 Impala

1970-73 Chevelle

1973-87 Cutlass

1974-83 Malibu

1970-79 Nova

GM Engine Mount ALL38115

Replacement stock mount for most GM V-6 engines. Mount bolts to chassis. Designed to work with metal shell type mount bolts to engine.



Ford Engine Mount ALL38116

Replacement rubber mount for Allstar Ford Ranger V8 conversion kit. Mount bolts to the engine.





Chevrolet/GM V8 Engine Conversion Kits

Conversion kits are a good starting point when installing a small block Chevy/TH350 transmission combination into most 1982-up S-10, S-15, Jimmy, or Blazer. Additional components and fabrication will be required depending on engine and application.

ALL38250 2WD Conversion Kit Includes:

- Engine Mount Set
- Headers
- Engine Mounts

ALL38251 2WD Conversion Kit Includes:

- Engine Mount Set
- Headers
- Engine Mounts
- Radiator



Ford V8 Engine Conversion Kit ALL38200

Conversion kits are a good starting point when installing a 289/302 with a C-4 transmission combination into a 1982-97 2WD Ranger. Additional components and fabrication will be required, depending on engine and application.

Kit Includes:

- Engine Mount Adapter Set
- Oil Pump Pick-Up Tube
- Filter Adapter
- Engine Mounts
- Radiator
- Oil PanHeaders



3/16" Small Head Economy Rivets

Small head rivets have a 3/8" O.D. head and packaged 250 per box.

<u> </u>	0: 114 1		0: 5
Color	Steel Mandrel	Aluminum Mandrel	Grip Range
Silver	ALL18000	ALL18040	1/4" to 3/8"
White	ALL18001	_	1/4" to 3/8"
Red	ALL18002	_	1/4" to 3/8"
Black	ALL18003	_	1/4" to 3/8"
Chevron Blue	ALL18004	_	1/4" to 3/8"
Orange	ALL18005	_	1/4" to 3/8"
Yellow	ALL18006	_	1/4" to 3/8"
Silver	ALL18020	_	5/8" to 3/4"
White	ALL18021	_	5/8" to 3/4"
Red	ALL18022	_	5/8" to 3/4"
Black	ALL18023	_	5/8" to 3/4"



3/16" Small Head Rivets

Small head rivets have a 3/8" O.D. head and packaged 250 per box.

Color	Steel Mandrel	Aluminum Mandrel	Grip Range
Silver	ALL18101	ALL18107	1/8" to 1/4"
Silver	ALL18103	ALL18109	1/4" to 3/8"
Silver	ALL18105	_	3/8" to 1/2"
White	ALL18114	ALL18116	1/4" to 3/8"
Red	ALL18120	ALL18122	1/4" to 3/8"
Black	ALL18126	ALL18128	1/4" to 3/8"
Pepsi Blue	ALL18132	_	1/4" to 3/8"
Chevron Blue	ALL18134	ALL18135	1/4" to 3/8"
Orange	ALL18136	ALL18137	1/4" to 3/8"
Yellow	ALL18138	ALL18139	1/4" to 3/8"



3/16" Large Head Economy Rivets

Large head rivets have a 5/8" O.D. head and packaged 250 per box unless otherwise noted.

Color	Steel Mandrel	Aluminum Mandrel	Grip Range
Silver	ALL18010	ALL18050	1/4" to 3/8"
White	ALL18011	ALL18051	1/4" to 3/8"
Red	ALL18012	ALL18052	1/4" to 3/8"
Black	ALL18013	ALL18053	1/4" to 3/8"
Chevron Blue	ALL18014	ALL18054	1/4" to 3/8"
Orange	ALL18015	_	1/4" to 3/8"
Yellow	ALL18016	ALL18056	1/4" to 3/8"
Silver	ALL18030 [†]	_	5/8" to 3/4"
White	ALL18031 [†]	_	5/8" to 3/4"
Red	ALL18032 [†]	_	5/8" to 3/4"
Black	ALL18033†	_	5/8" to 3/4"



†Contain 200 pcs.

3/16" Large Head Rivets

Large head rivets have a 5/8" O.D. head and packaged 250 per box.

Color	Steel Mandrel	Aluminum Mandrel	Grip Range
Silver	ALL18141	ALL18149	1/8" to 1/4"
Silver	ALL18143	ALL18151	1/4" to 3/8"
Silver	ALL18145 [†]	_	3/8" to 1/2"
Silver	ALL18147	ALL18153	3/8" to 1/2"
White	ALL18156	ALL18158	1/4" to 3/8"
Red	ALL18162	ALL18164	1/4" to 3/8"
Black	ALL18168	ALL18170	1/4" to 3/8"
Pepsi Blue	ALL18174	ALL18175	1/4" to 3/8"
Chevron Blue	ALL18176	ALL18177	1/4" to 3/8"
Orange	ALL18178	_	1/4" to 3/8"
Yellow	ALL18180	ALL18181	1/4" to 3/8"







3/16" Multi Grip Rivets

Multi grip style rivets have a ribbed body that draws panels together tighter than standard smooth body rivets. Select proper grip range and use with 13/64" drill bit for best results. Box of 250.

Color	Steel Mandrel	Aluminum Mandrel	Head Size	Grip Range
Silver	ALL18110	_	Sm. (3/8")	3/16" to 3/8"
Silver	ALL18090	ALL18070	Med. (1/2")	1/16" to 3/8"
Silver	ALL18086	ALL18074	Med. (1/2")	1/16" to 5/8"
Silver	ALL18094	_	Lg. (9/16")	1/16" to 3/8"
Silver	ALL18093	_	Lg. (9/16")	1/16" to 3/4"
White	ALL18092	_	Med. (1/2")	1/16" to 3/8"
White	ALL18096	_	Lg. (9/16")	1/16" to 3/8"
Black	ALL18091	ALL18071	Med. (1/2")	1/16" to 3/8"
Black	ALL18087	ALL18075	Med. (1/2")	1/16" to 5/8"
Black	ALL18095	_	Lg. (9/16")	1/16" to 3/8"
Black	ALL18097	_	Lg. (9/16")	1/16" to 3/4"



3/16" Tri-Fold Rivets

Tri-fold rivets have a perforated body that opens and expands to create a large backside surface area, eliminating the need for backer washers. Use a 13/64" drill bit for best results. Box of 250.

Color	Steel Mandrel	Aluminum Mandrel	Head Size	Grip Range
Silver	_	ALL18184	Sm. (3/8")	1/8" to 3/8"
Silver	_	ALL18183	Med. (1/2")	1/8" to 3/8"
Silver	ALL18185	_	Med. (1/2")	1/8" to 1/2"
Silver	_	ALL18060	Lg. (5/8")	1/8" to 3/8"
White	_	ALL18080	Sm. (3/8")	1/8" to 3/8"
White	_	ALL18188	Med. (1/2")	1/8" to 3/8"
White	_	ALL18061	Lg. (5/8")	1/8" to 3/8"
Red	_	ALL18081	Sm. (3/8")	1/8" to 3/8"
Red	_	ALL18189	Med. (1/2")	1/8" to 3/8"
Red	_	ALL18062	Lg. (5/8")	1/8" to 3/8"
Black	_	ALL18082	Sm. (3/8")	1/8" to 3/8"
Black	_	ALL18187	Med. (1/2")	1/8" to 3/8"
Black	_	ALL18063	Lg. (5/8")	1/8" to 3/8"
Chevron Blue	_	ALL18083	Sm. (3/8")	1/8" to 3/8"
Orange	_	ALL18084	Sm. (3/8")	1/8" to 3/8"
Yellow	_	ALL18085	Sm. (3/8")	1/8" to 3/8"



Cleco Pin Fastener Kits

Cleco pins are reusable and easily make a temporary connection between pieces of sheet metal during tting. Pins will work with thicknesses up to 1/4". Kits include pliers and 10 pins.

ALL18221 Kit with 1/8" Pins **ALL18225** Kit with 3/16" Pins



Unique tool readily installs and removes Cleco fasteners.

Clamp Type Cleco Fastener ALL18230

A very strong spring clamp to hold pieces together when drilling is not an option. The smooth throat prevents paint damage and is 1" deep, with a maximum clamping range of 1/2".

Pin Type Cleco Fasteners

Cleco pins permit quick, easy installation and removal of sheet metal during ting. Pins work with thicknesses up to 1/4".

1/8" Dia. Pins ALL18222..... 10-Pack ALL18223..... 25-Pack ALL18224..... 100-Pack **3/16" Dia. Pins ALL18226** 10-Pack **ALL18227** 25-Pack **ALL18228** 100-Pack

TECH TIP

Drill holes one drill size smaller than the Cleco pin size to assure a tight t.

1/4" Pin Type Cleco Fastener

ALL18234

Cleco Pins are temporary fasteners that can easily be installed or removed in 1/4" holes when tting sheet metal or chassis tabs using the ALL18220 Cleco Pliers. 1/4" size pin is ideal to use in place of body bolts or other 1/4" fasteners. Package of 10.



1/8" Rivets

	Stainless Steel	Aluminum		
Color	Mandrel	Mandrel	Qty	Grip Range
Silver	_	ALL18190	500	1/8" to 1/4"
Silver	_	ALL18191	25	1/8" to 1/4"
Silver	_	ALL18192	500	1/4" to 3/8"
Silver	-	ALL18194	25	1/4" to 3/8"
Black	-	ALL18193	500	1/8" to 1/4"
Black	_	ALL18195	500	1/4" to 3/8"
Stainless Steel*	ALL18196	-	500	1/8" to 1/4"
Stainless Steel*	ALL18197	-	25	1/8" to 1/4"

^{*}Stainless steel body and mandrel.

1/8" Multi-Grip Rivets

Multi-grip style rivets have a ribbed body that draws panels together tighter than standard smooth body rivets. Rivets feature steel mandrels, a 1/8" to 3/8" grip range and are sold in 250-piece boxes.

ALL18198 Silver **ALL18098....** Black



1/8" Flange Tri-Fold Rivets

Tri-fold rivets have a perforated body that opens and expands to create a large backside surface area, eliminating the need for backer washers. Rivets feature aluminum mandrels, a 1/8" to 3/8" grip range and are sold in 100-piece boxes.

ALL18199 Silver **ALL18099.....** Black

Back-Up Washers

Back-up washers provide added strength when fastening panels together or when resecuring damaged panels. ALL18200



ALI 18215

Part No.	I.D.	O.D.	Pkg. Qty.
Aluminum			
ALL18200	1/8"	3/8"	500
ALL18202	3/16"	5" 1/2" 500	
Steel			
ALL18215	3/16"	1"	100

Double-Ended Drill Bits

Double-ended bits are basically two bits in one. Convenient bit can be ipped around for a fresh sharp bit when drilling panels for Cleco fasteners or rivets. Package of 6.

ALL18201 1/8" ALL18204..... 3/16"

13/64" Drill Bits ALL18203

Drill bit is for ange rivets. High-speed steel bits have a black oxide nish and self-centering tips. Flute length: 1-3/16", overall length: 2-1/4". Package of 2.

Racer's Tape

A hundred uses in the shop or at the track, this is true "Racer's Tape".



	Wide X 90	
Αl	.L14141 Black	<
2"	Wide x 180'	

ALL14150 Silver ALL14151 White ALL14152 Red ALL14153 Black ALL14154 Yellow

ALL14155 Blue

2" Wide x 180'

ALL14156 Orange **ALL14157** Green ALL14158 Burgundy **ALL14159** Purple **ALL14162** Teal 3" Wide x 180'

ALL14142 White ALL14143 Black

Gaffer's Tape

Vinyl-coated gaffer's tape has a dull appearance and is much stronger than standard racer tape.

2" Wide x 165'

ALL14251 White ALL14252 Red **ALL14253**.... Black **ALL14254**.... Yellow

ALL14255 Navy Blue

4" Wide x 165' ALL14261 White **ALL14263....** Black

1" Wide x 150'

ALL14245..... Fluorescent Green ALL14246..... Fluorescent Pink ALL14247 Fluorescent Orange ALL14248..... Fluorescent Yellow

2" Wide x 45'

ALL14145 Fluorescent Green ALL14146 Fluorescent Pink ALL14147 Fluorescent Orange **ALL14148**.....Fluorescent Yellow

2" Wide x 150'

ALL14265 Fluorescent Green ALL14266 Fluorescent Pink ALL14267 Fluorescent Orange **ALL14268** Fluorescent Yellow







Mike Spatola



Nylon Tie Wraps

Secure electrical wiring, gauge lines, and roll bar padding.



Black ALL14120 3-1/2"	Red ALL14126 7"
ALL14122 5"	ALL14127 14"
ALL14123 7"	Blue
ALL14124 11"	ALL14128 7"
ALL14125 14"	ALL14129 14"
Natural	Yellow
ALL14130 3-1/2"	ALL14136 7"
ALL14132 5"	ALL14137 14"
ALL14133 7"	Purple
ALL14134 11"	ALL14138 7"
ALL14135 14"	ALL14139 14"

Heavy-Duty Nylon Tie Wraps

Heavy-duty black nylon ties are ideal for emergency repairs and applications that require a secure attachment.

ALL14380 8", 25-Pack ALL14381 14", 25-Pack **ALL14383**..... 21", 10-Pack ALL14385 36", 10-Pack



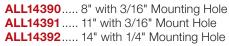
Nylon Flush-Fit Tie Wraps

Flush-fi design ties have the excess portion of the tie exit in the same direction as the original tie, helping to eliminate the protruding sharp portion remaining as found in standard ties. Package of 100.



Nylon Tie Wraps with Mounting Holes

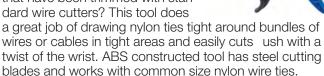
Built-in tab with mounting hole to easily secure wiring harnesses, hoses, or cables to a panel with rivets or other fasteners. Package of 25.





Tie Wrap Tool ALL11005

Tired of cuts from nylon tie wraps that have been trimmed with standard wire cutters? This tool does



Stainless Steel Tie Wraps

Stainless steel ties are an excellent choice when securing header wrap to exhaust tubes or similar applications when nylon wraps won't stand up to the heat! Rust and corrosion resistant cable ties are T-304 stainless.

ALL34262 7-1/2" Long, Package of 8 ALL34264 14-1/2" Long, Package of 4

Tie Wrap Mounting Bases

Self-adhesive mounting bases provide a location for attaching standard tie wraps to secure wiring, cables and hoses. Bases mount to clean, at surfaces and accept most standard wire ties. Package of 10.

ALL14116..... 3/4" x 3/4" **ALL14117**..... 1-1/8" x 1-1/8"

Safety Wire Twister Pliers ALL10120

Never lose another race because of loose bolts. Rugged pliers have an end bearing for smoother, faster twisting, especially in tight areas where a second pull is needed.

Safety Wire

Wire is used to mechanically lock pre-drilled fasteners for added security. Type 302/304 stainless steel wire features high corrosion resistance and good tensile strength in applications up to 500°F. Sold in a 1-lb. spool enclosed in a convenient dispensing container.

ALL10121 0.032" Diameter ALL11008 0.041" Diameter

Safety Wire Drill Fixture

ALL10122

Accurately drill holes in fasteners. allowing them to be mechanically locked in place with safety wire.

Fixture accommodates most 3/16", 1/4", 5/16", 3/8", 7/16", 1/2", and 5/8" socket head and hex head fasteners. Guide bolt tightens against fastener, holding it secure for drilling. Fixture includes two guide bolts and two 1/16" drill bits conveniently stored within the xture.

Replacement Component ALL99102..... 1/16" Drill Bits, 2-Pack







Quick Turn Fasteners



	Flush Head			Silver		Black	
Body Size	Length	Material	10 Pack	50 Pack	10 Pack	50 Pack	
5/16"	.500"	Aluminum	ALL19256	ALL19258	ALL19257	ALL19259	
5/16"	.500"	Steel	ALL19186	ALL19188	_	_	
7/16"	.400"	Aluminum	ALL19260	ALL19262	ALL19261	ALL19263	
7/16"	.400"	Steel	ALL19190	ALL19192	_	_	
7/16"	.500"	Aluminum	ALL19266	ALL19268	ALL19267	ALL19269	
7/16"	.500"	Steel	ALL19200	ALL19202	_	-	
7/16"	.550"	Aluminum	ALL19270	ALL19272	ALL19271	ALL19273	
7/16"	.550"	Steel	ALL19210	ALL19212	_	_	



Flush Head Self-Ejecting		Silver		Black		
Body Size	Length	Material	10 Pack	50 Pack	10 Pack	50 Pack
5/16"	.400"	Steel	ALL18990	ALL18992	ALL18991	ALL18993
5/16"	.450"	Steel	ALL18996	ALL18998	_	_
5/16"	.500"	Aluminum	ALL18997	ALL18999	ALL19004	ALL19005
5/16"	.500"	Steel	ALL19000	ALL19002	ALL19001	ALL19003
5/16"	.550"	Steel	ALL19006	ALL19008	_	_
5/16"	.650"	Steel	ALL19010	ALL19012	_	_
7/16"	.500"	Aluminum	ALL19113	ALL19114	ALL19115	ALL19116
7/16"	.500"	Steel	ALL19100	ALL19102	ALL19098	ALL19099
7/16"	.550"	Steel	ALL19110	ALL19112	ALL19101	ALL19103



Flush Head Allen		Silver		Black		
Body Size	Length	Material	10 Pack	50 Pack	10 Pack	50 Pack
7/16"	.500"	Aluminum	ALL19117	ALL19118	ALL19140	ALL19141
7/16"	.500"	Steel	ALL19142	ALL19143	_	_
7/16"	.550"	Steel	ALL19144	ALL19145	_	_



Flush Head Self-Ejecting Allen		Silver		Black		
Body Size	Length	Material	10 Pack	50 Pack	10 Pack	50 Pack
5/16"	.500"	Aluminum	_	_	ALL19128	ALL19129
5/16"	.500"	Steel	ALL19130	ALL19131	_	_
5/16"	.550"	Steel	ALL19132	ALL19133	_	_
7/16"	.500"	Aluminum	_	_	ALL19134	ALL19135
7/16"	.500"	Steel	ALL19136	ALL19137	_	_
7/16"	.550"	Steel	ALL19138	ALL19139	_	_



Winged Head			Silver		Black	
Body Size	Length	Material	10 Pack	50 Pack	10 Pack	50 Pack
7/16"	.400"	Steel	ALL19236	ALL19238	_	_
7/16"	.500"	Steel	ALL19240	ALL19242	ALL19241	ALL19243
7/16"	.550"	Steel	ALL19250	ALL19252	_	_



	Winged Head Self-Ejecting		Silver		Black		
Bod	y Size	Length	Material	10 Pack	50 Pack	10 Pack	50 Pack
5/	′16"	.450"	Steel	ALL19046	ALL19048	_	_
5/	′16"	.500"	Steel	ALL19050	ALL19052	_	_
5/	′16"	.550"	Steel	ALL19056	ALL19058	_	_
5/	′16"	.650"	Steel	ALL19060	ALL19062	_	_
7/	′16"	.500"	Steel	ALL19064	ALL19066	_	_
7/	′16"	.650"	Steel	ALL19068	ALL19070	_	_



Quick Turn Fasteners



Oval Head		Silver		Black		
Body Size	Length	Material	10 Pack	50 Pack	10 Pack	50 Pack
1/4"*	.400"	Steel	ALL19211	ALL19213	ALL19224	ALL19225
5/16"	.500"	Aluminum	ALL19276	ALL19278	ALL19277	ALL19279
5/16"	.500"	Steel	ALL19214	ALL19215	ALL19226	ALL19227
7/16"	.400"	Aluminum	ALL19280	ALL19282	ALL19281	ALL19283
7/16"	.400"	Steel	ALL19216	ALL19218	_	1
7/16"	.500"	Aluminum	ALL19286	ALL19288	ALL19284	ALL19285
7/16"	.500"	Steel	ALL19220	ALL19222	ALL19228	ALL19229
7/16"	.550"	Aluminum	ALL19290	ALL19292	ALL19291	ALL19293
7/16"	.550"	Steel	ALL19230	ALL19232	ALL19231	ALL19233
7/16"	.600"	Aluminum	_	_	ALL19294	ALL19295
7/16"	.750"	Aluminum	ALL19274	ALL19275	_	_

^{*} Use .062" diameter springs ALL19296 or ALL19298.



Oversized Oval Head		Silver		Black		
Body Size	Length	Material	10 Pack	50 Pack	10 Pack	50 Pack
7/16"	.500"	Aluminum	ALL19287	ALL19289	ALL19168	ALL19169
7/16"	.500"	Steel	ALL19221	ALL19223	ALL19170	ALL19171



	Oval Head Allen		Silver		Black	
Body Size	Length	Material	10 Pack	50 Pack	10 Pack	50 Pack
5/16"	.500"	Steel	ALL19152	ALL19153	_	_
5/16"	.550"	Steel	ALL19154	ALL19155	_	_
7/16"	.500"	Aluminum	ALL19172	ALL19173	ALL19176	ALL19177
7/16"	.500"	Steel	ALL19162	ALL19163	_	_
7/16"	.550"	Steel	ALL19164	ALL19165	_	_



Oversized Oval Head Allen		Silver		Black		
Body Size	Length	Material	10 Pack	50 Pack	10 Pack	50 Pack
7/16"	.500"	Aluminum	ALL19180	ALL19181	ALL19178	ALL19179



Oval Head T-30 Torx		Silver		Black		
Body Size	Length	Material	10 Pack	50 Pack	10 Pack	50 Pack
7/16"	.500"	Aluminum	ALL19071	ALL19072	ALL19073	ALL19074
7/16"	.550"	Aluminum	ALL19075	ALL19076	ALL19077	ALL19078



Not sure where to start when using quick turn fasteners? Use this kit as a starting point to determine correct fasteners for application. Kit includes two different lengths of Allstar's most popular oval head 7/16" fasteners (ve ALL19280 and ve ALL19286), ten ALL19330 springs and twenty- ve multi-grip rivets.

Quick Turn Fastener Tool

The quick turn fastener tool ts slot head fasteners and reduces the risk of body panel or fastener damage when using screwdrivers for loosening or tightening.

ALL19400..... Tool with Flat Handle **ALL19401**..... Tool with Screwdriver Handle





Quick Turn Springs



	10-Pack	50-Pack				
1-3/8" (.090" Wire Diameter)						
.325" Reach	ALL19320	ALL19322				
.375" Reach	ALL19330	ALL19332				
.425" Reach	ALL19336	ALL19338				
1" (.080" Wire Diamete	r)					
.250" Reach	ALL19300	ALL19302				
.325" Reach	ALL19310	ALL19312				
3/4" (.062" Wire Diameter)						
.200" Reach	ALL19296	ALL19298				

Mounting Brackets for 1" Springs (.0625" Thick)



Description	10-Pack	50-Pack
Weld-on, Lightweight	ALL19364	ALL19366
Weld-on Lightweight w/ .250" Spring	ALL19365	ALL19367
Weld-on	ALL19340	ALL19342
Weld-on w/ ALL19300 Spring	ALL19350	ALL19352

Quick Turn Spring Fixture Accurately drill panels when installing

quick turn fastener springs. Start with a 1/4" center hole and use the xture to locate and drill 1/8" holes for mounting the springs. Size listed is spring center-to-center distance.

ALL19406.... Fixture for 3/4" Spring ALL19407.... Fixture for 1" Spring ALL19408.... Fixture for 1-3/8" Spring

Mounting Brackets for 1" and 1-3/8" Springs (.0625" Thick)





Description	10-Pack	50-Pack
Weld-on, Lightweight (for 1-3/8" Spring Only)	ALL19360	ALL19362
Weld-on, Lightweight w/ .375" Spring	ALL19361	ALL19363
Weld-on LH	ALL19380	ALL19382
Weld-on RH	ALL19384	ALL19386
Rivet-on LH	ALL19390	ALL19392
Rivet-on RH	ALL19394	ALL19396

Quick Turn Spring Adjuster

ALL19405

This tool is a must when adjusting tension of quick turn springs. Simply turn knob on adjuster to evenly pull spring from front or backside without kinking or breaking spring.

Transfer Punches

For use with quick turn fasteners, place transfer punch in a weld plate or body panel. Position panel over top of punch and lightly tap with a hammer to leave a mark on the panel where hole is to be drilled.



TECH TIP

Quick Turn Fastener Measurement Guidelines

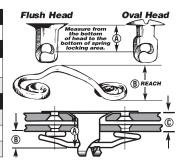
To find (A) Fastener Length, add together (B) Spring Reach and (C) Material Thickness (including bracket if applicable). A=B+

Quick Turn Fastener Selection

- Determine the total thickness of the panels being joined, including mounting brackets and the space between the panels, if any.
- Select the proper body length and spring height combination that provides the proper thickness range.

ALL19407

	Fastener Length "A"					
	.400"	.450"	.500"	.550"	.600"	
1" Springs	Total Material Thickness "C"					
.250"	.165"200"	.215"250"	.265"300"	.315350"	.365"400"	
.325"	.098"133"	.148"183"	.198"233"	.248"283"	.348"383"	
1-3/8" Springs						
.325"	.105"148"	.155"198"	.205"248"	.255"298"	.355"398"	
.375"	.055"098"	.105"148"	.155"198"	.205"248"	.305"348"	
.425"	.005"048"	.055"098"	.105"148"	.155"198"	.255"298"	
	.250" .325" 1-3/8" Springs .325" .375"	1" Springs .250" .165"200" .325" .098"133" 1-3/8" Springs .325" .105"148" .375" .055"098"	.400" .450" Total Ma .250" .165"200" .215"250" .325" .098"133" .148"183" 1-3/8" Springs .325" .105"148" .155"198" .375" .055"098" .105"148"	.400" .450" .500" Total Material Thickn .250" .165"200" .215"250" .265"300" .325" .098"133" .148"183" .198"233" 1-3/8" Springs .325" .105"148" .155"198" .205"248" .375" .055"098" .105"148" .155"198"	.400" .450" .500" .550" 1" Springs .250" .165"200" .215"250" .265"300" .315350" .325" .098"133" .148"183" .198"233" .248"283" 1-3/8" Springs .325" .105"148" .155"198" .205"248" .255"298" .375" .055"098" .105"148" .155"198" .205"248"	





Clamp-On **Quick Turn Fastener Brackets**

These cool brackets allow you to clamp a quick turn bracket to round tubing. Allows a ush mount bracket behind a panel without grinding your powder coat. Designed for use with 1-3/8" quick turn springs, insert plates

or threaded nut inserts. Black anodized.

ALL19430..... 1" ALL19431 1-1/4" ALL19432..... 1-3/8" ALL19433..... 1-1/2" ALL19434..... 1-5/8" ALL19435..... 1-3/4"

Related Components

ALL19330..... Quick Turn Spring 1-3/8" (Most Popular) ALL19422..... Quick Turn Insert Plate, 1/4"- 20 Thread ALL18547 Threaded Nut Insert, Steel, 1/4"- 20 Thread ALL18548..... Threaded Nut Insert, Aluminum, 1/4"- 20 Thread



Quick Turn Fastener Insert Plates

Insert plate directly replaces the quick turn spring, allowing panels to be bolted together. May also



be used as a blind nut on a panel with limited access. Inserts have 1/4"-20 threads and are typically riveted to the backside of a panel or bracket with 1/8" rivets.

ALL19420........... 1". 2-Pack ALL19420-10 1", 10-Pack ALL19420-50 1", 50-Pack **ALL19422**...... 1-3/8", 2-Pack ALL19422-10..... 1-3/8", 10-Pack ALL19422-50 1-3/8", 50-Pack

Body Reinforcing Plates

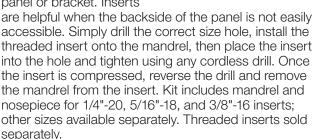
Plates help protect berglass and aluminum panels from cracking when using 7/16" quick turn fasteners. Stainless steel plates are precision stamped with a strengthening border, attach with 1/8" rivets, and measure 2" wide x 1" tall.





ALL19450

Tool works with a cordless drill to install a threaded insert into a panel or bracket. Inserts



Replacement Components

ALL19452..... Mandrel and Nosepiece for 8-32 ALL19453..... Mandrel and Nosepiece for 10-24 **ALL19454**..... Mandrel and Nosepiece for 10-32 ALL19455.... Mandrel and Nosepiece for 1/4"-20 ALL19456..... Mandrel and Nosepiece for 5/16"-18 ALL19457 Mandrel and Nosepiece for 3/8"-16



ALI 19454

Threaded Inserts

Steel inserts are helpful when the backside of the panel is not easily accessible. Inserts work great for frequently removed items including gauge panels, switch panels,

access panels, and body panels, or when mounting items to trailer walls. Inserts are designed for installation using insert tool ALL19450 with coordinating mandrel and nosepiece. Package of 10.



	Thread	Pilot Hole	Grip	Body Length
Part No.	Size	Size	Range	(Before Comp.)
ALL19460	8-32	17/64"	Up to .080"	.420"
ALL19461	10-24	5/16"	Up to .130"	.475"
ALL19462	10-32	5/16"	Up to .130"	.475"
ALL19463	1/4"-20	13/32"	Up to .165"	.580"
ALL19465	5/16"-18	17/32"	Up to .150"	.690"
ΔΙΙ19467	3/8"-16	17/32"	Un to 150"	690"



Bryant Goldstone



Countersunk Bolt Kits with Aluminum Washers

Kit includes specially designed aluminum washers which allow the socket head fasteners to install ush with the sur-



face creating a smooth nished look. Many uses include mounting roofs, side skirts, and spoilers, and replacing sharp edged fasteners inside cockpit. Kits include washers, bolts, and nyloc nuts.

Bolt Size	Washer O.D.	Finish	10-Pack	50-Pack
#10-24 x 1"	1"	Clear	ALL18630	ALL18630-50
#10-24 x 1"	1"	Black	ALL18631	ALL18631-50
1/4"-20 x 1"	3/4"	Clear	ALL18628	ALL18628-50
1/4"-20 x 1"	3/4"	Black	ALL18629	ALL18629-50
1/4"-20 x 1"	1"	Clear	ALL18632	ALL18632-50
1/4"-20 x 1"	1"	Black	ALL18633	ALL18633-50
1/4"-20 x 1"	1-1/4"	Clear	ALL18634	ALL18634-50
1/4"-20 x 1"	1-1/4"	Black	ALL18635	ALL18635-50



Aluminum Countersunk Washers

Washer I.D. x O.D.	Finish	10-Pack	50-Pack
#10 x 1"	Clear	ALL18660	ALL18660-50
#10 x 1"	Black	ALL18661	ALL18661-50
1/4" x 3/4"	Clear	ALL18658	ALL18658-50
1/4" x 3/4"	Black	ALL18659	ALL18659-50
1/4" x 1"	Clear	ALL18662	ALL18662-50
1/4" x 1"	Black	ALL18663	ALL18663-50
1/4" x 1-1/4"	Clear	ALL18664	ALL18664-50
1/4" x 1-1/4"	Black	ALL18665	ALL18665-50



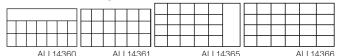
Aluminum Flat Backer Washers

Washer I.D. x O.D.	Finish	10-Pack	50-Pack
#10 x 1"	Clear	ALL18638	_
1/4" x 1"	Clear	ALL18639	_

Storage Cases

These handy storage cases help organize many items around the shop, trailer or home such as electrical connectors, quick turn fasteners, tire

groover blades, small fasteners and many more items. Curved bottom compartments create a smooth scoop, making it easy to remove the smallest of items. Molded-in dividers prevent items from slipping under dividers and accidentally mixing product.



ALL14360..... Plastic Case 15 Compartment, 11" x 7" x 1-3/4" **ALL14361**..... Plastic Case 18 Compartment, 11" x 7" x 1-3/4" **ALL14365**..... Metal Case 21 Compartment, 9-1/2" x 13-1/2" x 2" **ALL14366**..... Metal Case 24 Compartment, 9-1/2" x 13-1/2" x 2"

Countersunk Bolt Kits with Plastic Washers

Kit includes specially designed plastic washers which allow the socket head fasteners to install



ush with the surface creating a smooth nished look. Many uses include mounting roofs, side skirts, spoilers and replacing sharp edged fasteners inside cockpit. Kits include washers, bolts, and nyloc nuts.

	Washer			
Bolt Size	O.D.	Color	10-Pack	50-Pack
1/4"-20 x 1"	1"	Black	ALL18680	ALL18680-50
1/4"-20 x 1"	1"	White	ALL18681	ALL18681-50
1/4"-20 x 1"	1"	Red	ALL18682	ALL18682-50
1/4"-20 x 1"	1"	Blue	ALL18683	ALL18683-50
1/4"-20 x 1"	1"	Orange	ALL18684	ALL18684-50
1/4"-20 x 1"	1"	Silver	ALL18685	ALL18685-50
1/4"-20 x 1"	1"	Pink	ALL18686	ALL18686-50
1/4"-20 x 1"	1"	Purple	ALL18687	ALL18687-50
1/4"-20 x 1"	1"	Fluorescent Yellow	ALL18688	ALL18688-50
1/4"-20 x 1"	1"	Fluorescent Orange	ALL18689	ALL18689-50

Plastic Countersunk Washers

Washer			
I.D. x O.D.	Color	10-Pack	50-Pack
1/4" x 1"	Black	ALL18690	ALL18690-50
1/4" x 1"	White	ALL18691	ALL18691-50
1/4" x 1"	Red	ALL18692	ALL18692-50
1/4" x 1"	Blue	ALL18693	ALL18693-50
1/4" x 1"	Orange	ALL18694	ALL18694-50
1/4" x 1"	Silver	ALL18695	ALL18695-50
1/4" x 1"	Pink	ALL18696	ALL18696-50
1/4" x 1"	Purple	ALL18697	ALL18697-50
1/4" x 1"	Fluorescent Yellow	ALL18698	ALL18698-50
1/4" x 1"	Fluorescent Orange	ALL18699	ALL18699-50



Steel Fender Washers

ALL18216

Washers have 1/4" I.D., 1" O.D. and are sold 100 to a pack.



Spin Lock Nuts

Nuts have a built-in washer with a serrated face to lock nut tight against panels. 1/4"-20 nuts are perfect to use as a backer nut with Allstar body bolts, nose bolts, and body stud kits.

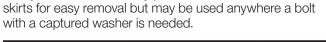
Color	10-Pack	50-Pack
Black	ALL18555	ALL18555-50
Gold	ALL18556	ALL18556-50
Silver	ALL18557	ALL18557-50



ALL18561

Body Bolt Kits

Bolts are designed for easy installation and removal, have 1/4"-20 thread and a built-in ALL18560 captured washer. Nuts have built-in serrations which prevent loosening. Body bolts are commonly used to fasten body panels and side



Under-Head Length	Color	10-Pack	50-Pack
3/4"	Black	ALL18553	ALL18553-50
3/4	Clear	ALL18654	ALL18654-50
	Black	ALL18560	ALL18560-50
1-1/8"	Clear	ALL18655	ALL18655-50
	Gold	ALL18561	ALL18561-50

Body Bolts

These bolts are the same bolts found in our body bolt kits but without nuts. Bolts have 1/4"-20 threads and a built-in captured washer. Bolts are commonly used to fasten body panels and side skirts for easy removal, used anywhere a bolt with a captured washer is needed.

Under-Head Length	Color	10-Pack	50-Pack
3/4"	Black	ALL16550	ALL16550-50
3/4	Silver	ALL16552	ALL16552-50
	Black	ALL16553	ALL16553-50
1-1/8"	Gold	ALL16554	ALL16554-50
	Silver	ALL16555	ALL16555-50

Threaded Nut Insert

Insert provides a convenient option to quickly install and easily remove a 1/4"-20 fastener on panels up to 1/8" thick. Insert ts into a 3/8" O.D. hole and is held in place on the backside with a steel serrated locking nut. Internal threads accept fasteners ideal for mounting dash panels, access panels, body panels, electrical components, or other accessories.





Insert Material	2-Pack	10-Pack	50-Pack
Steel	ALL18547	ALL18547-10	ALL18547-50
Aluminum	ALL18548	ALL18548-10	ALL18548-50

Quick Turn Fastener Insert Plates

Insert plate directly replaces the quick turn

spring, allowing panels to be bolted together or used as a blind nut on a panel with limited access. Inserts have 1/4"-20 threads and are typically riveted to the backside of a panel or bracket with 1/8" rivets.

ALL19420 1	", 2-Pack
ALL19420-10 1	", 10-Pack
ALL19420-50 1	", 50-Pack
ALL194221	-3/8", 2-Pack
ALL19422-10 1	-3/8", 10-Pack
ALL19422-50 1	-3/8", 50-Pack

Body Bolt Kit with Clips

Kit allows the clip to stay fastened to body panel or angle bracing when removing body panels for maintenance or cleaning. 1/4"-20 thread bolts are 1-1/8" UHL and have a built-in captured washer.

Bolt Color	10-Pack	50-Pack
Black	ALL18558	ALL18558-50
Clear	ALL18656	ALL18656-50
Gold	ALL18559	ALL18559-50



ALL18559

Body Bolt Clips

Steel clips have built-in 1/4"-20 threads making them ideal for often removed panels or when the backside is not easily accessible. Clips feature a friction tab to hold clips rmly in place on panels up to 3/16" thick. Dimension listed is center of hole to edge of clip (depth).

Depth	10-Pack	50-Pack
1/2"	ALL18554	ALL18554-50
3/4"	ALL18564	ALL18564-50

Aluminum Body Bolt Washers

1-1/4" O.D. aluminum

washers work with most body bolts to increase the surface area, preventing pull-through while providing a smooth fi ished, look. Washers are 1/8" thick and have a

built-in pocket to accept most body bolts or other washer headed fasteners up to 3/4" in diameter.

1	Finish	10-Pack	50-Pack
	Clear	ALL18840	ALL18840-50
	Black	ALL18841	ALL18841-50

Plastic Body Bolt Washers

1-1/4" O.D. plastic washers work with most body bolts to increase the surface area, preventing pull-through while providing a smooth, nished look. Washers are 1/8" thick and have a built-in pocket to accept most body bolts or other washer-headed fasteners up to 3/4" in diameter.





Color	10-Pack	50-Pack
Black	ALL18845	ALL18845-50
White	ALL18846	ALL18846-50
Red	ALL18847	ALL18847-50
Blue	ALL18848	ALL18848-50
Orange	ALL18849	ALL18849-50
Silver	ALL18850	ALL18850-50
Pink	ALL18851	ALL18851-50
Purple	ALL18852	ALL18852-50
Fluorescent Yellow	ALL18853	ALL18853-50
Fluorescent Orange	ALL18854	ALL18854-50



Hex Head Bolts - Coarse Thread Grade 5



Length	1/4"-20	5/16"-18	3/8"-16	7/16"-14	1/2"-13	5/8"-11	3/4"-10
3/4"	ALL16201	ALL16221	ALL16241	_	ALL16281	-	_
1"	ALL16202	ALL16222	ALL16242	ALL16262	ALL16282	-	-
1–1/4"	ALL16203	ALL16223	ALL16243	ALL16263	ALL16283	_	_
1–1/2"	ALL16204	ALL16224	ALL16244	ALL16264	ALL16284	-	-
1–3/4"	ALL16205	ALL16225	ALL16245	ALL16265	ALL16285	-	_
2"	ALL16206	ALL16226	ALL16246	ALL16266	ALL16286	ALL16316	ALL16336
2-1/4"	_	_	_	_	ALL16287	-	_
2-1/2"	ALL16208	ALL16228	ALL16248	-	ALL16288	ALL16318	ALL16338
2-3/4"	_	_	_	-	ALL16289	_	_
3"	ALL16210	_	ALL16250	ALL16270	ALL16290	ALL16320	ALL16340
3–1/2"	ALL16211	_	_	-	ALL16291	ALL16321	_
4"	ALL16212	_	ALL16252	-	ALL16292	ALL16322	ALL16342
4–1/2"	ALL16213	-	_	-	ALL16293	-	-
5"	ALL16214	-	ALL16254	-	ALL16294	ALL16324	ALL16344
6"	_	_	ALL16256	-	ALL16296	_	ALL16346
6–1/2"	_	_	_	-	-	-	ALL16347
7"	_	_	ALL16258	-	ALL16298	-	ALL16348
8"	_	_	_	-	-	-	ALL16350

Hex Head Bolts - Fine Thread Grade 5



	1/4"-28	5/16"-24	3/8"-24	7/16"–20	1/2"-20	5/8"–18	3/4"-16
Length	Part No.						
1"	ALL16402	ALL16422	ALL16442	ALL16462	ALL16482	_	_
1-1/2"	ALL16404	ALL16424	-	ALL16464	ALL16484	_	_
2"	ALL16406	ALL16426	ALL16446	ALL16466	ALL16486	_	ALL16536
2-1/2"	_	_	-	ALL16468	ALL16488	ALL16518	ALL16538
3"	_	_	_	ALL16470	ALL16490	ALL16520	ALL16540
4"	-	-	-	ALL16472	ALL16492	ALL16522	ALL16542
5"	_	_	_	ALL16474	_	_	_
6"	_	_	_	ALL16476	_	_	ALL16546

Button Head Bolts

Common bolts provide a nice nished look to your project.

Size	Length	Pkg Qty	Black	Stainless
8-32	1/2"	25	ALL16936	ALL16920
10-24	1/2"	25	ALL16938	ALL16922
1/4"-20	1/2"	25	ALL16940	ALL16924
1/4"-20	3/4"	25	ALL16941	ALL16925
5/16"-18	1"	10	ALL16944	_
3/8"-16	1"	10	ALL16946	-

Windshield Mounting Kit

Flat #8-32 x 1/2" long head countersunk bolt kits are the correct way to mount racing windshields to minimize cracking commonly found when using rivets. Use when you need a ush nish. Package of 50.





Set Screws

Standard cup point set screws are manufactured from alloy steel and heat treated for maximum holding power. Common replacements for oil pump pulleys, coil over kits, and many other applications. Package of 10.





Socket Head Bolts Coarse Thread Grade 5

Socket head bolts are coarse thread, grade 5. Package of 5.



Length	1/4"-20	5/16"-18	3/8"-16	7/16"-14	1/2"-13
3/4"	ALL16731	ALL16741	ALL16751	-	-
1"	ALL16732	ALL16742	ALL16752	ALL16762	ALL16772
1-1/2"	ALL16734	ALL16744	ALL16754	ALL16764	ALL16774
2"	ALL16736	ALL16746	ALL16756	ALL16766	ALL16776



Hex Nuts and Washers













Nut		

Mechanical Lock Nut

Coarse Thread 1/4"-20 5/16"-18 3/8"-16 7/16"-14 1/2"-13 ALL16000-10 ALL16005-10 Nut. 10-Pack ALL16001-10 ALL16002-10 ALL16003-10 ALL16004-10 ALL16006-10 Nut, 50-Pack ALL16000-50 ALL16001-50 ALL16002-50 ALL16003-50 ALL16004-50 ALL16015-10 ALL16016-10 Nylon Insert, 10-Pack ALL16010-10 ALL16011-10 ALL16012-10 ALL16013-10 ALL16014-10 Nylon Insert, 50-Pack ALL16010-50 ALL16011-50 ALL16012-50 ALL16013-50 ALL16014-50 Thin Nylon Insert, 10-Pack ALL16020-10 ALL16021-10 ALL16022-10 ALL16023-10 ALL16024-10 ALL16025-10 ALL16026-10 Mech. Lock Nut, 10-Pack ALL16030-10 ALL16031-10 ALL16032-10 ALL16033-10 ALL16034-10 ALL16036-10 Flange Nut, 10-Pack ALL18557 ALL16041-10 ALL16042-10 ALL16043-10 ALL16044-10 ALL16045-10

Fine Thread	1/4"-28	5/16"-24	3/8"-24	7/16"-20	1/2"-20	5/8"-18	3/4"-16
Nut, 10-Pack	ALL16050-10	ALL16051-10	ALL16052-10	ALL16053-10	ALL16054-10	ALL16055-10	-
Nylon Insert, 10-Pack	ALL16060-10	ALL16061-10	ALL16062-10	ALL16063-10	ALL16064-10	ALL16065-10	ALL16066-10
Thin Nylon Insert, 10-Pack	ALL16070-10	ALL16071-10	ALL16072-10	ALL16073-10	ALL16074-10	ALL16075-10	ALL16076-10
Mech. Lock Nut, 10-Pack	ALL16080-10	ALL16081-10	ALL16082-10	ALL16083-10	ALL16084-10	ALL16085-10	ALL16086-10

Washers	1/4"	5/16"	3/8"	7/16"	1/2"	5/8"	3/4"
USS Flat*, 25-Pack	ALL16100-25	ALL16101-25	ALL16102-25	ALL16103-25	ALL16104-25	-	-
SAE Flat*, 25-Pack	ALL16110-25	ALL16111-25	ALL16112-25	ALL16113-25	ALL16114-25	ALL16115-25	ALL16116-25
Lock, 25-Pack	ALL16120-25	ALL16121-25	ALL16122-25	ALL16123-25	ALL16124-25	ALL16125-25	ALL16126-25
AN, 25-Pack	ALL16150-25	ALL16151-25	ALL16152-25	ALL16153-25	ALL16154-25	-	-

^{*}USS washers have a larger O.D. than SAE washers

Steel Jam Nut Assortments

Assortments contain ve each of 1/4"-20, 5/16"-24, 3/8"-24, 7/16"-20, 1/2"-20, 5/8"-18, and 3/4"-16.

ALL18290..... 35 Asst. RH Jam Nuts ALL18291 35 Asst. LH Jam Nuts

Jam Nuts - Standard Hex

Allstar iam nuts have many uses. Great for locking rod ends tightly on suspension tubes or rack and pinion steering units. Package of 4, unless noted.

Thread	Wrench	Steel	Aluminum
1/4"-28 RH	7/16"	ALL18250	_
1/4"-28 LH	7/16"	ALL18251	_
5/16"-24 RH	1/2"	ALL18252	_
5/16"-24 LH	1/2"	ALL18253	_
3/8"-24 RH	9/16"	ALL18254	ALL18274
3/8"-24 LH	9/16"	ALL18255	ALL18275
7/16"-20 RH	11/16"	ALL18256	ALL18276
7/16"-20 LH	11/16"	ALL18257	ALL18277
1/2"-20 RH	3/4"	ALL18258	ALL18278
1/2"-20 LH	3/4"	ALL18259	ALL18279
5/8"-18 RH	15/16"	ALL18260	ALL18280
5/8"-18 LH	15/16"	ALL18261	ALL18281
3/4"-16 RH	1-1/8"	ALL18262	ALL18282
3/4"-16 LH	1-1/8"	ALL18263	ALL18283
3/4"-10 RH	1-1/8"	ALL18264 [†]	_
7/8"-9 RH	1-5/16"	ALL18266†	_
1"-8 RH	1-1/2"	ALL56110 [†]	_

tSold each.

Jam Nuts - Small Hex

Specialty jam nuts have smaller outside diameters, allowing smaller

wrenches to be used when changing radius rod lengths. Example: with 1/2" bolts, the same 3/4" wrench can be used to adjust radius rod or mounting hole locations. Package of 4.

Thread Size	Wrench Size	Steel	Alum.	Black Alum.
5/8"-18 RH	3/4"	ALL18292	ALL18296	ALL18286
5/8"-18 LH	3/4"	ALL18293	ALL18297	ALL18287
3/4"-16 RH	15/16"	ALL18294	ALL18298	ALL18288
3/4"-16 LH	15/16"	ALL18295	ALL18299	ALL18289

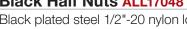
Spin Lock Nuts

Nuts have a built-in washer with a serrated face to lock nut tight against panels. 1/4"-20 nuts are perfect to use as a backer nut with Allstar body bolts, nose bolts, and body stud kits.

Color	10-Pack	50-Pack
Black	ALL18555	ALL18555-50
Gold	ALL18556	ALL18556-50
Silver	ALL18557	ALL18557-50

Black Half Nuts ALL17048

Black plated steel 1/2"-20 nylon lock nuts are grade 8 and a lightweight option to keep fasteners in place. Package of 10.





Tapered Spacers

Universal spacers have many uses including spacing rod ends on linkages to prevent binding or just to provide clearance. Spacers provide a nished look when ting body panels



or spacing components away from oors and rewalls. Package of 2.

I.D.	Small O.D.	Large O.D.	Length	Steel	Aluminum
1/4"	.345"	.500"	1/4"	-	ALL18700
1/4	.343	.500	1/2"	_	ALL18702
5/16"	.475"	.625"	1/4"	_	ALL18706
3/10	.473	.023	1/2"	_	ALL18708
			1/4"	_	ALL18712
3/8"	.525"	.680"	1/2"	_	ALL18714
			1"	_	ALL18716
			1/4"	ALL18570	ALL18590
	.740"	.995"	3/8"	ALL18571	_
1/2"			1/2"	ALL18572	ALL18592
1/2			3/4"	ALL18574	ALL18594
			1"	ALL18576	ALL18596
			1-1/2"	ALL18578	ALL18595
			1/4"	ALL18580	ALL18597
			1/2"	ALL18582	ALL18598
5/8"	.825"	.995"	3/4"	ALL18584	ALL18599
			1"	ALL18586	_
			1-1/2"	ALL18585	_
			1/2"	ALL18587	_
3/4"	.950"	1.125"	3/4"	ALL18588	_
			1"	ALL18589	_

Rod End Reducer Bushings

Steel bushings reduce the rod end pivot ball I.D. to accept a smaller bolt size.



O.D. To I.D.	2-Pack	10-Pack
1/2" to 3/8"	ALL18565	ALL18565-10
5/8" to 1/2"	ALL18566	ALL18566-10
3/4" to 1/2"	ALL18567	ALL18567-10
3/4" to 5/8"	ALL18568	ALL18568-10

High Misalignment Reducer Spacers

Dual-purpose spacers reduce fastener size



mounting hole and allow the rod end to rotate more than 30° in each direction which is 25% more than most standard spacers. Stainless steel spacers resist rust and corrosion. Package of 2.

Rod End		O.D.	Length	Overall	
Size	I.D.	"A"	"B"	Width "C"	Part No.
5/8"	1/2"	.750"	.465"	1.68"	ALL18785
3/4"	1/2"	.890"	.475"	1.825"	ALL18786
3/4"	5/8"	.890"	.475"	1.825"	ALL18787

Hourglass Spacers



Tired of simple spacers on your cool ride, these aluminum spacers look nice while also offering additional support on both ends. Package of 2.

	1/4" I.D.	5/16" I.D.	3/8" I.D.	1/2" I.D.
Length	1" O.D.	1" O.D.	1" O.D.	1-1/2" O.D.
1/4"	ALL18800	ALL18810	ALL18820	ALL18830
1/2"	ALL18802	ALL18812	ALL18822	ALL18832
1"	ALL18804	ALL18814	ALL18824	ALL18834
1-1/2"	ALL18806	ALL18816	ALL18826	ALL18836
2"	ALL18808	ALL18818	ALL18828	ALL18838

5/8" Rod End Reducer Spacers

Reducer spacers t into 5/8" rod ends, reducing the hole size for 1/2" hardware while also spacing the rod end away from chassis brackets.





Standard spacers are 3/4" O.D. and anged spacers have 1" O.D. anges to help support rod end. Size referenced indicates the amount of space between rod end pivot ball and chassis bracket. Package of 2.

Standard Spacers

ALL18615 Aluminum, 1/2" **ALL18617** Aluminum, 1" **ALL18618** Aluminum, 1-1/4" **ALL18619** Aluminum, 1-3/4"



ALL18611 Aluminum, 1/4" **ALL18613** Aluminum, 1/2" **ALL18610** Steel, 1/4" **ALL18612** Steel, 1/2"



0

Shock Spacers

Steel spacers have a 1/2" I.D. and 3/4" O.D. and can be used in a variety of other locations.



Length	2-Pack	10-Pack
1/4"	ALL64280	ALL64280-10
1/2"	ALL64282	ALL64282-10
5/8"	ALL64283	ALL64283-10
3/4"	ALL64284	ALL64284-10

Aluminum Flat Spacers

Flat spacers are great for shimming and adding additional clearance to brackets for brake calipers, power steering, alternators, dry sump pumps, or just about anything to help with alignment issues. Package of 2.

Length	3/8" I.D. (11/16" O.D.)	1/2" I.D. (1" O.D.)
1/8"	ALL18740	ALL18760
1/4"	ALL18742	ALL18762
3/8"	ALL18744	ALL18764
1/2"	ALL18746	ALL18766



Rod Ends

Two-piece spherical rod ends have a pivoting steel ball and are sold each.



Bore x Thread	RH Male	LH Male	RH Female	Strength		
Standard Series	Standard Series Steel					
1/4" x 1/4"-28	ALL58004	ALL58014	ALL58034	2,835 lbs.		
5/16" x 5/16"-24	ALL58005	ALL58015	ALL58035	4,517 lbs.		
3/8" x 3/8"-24	ALL58006	ALL58016	ALL58036	6,323 lbs.		
1/2" x 1/2"-20	ALL58008	ALL58018	ALL58038	10,046 lbs.		
5/8" x 5/8"-18	ALL58010	ALL58020	ALL58040	15,488 lbs.		
3/4" x 3/4"-16	ALL58012	ALL58022	ALL58042	15,894 lbs.		
3/4" x 3/4"-16	ALL58013 [†]	_	_	15,894 lbs.		
Pro Series Steel	(Moly) - Blad	ck				
1/2" x 1/2"-20	ALL58058	ALL58068	_	17,000 lbs.		
1/2" x 5/8"-18	ALL58059	ALL58069	_	19,300 lbs.		
5/8" x 5/8"-18	ALL58060	ALL58070	-	18,000 lbs.		
3/4" x 3/4"-16	ALL58062	ALL58072	-	25,000 lbs.		
Pro Series Steel (Moly) - Black (PTFE Lined)						
1/2" x 1/2"-20	ALL58078	ALL58083		16,240 lbs.		
1/2" x 5/8"-18	ALL58079	ALL58084	-	17,650 lbs.		
5/8" x 5/8"-18	ALL58080	ALL58085	_	15,200 lbs.		
3/4" x 3/4"-16	ALL58082	ALL58086	-	21,400 lbs.		
Aluminum - Blad	Aluminum - Black					
1/2" x 1/2"-20	ALL58088	ALL58098	-	7,700 lbs.		
1/2" x 5/8"-18	ALL58089	ALL58099	_	15,000 lbs.		

†ALL58013 has an oversized hole and is for use with steering shaft tubing.

Heavy-Duty 3/4" **Chrome Moly Rod Ends**

Often referred to as "Aircraft-Style", these heavy-duty 4130 chrome moly rod ends have larger bodies, making them thirty percent stronger than standard 3/4" rod ALL99314 ends. These rod ends are commonly used on Panhard bars and lower strut rods.

ALL99314..... RH Male, 3/4" x 3/4"-16 **ALL99315....** RH Female, 3/4" x 3/4"-16

3/4" Solid Rod End ALL58112

Solid rod ends are built using 1045 steel and are then chrome plated for added wear resistance. End has a body width of .875" to match the width of standard rod ends.

Bolt Center Caps ALL10678

Caps slip over the head of standard 1/2" bolts to accurately measure the center-to-center length of installed suspension tube assemblies.

Machined step secures the end of a standard tape measure for easy reading of the length to the center of the opposite cap. Caps feature a built-in O-ring that allows the cap to swivel on the bolt head and keeps it from falling off. Package of 2.

Steel Shock Quick Pin ALL60108

Steel shock quick pins allow coil-over shocks to be quickly serviced or changed. Works with Allstar coil-over brackets, eliminating the need for a separate bushing. Shock quick pins are 2-1/2" long and include a hairpin. Sold each.

Titanium Shock Quick Pins

Titanium shock quick pins allow coil-over shocks to be quickly serviced or changed. ALL17120 has a long shoulder and will work with Allstar coil-over brackets, eliminating the need for a separate bushing. ALL17121 is commonly used on nonbushing type brackets, but can be used

with Allstar brackets along with bushing. Pins are 2-1/2" long and include a hairpin.

ALL17120 Quick Pin with Shoulder ALL17121 Quick Pin without Shoulder

Quick-Release **T-Handle Pins**

Positive lock quick-release pins hold tightly in place until the handle button is depressed,



allowing the pin to be inserted or removed into or out of a hole with ease. Handles are made from die cast 380 aluminum, shanks are made from 4130 steel. Each pin is equipped with a stainless steel split ring to allow the attachment of a cable assembly.

ALL60300 ... 1/4" x 1" ALL60314 ... 3/8" x 3" **ALL60301** ... 1/4" x 1-1/2" ALL60318 ... 1/2" x 2" **ALL60302** ... 1/4" x 2" ALL60320 ... 1/2" x 2-1/2" ALL60322... 1/2" x 3" ALL60304 ... 5/16" x 1" ALL60306 ... 5/16" x 2" **ALL60324** ... 1/2" x 3-1/2" ALL60308 ... 5/16" x 3"

Quick Pin Lock Collar

ALL60310.... 3/8" x 1" ALL60312.... 3/8" x 2"

Steel lock collar provides a positive lock for quick release pins. Black coated collar with button head machine screw allows attachment of a securing device, like an Allstar lanyard (ALL18461 or ALL18463).

ALL60335 1/2" Collar with 10-32 Screw ALL60336 5/8" Collar with 1/4"-28 Screw

Steel Balls

Hardened chrome-plated steel balls replace damaged or missing detent or check balls for many different applications. Good item to keep on hand when rebuilding transmissions. Package of 5.

ALL26960 ... 1/4" ALL26961 ... 5/16" ALL26962 ... 3/8" ALL26963 ... 1/2"













ALL60335



Steel Hood Pin Kits with 1/2" Pins

Kits include two each: 4" long x 1/2" dia. chrome steel pins, chrome steel scuff plates, clips, and four steel jam nuts.

ALL18512 Kit with 3/16"

Flip-Over Clips

ALL18514 Kit with 5/32"

Hairpin Clips

ALL18513 Kit with 1/4"

Flip-Over Clips

Aluminum Hood Pin Kits with 1/2" Pins

Kits include two each: 4" x 1/2" dia. aluminum pins, aluminum scuff plates, ip over style, 1/4" dia. steel clips, and four steel jam nuts. Clip ips over pin and overcenter action locks clip in place.

Kits with 3/16" Flip-Over Clips

Color	Complete Kit	Pins Only, 1-Pair
Silver	ALL18496	ALL18498
Black	ALL18497	ALL18499

Kits with 1/4" Flip-Over Clips

Color	Complete Kit	Pins Only, 1-Pair
Silver	ALL18500	ALL18507
Red	ALL18501	ALL18508
Blue	ALL18502	ALL18509
Gold	ALL18503	ALL18510
Black	ALL18504	ALL18511

Aluminum Hood Pin Kits with 3/8" Pins

Kits include two each: 3-1/2" x 3/8" dia. aluminum pins. aluminum scuff plates, 3/16" dia. steel ip over clips and four steel jam nuts. Clip flip over pin and over-center action locks clip in place.

Color	Complete Kit	Pins Only, 1-Pair
Silver	ALL18480	ALL18487
Red	ALL18481	ALL18488
Blue	ALL18482	ALL18489
Black	ALL18484	ALL18491

Lightweight Aluminum Hood Pin Kits

Kits include two each: 2-3/4" long gun-drilled aluminum pins, lightweight aluminum scuff plates, 3/16" steel fli -over clips and four steel jam nuts. Clip flip over pin and over-center action locks clip in place



Hood Pin Supports

Supports thread onto hood pins (before installation) and are a good alternative to sections of rubber hose commonly used to support hoods and deck lids. Once supports are in place, a set screw prevents movement. Supports work with Allstar Performance aluminum hood pins and other fully threaded hood pins. Package of 2.

ALL18478 3/8"-24 **ALL18479**..... 1/2"-20

Hood Pin Extensions

Aluminum extensions t into existing chassis mounts. 1/2"-20 male to 1/2"-20 female, with 13/16" thread depth. Sold each.

ALL18524 1-3/4" Tall ALL18525 2-3/4" Tall

Hood Pin Adapters

Aluminum adapters convert existing chassis mounts over to hood pin mounts. Sold each.

ALL18526..... Converts 1/2" Fine Hood Pin Mount to 3/8" Hood Pin, 1/2"-20 Male to 3/8"-24 Female

ALL18527..... Converts 1/2" Coarse Mount to 1/2" Hood Pin, 1/2"-13 Male to 1/2"-20 Female

Hood Pin Clips

The same quick removal pins and clips included with Allstar's hood pin kits. Hairpin clip has a rotated loop for easy grasp and the ip-over clips have a loop with an over center locking feature that keeps pin in place. Package of 2.

ALL18516 Hairpin Clip, 5/32" ALL18515 Flip-Over Clip, 3/16" ALL18506..... Flip-Over Clip, 1/4"

Flip-Over Clip with Lanyard

Our most popular size ip-over clip commonly used with hood pins is now available with an added lanyard which fastens to body panel for easy installation and prevents lost clips. Sold each.

ALL18460 Clip with 6" Lanyard ALL18462..... Clip with 10" Lanyard

Ludwig Clamps ALL18232

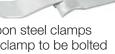
Clamps are used to secure access panels, deck lids and a variety of other items in place. Zinc plated carbon steel clamps have a 3/16" mounting hole allowing clamp to be bolted or riveted in place. Package of 4.





ALI 18516

ALL18506





Steel Lanyards



Steel lanyards feature 1/16" diameter cable with 3/4" loops on each end for light duty applications such as hood pins or retention of similar type fasteners to prevent loss. Sold each.

ALL18461 6" Long **ALL18463** 10" Long

Nylon Lanyards ALL18468



Nylon lanyards feature a molded end with a 3/16" hole on one end and a snap together open loop on the other end to quickly and easily secure a variety of components. Once snapped together, loop is permanently locked. 10" long, package of 4.

Hair Pins

Steel hair pins are zinc coated and rely on spring tension to hold in place. Length listed is overall length.



Length	Wire Dia.	2-pk	10-pk
1-5/8"	.093"	ALL18442	ALL18442-10
2-1/2"	.093"	ALL18444	ALL18444-10

Diaper Pins

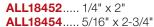
Steel diaper pins are zinc coated and have a locking feature to keep secured in place. Length listed is overall length.



Length	Wire Dia.	2-pk	10-pk
1-3/4"	.060"	ALL18446	ALL18446-10
2-1/2"	.093"	ALL18448	ALL18448-10

Lock Pins

Use lock pin in place of a bolt for items that need to be removed frequently or easily. Wire loop folds over pin to lock in place. Size noted is under head length to end of pin. Sold each.



Universal Line Clamps

Two-piece aluminum clamps dress up wiring or hard lines. Package of 4.





Line Clamps

Aluminum clamps

have a protective neoprene cushion to prevent abrasion

and a 1/4" mounting hole to secure electrical wiring, hoses or cables to a panel or frame.

Black nylon clamps have a 3/16" mounting hole to secure electrical wiring, hoses or cables to a panel or frame.

	Aluminum		Ny	rlon
Clamp Size	10-Pack	50-Pack	10-Pack	50-Pack
1/8"	-	_	ALL18309	ALL18309-50
3/16"	ALL18300	ALL18300-50	ALL18310	ALL18310-50
1/4"	ALL18301	ALL18301-50	ALL18311	ALL18311-50
3/8"	ALL18302	ALL18302-50	ALL18312	ALL18312-50
1/2"	ALL18303	ALL18303-50	ALL18313	ALL18313-50
5/8"	ALL18304	ALL18304-50	ALL18314	ALL18314-50
3/4"	ALL18305	ALL18305-50	ALL18315	ALL18315-50
7/8"	ALL18306	ALL18306-50	-	_
1"	ALL18307	ALL18307-50	ALL18317	ALL18317-50
1-1/4"	ALL18308	ALL18308-50	-	_

Hose Clamps

Heavy duty all stainless steel construction clamps are easily tightened with a deep slot hex head screw. Superior to standard hardware store clamps.



Part No.	Min O.D.	Max O.D.		
2-Pack				
ALL18330	1/4"	5/8"		
ALL18332	1/2"	1-1/8"		
ALL18334	1"	2"		
ALL18336	1-5/16"	2-1/4"		
ALL18338	1-9/16"	2-1/2"		
ALL18340	1-5/8"	3-1/2"		
ALL18342	2-5/8"	4-1/2"		
10-Pack				
ALL18330-10	1/4"	5/8"		
ALL18332-10	1/2"	1-1/8"		
ALL18334-10	1"	2"		
ALL18336-10	1-5/16"	2-1/4"		
ALL18338-10	1-9/16"	2-1/2"		

T-Bolt Band Clamps

Stainless steel constructed band clamps provide a better sealing option over traditional hose clamps in performance applications. Clamps feature a 3/4" wide aband and are sold in pairs.



Part No.	Min O.D.	Max O.D.
ALL18344	1-1/2"	1-3/4"
ALL18345	1-3/4"	2"
ALL18347	2"	2-3/8"
ALL18349	2-1/4"	2-5/8"
ALL18350	2-3/8"	2-3/4"
ALL18351	2-3/4"	3-1/4"
ALL18352	3"	3-3/8"
ALL18353	3-1/4"	3-5/8"
ALL18354	3-3/4"	4-1/4"
ALL18355	4-1/4"	4-5/8"



Aluminum Reusable Hose Ends

Hose Ends	i		
Part N	lo.	AN Size	
Straight			
ALL49	312	-6	
ALL49	313	-8	
ALL49	314	-10	
ALL49	315	-12	
ALL49	316	-16	
30° Elbow			
ALL49	322	-6	
ALL49	323	-8	
ALL49	324	-10	
ALL49	325	-12	
ALL49	326	-16	
45° Elbow			
ALL49	332	-6	
ALL49	333	-8	
ALL49	334	-10	
ALL49	335	-12	
ALL49	336	-16	
60° Elbow			
ALL49	342	-6	
ALL49	343	-8	
ALL49	344	-10	
ALL49	345	-12	
ALL49	346	-16	
90° Elbow			
ALL49	352	-6	
ALL49	353	-8	
ALL49	354	-10	
ALL49	355	-12	
ALL49	356	-16	
120° Elbow			
ALL49	362	-6	
ALL49	363	-8	
ALL49	364	-10	
ALL49	365	-12	
150° Elbow			
ALL49	372	-6	
ALL49	373	-8	
ALL49	374	-10	
ALL49	375	-12	
180° Elbow			
ALL49	382	-6	
ALL49	383	-8	
ALL49	384	-10	
ALL49	385	-12	
ALL49	386	-16	

















Aluminum Pushlock Hose Ends

Part No.	AN Size
Straight	
ALL49411	-4
ALL49412	-6
ALL49413	-8
ALL49414	-10
ALL49415	-12
ALL49416	-16
30° Elbow	'
ALL49422	-6
ALL49423	-8
ALL49424	-10
ALL49425	-12
ALL49426	-16
45° Elbow	
ALL49431	-4
ALL49432	-6
ALL49433	-8
ALL49434	-10
ALL49435	-12
ALL49436	-16
60° Elbow	
	6
ALL49442	-6
ALL49443	-8
ALL49444	-10
ALL49445	-12
ALL49446	-16
90° Elbow	
ALL49451	-4
ALL49452	-6
ALL49453	-8
ALL49454	-10
ALL49455	-12
ALL49456	-16
120° Elbow	
ALL49462	-6
ALL49463	-8
ALL49464	-10
ALL49465	-12
ALL49466	-16
150° Elbow	·
ALL49472	-6
ALL49473	-8
ALL49474	-10
ALL49475	-12
ALL49476	-16
180° Elbow	
ALL49482	-6
ALL49483	-8
ALL49484	-10
ALL49485	-12
ALL49486	-16
ALL43400	-10



















Aluminum AN to NPT Adapters



AN Size	NPT	Straight	45°	90°
-3	1/8"	ALL49502	ALL49532	ALL49562
-4	1/8"	ALL49505	ALL49535	ALL49565
-4	1/4"	ALL49506	ALL49536	ALL49566
-4	3/8"	ALL49507	ALL49537	ALL49567
-6	1/8"	ALL49508	ALL49538	ALL49568
-6	1/4"	ALL49509	ALL49539	ALL49569
-6	3/8"	ALL49510	ALL49540	ALL49570
-6	1/2"	ALL49511	ALL49541	ALL49571
-8	1/4"	ALL49512	ALL49542	ALL49572
-8	3/8"	ALL49513	ALL49543	ALL49573
-8	1/2"	ALL49514	ALL49544	ALL49574
-10	3/8"	ALL49517	ALL49547	ALL49577
-10	1/2"	ALL49518	ALL49548	ALL49578
-10	3/4"	ALL49519	ALL49549	ALL49579
-12	1/2"	ALL49520	ALL49550	ALL49580
-12	3/4"	ALL49521	ALL49551	ALL49581

Aluminum 90° Swivel to Male NPT

Part No.	NPT	AN Size
ALL49584	1/8"	-4
ALL49585	1/4"	-4
ALL49587	1/8"	-6
ALL49588	1/4"	-6
ALL49589	3/8"	-6
ALL49590	1/2"	-6
ALL49591	1/4"	-8
ALL49592	3/8"	-8
ALL49596	3/8"	-10
ALL49599	1/2"	-12



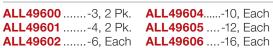
Aluminum AN Bulkhead Adapters

Part No.	A Size	B Size		
Straight Bu	lkhead			
ALL49610	-3	-3		
ALL49611	-4	-4		
ALL49612	-6	-6		
ALL49613	-8	-8		
ALL49614	-10	-10		
ALL49615	-12	-12		
ALL49616	-16	-16		
90° Bulkhead				
ALL49620	-3	-3		
ALL49621	-4	-4		
ALL49622	-6	-6		
ALL49623	-8	-8		
ALL49624	-10	-10		
ALL49625	-12	-12		
ALL49626	-16	-16		





Aluminum AN Bulkhead Nuts



ALL49603-8, Each

Aluminum AN Flare Adapters

Part No.	A Size	B Size
Female Swive	el Union	
ALL49700	-3	-3
ALL49701	-4	-4
ALL49702	-6	-6
ALL49702 ALL49703		-8
	-6	
ALL49704	-8	-8
ALL49705	-8	-10
ALL49706	-10	-10
Male Union		
ALL49710	-3	-3
ALL49711	-4	-4
ALL49712	-6	-6
ALL49713	-8	-8
ALL49714	-10	-10
ALL49715	-12	-12
ALL49716	-16	-16
90° Union	-	
ALL49720	-3	-3
ALL49721	-4	-4
ALL49722	-6	-6
ALL49723	-8	-8
ALL49724	-10	-10
ALL49725	-12	-10
Male Reduce		-12
ALL49730	-3	-4
ALL49731	-4	-6
ALL49732	-4	-8
ALL49733	-4	-10
ALL49734	-6	-8
ALL49735	-6	-10
ALL49736	-8	-10
ALL49737	-8	-12
ALL49738	-10	-12
ALL49739	-12	-16
Swivel Reduc	er	
ALL49740	-4	-3
ALL49741	-6	-4
ALL49742	-8	-4
ALL49743	-8	-6
ALL49744	-10	-6
ALL49745	-10	-8
ALL49746	-12	-8
ALL49747	-12	-10
ALL49748	-16	-10
ALL49749	-16 -16	-12
Swivel Flare		-12
ALL49750	-3	-4
ALL49751	-4	-6
ALL49752	-6	-8
ALL49753	-8	-10
ALL49754	-10	-12
ALL49755	-12	-16
ALL49756	-16	-20







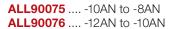






Reducer Fittings

Reducer ttings are an economical way to reduce the male AN thread size on items such as oil coolers and inline temperature tees.







Aluminum AN Flare Tee

Part No.	A Size	B Size	C Size	
Tee				
ALL49640	-3	-3	-3	
ALL49641	-4	-4	-4	
ALL49642	-6	-6	-6	
ALL49643	-8	-8	-8	
ALL49644	-10	-10	-10	
ALL49645	-12	-12	-12	
ALL49646	-16	-16	-16	
Tee, Female Swivel On Side				
ALL49650	-3	-3	-3	
ALL49651	-4	-4	-4	
ALL49652	-6	-6	-6	
ALL49653	-8	-8	-8	





Pressure Gauge Adapters

Part No.	A Size	B Size	C Size
ALL49760	-4	-4	1/8"
ALL49761	-6	-6	1/8"
ALL49762	-6 Fem.	-6	1/8"
ALL49763	3/8" Male	-6	1/8"
ALL49765	-8	-8	1/8"



Aluminum Gauge Fittings

ALL50201 1/8"NPT Female to -3AN ALL50202 1/8"NPT Female to -4AN



Aluminum AN Bulkhead Tee

Part No.	A Size	B Size	C Size			
Tee On-The	Tee On-The-Side					
ALL49630	-3	-3	-3			
ALL49631	-4	-4	-4			
ALL49632	-6	-6	-6			
ALL49633	-8	-8	-8			
ALL49634	-10	-10	-10			



Steel Gauge Fittings

ALL50199 1/8"NPT Female to -3AN ALL50200 1/8"NPT Female to -4AN



Aluminum Flare Cap

Part No.	AN Size
ALL49670	-3
ALL49671	-4
ALL49672	-6
ALL49673	-8
ALL49674	-10
ALL49675	-12
ALL49676	-16



NPT Adapters

Part No.

ALL49780

ALL49781

ALL49785

Part No.	A Size	B Size
Aluminum NF	PT Reducer	
ALL49770	1/4"	1/8"
ALL49771	3/8"	1/8"
ALL49772	3/8"	1/4"
ALL49773	1/2"	1/8"
ALL49774	1/2"	1/4"
ALL49775	1/2"	3/8"
ALL49776	3/4"	1/4"
ALL49777	3/4"	3/8"
ALL49778	3/4"	1/2"

NPT Size

1/8"

1/4" Aluminum Female NPT Coupler

1/8"

Aluminum Male NPT Nipple

Qty.

1



Aluminum Flare Plug

Part No.	AN Size
ALL49680	-3
ALL49681	-4
ALL49682	-6
ALL49683	-8
ALL49684	-10
ALL49685	-12
ALL49686	-16



ALL49680	-3
ALL49681	-4
ALL49682	-6
ALL49683	-8
ALL49684	-10
ALL49685	-12
ALL49686	-16



Part No.	AN Size
ALL50320	-3
ALL50321	-4
ALL50322	-6
ALL50323	-8
ALL50324	-10



Aluminum Tube Sleeve, 2-Pack

Part No.	AN Size
ALL50330	-3
ALL50331	-4
ALL50332	-6
ALL50333	-8
ALL50334	-10



Aluminum Internal Allen NPT Plug ALL49800 1/16" ALL49801 1/8" 2 ALL49802 1/4" 2 ALL49803 3/8" 2 ALL49804 1/2" ALL49805 3/4" 1 Steel Internal Allen NPT Plug* ALL49811 1/8" 2 ALL49812 1/4" 2 ALL49813 3/8" 2 ALL49814 1/2" 1 Aluminum Hex NPT Plug ALL49820 1/8" 1

3/8"

1/2"

ALL49821

ALL49822











^{*}Larger quantities available



AN Flare to ORB Adapters

	C to OHD AC	-			
	A Size	B Size			
Aluminum O-Ring Boss					
ALL49830	3/8"-24 (-3)	-4			
ALL49831	7/16"-20 (-4)	-4			
ALL49832	9/16"-18 (-6)	-4			
ALL49833	3/4"-16 (-8)	-4			
ALL49834	7/8"-14 (-10)	-4			
ALL49836	9/16"-18 (-6)	-6			
ALL49837	3/4"-16 (-8)	-6			
ALL49838	7/8"-14 (-10)	-6			
ALL49839	1-1/16"-12 (-12)	-6			
ALL49841	9/16"-18 (-6)	-8			
ALL49842	3/4"-16 (-8)	-8			
ALL49843	7/8"-14 (-10)	-8			
ALL49844	1-1/16"-12 (-12)	-8			
ALL49845	1-5/16"-12 (-16)	-8			
ALL49847	3/4"-16 (-8)	-10			
ALL49848	7/8"-14 (-10)	-10			
ALL49849	1-1/16"-12 (-12)	-10			
ALL49850	1-5/16"-12 (-16)	-10			
ALL49852	3/4"-16 (-8)	-12			
ALL49853	7/8"-14 (-10)	-12			
ALL49854	1-1/16"-12 (-12)	-12			
ALL49855	1-5/16"-12 (-16)	-12			
ALL49857	1-1/16"-12 (-12)	-16			
ALL49858	1-5/16"-12 (-16)	-16			
ALL49859	1-5/16"-12 (-16)	-20			



Large Fill Plug Kits

Kits include a weld-in bung and an easy-grip O-ring cap with positive seal. Kits are often used as an inspection plug or a ller plug. Large II plugs have a 3" opening. 3"-12 thread.



Kit with Aluminum Weld-In Bung

ALL36170	Silver Kit
ALL36171	Black Kit
ALL36172	Red Kit
ALL36173	Polished Kit

Kit with Steel Weld-In Bung

ALL36174	Silver Kit
ALL36175	Black Kit
ALL36176	Red Kit
ALL36177	Polished Ki

Small Fill Plug Kits

Kits include a weld-in or bolt-in bung and an easy-grip O-ring cap with positive seal. Kits are often used as an inspection plug or a ller plug. Small II plugs have a 1-3/8" opening with 1-1/2"-12 threads.

Kit with Aluminum Weld-In Bung

ALL36160 Silver Kit
ALL36164 Black Kit
ALL36165 Red Kit
ALL36166 Polished Kit

Kit with Steel Weld-In Bung

0.000
ALL36161 Silver Kit
ALL36167 Black Kit
ALL36168 Red Kit
ALL36169 Polished Kit

Kit with Aluminum Bolt-In Bung

ALL36180 Silver Kit ALL36181 Black Kit ALL36182..... Red Kit ALL36183 Polished Kit





oil pans, or for building custom tanks or other components. **Female NPT**

Weld Bungs

	Size	O.D.	Aluminum	Steel
	1/8"-27NPT	3/4"	ALL50740	ALL50750
	1/4"-18NPT	7/8"	ALL50741	ALL50751
Γ	3/8"-18NPT	1"	ALL50742	ALL50752
	1/2"-14NPT	1-1/4"	ALL50743	ALL50753
Γ	3/4"-14NPT	1-3/8"	ALL50744	ALL50754
	1"-11-1/2NPT	1-5/8"	ALL50745	_

Weld-on bungs are available in 6061 aluminum or mild steel and allow additional ttings to be added to radiators,



Male AN

Maio Air				
Size	Thread	Flange O.D.	Aluminum	Steel
4AN	7/16"-20	3/4"	ALL50760	ALL50770
6AN	9/16"-18	7/8"	ALL50761	ALL50771
8AN	3/4"-16	1"	ALL50762	ALL50772
10AN	7/8"-14	1-1/8"	ALL50763	ALL50773
12AN	1-1/16"-12	1-3/8"	ALL50764	ALL50774
16AN	1-5/16"-12	1-5/8"	ALL50765	ALL50775
20AN	1-5/8"-12	1-3/4"	ALL50766	ALL50776



Female AN ORB

Size	Thread	O.D.	Aluminum
4AN	7/16"-20	3/4"	ALL50780
6AN	9/16"-18	7/8"	ALL50781
8AN	3/4"-16	1"	ALL50782
10AN	7/8"-14	1-1/8"	ALL50783
12AN	1-1/16"- 12	1-3/8"	ALL50784
16AN	1-5/16"- 12	1-5/8"	ALL50785



Drain Plug Kits

Drain plug kits include a machined weld-on bung that has a step added to tinside a drilled hole for easy installation. Kits are perfect when adding drain plugs to oil pans, rear end housings, dry sump tanks, etc.



Size	Aluminum Bung	Steel Bung
3/8"NPT	ALL50732	ALL50733
1/2"NPT	ALL50734	ALL50735





WARNING PROP. 65 (See Below)

NPT to AN Fittings

1/8"-27NPT steel ttings are commonly used when connecting braided lines to brake calipers, engine oiling systems, etc.



ALL50000 ALI 50001



ALI 50010 ALI 50011



ALI 50018 ALI 50019







ALI 50020 ALI 50200

ALL50000 1/8"NPT Male to -3AN Straight, 2-Pack ALL50001 1/8"NPT Male to -4AN Straight, 2-Pack ALL50004 1/8"NPT Male to -4AN Straight, Tall ALL50010 1/8"NPT Male to -3AN 45°

ALL50011 1/8"NPT Male to -4AN 45° ALL50018 1/8"NPT Male to -3AN 90° ALL50019 1/8"NPT Male to -4AN 90°

ALL50020 1/8"NPT Male to -3AN 90° Tall **ALL50021** 1/8"NPT Male to -4AN 90° Tall ALL50199 1/8"NPT Female to -3AN

ALL50200 1/8"NPT Female to -4AN

NPT Fittings

Popular brass 1/8"-27NPT ttings used for a variety of applications.









ALI 50185

ALL50182 1/8"NPT Plug, 4-Pack ALL50184 1/8"NPT Male Union, 4-Pack ALL50185 1/8"NPT Female Union, 4-Pack

ALL50138 1/8"NPT Tee, 2-Pack ALL50139 1/8"NPT Tee, 2-Pack



ALL50139

Petcock ALL99030

Replacement petcock for Allstar breather and over ow tanks is also perfect for draining coolant from engines. 1/4"NPT threads.



WARNING: PROP. 65

The products on this page can expose you to lead, which is known to the State of California to cause cancer, birth defects or other reproductive harm. For more information, go to: www.P65Warnings.ca.gov

Caliper Fittings

Commonly used in stock type calipers in place of the banjo tting and bolt. Fittings allow direct connection to a steel braided line. Fittings are sold in a pack of 2.







ALI 50029 ALI 50030





ALL50029 3/8"-24 to -3AN Straight **ALL50030** 3/8"-24 to -4AN Straight **ALL50032** 7/16"-20 to -4AN Straight **ALL50035** 7/16"-20 to -4AN 90° **ALL50037** M10-1.50 to -3AN Straight **ALL50036** M10-1.50 to -4AN Straight ALL50040 M10-1.50 to Female 1/8"-27NPT

Banjo Fittings

Banjo ttings are commonly used with banjo bolts and crush washers in stock type calipers to allow direct connection of a steel braided line and allow pivoting the line as needed. Fittings are sold in a pack of 2.

ALL50060 3/8" to -3AN ALL50061 3/8" to -4AN ALL50062 7/16" to -3AN ALL50063 7/16" to -4AN ALL50067 10mm to -3AN ALL50068 10mm to -4AN ALL50066 10mm to -4AN Extended

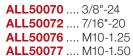




ALL50066

Banjo Bolts

Banjo bolts are a drilled bolt to allow uid to pass through and are commonly used with banjo ttings and crush washers in stock type calipers to allow direct connection of a steel braided line. Bolts are sold in a pack of 2.





Crush Washers

Crush washers are used when sealing metal to metal contact points of banjo ttings and bolts. Soft material conforms to the irregularities of the sealing surfaces. Washers are sold in a pack of 10.

ALL50082 3/8" and 10mm ALL50080 7/16"





Bleeder Fitting with Screw ALL50180

Designed for popular aftermarket calipers, these ttings have 1/8"-27 threads and include a 1/4"-28 bleeder screw. Package of 4.



Bleeder Caps ALL50855

Rubber caps keep dirt and moisture out of brake caliper bleeder screw ttings. Caps t ALL50180 and most other popular small bleeder screws. Package of 10.

Inverted Flare Fittings

An inverted are tting is a common brake tting designed to withstand the high pressures found in braking systems.



ALL50120 ALL50121



ALI 50125



ALL50127



ALI 50183



ALL50135



ALI 50136 ALI 50137



ALL50131 ALL50132 ALL50133

ALL50120 3/16" to Male 1/8"-27 NPT, 4-Pack

ALL50125..... 3/16" to Male 1/8"-27 NPT 90 Degree, 4-Pack

ALL50127..... 3/16" to Female 1/8"-27 NPT, 4-Pack

ALL50136 3/16" Tee, 2-Pack

ALL50137..... 3/16" Tee with 1/8"-27 NPT Female Port on Side

ALL50135 3/16" Tee with 1/8"-27 NPT

Male Nipple on Side

ALL50183 3/16" Steel Plug, 4-Pack

ALL50121..... 1/4" to Male 1/8"-27 NPT, 4-Pack **ALL50129** 5/16" to Male 1/4"-18 NPT 2-Pack

ALL50130 3/16" Union, 4-Pack **ALL50131**..... 1/4" Union, 4-Pack

ALL50132..... 5/16" Union, 4-Pack

ALL50133 3/8" Union, 4-Pack

Master Cylinder Adapter Fittings

ALL41012

Fittings adapt master cylinders or combination valves with 1/2"-20 and 9/16"-18 ports to accept 3/16" inverted are brake line with standard 3/8"-24 fi tings. Kit includes one of each tting.





WARNING: PROP. 65

The products on this page can expose you to lead, which is known to the State of California to cause cancer, birth defects or other reproductive harm. For more information, go to: www.P65Warnings.ca.gov

Bolt-In Adapter Fittings

Bulkhead style aluminum fi tings adapt 3/16" inverted are line to an AN type tting. The 9/16" threaded body with attaching nut can be mounted through a C-channel style frame or a chassis tab.

ALL50104 3/16" to 3AN ALL50105 3/16" to 4AN

ALL60092 Weld-On Tabs. 4-Pack



Clip-In Adapter Fittings

Steel adapter ttings provide a bulkhead style connection to AN lines that can be mounted directly to the chassis by using tabs or brackets and retainer clips. Fittings t in a 5/8" hole and are sold in a pack of 2.

ALL50100 3/16" Inverted Flare to -3AN ALL50101..... 3/16" Inverted Flare to -4AN

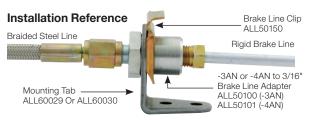
ALL50102 1/8"-27NPT to -3AN **ALL50103** 1/8"-27NPT to -4AN

ALL60029 Bolt-on Tabs 2-Pack ALL60030 Weld-on Tabs 4-Pack ALL50150 Retainer Clip 4-Pack



ALL60029 ALL60030

TECH TIP



D.O.T. Legal **Brake Hose Kits**

Kit includes everything necessary to complete the connection between 3/16" steel brake line and the brake caliper for one axle. Kit includes two brake line adapter ttings, steel weld on tabs, retainer clips, banjo bolts, crush washers, and 16" DOT-approved #3 braided steel hoses.

ALL42032 GM Metric Kit with M10-1.50 Banjo Bolts **ALL42033** Big GM Kit with 7/16"-20 Banjo Bolts

Brake Hose Kits

Kit includes everything necessary to complete the connection between 3/16" steel brake line and the brake caliper for one axle. Kit includes two brake line adapter ttings, steel weld on tabs, retainer clips, banjo caliper ttings, banjo bolts, crush washers, and 15" #3 braided steel hoses.

ALL42025 GM Metric Kit with M10-1.50 Banjo Bolts **ALL42027** Big GM Kit with 7/16"-20 Banjo Bolts



Braided Steel Lines

A wide selection of braided steel lines in various lengths. All lines come with one straight end and your choice of straight, 45°, or 90° on the other end. The inner PTFE hose is compatible with all brake uids. The braided stainless steel outer covering resists abrasion and corrosion. Ideal for use where bending and exing occurs. More durable than rubber hose. Lengths stated are overall end-to-end, including tings.

Note: Lines are also available in 5-pack and 25-pack quantities. Add a (-5) or (-25) to end of part number. Example ALL46400-6-25 for a 25-pack. Lengths stated are overall end-to-end, including tings. Lines are NOT DOT approved.



Didiaga Cool Emoc With C Emac					
		-3 Straight and	-3 Straight and	-3 Straight and	
Length	Two -3 Straight	-3 45°	-3 90° Forged	-3 90° Tube	
6"	ALL46300-6	_	ALL46302-6	ALL46304-6	
9"	ALL46300-9	-	ALL46302-9	ALL46304-9	
10"	ALL46300-10	-	ALL46302-10	ALL46304-10	
12"	ALL46300-12	-	ALL46302-12	ALL46304-12	
14"	ALL46300-14	ALL46301-14	ALL46302-14	ALL46304-14	
15"	ALL46300-15	ALL46301-15	ALL46302-15	ALL46304-15	
16"	ALL46300-16	ALL46301-16	ALL46302-16	ALL46304-16	
18"	ALL46300-18	ALL46301-18	ALL46302-18	ALL46304-18	
20"	ALL46300-20	_	ALL46302-20	ALL46304-20	
21"	ALL46300-21	_	ALL46302-21	ALL46304-21	
22"	ALL46300-22	_	ALL46302-22	ALL46304-22	
24"	ALL46300-24	ALL46301-24	ALL46302-24	ALL46304-24	
26"	ALL46300-26	_	ALL46302-26	ALL46304-26	
28"	ALL46300-28	_	ALL46302-28	ALL46304-28	
30"	ALL46300-30	_	ALL46302-30	ALL46304-30	
32"	ALL46300-32	_	ALL46302-32	ALL46304-32	
34"	ALL46300-34	ALL46301-34	_	_	
36"	ALL46300-36	_	ALL46302-36	ALL46304-36	
40"	ALL46300-40	_	_	_	
42"	ALL46300-42	-	ALL46302-42	ALL46304-42	
43"	ALL46300-43	_	_	_	
44"	ALL46300-44	_	_	_	
47"	ALL46300-47	_	_	_	
48"	ALL46300-48	-	ALL46302-48	ALL46304-48	
50"	ALL46300-50	-	_	_	
56"	ALL46300-56	_	_	_	
60"	ALL46300-60	_	ALL46302-60	ALL46304-60	
96"	ALL46300-96	-	_	_	
108"	ALL46300-108	_	_	_	
120"	ALL46300-120		_	_	
180"	ALL46300-180	_	_	_	





#4 Braided Steel Lines with -4 Ends

		-4 Straight and	-4 Straight and	-4 Straight and
Length	Two -4 Straight	-4 45°	-4 90° Forged	-4 90° Tube
6"	ALL46400-6	_	ALL46402-6	ALL46404-6
9"	ALL46400-9	_	ALL46402-9	ALL46404-9
10"	ALL46400-10	_	ALL46402-10	ALL46404-10
12"	ALL46400-12	_	ALL46402-12	ALL46404-12
14"	ALL46400-14	_	ALL46402-14	ALL46404-14
15"	ALL46400-15	ALL46401-15	ALL46402-15	ALL46404-15
16"	ALL46400-16	_	ALL46402-16	ALL46404-16
18"	ALL46400-18	ALL46401-18	ALL46402-18	ALL46404-18
20"	ALL46400-20	_	ALL46402-20	ALL46404-20
21"	ALL46400-21	_	ALL46402-21	ALL46404-21
22"	ALL46400-22	_	ALL46402-22	ALL46404-22
24"	ALL46400-24	ALL46401-24	ALL46402-24	ALL46404-24
26"	ALL46400-26	_	ALL46402-26	ALL46404-26
28"	ALL46400-28	_	ALL46402-28	ALL46404-28
30"	ALL46400-30	_	ALL46402-30	ALL46404-30
32"	ALL46400-32	_	ALL46402-32	ALL46404-32
36"	ALL46400-36	_	ALL46402-36	ALL46404-36
42"	ALL46400-42	_	ALL46402-42	ALL46404-42
48"	ALL46400-48	_	ALL46402-48	ALL46404-48
60"	ALL46400-60	_	ALL46402-60	ALL46404-60
90"	ALL46400-90	_	_	_
120"	ALL46400-120	_	ALL46402-120	ALL46404-120
180"	ALL46400-180	_	_	_







Coated Braided Steel Lines with Steel Ends

Black coated braided steel lines with steel ends. Choose #3 or #4 line in straight/straight or straight/ 90° con gurations. Lengths stated are overall, end-to-end.

#3 Line		#4 Line		
Length	Two -3 Straight	-3 90° and -3 Straight	Two -4 Straight	-4 90° and -4 Straight
12"	ALL48430-12	ALL48434-12	ALL48440-12	ALL48444-12
15"	ALL48430-15	ALL48434-15	ALL48440-15	ALL48444-15
18"	ALL48430-18	ALL48434-18	ALL48440-18	ALL48444-18
21"	ALL48430-21	ALL48434-21	ALL48440-21	ALL48444-21
24"	ALL48430-24	ALL48434-24	ALL48440-24	ALL48444-24
30"	ALL48430-30	ALL48434-30	ALL48440-30	ALL48444-30
32"	ALL48430-32	ALL48434-32	ALL48440-32	ALL48444-32
36"	ALL48430-36	ALL48434-36	ALL48440-36	ALL48444-36
40"	ALL48430-40	ALL48434-40	ALL48440-40	ALL48444-40
48"	ALL48430-48	ALL48434-48	ALL48440-48	ALL48444-48



Coated Braided Lines with 1/8" NPT and Straight Steel Ends

Black coated braided steel lines with steel ends. Choose #3 or #4 line in straight / 1/8" NPT end con guration. Lengths stated are overall, end-to-end.

	<u>.</u>	
Length	#3 Line -3 Straight	#4 Line -4 Straight
18"	ALL48435-18	ALL48445-18
21"	ALL48435-21	ALL48445-21
24"	ALL48435-24	ALL48445-24
28"	ALL48435-28	ALL48445-28
30"	ALL48435-30	ALL48445-30
36"	ALL48435-36	ALL48445-36
48"	ALL48435-48	ALL48445-48



Coated Braided Steel Lines with Aluminum Ends

Black coated braided steel lines have black aluminum ends. Choose #2, #3, or #4 line in straight/straight or straight/90° con gurations. Lengths stated are overall, end-to-end.



	#2 Line	#3 Line		#4 Line	
Length	Two -3 Straight	Two -3 Straight	-3 90° and -3 Straight	Two -4 Straight Ends	-4 90° and -4 Straight
6"	ALL48385	ALL48387	ALL48413	ALL48349	ALL48398
9"	ALL48386	ALL48388	ALL48414	ALL48350	ALL48399
12"	ALL48371	ALL48361	ALL48415	ALL48351	ALL48400
15"	ALL48372	ALL48362	ALL48416	ALL48352	ALL48401
18"	ALL48373	ALL48363	ALL48417	ALL48353	ALL48402
21"	ALL48374	ALL48364	ALL48418	ALL48354	ALL48403
24"	ALL48375	ALL48365	ALL48419	ALL48355	ALL48404
30"	ALL48376	ALL48366	ALL48420	ALL48356	ALL48405
32"	_	ALL48367	_	_	_
36"	ALL48378	ALL48368	ALL48422	ALL48358	ALL48407
40"	ALL48384	ALL48389	ALL48426	ALL48390	ALL48427
46"	_	_	ALL48394	_	_
48"	ALL48379	ALL48369	ALL48423	ALL48359	ALL48408
52"	_	ALL48392	_	_	_
60"	ALL48380	ALL48370	ALL48424	ALL48360	ALL48409
62"	_	ALL48393	_	_	_
73"	ALL48383	ALL48382	ALL48425	ALL48381	ALL48410

#6 Coated Braided Steel Lines with Aluminum Ends

Black coated braided steel lines have black aluminum ends. Lengths stated are overall, end-to-end.

		-6 90° and -6
Length	Two -6 Straight	Straight
12"	ALL48465-12	ALL48466-12
18"	ALL48465-18	ALL48466-18
24"	ALL48465-24	ALL48466-24
36"	ALL48465-36	ALL48466-36
48"	ALL48465-48	_
72"	ALL48465-72	_
120" (10 ft.)	ALL48465-120	_
168" (14 ft.)	ALL48465-168	_
192" (16 ft.)	ALL48465-192	_







#3 Braided Steel Lines with -4 Ends

Length	Two -4 Straight Ends	-4 90° and -4 Straight
9"	ALL46310-9	ALL46312-9
12"	ALL46310-12	ALL46312-12
15"	ALL46310-15	ALL46312-15
18"	ALL46310-18	ALL46312-18
21"	ALL46310-21	ALL46312-21
24"	ALL46310-24	ALL46312-24
28"	ALL46310-28	ALL46312-28
32"	ALL46310-32	ALL46312-32
36"	ALL46310-36	ALL46312-36
40"	_	ALL46312-40
42"	ALL46310-42	ALL46312-42
48"	ALL46310-48	ALL46312-48
60"	ALL46310-60	ALL46312-60
72"	ALL46310-72	_
108"	ALL46310-108	ALL46312-120
120"	ALL46310-120	_



Braided Steel Lines with 10mm Banjo Fitting

#3 Line			#4 Line
Length	-3 Straight	-4 Straight	
18"	ALL46340-18	-	ALL46440-18
21"	-	-	ALL46440-21
24"	-	ALL46341-24	ALL46440-24
44"	ALL46340-44	_	_



#4 Braided Steel Line with 1/8"NPT and 10mm Banjo Fitting

Length	Part No.	
24"	ALL46441-24	



#4 Braided Steel Lines with 1/8"NPT and Straight -4 Ends

Length	Part No.
18"	ALL46420-18
21"	ALL46420-21
24"	ALL46420-24
30"	ALL46420-30
36"	ALL46420-36
48"	ALL46420-48



#3 Braided Steel Lines with 3/16" Inverted Flare 90° and Straight -3 Ends

Length	Part No.
24"	ALL46332-24
36"	ALL46332-36
48"	ALL46332-48



Bulkhead Fittings

Black anodized aluminum bulkhead adapter ttings are perfect when plumbing needs to pass through a rewall, interior panel, or a mounting bracket.

ALL50092 Straight -3AN to -3AN ALL50093 Straight -4AN to -4AN **ALL50094** 90° -3AN to -3AN **ALL50095** 90° -4AN to -4AN **ALL50096** Tee (Run) -3AN (3x) **ALL50097** Tee (Run) -4AN (3x) ALL50098 - 3AN Nut, 2-Pack ALL50099 -4AN Nut, 2-Pack



Bulkhead Mounting Tab ALL60093

One-piece steel mounting tab with 7/16" hole can be bolted to the chassis or rear end to hold bulkhead ttings in place. Bracket is 5/64" thick.



90° Swivel Fitting

Black anodized aluminum tting swivels a full 360° for convenient hose connection. 1/8"NPT tting is commonly used in aftermarket calipers, gauge panels, or anywhere a swivel connection would be useful.

ALL50108 1/8"NPT to -3AN ALL50109 1/8"NPT to -4AN



Black anodized aluminum fl re union adapter ttings are commonly used to connect two hoses with female AN ends.







Quick Disconnect Couplings

2-piece couplings allow lines to be separated without loss of uid or requirement of bleeding. Commonly used on brake systems when changing front or rear axle assembly, hydraulic wing cylinders, a hydraulic clutch system using a



hydraulic throw out bearing, or when servicing a transmission with an internal hydraulic clutch.

ALL50212..... Alum. Coupling with -3AN Male Threads **ALL50213**..... Alum. Coupling with -4AN Male Threads ALL50215..... Steel Coupling with 1/8"NPT Female Threads

Clutch Line Kits

Designed to connect clutch master cylinder to hydraulic throw-out bearing or directly to transmissions with internal clutches. Preassembled braided steel hose assemblies have #3 lines and are tted with one -3AN straight end and one 3/16" inverted are 90° hard line end. Also includes one 1/8" male to -3AN tting

ALL46100-24...Kit with 24" Line ALL46100-36...Kit with 36" Line ALL46100-48...Kit with 48" Line

Universal Clutch Line Kit

ALL46101-36

(ALL50000).

Universal kit includes a variety of ttings to connect most master cylinders to a hydraulic slave cylinder, throw-



out bearing or to an internal clutch transmission. Kit includes an 8" long 3/16" hard line, a straight and 90° male 1/8" NPT to 3/16" inverted are ttings, a straight female 1/8" NPT to 3/16" inverted are tting, two straight male 1/8" NPT to -4 hose ttings, a 36" #4 braided steel hose with -4AN ttings, and line clamps for the steel and braided line.

Hydraulic Throw-Out Bearing Remote Bleed Kit

ALL46102

Bleed line kit connects to most popular hydraulic bearings to allow easier bleeding of system by placing



the bleeder screw outside of the bellhousing. Kit includes a 10" long line with adapter ttings for bearings with -3AN, -4AN, or 1/8" NPT bleed ports.

Dirt Race Car Brake Line Kit

Kit allows braided lines to be run

throughout a dirt race car.

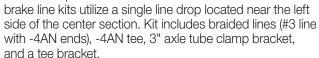
Includes all lines needed to reach from the calipers to inside the foot box. Additional ttings may be required.

This kit uses #3 line size for stiffer pedal feel while utilizing the more popular -4AN ends.

ALL42052 Kit for Dirt Modi eds with OEM Calipers ALL42053 Kit for Dirt Modi eds with Aftermarket Calipers **ALL42054** Kit for Dirt Late Models with Aftermarket Calipers

Rear End Brake Line Kit (Single Line Drop)

Kit is designed to eliminate "hanging" brake lines near the rear calipers. Rear



ALL42056..... Kit for Dirt Modi eds (60" Wide) with OEM Calipers

ALL42057 Kit for Dirt Modi eds (60" Wide) with Aftermarket Calipers

ALL42058 Kit for Dirt Late Models (62" Wide) with Aftermarket Calipers

Front End Brake Line Kit

Kits include braided lines to reach from the front calipers to inside the foot box. Braided lines are #3



size with -4AN ends. The #3 line size offers a stiffer pedal feel while utilizing the more popular -4AN ends.

ALL42060 Kit for Dirt Modi eds with OEM Calipers **ALL42061** Kit for Dirt Modi eds with Aftermarket Calipers **ALL42062** Kit for Dirt Late Model with Aftermarket Calipers

Note: Visit our website for speci c components used in these kits!

Gauge Line Kits

Gauge line kits provide easy connection to most mechanical oil and fuel pressure gauges. Includes a pre-assembled length of #4 braided steel line with -4AN ends and male and female 1/8"NPT adapters to work with most applications.

ALL46110-36 Kit with 36" Line ALL46110-48 Kit with 48" Line ALL46110-60 Kit with 60" Line ALL46110-72 Kit with 72" Line





Steel Brake Line

Steel brake line is available in lengths from 8" to 72" for plumbing brake systems. Standard galvanized zinc coating.



Length	3/16" Line with 3/8"-24 Ends
8"	ALL48048
12"	ALL48050
20"	ALL48052
30"	ALL48054
40"	ALL48056
51"	ALL48058
60"	ALL48060
72"	ALL48062

Stainless Steel Brake Line

304 Grade stainless steel line has been double annealed for easier bending and aring. Pre-made lines exceed SAE and DOT requirements and include standard size stainless are nuts for years of service and show quality nish.





Length	3/16" Line with 3/8"-24 Ends	1/4" Line with 7/16"-24 Ends
8"	ALL48300	ALL48310
12"	ALL48301	ALL48311
20"	ALL48302	ALL48312
30"	ALL48303	ALL48313
40"	ALL48304	ALL48314
51"	ALL48305	ALL48315
60"	ALL48306	ALL48316
72"	ALL48307	ALL48317

Gravel Guard Brake Line Protector

Guard protects steel and plastic brake lines against possible damage caused by gravel, rocks and other road/track debris. Zinc coated steel material is placed over tubing or brake line before ends are installed. Sold in 8' long lengths.

ALL48330 3/16" **ALL48332** 1/4"

Tubing Cutters

Cut plastic, aluminum, copper or steel tubing without distorting or crushing. Standard cutter works with tubing from 1/8" up to 1-1/8" and has wide rollers for even tracking of cutter wheel, built-in reamer for cleaning inside of tubing, and an extra cutting wheel. Mini cutter can cut tubing from 1/8" to 5/8" in tight areas.

ALL11010 Mini ALL11011 Standard

Coiled Tubing

Coiled tubing works great for building 1 piece custom fuel lines without unions. Stainless steel tubing is 304 grade and double annealed for easy aring and bending. Tubing does not include are nuts (sold separately).

Part No.	Size	Material	Length
ALL48040	3/16"	Steel (Zinc Coated)	25'
ALL48308	3/16"	Stainless	20'
ALL48326	1/4"	Steel (Zinc Coated)	25'
ALL48318	1/4"	Stainless	20'
ALL48327	5/16"	Steel (Zinc Coated)	25'
ALL48328	3/8"	Steel (Zinc Coated)	25'
ALL48322	3/8"	Stainless	20'

Inverted Flare Nuts

Flare nuts are used for building custom hard brake lines, transmission cooler lines, oil lines, and fuel lines. 3/16" and 1/4" nuts are available to t most master cylinder and metering/proportioning valve applications. Select proper thread size for line used.

Part No.	Thread Size	Material	Qty.	
Flare Nuts for 3	/16" Line		<u>-</u>	
ALL50110	3/8"-24	Steel	10-Pack	
ALL50111	3/8"-24	Stainless	10-Pack	
ALL50113	7/16"-24	Steel	2-Pack	
ALL50114	1/2"-20	Steel	2-Pack	
ALL50115	9/16"-18	Steel	2-Pack	
Flare Nuts for 1	Flare Nuts for 1/4" Line			
ALL50116	7/16"-24	Steel	10-Pack	
ALL50117	7/16"-24	Stainless	10-Pack	
ALL50118	1/2"-20	Steel	2-Pack	
ALL50119	9/16"-18	Steel	2-Pack	
Flare Nuts for 5	/16" Line			
ALL50140	1/2"-20	Steel	10-Pack	
Flare Nuts for 3/8" Line				
ALL50142	5/8"-18	Steel	10-Pack	
ALL50143	5/8"-18	Stainless	4-Pack	

Steel Tube Nut and Sleeve

Tube nuts and sleeves are used when making hard line connections to male AN fi tings. Line requires a 37° fl re for proper sealing. Package of 4.

ALL50300 -3AN Tube Nut **ALL50310**..... -3AN Tube Sleeve



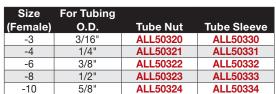
ALL50300



ALL50310

Aluminum Tube Nuts and Sleeves

Aluminum tube nuts and sleeves are used with corresponding hard lines to connect to male AN ttings. Line requires a 37° are for proper sealing. Package of 2.





ALL50320



ALL50330

ALL11010

ALI 11011



Double Flare Tool

ALL11015

Double ares 3/16", 1/4", 5/16", 3/8" and 1/2" steel or aluminum and .040" copper tubing at 45°, the most common fl re used in custom brake and fuel lines. Includes detailed instructions and a convenient plastic storage case.



Nylon Brake Line Kit

ALL48030

Quickly plumb any race car using an Allstar nylon brake line kit. Kit extends from the master cylinder to the caliper and includes 35' of 3/16" line,



compression ends, unions, tees, and 1/8"NPT ttings. Race proven for years. Not for street use.

Universal Line Clamps

Two-piece aluminum clamps dress up wiring or hard line. Package of 4.

ALL18320..... 3/16" ALL18321..... 1/4" ALL18322..... 5/16" ALL18323..... 3/8"



Brake Line Kits

Deluxe Nylon

Deluxe kits feature push lock ttings to ease installation. Kits include 30' of 3/16" line and ttings. Not for street use.



ALL48018 For Use without Brake Gauges ALL48019 For Use with Brake Gauges

Aluminum Line Clamps

Aluminum clamps have a protective neoprene cushion to prevent abrasion and a 1/4" mounting hole to secure electrical wiring, hoses, or cables to a panel or frame.

Clamp Size	10-Pack	50-Pack
3/16"	ALL18300	ALL18300-50
1/4"	ALL18301	ALL18301-50
3/8"	ALL18302	ALL18302-50
1/2"	ALL18303	ALL18303-50
5/8"	ALL18304	ALL18304-50
3/4"	ALL18305	ALL18305-50
7/8"	ALL18306	ALL18306-50
1"	ALL18307	ALL18307-50
1-1/4"	ALL18308	ALL18308-50



3/16" Nylon Brake Line

ALL48026 10' **ALL48027** 50' **ALL48028** 100'



3/16" Nylon Brake Line Compression Fittings



ALL48032





ALL48034





Nylon Line Clamps

Black nylon clamps have a 3/16" mounting hole to secure electrical wiring, hoses, or cables to a panel or frame.

Clamp Size	10-Pack	50-Pack
1/8"	ALL18309	ALL18309-50
3/16"	ALL18310	ALL18310-50
1/4"	ALL18311	ALL18311-50
3/8"	ALL18312	ALL18312-50
1/2"	ALL18313	ALL18313-50
5/8"	ALL18314	ALL18314-50
3/4"	ALL18315	ALL18315-50
1"	ALL18317	ALL18317-50



ALL48032 1/8"-27NPT Male to 3/16" Straight **ALL48033** 1/8"-27NPT Male to 3/16" 90°

ALL48034 3/16" Union

ALL48035 3/16" Tee, All Compression

ALL48036 3/16" Captured End Caps, 10-Pack

3/16" Nylon Brake Line Push-Lock Fittings



ALL48020



ALL48021





ALL48022

ALL48020 1/8"-27NPT Male to 3/16" **ALL48021** 1/8"-27NPT Female to 3/16" **ALL48022** 3/16" Tee, All Push-Lock

ALL48023 3/16" Tee, Two Push-Lock and One 1/8"-27NPT Male

ALLSTAR' PERFORMANCE

Fuel Logs

Fuel logs ef ciently provide fuel to most 4150 series Holley style carburetors with 7/8"-20 inlet threads and standard metering



ALL26153

blocks. Choose log with a -8AN male inlet ting or -8 barbed inlet ting for use with push lock hose. Logs have 1/2"NPT and 1/8"NPT plugs which can be removed when installing a return line or fuel pressure gauge.

ALL26152..... Fuel Log with -8AN Barbed Inlet Fitting ALL26153 Fuel Log with -8AN Male Inlet Fitting

Fuel Line Kits

Dual-feed fuel line kits include the correct ttings and hoses to properly plumb single carburetor applications when connecting to AN style tting. Line kits also include a capped -4AN tting



which can be easily connected to a fuel pressure gauge. Kits are offered with -6AN or -8AN lines and tings.

Application	C to C	Carb Thread	Red/ Blue	Black
-6 Holley (4150 Series)	9-5/16"	7/8"-20	ALL26154	ALL26164
-8 Holley (4150 Series)	9-5/16"	7/8"-20	ALL26156	ALL26166
-8 Holley (4150 Series)*	9-5/8"	7/8"-20	ALL26159	ALL26169
-8 Holley Ultra HP (4150 Series)	9-5/8"	3/4"-16	-	ALL26165
-8 Holley Dominator (4500 Series)	11-5/8"	7/8"-20	ALL26158	ALL26168
-8 BG Demon	9-5/8"	9/16"-24	ALL26157	ALL26167

^{*}Designed for carburetors with custom metering block including Willy's and KB.

Aluminum Carb Fittings

Convert Holley carburetors with 7/8"-20 threads, Holley Ultra HP with 3/4"-16 ORB threads or BG/Demon style with 9/16"-24 threads to an AN style connection. Anodized aluminum fi tings simplify plumbing fuel systems and building custom fuel lines. Fittings sold each.



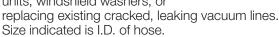
Fittings With:	Blue	Black
Female -6AN End Holley (7/8"-20)	ALL50890	ALL50892
Male -6AN End Holley (7/8"-20) Short	ALL50894	ALL50896
Female -8AN End Holley (7/8"-20)	ALL50900	ALL50902
Female -8AN End Holley HP (3/4"-16 ORB)	_	ALL50907
Female -8AN End BG/Demon (9/16"-24)	ALL50901	-
Male -8AN End Holley (7/8"-20) Short	ALL50904	ALL50906
Male -8AN End Holley (7/8"-20)	ALL50905	_

Replacement Component

ALL50910 Sealing Washer for 7/8" Fittings, 10-Pack

Vacuum Line

Premium vacuum line resists kinking and is pliable for easy routing. Often used when connecting sensors, vacuum advance units, windshield washers, or



ALL40340 5/32", 5' Long **ALL40341** 5/32", 50' Long **ALL40342** 7/32", 5' Long **ALL40343** 7/32", 50' Long

Fuel Line

Premium fuel line is reinforced to help prevent kinking and is rated up to 50 PSI for use with carbureted applications. Fuel line has many other uses, including connecting PCV valves, coolant



over ow tanks, and vent lines for transmissions and differentials. Line is compatible with gasoline, E-85, diesel, and biodiesel. Size indicated is I.D. of hose.

ALL40350 1/4", 3' Long **ALL40351** 1/4", 25' Long **ALL40353** 5/16", 3' Long **ALL40354** 5/16", 25' Long **ALL40356** 3/8", 3' Long **ALL40357** 3/8", 25' Long

Aluminum Fuel Line

Allstar aluminum fuel line is seamless and available in three diameters. 25' coil.

ALL40180 3/8" Dia. **ALL40185** 1/2" Dia. **ALL40186** 5/8" Dia.



Fuel Cell Hose

Clear vent and Iler hose is ideal for Circle Track cars. Sold in pre-cut lengths.

Vent Hose	3'	5'	10'	20'
1" I.D.	ALL40160-3	ALL40160-5	ALL40160-10	ALL40160-20
1-1/4" I.D.	ALL40161-3	ALL40161-5	ALL40161-10	ALL40161-20
1-1/2" I.D.	ALL40162-3	ALL40162-5	ALL40162-10	ALL40162-20

Filler Hose	3'	5'	10'	20'
2-1/4" I.D.	ALL40168-3	ALL40168-5	ALL40168-10	ALL40168-20
2-1/2" I.D.	ALL40170-3	ALL40170-5	ALL40170-10	ALL40170-20

GM T.P.I. Fuel Injection Fittings

Special tube O-ring ttings convert GM Tuned Port Injection fuel systems to -6AN ttings.



ALL50950 TPI Return Fitting, M14-1.50 **ALL50951** TPI Inlet Fitting, M16-1.50



Power Steering Hose Kits

Kits include hose and ttings to properly install a remote reservoir style power steering pump to most cars. Steering box ttings are sold rately.



Front Mount Kits - O.E. Style location with pump mounted to front of engine.

ALL48204 Kit for Stock Type Gear Box (Modi ed. Street Stock)

ALL48200 Kit for Rack and Pinion Steering

Rear Mount Kits - Pump mounted to bellhousing mounted dry sump pumps, fuel pumps, etc.

ALL48201 Kit for Rack and Pinion ALL48205 Kit for Steering Box

Power Steering Hose

The same quality hose included in our power steering hose kits, available in a variety of lengths for building custom power steering lines or making repairs. Hose is suitable for most steering applications.

Pressure Hose

ALL48270-3... -6, 3' Long **ALL48270-6...** -6, 6' Long ALL48270-10. -6, 10' Long ALL48270-15. -6, 15' Long ALL48270-20. -6, 20' Long



ALL48275-3... -10, 3' Long ALL48275-6... -10, 6' Long



Power Steering Hose Ends

The same quality hose ends included in Allstar's power steering hose kits for building custom power steering lines or making repairs. Fittings are suitable for most steering applications.

-6 Hose Ends (Steel)

ALL48271 Straight **ALL48272** 45° **ALL48273** 90°

-10 Hose Ends (Aluminum)

ALL48276 Straight **ALL48277** 45° **ALL48278** 90° **ALL48279** 120°



Power Steering Box Fittings







ALI 48210 ALI 48211

Allstar ttings convert most power steering boxes and racks to -6AN tting.

O-Ring Style Fittings

ALL48210* ... -6AN Male to M16-1.50 Fitting With O-Ring ALL48211..... -6AN Male to M14-1.50 Fitting With O-Ring ALL48212* ... -6AN Male to M18-1.50 Fitting With O-Ring

Non O-Ring Style Fittings

ALL48215.... -6AN Male to 5/8"-18 Fitting ALL48217..... -6AN Male to 11/16"-18 Fitting

*These are the two most common ttings when O-rings are needed.

ALL48214..... -6AN Male to 9/16"-18 Fitting With O-Ring

Sprint Power Steering Lines



Assembled lines for power steering have -6AN ends ALL48260 and are compatible with high-pressure pumps found in today's sprint cars where standard hose and ttings cannot be used. Lines are lightweight yet strong, weighing less than a standard high-pressure hose assembly. Plumbing is perfect for connection of KSE steering gear to pump. 13-1/2" long.

ALL48260 Line with Steel Ends and Protective Wrap **ALL48261** Line with Aluminum Ends

Power Steering Supply Line for KSE Gen2 Steering Gear

Gen2 supply line has -10AN aluminum tting and built speci cally for use with KSE Gen2 steering gear. New style hose is very exible, and will not collapse under suction. Total overall length of hose including ttings is 9".

ALL48262 Hose with 90° End ALL48263 Hose with 45° End

Sprint Wing Line Kit

ALL48006

Kit includes lightweight, coated, braided stainless steel lines and aluminum ttings to help simplify plumbing of KSE Gen2 steering gear and wing cylinder. Kit includes



(2) #4 slider lines (22" long and 36" long), (2) #4 pressure and return lines (18" long), (4) 45° -4AN to 1/8"NPT valve ttings, (2) 90° -4AN to 1/8"NPT cylinder ttings, and (2) high- ow -3 ORB to -4AN ttings.

ALL48278



Grommet Set ALL18360

Grommets are perfect for protecting wiring and hoses that pass through panels up to 1/16" (.062") thick. Kit includes 36 grommets (6 of each size: 1/4", 5/16", 3/8", 1/2", 5/8", and 11/16").



Grommets are also available in size speci c 10-packs.

Part No.	Grommet Hole I.D.	Panel Hole I.D.
ALL18362	3/16"	5/16"
ALL18363	1/4"	3/8"
ALL18364	5/16"	7/16"
ALL18365	3/8"	1/2"
ALL18366	1/2"	5/8"
ALL18367	5/8"	7/8"
ALL18368	11/16"	1"

Caps and Plugs

A must for keeping debris out of lines and hoses. Ideal for keeping internal components of dry sump pumps, fuel pumps, pressure regulators, etc. clean during storage. Caps and plugs t 37° ared ttings and straight threaded ports. Available in plastic and aluminum.

Сар	Plug	AN Size	Thread Size	No. Per Pkg.
Plastic Caps And Plugs				
ALL50801	ALL50811	-3	3/8"-24	20
ALL50802	ALL50812	-4	7/16"-20	20
ALL50803	ALL50813	-6	9/16"-18	20
ALL50804	ALL50814	-8	3/4"-16	20
ALL50805	ALL50815	-10	7/8"-14	10
ALL50806	ALL50816	-12	1-1/16"-12	10
ALL50807	ALL50817	-16	1-5/16"-12	10
ALL50808	ALL50818	-20	1-5/8"-12	5
Aluminum	Caps and P	lugs		
ALL50821	ALL50831	-3	3/8"-24	20
ALL50822	ALL50832	-4	7/16"-20	20
ALL50823	ALL50833	-6	9/16"-18	20
ALL50824	ALL50834	-8	3/4"-16	20
ALL50825	ALL50835	-10	7/8"-14	10
ALL50826	ALL50836	-12	1-1/16"-12	10
ALL50827	ALL50837	-16	1-5/16"-12	10

Cap and Plug Kits

Kits include ve of each size, -3 to -16.



ALL50800 Plastic Cap Kit ALL50810 Plastic Plug Kit ALL50820 Aluminum Cap Kit ALL50830 Aluminum Plug Kit

Aluminum Oil Inlet Fittings

Aluminum ttings adapt NPT to AN threads that are commonly used when connecting oil lines, and other applications. Length stated is overall length. ALL90045 features two additional 1/8"NPT ports commonly used when plumbing valve spring oilers.



ALL90044 ALL90045

ALL90048 3/8"NPT to -10AN, 3" Long **ALL90043** 1/2"NPT to -10AN, 3" Long **ALL90044** 1/2"NPT to -12AN, 3" Long **ALL90045** 1/2"NPT to -12AN, 3-1/2" Long (with 1/8"NPT Ports)

Inline Oil Temperature Tees

Install in the oil return line (pump-totank) to adapt a probe for an oil temperature gauge. All inline tees have 1/2"NPT threads for probe ttings and 1/4" holes for mounting.



ALL90039 -8AN ALL90040 -10AN ALL90041 -12AN ALL90042 -16AN

Oil Filter Adapters

Oil Iter adapters are OE style replacement mounts for securing oil Iter to engine block or oil pan when rebuilding or replacing an engine.



ALL92000

ALL92000 1968-96 SB Chevy Including LT1 and 1968-90 Gen IV BB
Chevy Engines Aluminum adapter with bypass
valve bolts to block and has 13/16"-16 threads
to accept oil lter.

ALL92001 Bolt kit for ALL92000

ALL92004 Gen V and VI 1991-Up BB Chevy Engines
Adapter threads into block with 1"-12
threads and has 13/16"-16 threads to
accept oil Iter.



ALL92005 2006-2019 LS Series Engines Hex body adapter threads into oil pan with 20mm x 1.50 thread and has 22mm x 1.50 thread to accept oil lter (PH10575).

ALL92006 1998-2009 LS Series Engines Round body with internal hex adapter threads into oil pan with 20mm x 1.50 ALL92003 thread and has 13/16"-16 thread to accept oil Iter (PH3506).

ALL92003 Most SB Ford 302-351W Engines Adapter threads into block with 1-1/16"-12 threads and has 3/4"-16 threads to accept oil lter.

Chevy Billet Oil Filter Adapter

ALL92020

Billet aluminum adapter replaces the stock cast aluminum adapter and eliminates the bypass found in OE adapters. Adapter ts most 1968-96 SB Chevy and 1968-90 Gen IV BB Chevy engines, has 13/16-16 threads for spin-on style oil lters and includes mounting hardware.



Overfl w Nozzles

Aluminum nozzle acts as a signal to the driver indicating a possible overheating condition as the cooling system pushes out water. Nozzle



ALL30178 ALI 30179

with threaded body mounts in a body panel outside the driver's compartment and is available with a 1/4" barb or a -4AN male fi ting.

ALL30178..... Nozzle with 1/4" Barb Fitting ALL30179..... Nozzle with -4AN Male Fitting

Temperature Gauge Probe Adapters

Aluminum adapters are a nice upgrade from brass adapters and feature a longer length for use in shallow applications when the mechanical temperature gauge probe may contact the inside of a cylinder head or intake manifold. Extra length of tting will still allow end of probe to protrude into the coolant for accurate readings.

ALL50203 3/8"NPT ALL50204 1/2"NPT

Radiator Over ow Fitting ALL99312

Commonly used tting threads into the ller neck of most radiators, allowing connection to an over ow tank. Aluminum tting has 1/8"NPT threads and accepts a 5/16" hose.



Petcock ALL99030

Replacement petcock for Allstar breather and over ow tanks is also perfect for draining coolant from engines. 1/4"NPT threads.



Tyler Roahrig



Tyler Roahria

Radiator Hoses

Two-ply coolant hose is exible and adapts to a variety of applications.

Abrasion resistant cover will not crack or harden.



1-3/4" Dia. Lower Hose

ALL30220 ... 11" ALL30222 ... 13-1/2" ALL30224.... 16-1/2" ALL30226 ... 191 ALL30228 ... 23-1/2" Hose Clamps (2-Packs): ALL18334.... Clamps, Upper Hose ALL18336 Clamps, Lower Hose

Hose Clamps

Heavy-duty all stainless steel clamps are easily tightened with a deep-slot hex-head screw. Superior to standard hardware store clamps. For best connection, select the clamp which ts within the range of hose O.D.

	_	
Part No.	Min Hose O.D.	Max Hose O.D.
2-Pack		
ALL18330	1/4"	5/8"
ALL18332	1/2"	1-1/8"
ALL18334	1"	2"
ALL18336	1-5/16"	2-1/4"
ALL18338	1-9/16"	2-1/2"
ALL18340	1-5/8"	3-1/2"
ALL18342	2-5/8"	4-1/2"
10-Pack		
ALL18330-10	1/4"	5/8"
ALL18332-10	1/2"	1-1/8"
ALL18334-10	1"	2"
ALL18336-10	1-5/16"	2-1/4"
ALL18338-10	1-9/16"	2-1/2"

Power Grip Clamps

Gates Power Grip Clamps seal when heated with a standard heat gun, forming a tight

band around standard rubber and sili-

cone coolant hoses to provide a secure connection, even under harsh race conditions. Installed clamps provide a smooth, ush t around hoses and eliminate exposed sharp edges associated with standard hose clamps. Select the band clamp which ts within range of hose O.D. for best connection. Sold each.

Part No.	Min Hose O.D.	Max Hose O.D.
ALL30250	1/2"	11/16"
ALL30251	11/16"	13/16"
ALL30252	13/16"	15/16"
ALL30253	15/16"	1-1/16"
ALL30254	1-1/16"	1-3/16"
ALL30255	1-3/16"	1-1/2"
ALL30256	1-1/2"	1-3/4"
ALL30257	1-3/4"	2"
ALL30258	2"	2-1/4"

Note: Clamps are not designed for use with ammable liquids or fuel line connections.



Performance SBC Fuel Pumps with AN Fittings

Lightweight die-cast three valve pump is great for use with Sportsman type engines up to 700HP and 8,000 RPM. Pump features AN style inlet and outlet ttings for easy plumbing. Lower section is clockable every 30° to t most

applications. Pump is rated at 45 GPH @ 7–8.5 PSI and does not require an external fuel pressure regulator.

ALL40266 -8AN Inlet / -8AN Outlet **ALL40267** -10AN Inlet / -8AN Outlet

Replacement Component ALL50915 -8AN Fitting ALL50916 -10AN Fitting

Performance Fuel Pumps

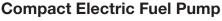
Die-cast aluminum pumps for performance SBC engines feature heattreated levers, anti-flo t springs and clockable inlet and outlet for easy installation and plumbing. Great for performance applications. Designed to be used without fuel pressure regulators but are recommended.

ALL40256 1/4" NPT Ports 7-8.5psi 120gph **ALL40257** 3/8" NPT Ports 6.5-8 psi 110gph **ALL40258** 3/8" NPT Ports 7.5-9psi 130gph

Sportsman 2-Valve Fuel Pumps

Pumps with aluminum housings have 1/4"NPT inlet/outlet tings, heavy-duty diaphragms, anti- oat springs, and "clockable" lower base for rotation of inlet and outlet. Pumps deliver 6-1/2 to 8 PSI with 80 GPH free ow.

ALL40260 SB Chevy **ALL40261** BB Chevy **ALL40262** SB Ford



ALL40320

High- ow, low-pressure electric fuel pump equipped with a 5/16" inlet/outlet. The pump ows 18 gph at 4.0 PSI, 5.5 PSI maximum. Includes a rubber padded mounting bracket and two heavy duty hose clamps. Rated 12V/5 amps. Overall length is 5-1/2" x 1-1/2" wide.

Bracket for Compact Electric Fuel Pump ALL40322

Bracket mounts our popular electric fuel pump ALL40320 with 1-1/2" O.D. to 1-1/8" chassis tubing, commonly used on mini-sprint cars.



Regulator is commonly placed between the fuel pump and carburetor to regulate fuel pressure when using mechanical or electric fuel pump, this is often referred to as a "Dead Head" style regulator as it does not require a return line back to fuel tank. The two-piece aluminum body uses a single 3/8"NPT inlet port on the bottom, two 3/8"NPT side outlet ports and a 1/8" NPT port for mounting a fuel pressure gauge or sender line. Regulator is gasoline, ethanol, and E85 compatible for 4.5 to 14 PSI systems and includes a steel mounting bracket. Not methanol compatible.

Replacement Component ALL99430 Rebuild Kit

Aeromotive Fuel Pressure Regulator Bracket for Dirt Late Models

ALL54298

Speci cally designed for use with Aeromotive double adjustable fuel pressure regulator #AFS13214 commonly used on dirt late models. Mount is typically bolted to the front deck bracing behind the engine.

Fuel Pressure Regulator Brackets

Billet aluminum brackets will mount four different style regulators. Hardware included. Silver in color.

Regulator	4150 Carb	4500 Carb
Aeromotive	ALL54280	ALL54282
Holley	ALL54284	ALL54286
Magnafuel	ALL54288	ALL54290
Mallory	ALL54292	_

ALL54280

SB Chevy Fuel Pump Mount Plate ALL40254

O.E. style plate replaces lost or missing mounting plate required to mount mechanical style fuel pump to most small block Chevrolet engines. Clear zinc-plated nish may also be painted to match original appearance. Mounting hardware included.

SB Chevy Fuel Pump Block-Off Plate

ALL40255

Plate covers mechanical fuel pump engine opening on most small block Chevrolet when omitting a mechanical style fuel pump. Plate is often used when converting to electric or belt driven fuel pumps. Clear zinc-plated nish may also be painted.

Billet Fuel Pump Block-Off Plates

CNC-machined billet aluminum plates cover the mechanical pump opening in the engine block and include a gasket and stainless steel fasteners.



Description	Blue	Clear	Red	Black
SB Chevy	ALL40300	ALL40301	ALL40302	ALL40306
BB Chevy,				
SB/BB Ford†,	ALL40303	ALL40304	ALL40305	ALL40307
SB/BB Chrysler				

†Will not t Ford 351C, 351M-400.



Inline Aluminum Fuel Filters

Black anodized, high- ow inline Iters are available with no element or with a stainless or paper element. Filter elements are 8" long and t in a 9" housing. Overall length is 12" and outside diameter is 2". Filter ows enough fuel for any race car. Filters including stainless element have a 63 micron lter and are compatible with E-85 and methanol fuels.



	With Paper	With Stainless	Without
Fitting Size	Element	Element	Element
-6AN Ends	ALL40238	ALL40239*	ALL40243
-8AN Ends	ALL40216	ALL40218*	ALL40244
-10AN Ends	ALL40217	ALL40219*	ALL40245
-12AN Ends	ALL40240	ALL40242*	ALL40246

Inline Aluminum Fuel Filters with Shut-off Valve



Our popular inline Iter assembly combined with our shut-off valve in one package. The shut-off valve is assembled on the inlet side of the lter assembly which allows shutting the fuel off to the lter and the remaining portion of the fuel system for maintenance and safety during transportation. Filter assembly is sold without element.

ALL40196 -6AN Ends **ALL40197.....** -8AN Ends **ALL40198** -10AN Ends **ALL40199** -12AN Ends

Fuel Filter Elements

Fuel Iter elements are 8" long and are direct replacements for our in-line fuel lers.

ALL40220 Paper (10 Micron) ALL40222 Stainless Steel (63 Micron) ALL40221 Stainless Steel (100 Micron)



Fuel Filter Brackets

Brackets mount Allstar inline aluminum fuel Iters to round or square tubing and at surfaces. Flush mount bracket fastens to at panels like a frame rail or rewall. A locking set screw holds Iter in place. Brackets for round and square tubing clamp with caps secured by Allen head screws. Sold each.

Part No.	Tubing Size	Tubing Shape
ALL40229	1-1/4"	Round
ALL40227	1-3/8"	Round
ALL40228	1-1/2"	Round
ALL40230	1-3/4"	Round
ALL40232	2" x 2"	Square
ALL40235	Flush Mount	-



ALI 40235



2-Piece Fuel Filter Brackets

Brackets are a two-piece design that clamps our 2" O.D. in-line style fuel Iter directly to the chassis tubing. Bracket secures lter to the tubing but does not



t completely around chassis tubing for applications when decking or sheet metal is mounted directly against the tubing. Sold each.

ALL40190	1-1/8"
ALL40191	1-1/4"
ALL40192	1-1/2"
ALL40193	1-3/4"

Fuel Line Check Valve

ALL40208

Valve is placed in-line near the fuel cell to prevent fuel from free- owing in the event of an accident that damages the fuel pump or fuel line. The suction action of the fuel pump overrides the internal spring which opens the valve allowing fuel to ow without restriction. Valve accepts -10 ORB style ttings.

Fuel Filter Shut-Off Valve

ALL40210

Valve installs on the inlet end of our inline aluminum fuel Iters allowing fuel to be shut-off for maintenance or safety reasons. Ball

style shut-off features a lever with a 1/4"-20 threaded hole for mounting a ball stud or securing a rod end for use with remote shut off.

Hi-Flow Chrome Fuel Filter **ALL40250**

Canister-type Iter has 3/8"NPT inlet and outlet, a replaceable 10 micron element, and 90 GPH ow.

Replacement Component ALL40251 Filter Element and Seals



Carson Ferguson



Adjustable Fuel Logs

Adjustable fuel logs feature over 4" of adjustment to work with a variety of dual inlet carburetors. Black anodized aluminum log has



a -8AN x 3/4"-16 ORB fuel inlet and a 3/8" NPT plug in rear port that can be removed to install a return line or fuel pressure regulator.

ALL26150 Fuel Log with 7/8"-20 Fitting (Standard Holley) ALL26151 Fuel Log with 3/4"-16 ORB Fitting (Holley Ultra HP)

Fuel Logs

Fuel logs ef ciently provide fuel to most 4150 series Holley style carburetors with 7/8"-20 inlet threads and standard metering



blocks. Choose log with a -8AN male inlet ting or -8 barbed inlet ting for use with push lock hose. Logs have 1/2"NPT and 1/8"NPT plugs that can be removed to install a return line or fuel pressure gauge.

ALL26152.... Fuel Log with -8 Barbed Inlet Fitting **ALL26153** Fuel Log with -8AN Male Inlet Fitting

Shockproof Pressure Gauges

1-1/2" diameter gauges are constructed using reliable brass internal parts and have a 1/8"NPT male tting on the backside of the gauge. Dry gauges feature a chrome-plated steel housing, while glycerin- lled gauges feature a stainless steel housing helping to dampen the effect of pulsation and pressure spikes of the gauge needle.





ALL80200

ALL80216

Description	Glycerine Filled	Dry Type
0-15 PSI	ALL80200	ALL80210
0-30 PSI	ALL80202	_
0-60 PSI	ALL80204	ALL80214
0-100 PSI	ALL80206	ALL80216
0-1,500 PSI	ALL80208 (NOS)	ALL80218

Aluminum Carb Fittings

Convert Holley carburetors with 7/8"-20 threads, Holley Ultra HP with 3/4"-16 ORB threads or BG/Demon style with 9/16"-24 threads to an AN style connection. Anodized aluminum fi tings simplify plumbing fuel systems and building custom fuel lines. Fittings sold each.



Fittings with:	Blue	Black
Female -6AN End Holley (7/8"-20)	ALL50890	ALL50892
Male -6AN End Holley (7/8"-20) Short	ALL50894	ALL50896
Female -8AN End Holley (7/8"-20)	ALL50900	ALL50902
Female -8AN End Holley HP (3/4"-16 ORB)	-	ALL50907
Female -8AN End BG/Demon (9/16"-24)	ALL50901	-
Male -8AN End Holley (7/8"-20) Short	ALL50904	ALL50906
Male -8AN End Holley (7/8"-20)	ALL50905	_

Replacement Component

ALL50910 Sealing Washer for 7/8" Fittings, 10-Pack

Fuel Line Kits

Dual feed fuel line kits include the correct ttings and hoses to properly plumb single carburetor applications when connecting to AN style ttings. Line kits also include a capped -4AN tting which can be easily connected to a fuel pressure gauge.



Kits are offered with -6AN or -8AN lines and ttings.

Application	C to C	Carb Thread	Red/ Blue	Black
-6 Holley (4150 Series)	9-5/16"	7/8"-20	ALL26154	ALL26164
-8 Holley (4150 Series)	9-5/16"	7/8"-20	ALL26156	ALL26166
-8 Holley (4150 Series)*	9-5/8"	7/8"-20	ALL26159	ALL26169
-8 Holley Ultra HP (4150 Series)	9-5/8"	3/4"-16	-	ALL26165
-8 Holley Dominator (4500 Series)	11-5/8"	7/8"-20	ALL26158	ALL26168
-8 BG Demon	9-5/8"	9/16"-24	ALL26157	ALL26167

^{*}Designed for carburetors with custom metering block including Willy's and KB.

GM T.P.I. Fuel Injection Fittings

Special tube O-ring tings convert GM Tuned Port Injection fuel systems to -6AN tings.



ALL50950 TPI Return Fitting, M14-1.50 **ALL50951** TPI Inlet Fitting, M16-1.50



Down Nozzle Filter with Breather Ring ALL40325

Filters allow excess fuel to evacuate the injection lines once engine is shut down to help prevent fuel from entering the cylinders. Low-pro le lter design reduces the chance of damage. Package of 8.

Nozzle Plugs ALL40327

Nozzle plugs take the place of the fuel nozzles when only running one set of injectors. Plugs feature 1/2"-20 threads and include a sealing O-ring. Package of 8.

Nitrous Bottle Warmer

ALL76428

Nitrous bottle warmers are the right way to safely obtain correct pressure in colder weather. Wrap around design evenly distributes heat on the bottle, eliminating hot spots. 12-16-volt warmers are designed to work with ALL76197 and ALL76198 pressure control kits. Bottle warmer measures 19" x 6" and includes adjustable straps to t most 5-, 10-, and 15-lb. bottles.

Nitrous Pressure Control Kits

Kit simplifi s installation of a bottle warmer and helps maintain a consistent pressure when using a bottle warmer. 12V kit includes an adjust-

ALL76197 Kit with -4AN Line Adapter ALL76198..... Kit with -6AN Line Adapter

Burst Panel Components



able pressure switch which controls the bottle warmer.

Burst panel is designed to blow open or release excessive manifold pressure in the event of an internal engine explosion, helping to prevent costly supercharger and body damage. Panel meets SFI 23.1 speci cations and is commonly used on supercharged, alcohol injected engines, mounting directly to the intake manifold or supercharger (screw type only). Outer frame de ectors will direct force away from car.

ALL26310 Burst Panel, Large (3-1/8" x 6-1/8")

ALL26311..... Outer Burst Panel Frame

ALL26314..... Outer Burst Panel Frame with De ector

ALL26313..... Inner Burst Panel Frame (used when manifold has an open plenum without burst panel support)

ALL26315..... Fastener Kit 10-24 x 3/4", 24-Pack (for use with panel and outer frame or de ector)

ALL26316..... Fastener Kit 10-24 x 1", 24-Pack (for use with panel, inner frame, and outer frame or de ector)

Carb Hats

Carburetor hats are ideal to cover open carbs and prevent debris from falling into the engine while working in garage or pit area while the air cleaner is removed, 2-1/2" tall carb hats are designed to t most carbs or throttle



ALI 26043

ALI 26044

bodies with a 5-1/8" diameter neck. ALL26040 Plastic

ALL26042 Plastic with Screen

ALL26043 Aluminum

ALL26044 Aluminum, with Sealing O-Ring

Note: Hats will not clear choke linkage or shaft on Holley style carbs but will clear choke horn with choke linkage and shaft removed.

Dominator Carb Hat ALL26041

Plastic carb hat is 2-3/8" tall and ts over the 7-1/4" air cleaner opening of Holley Dominator carburetors to prevent water or debris from entering the engine. Solid cover may be drilled when an air cleaner stud is used.

Drag High-Flow Carburetor Spacers

Specially designed for drag race applications to isolate carburetor from manifold. spacers prevent horsepower-robbing heat transfer and increase the distance from the bottom of the carburetor to the manifold plenum for better air ow. Spacers are CNC-machined in the U.S. from a polymer compound able to withstand temperatures up to 400°F. Available in open or four hole versions for 4150 and 4500 series Holley and Holley style carburetors in 1/2", 1", and 2" heights. Tapered four-hole spacers have specially contoured holes to increase air velocity under the carburetor. Not intended or recommended for street or circle track use.

4	4150 Series Part No. Description		4500 Series		
Part No.			Description		
ALL25980	Open, 1/2"	ALL25990	Open, 1/2"		
ALL25981	Open, 1"	ALL25991	Open, 1"		
ALL25982	Open, 2"	ALL25992	Open, 2"		
ALL25983	4-Hole, 1/2"	ALL25993	4-Hole, 1/2"		
ALL25984	4-Hole, 1"	ALL25994	4-Hole, 1"		
ALL25986	Tapered 4-Hole, 1"	ALL25996	Tapered 4-Hole, 1"		

Carb Drain/Primer Bottle ALL40091

Durable plastic 8-oz. squeeze bottle is ideal to assist draining and priming carburetors when making jet changes. Cap has an angled ller tube with a tapered tip that ts easily into the vent tube of the carburetor to re II fuel bowl.

Primer Bottle ALL40090

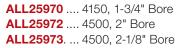
Durable plastic squeeze bottle is ideal for priming alcohol engines. Cap has an angled ller tube, with tapered tip that easily ts into the vent tube of carburetor fuel bowl. 16-oz. capacity.



ALL25970

Carb Shear Plates

Carb plates with built-in shear design help maximize performance on race engines with a large amount of cam overlap by creating a dam under the throttle plates, helping to build low pressure while improving vacuum signal to the carb. 1/2" tall plates are machined from 6061-T6 aluminum and clear anodized to protect against corrosion.





ALL87200 4150 Open **ALL87202** 4150 4-Hole

ALL87204 4412 2-Hole, 2bbl. **ALL87206** 4500 Open, Dominator

Carburetor Hold Down Nuts

Easily remove these hold down nuts with a 1/4" extension. The spring ball on your extension holds the nut in place, no wrench or socket needed! Package of 4.

ALL26324 5/16"-18 Coarse-Thread Nuts **ALL26326** 5/16"-24 Fine-Thread Nuts

Angled Carb Spacer ALL25975

For Dirt Late Models and Modifi ds, spacer is angled downward, toward left front, to correct hesitation caused by poor fuel distribution as car "rocks up". Four-hole design

by poor fuel distribution as car "rocks up". Four-hole design enhances carb signal to improve throttle response and increase torque.

Angled Restrictor Plate ALL25977

Four-hole aluminum spacer angles the carburetor left and

to the rear so the carb is closer to level when in race attitude. Spacer accepts 1/2" or 1" tapered inserts which can be changed quickly by removing the carb. Inserts restrict air/fuel entry and reduce

power slightly to prevent wheel spin and range in size from 0.950" to 1.400" for custom tailoring and quicker lap times. Spacer works with most Holley 4bbl. 4150/4160 series carburetors. Inserts sold separately.



The "Governor" is a four-hole aluminum spacer that accepts tapered inserts which can be changed quickly by removing the carb. Inserts restrict air/fuel entry and reduce power slightly to prevent wheel spin and range in size from 0.950" to 1.400" for custom tailoring and quicker lap times. Spacer works with most Holley 4bbl. 4150/4160 series carburetors. Inserts sold separately.

ALL26180 1/2" Restrictor Plate ALL26060 1" Restrictor Plate

Restrictor Plate Inserts

Tapered inserts are machined to be within .002" for precise tuning. Inserts feature a step to simply drop into spacers and have sizes engraved on each insert for easy identi cation. Sold in a set of 4.

For 1/2" Restrictor Plate		
Part No.	Size	
ALL26181	0.950"	
ALL26182	1.000"	
ALL26179	1.050"	
ALL26183	1.100"	
ALL26184	1.150"	
ALL26185	1.200"	
ALL26186	1.250"	
ALL26187	1.300"	
ALL26188	1.350"	
ALL26189	1.400"	

For 1" Re	For 1" Restrictor Plate		
Part No.	Size		
ALL26061	0.950"		
ALL26062	1.000"		
ALL26059	1.050"		
ALL26063	1.100"		
ALL26064	1.150"		
ALL26065	1.200"		
ALL26066	1.250"		
ALL26067	1.300"		
ALL26068	1.350"		
ALL26069	1.400"		

Full Throttle Non-Restricting Inserts

ALL26190

Inserts are used in place of restricting inserts allowing full throttle operation without restriction, commonly used when qualifying or when track conditions allow for more power. Insert design provides a smooth transition over simply removing the restrictor inserts. Sold in a set of 4.

Circle Track Throttle Return Spring Brackets

Black anodized aluminum bracket fastens to the carburetor mounting studs and features a larger opening speci cally designed for use with mechanical linkage found on many circle track cars. The larger opening allows throttle linkage to be routed from



ALL54185

underneath to help prevent clearance or interference issues. Dual return springs are connected to a universal return spring bracket to work with most carburetors. Brackets include a built-in adjustable throttle stop to help prevent damage to carburetor.

ALL54185..... Bracket for 4150 Series 4bbl. ALL54186..... Bracket for 4412 Series 2bbl.



ALI 54304



ALL54211

Throttle Return Spring Brackets

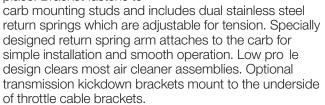
Billet aluminum bracket can be used with cable or mechanical linkage. Bracket fastens to carb mounting studs and ALL54201 includes dual stainless steel return springs which are adjustable for tension. A specially designed return spring arm attaches to the carb for simpli ed installation and smooth operation. Low pro le design clears most air cleaner assemblies.

Carb Size	Clear	Black
4150/Edelbrock	ALL54200	ALL54202
4500	ALL54201	ALL54203

Note: Longer carburetor studs will be required to accommodate bracket.

Adjustable Throttle Brackets with Return Springs

Billet aluminum throttle bracket securely mounts and holds throttle cable in place. Bracket fastens to



Carb Size	Cable Style	Clear	Black
4150/Edelbrock	GM	ALL54210	ALL54211
4150/Edelbrock	Lokar	ALL54214	ALL54215
4150/Edelbrock	Morse	ALL54218	ALL54219
4150/Edelbrock	Ford	ALL54222	ALL54223
4150/Edelbrock	Mopar	ALL54224	ALL54225
4500	GM	ALL54226	ALL54227
4500	Lokar	ALL54230	ALL54231
4500	Morse	ALL54234	ALL54235
4500	Ford	ALL54238	ALL54239
4500	Mopar	ALL54240	ALL54241

Note: Longer carburetor studs will be required to accommodate bracket.

Transmission Kickdown Brackets

Kickdown bracket attaches to the bottom of Allstar's adjustable throttle brackets. Fully adjustable to achieve correct cable setting.

ALL54276 GM Style, Clear ALL54277 GM Style, Black ALL54278 Lokar Style, Clear ALL54279 Lokar Style, Black

Return Spring Brackets

Kits are replacement hardware found on Allstar throttle brackets or may be used when building custom return spring brackets.



ALL54276

Scoop Tray Mounts

Scoop tray mounts offer an all in one solution to mount a scoop tray, throttle, and nitrous solenoids. Mounts provide a clean look, eliminating the need to use multiple brackets, mounts and gaskets. CNC machined from 6061 aluminum, black anodized.

ALL54302 4150 (1.755" Bore) ALL54304 4500 (2.375" Bore)

Wide Open Throttle Microswitch Brackets

Black anodized microswitch brackets are made from lightweight billet aluminum and fi Holley 4150 and 4500 carburetors for precise activation of the microswitch. Brackets work with the standard secondary arm as

well as a throttle adjustment-screw secondary arm. Each kit includes a bracket, microswitch, and stainless steel hardware to secure microswitch to the bracket. ALL54180 includes stainless hardware for mounting bracket to carburetor. ALL54181 mounts to an existing carb stud.

ALL54180..... WOT Microswitch and Bracket for 4150 Carbs* ALL54181 WOT Microswitch and Bracket for 4500 Carbs ALL54182.... Microswitch Only

*Some model carbs may require mounting bosses be 8-32 tapped for installa-

Throttle/Shifter Cables

Cables have many uses including use as a throttle cable or as a shifter cable for many applications. Cables have 7/16" mounting threads, #10-32 RH cable ends and 3" of travel.

	Overall Length	Mount to Mount Length
ALL54142	43"	29" +/- 1"
ALL54145	60"	45" +/- 1"

Morse Cable Half Clamp **ALL18325**

Aluminum clamp fi s over groove in non-threaded Morse style cables with a 3/8" housing to secure cable in place. Clamps feature a #10 (3/16") mounting hole. Sold each.





ALL54194...4150, Clear ALL54195...4150, Black

ALL54196...4500, Clear ALL54197...4500, Black

ALL54193... Return Springs Only, (2)

PERFORMANCE

Aluminum Throttle Linkage with Return Spring Kit

throttle linkage with 1/4" rod ends for smooth



and a return spring kit for 2300 2bbl./4150 4bbl. Holley style carburetors. Return spring kit includes correct stepped bushings, mounting hardware, and heavy and light rate return springs. Throttle rod is easily formed to t many applications and may be shortened and re-threaded using a 1/4"-28 tap.

ALL54158..... Kit with 24" Throttle Linkage ALL54178..... Kit with 36" Throttle Linkage

Individual Components

ALL54159..... Throttle Linkage with Rod Ends 24" ALL54179..... Throttle Linkage with Rod Ends 36"

ALL54168.....Return Spring Kit

Steel Throttle Linkage Kit



Linkage kit includes a 26" steel rod with a disconnect that speeds up carb changes and servicing. The kit includes 1/4" hardware for mounting to carburetor and throttle pedal.

ALL54170 Kit with Quick Disconnect and Rod End

ALL54171 Kit with Two Quick Disconnects

ALL54172..... Throttle Ball Stud Kit

Aluminum Throttle Linkage Kit with Quick Disconnects

Kit features quick disconnects on each end to help provide easy carb changes

without the

need of wrenches. The kit

includes a 24" long 3/8" linkage that is pre-formed with a 4" drop to clear carb bracket and air cleaner base and has 10" of 3/8"-24 threaded area that allows linkage to be cut to desired length as needed. Carb stud kit is also available separately to set-up additional carbs with quick disconnect connection.

ALL54188..... Complete Kit ALL54189..... Carb Stud Kit

Quick-Release Ends

Quick-release ends are used when a connection needs to be removed and installed often. Steel constructed housing has a spring loaded release to keep housing secure to pivot ball.



ALL54147 #10-32 With #10-32 And 1/4"-28 Studs ALL54149..... 1/4"-28 With 1/4"-28 Stud

Carb Mount Return Spring Kit

ALL54168

Kit includes chrome plated steel bracket, springs, bushings and hardware to ta variety of applications.



Return Spring Bushing Kit

ALL54165

This kit includes a double stepped bushing that acts as a reducer bushing for carb lever and a bushing for return spring tab to pivot on reducing the amount of spacers needed for mounting carb linkage. Bushing kit includes correct length bolt and lock nut for mounting linkage with a 1/4" rod end.

Throttle Bushing Kit ALL54164



Aluminum bushings are stepped for clearance and adapt from 1/2" to 1/4" holes.

Universal Return Spring Bracket

ALL54167

Chrome-plated steel bracket provides mounting location for return spring.



Universal Return Spring Kit

ALL54166

Kit includes two springs and mounting bracket.



Return Springs ALL54163

Universal springs for carburetor are 11-1/2"



long unextended. Package of 2.

Carb Stud Spacers ALL99388





Spacers provide added clearance between throttle brackets and carburetors when needed. Spacers are 5/16" tall with 11/16" I.D. Package of 2.



Throttle Pedals



Pedals can be pulled back if throttle binds or return spring fails. Side mount pedals are available as standard or roller design for smoother throttle control. Firewall mount pedal is used on race cars with at or stock type rewalls.

ALL54100..... Standard ALL54101..... Roller ALL54107..... Firewall Mount

Adjustable Throttle Pedals

Fully adjustable aluminum pedals are available for straight or angled foot box panels. Bronze bushings and nylon rollers provide smooth

operation. Linkage arm has 1/4" holes spaced every 1/2" for adjustment of throttle linkage.

ALL54098 Straight **ALL54099** Angled



Angled Mount

Adjustable Idle Kit

ALL54154

Need cold start help
to keep your race car
running and get it
warmed up? This kit
allows you to adjust
your idle speed from
inside the cockpit! All
items mount inside the
foot box to stay clean and
away from the carb itself! Designed
to work with throttle pedals that have

a at surface on the arm, like Allstar ALL54098, bracket bolts to the foot box and adjusts against the top arm of the throttle pedal. Once your car is started, simply turn the adjustment knob to the desired idle setting. Kit is complete with adjustment knob, 5' cable assembly, mounting bracket and hardware. Throttle pedal sold separately.

Floor Mounted Throttle Pedal Kit ALL54102



Floor mount pedal offers a smooth, natural feel to maximize throttle control and comfort. Complete kit includes a pedal with a built-in return spring and throttle stop, universal rewall bell crank assembly and two 24" throttle rods with rod ends and mounting hardware.

Firewall bell crank assembly requires welding to match the rewall angle and throttle rods will need to be cut and threaded to your speci c lengths.

Individual Components

ALL54104..... Pedal Only

ALL54105..... Throttle Cross Shaft ALL54159..... Linkage Rod Only

Heel Riser

ALL54099

Aluminum heel risers are drilled for easy mounting and include a non-skid pad. 4-1/2" wide.

ALL54090 1" Tall Riser **ALL54091** 1-1/2" Tall Riser



Heel Riser Rest ALL54092

Aluminum bracket is 1" tall and rivets to heel risers to help keep foot in place on the riser.



Sprint Car Throttle Pedals



Pedals t most sprint chassis with pivot spud welded on frame rail.

ALL54094 Titanium

ALL54095 4130 Chrome Moly



Fuel Cell Cap and Bolt-In Bung Kits

Billet aluminum neck looks good and provides a positive seal. The ller neck is raised to help prevent dirt and debris from falling into cell, causing fuel system contamination, while the large 3" opening helps when refueling. Kit includes mounting hardware.

ALL40133..... 12-Bolt JAZ/RCI w/Red Cap ALL40134..... 6-Bolt JAZ w/Red Cap

ALL40136..... 12-Bolt JAZ/RCI w/Black Cap **ALL40137**..... 6-Bolt JAZ w/Black Cap



ALL40136

Fuel Cell Mounting Bracket

ALL60063

Steel bracket is radiused to t 1-1/2" tubing and has (8) 3/8" holes on 1/2" centers. Bracket is .085" thick and 1-1/2" wide x 4-3/4" tall.

Fuel Cell Mounting Brackets

Steel brackets are .125" thick, 1-3/4" wide and available in three lengths. All have 3/8" holes.

ALL60060 2" Long **ALL60061** 3" Long **ALL60062** 4-3/4" Long



Drum/Barrel Pump

ALL40114

Hand-siphon drum pump dispenses or transfers low-viscosity uids from a 55-gallon drum. Self-priming bulb delivers up to 5 gallons per minute. Compatible with gasoline, methanol, and nitro methane.

Drum Pump Kit for Utility Jugs

Easily transfer low-viscosity uids from most popular utility jugs without lifting a heavy jug by converting jug into a hand pump unit. Kit includes a cap and hand pump to replace the original utility jug cap. Individual cap may be purchased separately when using an existing pump. Pump siphon tube will need to be cut to length depending on the size of jug used.



ALL40117 Kit for VP Jugs

ALL40118..... Cap Only for Allstar/Scribner/Sunoco Jugs

ALL40119 Cap Only for VP Jugs

Redhead Dry Break Valves

Safe and effective method for refueling prevents uid loss. Spring-loaded female receptacle mounts in a





variety of locations and automatically closes when male dry break is removed. Female dry break accepts 2-1/2" fuel hose. Male dry break accepts 2-1/4" fuel hose.

ALL40213..... Female **ALL40215**..... Male

Replacement Components

ALL99028 Seal Kit for ALL40213 **ALL99029** Seal Kit for ALL40215

Over ow Check Valves

Valves are 9-3/4" long and available in two styles. Use with over ow catch can.

ALL40200 1" Flapper Style **ALL40201** 1-1/4" Flapper Style **ALL40203** 1-1/4" Spring-Loaded



Fuel Cell Hose

Clear vent and Iller hose is ideal for Circle Track cars. Sold in precut lengths.



Vent Hose	3'	5'	10'	20'
1" I.D.	ALL40160-3	ALL40160-5	ALL40160-10	ALL40160-20
1-1/4" I.D.	ALL40161-3	ALL40161-5	ALL40161-10	ALL40161-20
1-1/2" I.D.	ALL40162-3	ALL40162-5	ALL40162-10	ALL40162-20

Filler Hose	3'	5'	10'	20'
2-1/4" I.D.	ALL40168-3	ALL40168-5	ALL40168-10	ALL40168-20
2-1/2" I.D.	ALL40170-3	ALL40170-5	ALL40170-10	ALL40170-20

Funnels

Heavy-duty plastic funnels are perfect for topping off fuel or other liquids. Available in several sizes.







Wheel Hub Kits

Wheel hub kits for 2-1/2" pin GN style axle tubes are a popular choice for modifi ds and street stocks. Kits include a steel hub with a built-in rotor ring for most popular 8-bolt brake rotors and 5/8-11 x 2"



wheel studs, a 24-spline drive ange, inner and outer wheel bearings with races installed, hub seal, brake rotor bolt kit and double-sided lug nuts. Spindle nut kit sold separately.

ALL68806 5 x 5" Bolt Circle **ALL68807** 5 x 4-3/4" Bolt Circle

Related Components

ALL72173..... Locking Spindle Nut Kit **ALL72177**..... Steel RH Spindle Nut

32 Vane Non-Directional Brake Rotor ALL42010

Popular 8-bolt brake rotor is commonly used on the rear of modi eds and stock cars and features a 32 non-directional vane design which allows this rotor to be used on either side of the vehicle. Rotor measures 11.75" x .810" wide and weighs just 8 lbs.



See Brake section for other Hub/Rotor products!

Wheel Bearings and Races

Tapered roller wheel bearings and bearing races are direct replacements for many popular applications. REM nished bearings and races feature a special polished nish for reduced drag over standard bearing/race combinations.

Description	Inner Bearing	Inner Race	Outer Bearing	Outer Race
Standard				
Wide 5	ALL72215	ALL72230	ALL72245	ALL72255
5x5 2" Pin	ALL72200	ALL72260	ALL72200	ALL72260
5x5 2-1/2" Pin	ALL72210	ALL72225	ALL72210	ALL72225
Ford Granada, Mustang II, Hybrid	ALL72270	-	ALL72274	-
GM Metric 1979-81 Monte Carlo, etc.	ALL72275	-	ALL72277 [†]	-
GM Metric 1982-88 Monte Carlo, etc.	ALL72275	-	ALL72278 [‡]	_
Timken				
Wide 5	ALL72217	-	ALL72247	-
5x5 2" Pin	ALL72202	-	ALL72202	-
5x5 2-1/2" Pin	ALL72212	-	ALL72212	-
REM Finished				
All Wide 5	ALL72216	ALL72231	ALL72246	ALL72256
5x5 2-1/2" Pin	ALL72290	-	ALL72290	-
Ford Granada, Mustang II, Hybrid	ALL72291	-	ALL72292	-
GM Metric 1979-81	ALL72293	-	ALL72294 [†]	-





†Bearing for Outer Race or Cup with a 1.97" O.D.

Wheel Bearing Kits

Kits contain inner bearing, outer bearing and seal.

ALL72300 Wide 5 Kit, Wilwood, Winters **ALL72311*** Wide 5 Low Drag Kit, Wilwood, W

ALL72311*.... Wide 5 Low Drag Kit, Wilwood, Winters **ALL72301**..... Wide 5 Kit, Howe (Contender Hub Only)

ALL72302..... 5x5 Kit, 2" Pin **ALL72303** 5x5 Kit, 2-1/2" Pin

*Kit includes REM nished bearings and low drag lip style seal.

Timken Wide 5 Wheel Bearing Kit

ALL72310

This wheel bearing and seal kit is designed to t most Wide 5 hubs. The complete kit will update one hub and includes inner and outer wheel bearings, inner and outer races, and a low-drag hub seal.



‡Bearing for Outer Race or Cup with a 1.78" O.D.

1-Ton Wheel Bearing Kits

Kits contain all components to install one hub assembly including a hub seal, inner bearing, inner race, outer bearing, and outer

race. REM nished bearings and races feature a special polished nish for reduced drag over standard bearing/race combinations

ALL72313..... Kit with Standard Bearings **ALL72314**..... Kit with REM Finished Bearings

Timken Wheel Bearing Grease

ALL78241..... 16-oz. Tub Standard ALL78240..... 14-oz. Cartridge Standard ALL78242..... 14-oz. Cartridge High-Temp.

Synthetic





Master Wheel Bearing and Seal Kits

Kits contain all components to install one brake rotor/hub assembly including hub seal, inner bearing, outer bearing, locknut kit and dust cap.

ALL72305[†] ... GM Metric, 1979-81

ALL72306[‡] ... GM Metric, 1982-88

ALL72308 Granada Rotor with Mustang II Spindle **ALL72309** Hybrid Rotor with Mustang II Spindle

†Bearing for Outer Race or Cup with a 1.97" O.D. ‡Bearing for Outer Race or Cup with a 1.78" O.D.

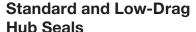


Spacers t between inner and outer bearings. Prevent overtightening and consistently set bearing pre-load while reducing bearing drag.
US Patent No. 6.312.162.

ALL72320..... Wide 5

ALL72323.... 5x5 with 2" Pin **ALL72324....** 5x5 with 2-1/2" Pin **ALL72322....** Mustang II Spindle

ALL72325.... GM Metric Spindle 1979-88



Hub seals keep grease in the hub and on the wheel bearings. Available for 5x5 and Wide 5 hubs. Low-drag seals reduce drag for improved performance.



Description	Standard Hub Seal	Low-Drag Hub Seal
Wide 5 (Except Howe)	ALL72120	ALL72121
Wide 5 (Except Howe) O-Ring Style	-	ALL72122
Wide 5 Howe	ALL72124	ALL72125
Wide 5 1-Ton	ALL72130	_
5x5 2" Pin	ALL72124	ALL72125
5x5 2-1/2" Pin	ALL72114	ALL72115
5x5 2-1/2" Pin O-Ring Style	-	ALL72123
Ford Granada, Mustang II, Hybrid	ALL72126	_
GM Metric (Monte Carlo) 1978-88 (Front)	ALL72128	_

Spindle Nut Sockets

Aluminum hex style spindle nut socket features a 1/2" drive for use with a ratchet.

ALL10110 Socket for 2" Pin Wide 5 and 5x5 Spindle Nuts, 2-3/8"

ALL10114 Socket for 1-Ton Wide 5 Spindle Nuts, 2-5/8" **ALL10115** Socket for 2-1/2" Pin 5x5 Spindle Nuts, 2-7/8"

Spindle Nut Kit for 2" Pin Wide 5 and 5x5 Hubs

Spindle Nut Kit for most popular Wide 5 Hubs and Howe, PCR 5x5 hubs with a 2" pin. Kit includes a tabbed washer, retaining nut, and a tabbed locking ring with locking screws. Retaining nut has 1-13/16"-16 RH threads.

ALL44130..... Steel Nut Kit ALL44131..... Aluminum Nut Kit

Spindle Nut Kit for 1-Ton Wide 5 ALL72176

Spindle nut kit for 1-Ton style Wide 5 axle tube includes a retaining nut, tabbed washer and a tabbed locking ring with locking screws. Retaining nut has 2"-16 RH threads.



Spindle Nut Kit for 2-1/2" Pin 5x5 Hubs

ALL72173

Spindle nut kit for most popular Allstar, PEM, Winters, AFCO and SCP 5x5 GN hubs with a 2-1/2" pin. Kit includes a steel retaining nut, tabbed washer and a tabbed locking ring with locking screws. Retaining nut has 2-3/8"-18 RH threads.



Spindle Nut for 2-1/2" Pin 5x5 Hubs ALL72177

Spindle nut used with tab style locking ring/washer. Retaining nut has 2-3/8"-18 RH threads.



GM Spindle Nut Kit ALL72160

Spindle nut kit for 1978-88 G-Body metric chassis spindle includes a castle style retaining nut, tabbed washer and a cotter pin. Retaining nut has 3/4"-20 RH threads.



Mustang II Spindle Nut Kit ALL72161

Spindle nut kit for most Mustang II stock type spindles includes a retaining nut, tabbed washer, crown retainer, and a cotter pin. Retaining nut has 13/16"-20 RH threads.



Front Hub Dust Caps

Stock replacement style dust caps.

ALL72164..... GM Metric Hub, 2-3/32" O.D. **ALL72165**..... Ford Hub, 1-25/32" O.D.







Ford 9" Floater Axle Housings



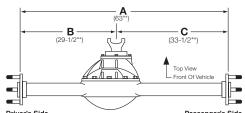
Housings are jig welded for correct alignment using all new components including a fabricated center section, new 3" O.D. x 3/16" wall axle tubes and include a vent tting, carrier mounting studs, Il and drain plugs. Note: Dimensions listed are from hub face to hub face.

Housing Width/Offset	2" Pin	2-1/2" Pin
58"/Centered	_	ALL68820
60"/Centered	ALL68700	ALL68822
62"/Centered	ALL68704*	ALL68824
63"/2" Offset	ALL68708	-

^{*} Special Order Housing

TECH TIP

Housing Measuring Diagram



Example: Bare housing ALL68708 is 63" from hub face to hub face and the pinion is located 2" to the left of the housing centerline when viewed from rear of housing.*

Notes: Please measure and inspect housing before welding brackets or painting. Housing is non-returnable if modified or custom. Welding suspension brackets on rear end housings can cause warping. Check for straightness after welding. These housings use Allstar ALL72100 inner grease seals.

*Dimensions for example only.



Steel axle housings are built with all new components. The center section is centered, so the pinion yoke is offset approximately 1" to the right allowing for symmetric tube bracketry on each side. Housing includes vent, carrier studs and axle bearing retainer t-bolts. Tube diameter is 3" with 3/16" wall thickness and features large bearing Late/Torino style ends. Axles sold separately.

Part No.	Axle Housing Width	Axle Housing Width w/ Axle*
ALL68830	51"	56"
ALL68832	53"	58"
ALL68834	55"	60"

*Width measurements are from axle ange to axle ange when using axles with a 2-1/2" offset.

Custom Ford 9" Axle Housings



Custom Ford 9" housings can be built to any width and pinion location with oating axle style pins or standard anged axle ends. Floating axle style housings are available with most 5x5 or Wide 5 hub pins. Standard anged axle housings can be ordered with Small Ford, Early Ford or Late/Torino style ends. All housings feature new fabricated center sections, new 3" O.D. x 3/16" wall axle tubes completely jig-welded for straightness. To order please call and request a special-order form then II in all required information and return to us with a signature attached. Housings are non-returnable and offered on a special-order basis only.

ALL68710..... Custom Housing Bare **ALL68711**..... Custom Housing w/GM Metric Mounts

Rear End Station Brackets ALL10178

Stand adapter brackets fasten to adjustable arms of most engine stands. Supports full-size car and light truck rear axle housings when ser-



vicing or replacing differential gear sets. Position housing onto arms and secure into place with included retaining straps. (Engine stand sold separately).

Pinion Centering Jig ALL68370

Pinion centering jig fastens to the rear end housing and locates the pinion centerline when building or narrowing housings. Machined slots are designed to retain most tape measure ends for accurate measurements. Applications include GM 12 and 14-Bolt, Dana 44 and 60, Chrysler 8-3/4", and Ford 8.8" and 9" housings.

Ford 9" Truss Support ALL68330

Weld-on support adds strength to rear axle housing and reduces unwanted ex



during extreme torque. Constructed of 12-gauge (.108") steel. 36" L x 2" W. Additional trimming required to properly thousing.



Ford 9" Flanged Axle Housing Kit for GM Intermediate Metric Chassis



Housing kit fi s the 1978-88 GM intermediate chassis. Replace a stock GM 7.5" rear-end with the much stronger Ford 9" style. Kit includes a new fabricated center section, new axle tubes with large bearing late Ford/Torino style-ends, 31-spline axles with bearings and seals installed, drilled for studs with 5 on 4-1/2" or 5 on 4-3/4" bolt circles. Choose from two widths, 58" and 60" axle ange to axle ange. Note: this kit includes two unequal length axles, locating the pinion approximately in stock (centered) location.

ALL68758 Ford 9" Housing Kit 58" with Trailing Arm Brackets*
ALL68756 Ford 9" Housing Kit 58" without Brackets
ALL68759 Ford 9" Housing Kit 60" with Trailing Arm Brackets*
ALL68757..... Ford 9" Housing Kit 60" without Brackets

 * Trailing arm mounting brackets installed to position the pinion angle approximately 4° down.

Ford 9" Cut-to-Fit Flanged Axles

Cut-to- t 31-spline axles for Ford 9" rear ends are a great alternative to custom axles for street, drag racing and circle track use. Axles are drilled for .687" press-in style wheel studs and have multiple wheel bolt



patterns for 5 on 4-1/2", 4-3/4" and 5" bolt circles. Axles have .470" thick anges with a 5.94" outer diameter and a 3.06" hub register to center most rotors and drums. Axles with bearings have a 3.150" O.D. bearing installed for housings with large bearing ends, a press-on sleeve to retain bearing to the axle and an axle retainer for large bearing late/Torino style housing end. Wheel studs sold separately.

ALL67500 Axle, 29-1/2" Long (with 10" of Spline) **ALL67501** Axle With Bearing, 29-1/2" Long (with 10" of Spline) **ALL67502** Axle, 33" Long (with 9" of Spline)

ALL67503 Axle With Bearing, 33" Long (with 9" of Spline)

Note: Axle includes a spacer which allows axle to be a replacement for 2.36" or 2.50" offset axles. Spacer is pre-installed between axle ange and bearing assembly for 2.50" offset.

Related Components

ALL44111 1/2"-20 Wheel Studs, 5-Pack **ALL44117** 5/8"-18 Wheel Studs, 5-Pack

Ford 9" Housing Ends

Housing ends are welded into 3/16" wall x 3" O.D. axle tubes when building a custom width housing or converting to larger





axles. Ends feature a stepped design with a beveled welding ange to help position ange in tube for easier installation.

ALL68308 Late/Torino Style **ALL68309** Early Style

Ford 9" Axle Bearing Assembly ALL72315



Replacement rear axle bearing used in many Ford car and truck rear ends. Bearing measures 3.150" O.D. to t into Big Ford housing ends and has an I.D. of 1.565". A seal and press-on retaining sleeve are included.

Ford 9" Axle Spacer Plates

Spacer plate takes the place of drum brake backing plate and properly preloads the tapered style axle bearing. Spacers tlarge bearing Ford 9" housing ends. Sold each.



ALL72318..... Late/Torino Style **ALL72319**..... Early Style

Ford 9" Axle Retainers

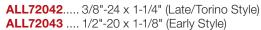
Retainer bolts to the housing end to retain the axle/bearing into large bearing Ford 9" housings. Steel retainer is 3/16" thick and designed to t over axles, eliminating the need to remove bearing from axle.



ALL72316..... Late Torino Style (3/8" Fasteners) **ALL72317**..... Early Style (1/2" Fasteners)

Ford 9" Backing Plate T-Bolts

Unique T-head bolts are required to fasten backing plates or brake brackets to Ford 9" housing ends. Kits include bolts, lock washers and nuts. Package of 8.





Bobby Stremme



Ford 9" Axle Housing Seals

Internal seals prevent gear lube from leaking into axle tube to eliminate premature rear end failure. Seal housings are O-ring type with spring-loaded seals. For use with 3" O.D. axle tubes and most 31-spline axles. Measure I.D. of tube for proper t.

ALL72100* ... 2.625" O.D. Fits 3/16" Wall, 3" Tube, Red ALL72102..... 2.562" O.D. Fits 7/32" Wall, 3" Tube, Blue ALL72104..... 2.500" O.D. Fits 1/4" Wall, 3" Tube, Gold

Replacement Components

ALL72101 O-Rings for ALL72100, 3-Pack ALL72103..... O-Rings for ALL72102, 3-Pack **ALL72105**..... O-Rings for ALL72104, 3-Pack ALL72108..... Inner Seal

Universal Ford 9" **Axle Housing Seal ALL72099**

Place seal inside the axle tube near the center section to keep rear end lube in the center section area of most oating axle style rear end housings. Universal seal works with most 3" O.D. axle tubes, regardless of wall thickness. Internal seal diameter of .975" works with most 28- and 31-spline axles.

Axle Snout Seal

Seal is pressed into the outer end of a 5x5 axle tube snout with a 2-1/2" pin to help prevent differential lube from entering the outer wheel bearing area and contaminating the wheel bearing grease. Seal has an outer diameter of 1.875".

ALL72141 Seal with 1.250" I.D. ALL72142 Seal with 1.325" I.D.

Runout Checker ALL96440

Fixture provides an easy way to check for bent axles, torque tubes, drive shafts, torsion bars or radius rods. Fixture measures 16-1/2" overall.

Tech Tip

Using a straight edge and a paint marker, draw a straight

line down the length of a new axle before installation. Periodically inspect axle for twist using the painted line as a reference.

Axles



Axles t most "oating style" quick change and Ford 9" rear ends. 31-spline axles are available solid or gundrilled to reduce weight. Use with 31-spline differential or spool and 24-spline drive anges.

Length	31-Spline Gun-Drilled	31-Spline Solid
26-1/2"	ALL66265	ALL66266
27-1/2"	ALL66275	ALL66276
28"	ALL66280	ALL66281
28-1/2"	ALL66285	ALL66286
29"	ALL66290	ALL66291
29-1/2"	ALL66295	ALL66296
30"	ALL66300	ALL66301
30-1/2"	ALL66305	ALL66306
31"	ALL66310	ALL66311
31-1/2"	ALL66315	ALL66316
32"	ALL66320	ALL66321
32-1/2"	ALL66325	ALL66326
33"	ALL66330	ALL66331
33-1/2"	ALL66335	ALL66336
34"	ALL66340	ALL66341
34-1/2"	ALL66345	ALL66346
35"	ALL66350	ALL66351
35-1/2"	ALL66355	ALL66356
36"	ALL66360	ALL66361
36-1/2"	ALL66365	ALL66366
37"	ALL66370	ALL66371
37-1/2"	_	ALL66376

T-Handle Axle Puller

ALL66115

All-in-one T-handle puller threads into axle for easy installation or removal. Tool includes adapters to t 3/8"-16 coarse or 3/8"-24 ne thread solid axles, and 3/4"-16 ne thread gun-drilled.





ALL66100

Axle plug threads into the end of a gun-drilled Allstar, Ford 9", or quick change axle to keep rear end lube out of the axles. 3/8"-24 internal thread for correct axle spacing.



Extreme Pressure Lube

ALL78246

Originally used throughout the tool and die industry, this lube provides superior durability and

wear protection, taking the place of anti-seize in many applications. Recommended for spline-to-spline contact, threaded adjusters, and engine fasteners. 4-ounce tube.



Markal Paint Mai

^{*}Use with Allstar steel and aluminum axle tubes.



Steel Axle Tubes

Steel axle tubes have a 3" O.D., a 2-5/8" I.D., and may be shortened. Constructed from 3/16" wall tubing.



	Overall Tube	Tube Length to	Axle
Part No.	Length	Inner Bearing	Length
Wide-5			
ALL68218	26"	20-1/2"	32"
ALL68220	27"	21-1/2"	33"
ALL68222	28"	22-1/2"	34"
ALL68224	29"	23-1/2"	35"
ALL68226	30"	24-1/2"	36"
ALL68228	31"	25-1/2"	37"
ALL68230	32"	26-1/2"	38"
ALL68231	32-1/2"	27"	38-1/2"
ALL68232	33"	27-1/2"	39"
ALL68234	34"	28-1/2"	40"
ALL68235	35"	29-1/2"	41"
5x5, 2-1/2" Pin			
ALL68240	22"	19-1/2"	28-1/2"
ALL68244	24"	21-1/2"	30-1/2"
ALL68246	25"	22-1/2"	31-1/2"
ALL68248	26"	23-1/2"	32-1/2"
ALL68252	28"	25-1/2"	34-1/2"
ALL68256	30"	27-1/2"	36-1/2"
ALL68258	31"	28-1/2"	37-1/2"
ALL68260	32"	29-1/2"	38-1/2"
5x5, 2" Pin			
ALL68264	24"	20-1/2"	30"
ALL68266	25"	21-1/2"	31"
ALL68268	26"	22-1/2"	32"
ALL68270	27"	23-1/2"	33"
ALL68272	28"	24-1/2"	34"
ALL68274	29"	25-1/2"	35"
ALL68276	30"	26-1/2"	36-1/2"
ALL68278	31"	27.75"	37-1/2"
ALL68280	32"	28.75"	38-1/2"

Heavy Wall Steel Axle Tubes

Heavy wall steel tubes for 5x5 Hubs with 2-1/2" pins are constructed of heavy 5/8" wall tubing.

Part No.	Overall Tube Length	Tube Length to Inner Bearing	Axle Length
ALL68262-24	24"	21-1/2"	30-1/2"
VI 1 68363-36	26"	22_1/2"	39_1/9"

Wide 5 Aluminum Axle Tubes

3" O.D. x 2.500" I.D. axle tubes are built from 7075-T6 aluminum and are machined for spool seal ALL72140. Constructed from 1/4" wall tubing.



NEW

Part No.	Overall Tube Length	Tube Length to Inner Bearing	Axle Length
ALL68202	26"	20-1/2"	32"
ALL68203	26-5/8"	21-1/8"	32-1/2"
ALL68204	27"	21-1/2"	33"
ALL68206	28"	22-1/2"	34"
ALL68208	29"	23-1/2"	35"
ALL68210	30"	24-1/2"	36"
ALL68211 NEW	31"	25-1/2"	37"
ALL68212	32"	26-1/2"	38"
ALL68213	35"	29-1/2"	41"

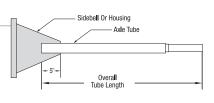
1-Ton Wide 5 Aluminum Axle Tubes

Part No.	Overall Tube Length	Tube Length to Inner Bearing	Axle Length
ALL68215-26	25-5/8"	20"	32" or 33"
ALL68215-30	30-1/8"	24-3/8"	36" or 37"

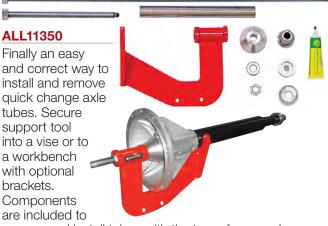
TECH TIP

How to Measure Axle Tube Length

Tube should extend 5" into side bell or aluminum housing.



Quick Change Tube Install/Removal Tool



remove and install tubes with the turn of a wrench. An adapter for tubes with Wide 5 or 5 on 5" hubs is also included.

Related Components

ALL11355 Installation End Cap for Bolt-On and 2-7/8" Pin

Bolt-On and 2-7/8" Pin Wide 5 Tubes

ALL11351 Mounting Bracket Kit for Quick Change Tube Install/Removal Tool



Bench Yoke ALL11360

Bench yoke mounts to a workbench to hold transmissions, rear ends, differentials and many other items for assembly or servicing. Yoke rotates 360° and features two 10" long pivoting arms that are 1" wide by 1/2" thick. Tool is unpainted so it can be modified as needed.

Weld-On Snouts

Weld-on snouts may be used for repairing existing axle tubes or custom building new tubes. Three hub styles are available.

ALL68300 Wide 5 2" Pin **ALL68302** 5x5 2" Pin **ALL68304** 5x5 2-1/2" Pin





Pre-drilled Quick Change Cover Nut Kit ALL72060

Aluminum nuts are pre-drilled for safety wire to prevent nuts from working loose and causing leaks. Nuts have 3/8"-16 threads. Package of 10.

Quick Change Cover Nut Kits

Aluminum anodized nuts have 3/8"-16 threads and captured washers. Package of 10.



ALL72058 Black Short - 7/8" OAL **ALL72059** Red Short - 7/8" OAL **ALL72061** Red Long - 1-1/4" OAL

Quick Change Cover Stud Kit ALL72056

Fully threaded 3/8"-16 studs are 1-3/4" long and are direct replacements for many quick change cover studs.



Quick Change Cover Stud Ball Kit

ALL26961-10

These hardened steel balls are inserted into the stud holes before the cover studs are



threaded in to keep the studs from galling the housing and help disperse any stress created when installing the cover studs.

Quick Change Cover Gaskets

ALL72050 Paper, Single **ALL72050-10** Paper, 10-Pack

ALL72052...... Thick w/ Steel Core, Single ALL72052-10 Thick w/ Steel Core, 10-Pack



Quick Change Side Bell O-Ring ALL72054

Replacement O-ring for Winters quick change.



Axle Tube Oil Seal ALL72140

Also called a spool seal, it ts Frankland, Winters, and other quick change rear ends. Seal is pressed into side bell or axle tube and seats against the bearing ange of the spool to prevent lube from leaking into axle tubes. Seal has a 1-15/16" I.D. and a 2-5/8" O.D.



Drive Flange Gaskets

Steel core gaskets help prevent leaking issues commonly found with standard paper gaskets. Package of 2.





Quick Change Gear Case

ALL14355

Sturdy composite storage case protects and holds up to 8 sets of quick change gears. Case has molded in carrying handles and metal hinges. 5" x 8" x 15-1/2" overall when closed.



Quick Change Drain Pan Plastic ALL14356

Tapered top drain pan, combined with an open ow corner, allows quick change gear changes to happen even faster. Lowpro le, 2-piece plastic pan includes a stainless steel lter screen molded into the top tray. 4-qt. capacity.

Aluminum Quick Change Drain Pan

ALL14166

Aluminum drain pan is handy when changing quick change gears. Built-in perforated shelf holds gears and allows lube to drain into pan. Pan is 10-1/4" wide, 12" long, and 3-3/4" deep.



Quick Change Jack Post Brackets

Brackets bolt to quick change rear end, providing a location to jack the car.

ALL68346 Steel Bracket
ALL68347 Aluminum Bracket



QC Axle Tube Support Brackets







Brackets provide mounting points for a strut rod assembly to help eliminate ex found in quick change rear ends. ALL68320 attaches to the side bell bolts on most quick change rear ends. ALL68322 has tabs with 5/8" holes and mounts directly onto a 3" axle tube.

ALL68320 Center Section Mount **ALL68322** Axle Tube Mount



Quick Change Gear Totes

Durable plastic quick change gear tote organizes extra gear sets and keeps them clean. Lid snaps shut to hold gears in place. 8"L x 5"W x 2"H.



Gear Sets Not Included

Description	Single	10-Pack
White	ALL14350	ALL14350-10
Black	ALL14351	ALL14351-10
Yellow, 6-Spline (Midget) Gear Set	ALL14352	ALL14352-10

Gear Tote Tray

ALL12269

Neatly organize up to 10 quick change gear tote boxes vertically. Tray is 21" long x 5-1/2" deep with a 4" tall front edge making them per-





Ring and Pinion Installation Kits

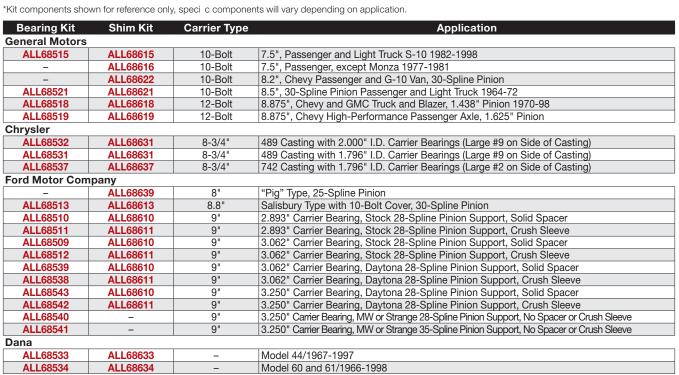
Allstar ring and pinion installation kits are available with or without bearings. Kits contain all the hard-to- nd individual parts for a quick, trouble-free installation.

Bearing Kits Include:*

- Pinion and Side (Carrier) Bearings
- Pinion Seal
- Pinion Depth Shims
- Adjustable Side (Carrier) Shims
- Crush Sleeve or Solid Spacer
- Pinion Nut
- One-Ounce Tube of Silicone or Gasket
- Gear Marking Compound
- Ring Gear Bolts

Shim Kits Include:*

- Pinion Seal
- Pinion Depth Shims
- · Adjustable Side (Carrier) Shims, Two (If Applicable)
- Crush Sleeve or Solid Spacer
- Pinion Nut
- One-Ounce Tube of Silicone or Gasket
- · Gear Marking Compound
- Ring Gear Bolts





Dial Indicator with Magnetic Base

ALL96414

Dial indicator with magnetic base is a necessity when degreeing a camshaft, checking crankshaft end play, deck heights, dome heights, transmission end play, or ring and pinion backlash. Universal magnetic base may be mounted anywhere. Shockproof dial indicator has 1" of travel in .001" increments. Base and dial indicator may also be purchased separately.

ALL96415..... Dial Indicator Only **ALL96416**..... Magnetic Base Only

Digital Calipers

ALL96411

Measure inside, outside and depth dimensions with easy-to-read Metric or SAE LCD display, in .001" increments up to 6". On/off switch conserves battery and zero

setting assures accurate readings. Plastic case provides additional battery storage.

Dial Caliper ALL96410

Quality hardened stainless steel dial caliper is shockproof and capable of measuring items from .001" to 6" in increments of .001". Includes protective carrying case.



Carter Schlenk



Rusty Schlenk

Ring and Pinion Gear Sets

Quality differential components are suitable for race, street, and off-road use. Lapped in matched sets for quiet operation.



GM 7.5"

Sets t 10-bolt with 7.5" ring gear, 1.438" diameter pinion stem and 27-spline pinion.

Part No.	Ratio	Tooth	Part No.	Ratio	Tooth
ALL70110*	3.23	42-13	ALL70115 [†]	3.73	41-11
ALL70112*	3.42	41-12	ALL70116*	4.10	41-10
ALL70113 [†]	3.42	41-12	ALL70117 [†]	4.10	41-10
ALL70114*	3.73	41-11	ALL70118*	4.56	41-9

*Set includes standard width ring gear for use with 3.23 and numerically higher ratio carriers or when using 3.08 and numerically lower ratio carriers and ALL70100 spacer.

†Set includes thick ring gear for use with 3.08 and numerically lower ratio carriers.

GM 8.5"

Sets t 10-bolt with 8.5" ring gear, 1.625" diameter pinion stem and 30-spline pinion.

Part No.	Ratio	Tooth	Part No.	Ratio	Tooth
ALL70120	3.08	40-13	ALL70126	4.10	41-10
ALL70122	3.42	41-12	ALL70128	4.56	41-9
ALL70124	3.73	41-11			

Ford 9"

Sets t 10-bolt with 9" ring gear, 1.313" diameter pinion stem and 28-spline pinion.

Part No.	Ratio	Tooth	Part No.	Ratio	Tooth
ALL70010	3.50	35-10	ALL70028	5.14	36-7
ALL70012	3.70	37-10	ALL70030	5.29	37-7
ALL70014	3.89	35-9	ALL70032	5.43	38-7
ALL70016	4.11	37-9	ALL70034	5.67	34-6
ALL70018	4.33	39-9	ALL70036	5.83	35-6
ALL70020	4.56	41-9	ALL70038	6.00	30-5
ALL70022	4.71	33-7	ALL70040	6.20	31-5
ALL70024	4.86	34-7	ALL70042	6.33	38-6
ALL70026	5.00	30-6	ALL70044	6.50	39-6

GM 7.5" Ring Gear Spacer ALL70100

Spacer allows installation of 3.23 and numerically higher ratio gear sets with standard thickness ring gears into 3.08 and numerically lower carriers. Steel spacer is .3125" thick and includes ten 7/16"-20 x 1-1/4" UHL LH bolts.



Gear Marking Compound Kit ALL78250

Gear marking compound kit is a good way to identify correct gear contact area when installing or adjusting ring and pinion gear sets. Kit includes gear marking compound and application brush.



Spools

Spools are substantially lighter than conventional cast iron carriers, and lock booth rear axles together to deliver equal power to both rear wheels. Ultra-lite steel spools have more lightening holes and a narrower ring gear ange than standard units to help reduce rotating weight.



Ford 9" Steel Spools

ALL68060 28-Spline, Scalloped, 7.5 lbs. **ALL68062** 28-Spline, Ultra-Lite, 6.3 lbs. **ALL68064** 31-Spline, Scalloped, 7.6 lbs. **ALL68066** 31-Spline, Ultra-Lite, 6.1 lbs.

ALL68067 31-Spline, Ultra-Lite Scalloped, 5.8 lbs. **ALL68070** 35-Spline, for 3.250" Case, 7.6 lbs. **ALL68072** 35-Spline, for 2.893" or 3.062" Case, 7.9 lbs.

ALL68074..... 40-Spline, for 3.250" Case, 6.7 lbs.

Quick Change Aluminum Spools

ALL68114..... Winters, Winters and DMI 31-Spline, 2.030" Bearings

ALL68115..... Frankland, Tiger and Richmond, 31-Spline, 2" Bearings

Mini Spools

Mini spool assemblies replace the OE side and spider gears in open style carriers to provide equal trac-





ALL68164

tion to both axles. Mini spools are precisely machined for proper t and heat treated for durability.

- •1957-87 Ford 9" Rear Ends with 3/4" Cross Pin
- •1981-94 Ford 8.8" Rear Ends with 28-Spline Axles
- •1976-88 GM 7.5" with 7.5" or 7.625" Ring Gear, 26-Spline Axles
- •1964-72 GM 10-Bolt with 8.2" Dia. Ring Gear, 28-Spline Axles
- •1970-76 GM 10-Bolt with 8.5" Dia. Ring Gear, 28-Spline Axles
- •1965-76 GM 12-Bolt with 8.875" Dia. Ring Gear, 30-Spline Axles

ALL68121..... Ford 9", (Lightweight) 28-Spline ALL68122..... Ford 9", (Lightweight) 31-Spline

ALL68166[‡] ... GM (7.5" Ring Gear), 26-Spline **ALL68162**.... GM 10-Bolt (8.2" Ring Gear), 28-Spline

ALL68160..... GM 10-Bolt (8.5" Ring Gear), 28-Spline **ALL68164**..... GM 12-Bolt (8.875" Ring Gear), 30-Spline

‡There are at least three different 7.5" GM cases available, shimming may be required between the case and side gear of the spool to eliminate space between blocks

Cross Pins

ALL68120..... Ford 8.8" and 9" (3/4") **ALL68167**..... GM 10-Bolt (7.5" Ring Gear) **ALL68163**..... GM 10-Bolt (8.2" Ring Gear) **ALL68161**..... GM 10-Bolt (8.5" Ring Gear) **ALL68165**..... GM 12-Bolt (8.875" Ring Gear)

GM Axle C-Clips

Replacement C-clips for popular GM 10and 12-bolt axles. Package of 2.

ALL66120..... 10-Bolt (7.5")

ALL66121..... 10-Bolt (8.5") and 12-Bolt (8.875")

Ford 9" Housing Studs

ALL72040

Studs secure the center section to the housing and are installed by pulling through with a nut for a press t. 3/8"-24 threads. Package of 10.



Ford 9" Gaskets

Gaskets are precision die-cut to ensure a leak free seal.

ALL72044 Paper

ALL72045 Composite with Steel Core



ALL1 2044

Absorbent Mats

A must for the work shop and trailer. These handy absorbent mats have bonded layers, allowing uid to spread quickly through material.



ALL12031 15" x 60" Roll (Perforated Every 10") for Oil Only

ALL12032.... 100-Pack (15" x 10" Individual Sheets)

Universal for All Fluid Types

(Oil, Coolant, Water)

ALL12033..... 100-Pack (15" x 10" Individual Sheets) for Oil Only



Tom Farrington



Ford 9" Pinion Support ALL68396

"Daytona" forged aluminum pinion support replaces original equipment cast iron support. Support is furnished with races installed and is for use with 28-spline pinion gears.



Pinion Seals

Replace leaking or damaged seals in most popular differentials.



ALL72146..... Ford 9" Standard, 28-Spline, 3" O.D.

ALL72147 7.5" GM **ALL72148** 8.5" GM

Pinion Yokes



Part No.	Spline	U-Joint	Width	Cap Dia.	Material	Length	
Ford 9" Yokes							
ALL68375	28	1310	3-1/4"	1.062"	Cast Steel	Standard	
ALL68376	28	1330	3-5/8"	1.125"	Cast Steel	Standard	
ALL68377	28	1330	3-5/8"	1.125"	Cast Steel	1" Longer	
ALL68380	28	1350	3-5/8"	1.187"	Forged Steel	Standard	
ALL68382	35	1350	3-5/8"	1.187"	Forged Steel	Standard	
Quick Change Yokes							
ALL68385	10	1310	3-1/4"	1.062"	Cast Steel	Standard	
ALL68386	10	1310	3-1/4"	1.062"	Cast Steel	1" Longer	

Billet Quick Change Pinion Yoke

ALL68387

Billet steel pinion yoke offers superior strength over standard cast steel yokes. Yoke replaces most 10-spline quick change yokes and accepts 1310 series, 3-1/4" U-joint.



Pinion Nuts

Replace original worn or damaged nuts each time a gear set is changed. Nut secures driveshaft yoke to pinion gear.

ALL72155..... Ford 8.8" and Standard 9" **ALL72156**..... GM 7.5 And 8.5

Pinion Yoke Wrench ALL68372

Wrench fastens to most popular pinion anges and companion anges to hold when setting bearing pre-load and tightening retaining bolt or nut.



U-Joints

Performance U-joints are greasable and ta variety of driveshaft combinations.

1310 Series: 3.218" Wide with 1.062" Diameter Caps **1330 Series:** 3.622" Wide with 1.062" Diameter Caps **1350 Series:** 3.622" Wide with 1.187" Diameter Caps

U-Joints with Same Cross Width

ALL69030 1310 Series **ALL69031** 1330 Series **ALL69032** 1350 Series

U-Joints with Different Cross Widths

ALL69034 1310 to 1330 **ALL69037*** ... 1310 to 1330 **ALL69035** 1310 to 1350 **ALL69036** 1330 to 1350

*Standard 1330 spread with larger 1.125" diameter caps.



Width = B, Caps = A

U-Bolt Kits

U-bolt kits for 1310, 1330 and 1350 series U-joints secure drive-shaft to pinion yoke. Sold in pairs with nuts and lock washers.



	U-Bolt	U-Joint Series	Сар	Thread	"A"	Stud CTC
Std.		1310/1330			1-3/4"	1.400"
		1310/1330			2"	1.400"
Std.	ALL69018	1330 [†]	1-1/8"	5/16"-24	1-7/8"	1.575"
Std.	ALL69016	1350	1-3/16"	3/8"-24	2"	1.625"

†1330 with big caps (1.125")

GM U-Joint Strap Kit

ALL69014

Replacement O.E. style U-joint strap kit ts popular GM pinion yokes including 7.5", 8.2", and 8.5" 10-bolt and other popular rear ends. Kit is designed for 1-1/8" (1.125") diameter caps and includes (2) 5/8" wide steel straps with 1-7/8" CTC holes and (4) 1-1/2" long 5/16"-24 grade 8 bolts.

Ford 9" U-Joint Girdle Kit

ALL69025

Aluminum U-joint girdles replace standard steel U-bolts and provide more surface clamping area for 1310 and 1330 (1-1/16") U-joint caps. Girdle design

helps prevent over-tightening and includes mounting hardware.





ALL69042

ALI 69043

4-3/4"

ALL72152

Slip Yokes

Slip yokes provide an important link in today's driveline and chassis combinations. Yokes are available in standard lengths for most street applications with minimal suspension travel to extra-long for racing suspensions that have a radical amount of travel. 27-spline yokes

accept 1310 style U-joints and are for use in many popular transmissions including TH350, TH700R4, Muncie and Saginaw 3 and 4 speeds, Bert, and Brinn non-ball spline.

ALL69040 6" ALL69042 6-3/4" ALL69044 7-1/2"

ALL69046 8"

ALL69048 8" (Extra Clearance)

Hardened

ALL69043 6-3/4" ALL69045 7-1/2" ALL69047 8"

Tailshaft Seal and Bushing

The tailshaft bushing is a

regular wear item, located inside the transmission tailshaft housing. It should be replaced when replacing the tailshaft seal or when a driveshaft failure has occurred. A worn bushing will cause excessive side-to-side movement of the slip yoke and create a vibration or leak. Replacement

bushing and seal ts GM Powerglide, Turbo 350,

Saginaw, Muncie, Bert, and Brinn transmissions.

ALL72150 Seal ALL72152..... Seal with Bushing



Universal **Driveshaft Loop**

ALL69000

Universal driveshaft loop contains the driveshaft if a yoke or U-joint fails. Loop is 1/4" thick x 2" wide mild steel and fully adjustable to t most cars.

Driveshaft Loop for 1979-2004 **Mustangs ALL69006**

Driveshaft safety loop bolts-on to help retain the front of the driveshaft in the event of a U-joint or other drivetrain component breakage. Black epoxy coated, all steel loop includes mounting hardware and complete instructions. Loop is designed to tinside factory tunnel and work with most driveshafts up to 4" in diameter.

Unwelded Driveshaft Loop

ALL69004

Made from 3/16" at steel, loop is 9-1/2" tall, 5-1/2" wide with a 16" wide mounting strap that can be cut and welded for each installation.

180° Driveshaft Loop ALL69002

Pre-bent 1" diameter x .083" wall mild steel tubing is designed for chassis style cars to help retain the driveshaft in the event of a U-joint failure. Loop is 10" tall overall and has a 5" I.D.

Torque Tube Belt

ALL10181

Universal strap keeps torque tube stabilized and centered in case of coupler or tube failure. Black 3" wide belt ts all torque tube and chassis combinations.

Torque Ball Safety Blanket ALL55220

Fire-resistant safety blanket designed by Jason Meyers Racing protects drivers legs and feet in the event of a U-joint failure. Ballistic nylon covered blanket weighs just 1-1/2 lbs. and

has quick release adjustable straps that allow blanket to be removed easily for servicing torque ball and U-joint. Blanket includes two mounting brackets, mounting studs, nuts and installation instructions.

Replacement Components

ALL55224 3/8" Mounting Stud Kit ALL55226 Mounting Tabs, 1-Pair





Drain Pan ALL40112

Round drain pan has molded-in handles and pour spout. Made from chemical and solvent-resistant plastic. 13-1/2" x 11" x 4", 7-quart capacity.



Aluminum Quick Change Drain Pan ALL14166

Aluminum drain pan is handy when changing quick change gears. Built-in perforated shelf holds gears and allows lube to drain into pan. Pan is 10-1/4' wide, 12" long, and 3-3/4" deep.



Drain Plug Kits

Drain plug kits include a machined weld-on bung that has a step added to t inside a drilled hole for easy installation. Kits are perfect when adding drain plugs to oil pans, rear end housings, dry sump tanks, etc.



Size	Aluminum Bung	Steel Bung
3/8"NPT	ALL50732	ALL50733
1/2"NPT	ALL50734	ALL50735

Combo Remote Fill Tank ALL36134

Aluminum II tank features a predrilled 4-1/2" square mounting ange for securing tank to the underside of deck panel providing an easy access II location for rear end/differential, transmission, power steering or dry sump tank. Tank has a raised non-vented cap and a -10AN male lower hose tting. Tank also has a 3/8" NPT side port for a return or vent and a separate 1/4" NPT tting with an integrated foam Iter for an additional vent.

Fill Line Kit for Transmissions and Rear Ends ALL36148

adapter for attaching

Kit includes the components to build a II hose for attaching remote II tanks with a -10AN outlet to transmission or rear end. Kit includes a 3-ft. length of exible braided fabric hose and two -10AN hose ends, one straight -10AN tting for connecting hose to breather tank and a 90° -10AN tting with a -10AN to 1/2" NPT

to rear end or transmission. Additional adapter tings may be required and are sold separately.

Remote Fill Tanks

Aluminum tanks feature a 5-3/8" mounting ange to mount in a deck panel or other at horizontal panel, providing an easy access II location for rear end/differentials, transmissions or dry sump tanks. Tanks have a raised, vented twist on cap and a -10AN male hose connection. Overall tank height is 9" x 3" in diameter.



ALL36111

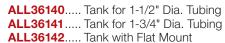
ALL36110 Fill Tank

ALL36111 Fill Tank with 3/8"NPT Bung

ALL36124..... Replacement Cap

Mini Breather Tanks

Small capacity, aluminum tank will vent dry sump tank, transmission, or rear end. Tank measures 6-3/4" overall, features a 1/4" NPT bung on bottom for connecting a vent hose and includes a washable breather element. Tanks are offered with a clamp style bracket for mounting to chassis tubing, or a at mount for mounting to a panel or rewall.



Mini Breather ALL36145

Compact breather mounts in a deck or bracket with a 7/16" hole and has a -4AN male end making it ideal for venting transmissions or rear ends.



Clamp-On Mini Breathers

Breathers mount easily to either 1-1/2" or 1-3/4" tubing. Breathers are 1" tall and 1-3/8" in diameter. Great for use on transmissions, differentials, etc. Bottom ting is 1/4"NPT. Black anodized nish.

ALL36106 Breather for 1-1/2" Tubing ALL36107..... Breather for 1-3/4" Tubing ALL36103 Replacement Filter Only

Breather Element

Breather elements work well for venting components including transmissions and differentials and feature a tting for attaching hose. Breathers are 2" in diameter and feature a pre-oiled cotton inner material that may be washed and re-oiled. Size listed is O.D. of hose tting.

0.200100 0	2. 0 000
ALL36212	3/8"
ALL36213	1/2"
ALL36216	3/8" w/ Mounting Stud
ALL36217	1/2" w/ Mounting Stud



Single-Layer Driving Suits

Suits are constructed of a single layer of Pyrovatex ame-retardant cotton material which offers a high level of heat and ame protection along with durability and comfort to meet the requirements of the SFI 3.2A/1 rating. Suits have many features including multi-needle overlock stitching design for exceptional seam strength, two-way brass Nomex-backed zipper with



Size	Black	Blue	Red
Small	ALL931011	ALL931021	ALL931071
Medium	ALL931012	ALL931022	ALL931072
Medium Tall	ALL931013	ALL931023	ALL931073
Large	ALL931014	ALL931024	ALL931074
X-Large	ALL931015	ALL931025	ALL931075
XX-Large	ALL931016	ALL931026	ALL931076
XXX-Large	ALL931017	ALL931027	ALL931077

Single-Layer Driving Jackets

Jackets are constructed of a single layer of Pyrovatex ame-retardant cotton material which offers a high level of heat and fl me protection along with durability and comfort to meet the requirements of the SFI 3.2A/1 rating. Jackets have many



features including multi-needle overlock stitching design for exceptional seam strength and a two-way brass Nomex-backed zipper with a double overlap for a secure front opening.

Size	Black	Blue	Red
Small	ALL931111	ALL931121	ALL931171
Medium	ALL931112	ALL931122	ALL931172
Medium Tall	ALL931113	-	-
Large	ALL931114	ALL931124	ALL931174
X-Large	ALL931115	ALL931125	ALL931175
XX-Large	ALL931116	ALL931126	ALL931176
XXX-Large	ALL931117	ALL931127	ALL931177

Single-Layer Driving Pants

Pants are constructed of a single layer of Pyrovatex ame-retardant cotton material which offers a high level of heat and ame protection along with durability and comfort to meet the requirements of the SFI 3.2A/1 rating. Pants feature multi-needle overlock stitching design for exceptional seam strength, a button style video devices and the search of the strength and the strengt



Nomex-backed zipper with a double overlap for a secure front opening, elastic waistband, internally attached side pockets, and boot-cut pant legs with internal elastic cuffs.

Size	Black
Small	ALL931211
Medium	ALL931212
Medium Tall	ALL931213
Large	ALL931214
X-Large	ALL931215
XX-Large	ALL931216
XXX-Large	ALL931217

Multi-Layer Driving Suits

Suits are constructed of a Pyrovatex outer layer backed by a layer of ame-retardant Aramid material then lined with an additional layer of Pyrovatex ame-retardant cotton material which offers a high level of

heat and ame protection along with durability and comfort to meet the requirements of the SFI 3.2A/5 rating. Suits have many features including multi-needle overlock stitching design for exceptional seam strength, two-way brass Nomex-backed zipper with a double overlap for a secure front opening, two-piece belt, internally attached side pockets, and boot-cut pant legs with internal elastic cuffs.

Size	Black	Blue	Red
Small	ALL935011	-	-
Medium	ALL935012	ALL935022	ALL935072
Medium Tall	ALL935013	ALL935023	ALL935073
Large	ALL935014	ALL935024	ALL935074
X-Large	ALL935015	ALL935025	ALL935075
XX-Large	ALL935016	ALL935026	ALL935076
XXX-Large	ALL935017	-	_

Multi-Layer Driving Jackets

Jackets are constructed of a
Pyrovatex outer layer backed by a
layer of ame-retardant Aramid material then lined with an additional layer
of Pyrovatex ame-retardant cotton
material which offers a high level of
heat and ame protection along with



durability and comfort to meet the requirements of the SFI 3.2A/5 rating. Jackets have many features including multi-needle overlock stitching design for exceptional seam strength and a two-way brass Nomex-backed zipper with a double overlap for a secure front opening.

Size	Black	Blue	Red
Small	ALL935111	ALL935121	ALL935171
Medium	ALL935112	ALL935122	ALL935172
Medium Tall	ALL935113	-	_
Large	ALL935114	ALL935124	ALL935174
X-Large	ALL935115	ALL935125	ALL935175
XX-Large	ALL935116	ALL935126	ALL935176
XXX-Large	ALL935117	ALL935127	ALL935177

Multi-Layer Driving Pants

Pants are constructed of a Pyrovatex outer layer backed by a layer of ame-retardant Aramid material then lined with an additional layer of Pyrovatex ame-retardant cotton material which offers a high level of heat and ame protection along with durability and comfort to meet the requirements of the SFI 3.2A/5 rating. Pants feature multi-needle overlock stitching design for exceptional seam strength, a button style closure, a brass Nomex-backed zipper with a double overlap for a secure front opening, elastic waistband, internally attached side pockets, and boot-cut pant legs with internal elastic cuffs.

Size	Black	Size	Black
Small	ALL935211	X-Large	ALL935215
Medium	ALL935212	XX-Large	ALL935216
Medium Tall	ALL935213	XXX-Large	ALL935217
Large	ALL935214		



Suit Sizing Chart

	9					
Small	Medium	Medium Tall	Large	X Large	2X Large	3X Large
Height						
5'6"-5'8"	5'8"-5'10"	5'10"-6"	5'10"-6"	6'-6'2"	6'2"-6'4"	6'4"- 6'6"
Weight			,			
125 -140	140-165	150-175	165-195	200- 225	225-250	250+
Waist						
30-32"	34-36"	34-36"	36-38"	40-42"	44-46"	48-52"
Chest			,			
34-36"	38-40"	38-40"	42-44"	46-48"	50-52"	54-56"
Inseam	-					
28"	29"	30"	31"	32"	33"	33"
Shoulders	S					
17"	18"	18"	19"	20"	21"	23"
Sleeve	•					
31-32"	33-34"	33-34"	34-35"	36"	37"	38"
Neck						
14"	14.5"	14.5"	15.16"	16"	17-18"	18"

Waist: At natural waist at navel (not hips where your jeans ride)

Chest: Circumference at the widest part Inseam: Crotch seam to ankle bone

Shoulder to Shoulder: Shirt shoulder seam to shirt shoulder seam

Sleeve: Back base of neck to wrist, elbow bent

Single-Layer Non-SFI Outseam Driving Gloves



Note: Even though these gloves are constructed of a ame-retardant Aramid material, they are not SFI certi ed and do not feature an SFI approved label.

Size	Black	Orange	Yellow
Small	ALL913011	ALL913041	ALL913091
Medium	ALL913012	ALL913042	ALL913092
Large	ALL913014	ALL913044	ALL913094
X-Large	ALL913015	ALL913045	ALL913095

Double-Layer SFI 3.3/5 Outseam Driving Gloves

Reverse seam style gloves are created from two layers of ameretardant Aramid material blend that features the seam located on the outer portion of the glove for improved driver feel and comfort. These gloves also feature an antislip silicone material located on the palm and nger pads for improved



New Color

grip, gauntlet style cuffs, and include an SFI 3.3/5 certied label on each glove.

Size	Black	Orange	Yellow
Small	ALL916011	ALL916041	ALL916091
Medium	ALL916012	ALL916042	ALL916092
Large	ALL916014	ALL916044	ALL916094
X-Large	ALL916015	ALL916045	ALL916095
XX-Large	ALL916016	_	_

Single-Layer Non-SFI Driving Gloves

Traditional style gloves are created from a single layer of ame-retardant Aramid material blend that features a white leather reinforced palm and nger area for improved grip that meets the requirements of many racing organizations.

Note: Even though these gloves are constructed of a ame-retardant Aramid material, they are not SFI certied and do not feature an SFI approved label.

Size	Part No.
Small	ALL910011
Medium	ALL910012
Large	ALL910014
X-Large	ALL910015

Single-Layer SFI 3.3/1 Driving Gloves

Traditional style gloves are created from a single layer of ame-retardant Aramid material blend that features a gray suede leather palm and nger area for improved grip. These gloves also feature gauntlet style cuffs, adjustable wrist straps and includes an SFI 3.3/1 certi ed label on each glove.



Size	Part No.
Small	ALL911011
Medium	ALL911012
Large	ALL911014
X-Large	ALL911015

Double-Layer SFI 3.3/5 Driving Gloves

Traditional style gloves are created from two layers of ame-retardant Aramid material blend that features a black suede leather palm and nger area for improved grip. These gloves also feature gauntlet style cuffs, adjustable wrist straps and include an SFI 3.3/5 certi ed label on each glove.



Size	Size Black Blu		e Red	
Small	ALL915011	ALL915021	ALL915071	
Medium	ALL915012	ALL915022	ALL915072	
Large	ALL915014	ALL915024	ALL915074	
X-Large	ALL915015	ALL915025	ALL915075	
XX-Large	ALL915016	_	_	



SFI 3.3 Underwear



Underwear is knit from a blend of lightweight Aramid and ame-retardant cotton material to achieve a durable. comfortable ame-retardant garment. SFI 3.3 rated underwear is machine washable and will maintain shape with washing.

Tops

Tops feature a long sleeve design with an elastic cuff and a taller "mock turtle neck" style collar.

ALL926110	X-Small	
ALL926111	Small	
ALL926112	Medium	
ALL926114	Large	
ALL926115	X-Large	
ALL926116	XX-Large	
ALL926117	XXX-Large	
ALL926118	XXXX-Large	
ALL926119	XXXXX-Large	



Bottoms

Bottoms feature an elastic waistband and cuff style leg bottoms to keep them in place.

ALL926210	X-Small	
ALL926211	Small	
ALL926212	Medium	
ALL926214	Large	
ALL926215	X-Large	
ALL926216	XX-Large	
ALL926217	XXX-Large	
ALL926218	XXXX-Large	
ALL926219	XXXXX-Large	



SFI 3.3 Driving Socks

Socks are a knit blend of ame-retardant cotton and Aramid material to offer outstanding moisture wicking properties. Socks are sold in pairs and include an SFI 3.3 certi ed label on each sock.

Size	Part No.	
6-7	ALL926011	
8-9	ALL926012	
10-11	ALL926014	
12-14	ALL926015	

SFI 3.3 Thick Driving Socks

These socks are an extra thick version of our standard driving socks for added comfort. Socks are a knit blend of ame-retardant cotton and Aramid material to offer outstanding moisture wicking properties. Socks are sold in pairs and include an SFI 3.3 certi ed label on each sock.

Size	Part No.	
6-7	ALL926411	
8-9	ALL926412	
10-11	ALL926414	
12-14	ALL926415	

Mid-Top SFI 3.3/5 Driving Shoes

Mid-top driving shoes feature a suede outer layer with a Pyrovatex ameretardant cotton material inner liner which offers a high level of heat and fl me protection. Shoes have many features including reinforced lace, toe and heel area, soft molded rubber sole



that wraps up the back of the shoe and an internal arch support not found in many other driving shoes. Shoes are SFI 3.3/5 certi ed, and sizes listed are men's sizes.

Size	Part No.	Size	Part No.
7	ALL919070	11	ALL919110
8	ALL919080	11-1/2	ALL919115
9	ALL919090	12	ALL919120
9-1/2	ALL919095	13	ALL919130
10	ALL919100	14	ALL919140
10-1/2	ALL919105		

Pro-Series Mid-Top SFI 3.3/5 Driving Shoes



The Pro-Series shoes have the same outstanding features as our standard driving shoes with a thinner sole to offer a better pedal feel. Additional features include a mid-top design with a suede outer layer and a Pyrovatex ame-retardant cotton material inner liner which offers a high level of heat and ame protection. Shoes also include a reinforced lace, toe and heel area, soft molded rubber sole that wraps up the back of the shoe and an internal arch support not found in many other driving shoes. Shoes are SFI 3.3/5 certi ed, and sizes listed are men's sizes.



Size	Black	Black/Blue	Black/Red
7	ALL918122	ALL918222	ALL918722
8	ALL918124	ALL918224	ALL918724
8.5	ALL918125	_	_
9	ALL918126	ALL918226	ALL918726
9-1/2	ALL918127	ALL918227	ALL918727
10	ALL918128	ALL918228	ALL918728
10-1/2	ALL918129	ALL918229	ALL918729
11	ALL918130	ALL918230	ALL918730
11-1/2	ALL918131	ALL918231	ALL918731
12	ALL918132	ALL918232	ALL918732
12-1/2	ALL918133	_	_
13	ALL918134	ALL918234	ALL918734



Helmet Supports

Helmet Supports or neck collars are designed to reduce the impact of the helmet contacting your shoulders, collar bones and chest.



Supports have a woven ame-retardant covering over a ame-retardant tapered high-density foam material which offers a full 360° support.

Part No.
ALL920014

SFI	
Size	Part No.
JR/Youth14"	ALL921011
Large 17"	ALL921014
X-Large 19"	ALL921015

Single-Eyeport SFI 3.3 Head Socks

Head socks or hoods are a knit blend of ame-retardant cotton and Aramid material to offer outstanding moisture wicking properties for comfort and safety to be SFI 3.3 certi ed. These hoods are designed with reverse seams that are at sewn on the outside and arranged to avoid pressure points and promote comfort.



Helmet Skirts

Helmet skirts fasten to the outside of the helmet and drape over the neck and shoulder area to protect the open area under the helmet. Skirts are made of a knit blend of ame-



retardant cotton and Aramid material and include a hookand-loop tape to attach along the bottom of the helmet.

ALL929010 .. Single-Layer Non-SFI ALL929313 .. Multi-Layer SFI 3.3/5

Arm Restraints

Arm restraints are often used by racers of open cockpit cars or when running topless specials. The SFI 3.3 rated arm restraints are manufactured using high quality steel hardware and premium webbing. The 2" wide cuffs have adjustable



hook and loop closures to secure around the arms with attachment points for the removable snap hooks. The 1" wide Y-tether features a 2" steel ring on the end designed to slide over the shoulder harness belt end-link to secure and release with your belts.

ALL991212	Youth	
ALL991312	Adult	

Helmet Hooks

Aluminum hook clamps on roll cage tubing and provides an anchor for attaching helmet strap.

ALL10228..... 1-1/2" **ALL10229**..... 1-3/4"

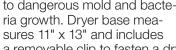
ALL10445..... Reducer Bushing 1-3/4" to 1-5/8"

Universal Helmet Hook ALL10223

Universal steel helmet hook is 1/8" thick and has a radius mount for attaching to round tubing. Hook may be welded on or clamped to tube with a standard hose clamp.

Helmet Dryer ALL13018

Dryer is a tabletop unit that circulates air throughout the inside of a helmet to remove moisture that commonly leads to dangerous mold and bacte-



a removable clip to fasten a dryer sheet to help freshen the inside of the helmet. Unit connects to a 110V power source and features a cord-mounted on/off switch.



ALL10258

Comfortable, lightweight, general purpose safety glasses have a clear wrap around lens for maximum visibility. ANSI-Z87.1 rated.



Reusable Corded Earplugs

ALL12000

Corded earplugs t instantly without rolling or squeezing. Made of a soft material that cleans up easily in warm, soapy water.





Nick Hoffman

PERFORMANCE

Tear-Off Machine



Electric Tear-Off machine will quickly provide clear vision with the simple push of a button. Lightweight unit mounts to your shield and includes two 50-foot rolls of clear Im (equal to 65 standard tear offs), sealed aluminum motor housing, quick disconnects, and velcro. Works with 12and 16-volt systems. Choose installation kit with steering wheel- or dash-mount button, sold separately.

ALL13104 Electric Tear Off Machine

ALL13106 Install Kit, Vehicle Harness & Steering Wheel Button ALL13107 Install Kit, Vehicle Harness & Dash Mount Button

ALL13108 Replacement Rolls of Film (2-Pack) ALL13109 Replacement Vehicle Harness

Locking Tear Off Post Kit

ALL13100

Unique aluminum tear off posts have a second set-screw locking the posts to the shield so they don't continually come loose. No need to remove shield just to tighten the tear off post! Package of 2.



Mini Helmet Air System

ALL13012

Self-contained, 12-volt fan with reusable Iter moves approximately 40-60 CFM of air depending on system voltage. An RF connector allows easy, unrestricted helmet removal. A



14" wire is permanently attached to the fan and accepts the 24" pigtail (included). Pigtail has simple red (+) and black (-) wire hook-ups.



Brandon Sheppard

Helmet Blower System

Remote mount breather system directs Itered, forced air to the driver's helmet for added comfort and safety. Motor assembly has a mounting bracket for easy mounting to chassis or seat back. 4' helmet hose connects to most helmet fresh air intakes with standard 1-1/4" connector. The 9' extension lead can be easily connected to a switched 12-16 volt source. This

system weighs 2-1/4 lbs, draws 3.5 amps at 13.6 volts, and produces about 90 CFM of air to the driver, providing more than enough air to keep the driver cool and shield clear.

ALL13020..... Silver **ALL13022....** Black

Replacement Components

ALL36202 Filter

ALL36203 Filter with Shield ALL99021 Wire Harness

Helmet Fan ALL13011

Compact inline blower fan connects to 1-1/4" helmet hose and forces air inside driver's helmets equipped with an air inlet to help prevent shield fogging and provide air movement. Fan produces 20+ CFM of air ow

when used on a 12V system, drawing only 1.3 amps. Two-wire pigtail easily connects to a switched 12V power source and a suitable chassis ground.

Hose Adapter ALL13007

Adapter ts most helmet hoses with 1-1/4" ends and has a 2-3/4" O.D. to tinside 3" duct style hose or inside some NACA ducts. Adapter may also be mounted in a window opening to funnel air directly to the driver via helmet hose.





Steve Arpin



Inside Air Blower Motor ALL13000

Inside air unit is commonly mounted inside the cockpit or decking to provide forced, Itered air to the driver for cooling and to help prevent shield fogging. Spun aluminum cover prevents damage to lter assembly. Motor has two speeds and is recommended for 12-volt systems.

Replacement Components

ALL13014 Filter **ALL99023** Top

Outside Air Blower Motor ALL13001

Outside air unit is commonly mounted inside the driver compartment on vehicles with windows or closed compartment to provide forced. Itered air to the driver for cooling and to help prevent shield fogging. Intake top can be used with 1-1/4" helmet hose or trimmed to accept larger 3" hose, such as ALL42150, routed to the motor

from outside of the car or fastened to a plastic duct, such as ALL42143, for fresh air. Motor has two speeds and is recommended for 12-volt systems.

Replacement Components

ALL13014 Filter **ALL99022** Top

Helmet Vent Hose

Hose is 4' long and used to complete the connection between a driver air system and helmets equipped with a 1-1/4" barbed intake port. Two styles are available: ALL13004 is gray and constructed from a denser material to resist crushing and abrasions from rocks and debris; ALL13021 is black and constructed of a thinner more pliable material which is less restrictive to the driver.

ALL13004 Grav ALL13021 Black

Helmet Vent ALL13025

High-impact, screened ABS vent minimizes the chance of rocks and other debris from entering helmet hose. Vent has a 1/2" wide mounting ange and a centered outlet that accepts most 1-1/4" helmet hoses.







Radio Boxes





ALI 10441

ALI 10439

Aluminum radio boxes have a removable padded insert to absorb vibration and measures 5" tall x 3-3/4" wide x 2-1/2" deep.

ALL10439..... Flat Mount ALL10441 1-3/4" Mount

Reducer Bushing 1-3/4" to 1-5/8" ALL10445

Reducer works with most clampon style brackets or accessories with 1/4" thick mounts including Allstar radio boxes, drink bottle

kits, helmet hooks, and universal brackets.



Mount the drink bottle within driver's reach for a convenient spot to keep a drink. Great for circle track drivers during pit stops or yellow fl gs. Lightweight aluminum holder comes with replaceable insulated bottle.

ALL10475 1-1/2" ALL10480..... 1-3/4"

ALL10445..... Reducer Bushing 1-3/4

to 1-5/8"

ALL10482..... Replacement Bottle





Tim Curry



Camera Mount **ALL10446**

Clamp-on camera mount for securely mounting Go Pro style cameras. Mount includes inserts for 1" and 1-1/2" round tubing and includes foam inserts for use with 1-1/4" round tubing. High-density thermoplastic construction features an aluminum



base and stainless-steel pivot ball that rotates 360° to provide an in nite number of mounting options and a knurled thumbscrew for easy camera removal.

Convex Mirrors

Convex mirrors have a curved face to view a wider area which is ideal for keeping an eye on the competition.

Mirrors have built-in mounting tabs with 1/4"-20 threaded inserts for convenient mounting. Universal brackets ALL10452-10454 are commonly used when mounting mirrors to round tubing such as roll cages.

ALL76406 14" x 2-1/2" ALL76407..... 17" x 3"

Panel Mirrors



mirrors to help eliminate blind spots. Durable ABS construction makes these mirrors suitable for many types of motorsports. Mounting brackets and hardware included.

ALL76404..... Four Panel, 27-3/4" Long ALL76405..... Five Panel, 34-3/4" Long

Side View Mirror

ALL76409

Aerodynamic 3" diameter mirror quickly and easily mounts to roll cage tubing and includes a 1-1/2" stainless clamp. High strength ABS plastic housing with a scratch resistant polycarbonate lens makes this mirror suitable



for a variety of motorsports, but most commonly used on Asphalt Late Models. Adjustable mirror lens pivots in the housing for optimum driver visibility.

Swan Neck Mirrors

ALL76400

Beautiful exterior rear view mirrors have a 4" diameter stainless steel head and a 5" long chrome arm. Mounting is blind with one bolt. Sold in pairs.



4" Peep Mirrors

ALL76401

Chrome Peep mirrors have a 4" stainless steel head and can be slipped over the top edge of driver and passenger side doors and secured with Allen head screws. Arm pivots 360° to any position

and has a crowned end to lock in the desired position. Includes protective rubber pads. Sold in pairs.



Molded Steering Wheel Pad

ALL52322

Molded pad ts at or dished 3-spoke steering wheels. Velcro straps are permanently secured to pad for quick installation.



Steering Wheel Pad ALL52320

Black vinyl-covered pad fastens to most three spoke racing steering wheels with three hook/loop straps. 5-3/4" diameter foam pad is 2" thick.



Steering Wheel Hook

ALL10227

Aluminum hook clamps to 1-3/4" roll cage tubing and provides an anchor for hanging your steering wheel when not in use.



Reducer Bushing 1-3/4" to 1-5/8" ALL10445

Reducer works with most clamp-on style brackets or accessories with 1/4" thick mounts including Allstar radio boxes, drink bottle kits, helmet hooks, and universal brackets.



AL10513



Two-Point Non-Retractable Seat Belts

Two-point, non-retractable lap belt is manually tightened and mounts to two points on the vehicle oor. Belts feature an easy pushbutton release and are sold individually. Installation hardware kits sold separately.

ALL98110..... Black **ALL98111** Gray ALL98112 Charcoal ALL98113 Tan

Related Components

ALL98120..... Anchor Plates, 1-Pair ALL98121..... Installation Hardware Kit



Three-point retractable system has three anchoring points, two on the vehicle oor and one on the B-pillar. Belts feature an easy push-button release and are sold each. Installation hardware kits sold separately.

ALL98115..... Black **ALL98116....** Gray ALL98117 Charcoal **ALL98118**..... Tan

Related Component

ALL98120..... Anchor Plates, 1-Pair ALL98121..... Installation Hardware Kit

Seat Belt Anchors ALL98120

Anchor plates reinforce stock type oor pan when mounting seat belts. Plates are 1/8" thick and have a 9/16" mounting hole. Package of 2.



Seat Track

Assembly

ALL98100

Mount aftermarket seats quickly and easily. Includes two seat tracks, adjustment handle and hardware.



Bolt-In Lower Seat Mount Brackets

ALL98130

Seat brackets are constructed of 3/16" aluminum and designed to fasten an aluminum racing seat to a reinforced stock style oor pan. Additional oor reinforcements recommended as required per sanctioning body rules.

Quick-Release Fire Extinguisher Bracket

ALL10510

Bracket keeps fi e extinguisher secure and allows quick access by pulling pin. Bracket mounts most 2-1/2 lb. extinguishers with an O.D. up to 3-1/2" to round tubing with supplied clamps or fastens to a at panel including trailer or shop walls.



Quick-Release NHRA Fire Extinguisher Brackets

NHRA approved bracket keeps re extinguisher secure and allows quick access by pulling pin. Bracket mounts most 2-1/2 lb. extinquishers to 1-1/2"-1-3/4" round tubing with supplied 3/4" wide stainless T-bolt

bands or fastens to a at panel. ALL10512 Bracket for 3" O.D.

Extinguisher

ALL10513 Bracket for 3-3/8" O.D.

Extinguisher

Shifter Boot ALL54130

Fire-resistant, black, thermal boot helps prevent re from entering driver compartment. Boot is 7" tall with Velcro strap closure at top. Base is 6" x 7". Used by many top Cup, x nity, Truck, CRA, and Late Model teams.



Sprint Knee Guard ALL55230

Ultra light aluminum knee guard designed by Jason Meyers Racing works great for protecting knees from banging against 1/2 box steering gears and provides a comfortable leg support

when throttling through

corners. Fire retardant, high-impact, dense rubber padding is covered with self-extinguishing cloth for added safety. Guard fastens to the half box mount (not the box) by drilling and bolting or riveting and is held in place with safety wire or a wire tie.





Roll Bar Padding

Padding is made of a closed-cell foam material that does not absorb moisture and progressively absorbs shock by becoming denser as it compresses. 36" long padding features a 3" O.D. with an offset inside diameter that is designed



to install with the thicker side of padding toward the driver and a perforated seam to make installation easier.

Color	Single	Box of 3pcs NEW	Case (48pcs)
Black	ALL14100	ALL14100-3	ALL14100-48
Red	ALL14101	ALL14101-3	ALL14101-48
Blue	ALL14102	ALL14102-3	ALL14102-48
Orange	ALL14103	ALL14103-3	ALL14103-48
Yellow	ALL14104	ALL14104-3	ALL14104-48
Gray	ALL14105	ALL14105-3	ALL14105-48
Purple	ALL14106	ALL14106-3	ALL14106-48

SFI Mini Roll Bar Padding

ALL14112

Mini roll bar padding is ideal for tight areas in a race car when standard padding is too large.



Unique, compact design provides driver protection to a speci c area. Peel- and-stick backing for easy installation on 1-1/4" to 1-3/4" tubing. Meets SFI 45.1 speci cations. Sold in 3' lengths, black only.

SFI Roll Bar Padding

Provides 180° coverage where space concerns are not a problem. Peel-and-



stick backing for easy installation. Meets SFI 45.1 speci-cations. Choose from two sizes, each 3' long, black only.

ALL14110...... 1-1/8" to 1-1/2" O.D. Tubing **ALL14111**...... 1-5/8" to 2" O.D. Tubing

Door Bar Padding

ALL14115



Door Bar Clamp ALL14198

Clamp fastens around a 1-1/2" door bar, allowing a steel door plate to be mounted to the outside of the door

bar area. Clamp eliminates the need to weld mounting tabs or door plate directly to a nished chassis. Sold each and includes 1/2" mounting hardware.

Related Components

ALL54070 18" x 26" Steel Plate **ALL54071** ... 24" x 24" Steel Plate **ALL54072** ... 24" x 36" Steel Plate



Window Net Installation Kits Latch Type Round Tube ALL10217



Lever latch release has a 3/8" round upper support rod for use with border and loop style nets. Mounting brackets are included.

Latch Type Flat Bar ALL10218



Lever latch release has a 1" x 1/8" x 29" at steel bar to securely anchor the window net, and mounting brackets. Use with loop style nets. Will not work with most border type nets

Replacement Component ALL99070 Mounting Tabs

Spring Loaded Round Tube ALL10219



Spring-loaded tube eliminates the latch release and provides easy entry and exit. Pushing against the handle allows the spring loaded rod to compress approximately 3/4" to release or fasten window net. Kit includes a 26-1/2" long x 9/16" diameter spring loaded top tube, 3/4" at aluminum strap for securing the bottom of the net, mounting hardware, handle and instructions. Designed for most border and loop style nets.

Replacement Component ALL99071 Mounting Tabs

Clamp-On Kits

Clamp-on kit eliminates welding tabs to chassis. Clamps have .600" holes designed to install ALL10219 window net installation kit to chassis tubing.





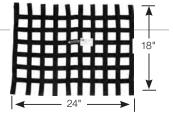
ALL10221 1-1/2" Kit **ALL10222** 1-3/4" Kit **Individual Components**

ALL99160 1-1/2" Clamp-On Bracket, Fixed ALL99161..... 1-1/2" Clamp-On Bracket, Swivel ALL99162..... 1-3/4" Clamp-On Bracket, Fixed ALL99163 1-3/4" Clamp-On Bracket, Swivel



Loop Style Ribbon Window Nets

Durable polypropylene nets are ideal for a variety of full bodied cars. Webbing is double stitched with heavy nylon thread. All nets meet SFI 27.1 speci cations and



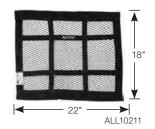
are appropriately tagged. Loop design net has loops sewn in top and bottom of net to accept most round tube and at bar window net installation kits.

ALL10290..... 18" x 18" Black **ALL10295**..... 18" x 24" Black

Mesh Window Nets

Durable, lightweight, black polyester mesh nets increase driver vision and stop smaller debris better than conventional ribbon or string nets. Mesh style net has large builtin sleeves in top and bottom of net to accept most round tube and at bar window net installation kits. SFI Rated (27.1)





Non-SFI

ALL10294..... 18"H x 18"W **ALL10298**..... 18"H x 22"W

ALL10299..... 18"H x 27"W x 22"W (Angled)

SFI Rated (27.1)

ALL10211 18"H x 22"W

ALL10214 18"H x 27"W X 22"W (Angled)

Border Style Ribbon Window Nets

NEW Non-SFI Nets

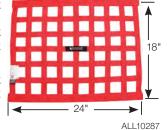
Durable polypropylene nets are available in a variety of sizes and offer additional safety to the driver. Webbing is double stitched with heavy nylon thread. Border style net has built-in sleeves in top and bottom of net to accept most round tube window net installation kits including ALL10217 and ALL10219. SFI certi ed nets meet SFI 27.1 speci cations and are appropriately tagged.

Non-SFI

ALL10248..... 10"H x 18"W Black **ALL10249**..... 14"H x 18"W Black **ALL10283** 18"H x 18"W Black **ALL10284** 18"H x 24"W Black

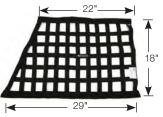
SFI Rated (27.1)

ALL10280..... 18"H x 18"W Black **ALL10285**..... 18"H x 24"W Black **ALL10286**..... 18"H x 24"W Blue **ALL10287**..... 18"H x 24"W Red



Angled Window Nets

Angled net with border style mounting encloses more of the driver side window opening for additional protection. Net has built-in top and



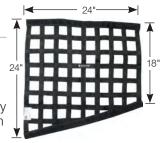
bottom sleeves to accept most round tube window net installation kits including ALL10217 and ALL10219. SFI certi ed net meets SFI 27.1 speci cation and is appropriately tagged.

ALL10293..... Non-SFI Black **ALL10288**..... SFI Rated (27.1) Black

Drag Window Net

ALL10289

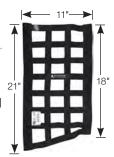
Drag window net with border style mounting attaches to the diagonal door bar of most drag cars. Net meets SFI 27.1 speci cation and is appropriately tagged. Net has top and bottom built-in sleeves to accept most



round tube window net installation kits including ALL10217 and ALL10219.

Funny Car Style Window Net ALL10291

Border style window net has built-in vertical sleeves for installing mounting rods to attach net to the chassis. Net is ideal for cages that have been tted with or updated to funny car style bars around the driver. Net is SFI 27.1 certi ed.



Triangle Window Net ALL10246

Triangle
net originally designed
for Sprints and
Midgets also works well on
Dirt Late Models and Modi eds
when wrap-around ends are needed.
Net includes quick release buckle and meets
SFI 37.1 specs.

Style Triangle Window Net

ALL10247

Triangle window net has a border style top for use with most round tube installation kits. Lower portion of net secures around a lower bar.





Radiator ALL30028

Aluminum radiator with furnace brazed tanks provides superior cooling in sprint applications.
Features machined ller neck, 1-1/2" RH bottom outlet and (4) female top outlet ports for use with -10AN O-ring ttings. Radiator uses a smaller diameter cap (not included) such as ALL30124 or ALL30125. 20" wide x 22" tall x 2" thick. 9.7 lbs.



Cross Flow Radiator (Chassis Mount) ALL30030

Aluminum radiator with a unique black thermal coating provides superior cooling! Built-in mounting brackets enable the radiator to be quick-turn fastened directly to frame tabs. Radiator with -10AN O-Ring inlets and 1-1/2" outlet is 20-1/2" wide x 18-1/2" tall (including outlet neck) x 2-3/8" thick core. Recommended radiator cap is ALL30126 (28-32 lbs.) sold separately. Approximate weight 8.5 lbs.

Wall Mount Radiator Holder Kit ALL12216

Brackets fasten to trailer wall and hold radiator safely in place during transport to avoid damage. Kit includes two 29" long aluminum brackets with adjustment holes at 2" increments and arms to t radiator cores up to 2-1/4" wide. Adjustable arms are slotted for quick adjustment with included thumbscrew knobs to t a variety of radiator heights.

Radiator Air Scoop for Sprint Car

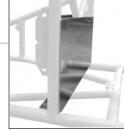
Scoop fastens around a tube or the front crossmember of most

chassis to maximize air ow through the radiator, increase cooling ef ciency and at the same time, create downforce. Black plastic scoop is a universal design that will ta variety of cars and the aluminum scoop is designed for most raised rail cars. Scoop is commonly fastened to the chassis with quick turn fasteners.

ALL23224 Plastic 22" x 11" **ALL23225** Aluminum 22" x 13"

Flat Front Air Box ALL23226

Box ts most sprint cars with 1" raised rail and is fabricated from .080" aluminum. Box measures 9-3/4" left side to 10-3/4" right side, with a total weight of 2.13 lbs.



Radiator Honeycomb

ALL30158

Honeycomb screen mounts to front of radiator to protect ns/core from rocks and debris. Secure directly to radiator using

ALL30085 mounting kit, sold separately. 19" x 26" x 1/2" thick.



Sprint Car Radiator Rock Screen ALL30163

Aluminum rock screen helps to protect radiators from heavy rocks and mud. Mounting tabs are integrated into the frame for quick and easy installation to a front air box. Measures 20-1/2"



wide x 12" tall and weighs just under 1 lb. Quick turn springs are included.

Sprint Front Engine Plates



Aluminum front engine plates for SB Chevy are offered in one- and two-piece designs. One-piece versions mount using the lower front mounting holes. Two-piece sets use the lower front mount holes



ALL3814

and the water pump mounting holes. All plates have 19-1/2" center-to-center chassis mounting holes. ALL38128 and ALL38145 plates come with bushings to allow for engine ex and help with weight transfer.

Part No.	Description	Finish	Thickness
ALL38118	1-Piece Solid Plate*	Plain	3/8"
ALL38119	1-Piece Solid Plate*	Black	3/8"
ALL38128	1-Piece Plate with Bushings*	Plain	3/8"
ALL38145	2-Piece Plate with Bushings [†]	Black	3/8"
ALL38130	Universal Mount	Plain	1/4"

*Features mounting holes for Saldana tank mount bracket OTMB1†Designed to work with ALL36092 and ALL36093 tank mounts.

Sprint Car Dry Sump Tank Mounting Brackets

Mounting brackets are designed to mount 6" diameter tank to the left front corner of standard small block Chevy engine. Commonly mounted with ALL38145 sprint engine plate, the upper bracket utilizes the water pump mounting holes and the lower bracket fastens to the early front engine mount mounting hole.

ALL36092 Upper Tank Mount **ALL36093** Lower Tank Mount



ALL36093



Sprint Rear Engine Plate ALL38126

CNC-machined aluminum rear engine plate ts standard and raised cam



engines, standard and raised rail cars as well as most lightweight blocks. Multiple holes are drilled and tapped for mounting pumps and torque ball shield directly to engine plate instead of the housing. The top trailing edge of engine plate is grooved to eliminate obstruction with dash. 3/8" thick plate weighs 7.25 lbs.

Torque Ball Safety Blanket ALL55220

Fire-resistant safety blanket designed by Jason Meyers Racing protects drivers legs and feet in the event of a U-joint failure. Ballistic nylon covered blanket weighs just 1.1/2 lbs. and by

ered blanket weighs just 1-1/2 lbs. and has quick release adjustable straps that allow blanket to be removed easily for servicing torque ball and U-joint. Blanket includes two mounting brackets, mounting studs, nuts, and installation instructions.

Replacement Components

ALL55224 3/8" Mounting Stud Kit **ALL55226** Mounting Tabs, 1-Pair

Torque Tube Belt

ALL10181

Universal strap keeps torque tube stabilized and centered in case of coupler or tube failure. Black, 3" wide belt ts all torque tube and chassis combinations.

Titanium Stud Kit for Torque Tubes

ALL17030

Kit includes six 3/8"-24 x 3/8"-16 studs with 12 point steel nuts to secure torque tube to rear end housing. Kit weighs about 100 grams.



Titanium Stud Kit for Headers ALL17010

Kit includes fourteen studs with 3/8"-24 thread on one end, 3/8"-16 thread on the opposite end and 12-point steel shoulder nuts to work with most headers. Overall stud length is approx. 1-1/4". Kit weighs a total of 185 grams.



Titanium Fastener Kit for Fuel Pump

ALL17006

Kit includes three 1/4"-20 x 1/2" mounting fasteners and one 1/4"-20 x 1" long pinch bolt with an extended head for easy adjustments. Fastener kit fi s most Waterman or Kinsler style pumps and weighs less than 15 grams.

SB Chevy Gear Drive Assembly

Aluminum gear drive provides accurate cam timing and the ability to adjust valve timing without removing the oil pan. Aluminum frame features a built-in front oil pan gasket retainer and an idler



gear cradle for accurate cam timing throughout the RPM range. Gear drive are complete with cam, crankshaft and idler gears, needle bearing thrust kits, offset degree bushing kit, extra-long dowel pins and installation instructions. Gear drives are commonly used with ALL90080 and ALL90081 Billet Timing Covers or may be used with most stock-type covers such as the ALL90010 with slight modi cation.

ALL90000 Standard Cam Gear Drive
ALL90100 Raised Cam Gear Drive (+.391")

Replacement Components

ALL90001..Cam Gear
ALL90002..Crank Gear
ALL90003..Idler Gear
ALL90007.Thrust Washer Set

Billet Timing Covers

Machined billet aluminum timing cover is lightweight, durable and weighs over 1 lb. less than cast aluminum covers. Fits major brand oil pumps. Mounting hardware included.

ALL90080 Standard Cam ALL90081 Raised Cam

Aluminum Cam Seal Plates

Aluminum cam seal plate provides a reliable seal and tight t.



Part No.	Size	Color	Application
ALL90085	2.103"	Black	GM Small Block
ALL 00006	2.253" Gold	Cold	Rodeck Block w/ 1.875" Roller
ALL90000		Cam Bearing	
ALL90087	2.310"	Blue	Most Blocks w/ 50mm Roller Cam Bearing
ALL90088	2.382"	Silver	Dart Small Block, Aluminum
ALL90089	_	_	Replacement Cam Plate Seal

Down Nozzle Filters with Breather Ring ALL40325



Filters allow excess fuel to evacuate the injection lines once engine is shut down to help prevent fuel from entering the cylinders. Low-pro le lter design reduces the chance of damage. Package of 8.

Nozzle Plugs ALL40327

Nozzle plugs take the place of the fuel nozzles when only running one set of injectors. Plugs feature 1/2"-20 threads and include a sealing O-ring. Package of 8.

ALLSTAR' PERFORMANCE

Throttle Pedals



Pedals t most sprint chassis with pivot spud welded on frame rail.

ALL54094 Titanium **ALL54095** 4130 Chrome Moly

Heel Riser

Aluminum heel risers are pre-drilled for easy mounting and include a non-skid pad. 4-1/2" wide.

ALL54090 1" Tall Riser **ALL54091** 1-1/2" Tall Riser

Heel Riser Rest ALL54092

Aluminum bracket is 1" tall and rivets to heel risers to help keep foot in place on the riser.



ALL54150

Throttle Bell Cranks

Designed for Sprint car applications, each bell crank is tted with a pressed .250" I.D. bearing for smooth throttle operation and has optional locations for connecting push rods of various lengths. Typically two are required to

complete an application. Option holes on each crank are .188" and spaced 3/8" apart.

ALL54150..... Arms Set 75° Apart, 35 Grams ALL54152..... Arms Set 70° Apart, 40 Grams

Quick Release Throttle Cable Ends

Quick release ends are used when a throttle connection needs to be removed and installed often. Steel housing has a spring loaded release to keep housing secure to pivot ball.

ALL54152

ALL54147 #10-32 with #10-32 and 1/4"-28 Studs **ALL54149** 1/4"-28 with 1/4"-28 Stud

Positive Cam Lock Shifter

ALL54135

CNC-machined billet aluminum shifter clamps to the frame on driver's right. Designed for use with live axle shifter quick change. Shifter includes all steel hardware, heavy-duty cable, and quick release end.

Replacement Components ALL54142..... 43" Long Cable

Chrome Moly Brake Pedal

ALL41033

Lightweight sprint car brake pedal is fabricated from 1" O.D. x .040" 4130 chrome moly tubing then black powder coated. Pedals provide optimal feel due to a knurled no-slip, extra-grip foot rest. Universal t pedal works with most sprint car raised rail chassis. 1-1/2" heel block is recommended for proper heel to pedal spacing.

Titanium Brake Pedals

High-strength titanium brake pedal is manufactured from 1" diameter tubing. Knurled pattern on 5" wide pedal helps keep foot in place. Approximately .55 lbs.

ALL41031..... Standard Rail, 17" Long Overall **ALL41032**..... Raised Rail, 16" Long Overall

Tel-Tac Mount ALL81332

Aluminum mount accepts Tel-Tac digital tachometers and recesses into a dash for clean, nished look. Mount attaches to backside of dash with quick turn fasteners (buttons sold separately) for simple tachometer removal and installation.

MSD/FAST Ignition Box Mount ALL81330

Box mount provides a quick release method for replacing MSD or FAST ignition boxes with 7-1/2" x 3-1/2" or 4-1/8" x 6-1/2" center to center mounting dimensions. Kit includes aluminum box mount, (4) quick turn fasteners, springs, and 1/8" aluminum rivets.







Aluminum Steering Box Mounts

Steering mounts are manufactured from 2024 aluminum. Black anodized fiished, steering mounts are offered in three versions. Rigid design keeps



steering gear in place.

ALL52114..... Mount with Fuel Shut Off for MPD Valves **ALL52115**..... Mount with Fuel Shut Off for Waterman Valves **ALL52116**..... Long Mount

Half Box Steering Gear Mount

ALL52113

Mount is designed for quick installation and removal of the steering



gear box. Three hex-cut slots eliminate the need to remove snap ring and end cap and allow the steering box to slide easily into place. CNC-machined from 3/8" thick 2024 aluminum for strength, yet only weighs .60 lbs.

Power Steering Lines



Assembled lines for power steering have -6AN ends and are compatible with high-pressure pumps found in today's sprint cars where standard hose and ttings cannot be used. Lines are lightweight yet strong, weighing less than a standard high-pressure hose assembly. Plumbing is perfect for connection of KSE steering gear to pump. 13-1/2" long.

ALL48260 Line with Steel Ends and Protective Wrap **ALL48261** Line with Aluminum Ends

Power Steering Supply Line for KSE Gen2 Steering Gear

Gen2 supply line has -10AN aluminum tting and built speci cally for use with KSE Gen2 steering gear. New style hose is very exible, and will not collapse under suction. Total overall length of hose including ttings is 9".

ALL48262 Hose with 90° End **ALL48263** Hose with 45° End

Knee Guard

ALL55230

Ultra-light aluminum knee guard designed by Jason Meyers
Racing works great for protecting knees from banging against half box steering gears and provides a com-



fortable leg support when throttling through corners. Fireretardant, high-impact, dense rubber padding is covered with self-extinguishing cloth for added safety. Guard fastens to the half box mount (not the box) by drilling and bolting or riveting and is held in place with safety wire or a wire tie.

Knee Guard Mount ALL55232

Aluminum mount with 2" I.D. fastens around KSE sprint steering box tube to help secure most popular knee guards. Sold each.



Weld Bung for Seat Belts

ALL98125

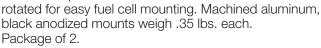
Bung welds into tubing up to 1-3/8" to convert wraparound style seat belts to bolt-in ratchet style belts.

Shoulder allows belt to pivot as needed and accepts 3/8" seat belt mounting hardware.

Adjustable Fuel Cell Mounts

ALL55112

Slotted mounts replace xed weld-on brackets and clamp directly to 1-3/8" cross tube. Mounts have 1-1/4" long slots, allowing adjustment often needed to reach insert locations of exed, ever changing fuel cell shapes and can be



Titanium Fastener Kit for Fuel Tank Top Plate ALL17008

Kit includes twelve 1/4"-28 x 7/8" button style socket head fasteners to replace the standard bolts securing the top plate to the bladder on most Fuel Safe and ATL sprint fuel cells. Kit weighs less than 45 grams.





Stacked Front Bumper

ALL22300

Stacked front bumper for improved front end protection is precision bent from 1" O.D. steel tubing, 6" tall x 8" long overall x 19-1/4" wide on center. Weighs less than 4 lbs.

Titanium Bolt Kit for Nerf Bars and Bumpers ALL17016

Kit includes twelve 10-32 x 1-1/2" bolts with nylon locking half nuts. Kit includes enough fasteners for bumpers and side nerf bars. Kit weighs less than 50 grams.



Part No. Description ALL55100 | Aero Post LH Aero Post RH ALL55101 ALL55106 | Post Straight, 13" Long ALL55102 Mount for ALL55100 Aero Post LH ALL55103 | Mount for ALL 55101 Aero Post RH ALL55107 | Mount for ALL55106 Post

Adjustable Nose Wing Posts

Clamp-on style angled aluminum mounts fasten around 1-1/2" torsion bar tubes, providing adjustability to front wing posts.



Steel

Steel

Aluminum

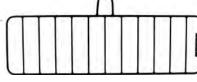
Aluminum

Aluminum

Aluminum

Roc	ck :	Sc	ree	ns

Steel screen mounts to chassis, providing driver added protection from rocks and



debris. Black powder coated screen is 7-1/2" tall with 2" wide slots. Approximately 1.60 lbs.

ALL30165 Sprint Car, 25" Long ALL30166 Mini Sprint, 23-3/4" Long

Fixed Nose Wing Posts

Fixed posts have a 1" O.D. to t into pinch clamp spuds welded to torsion bar tubes on most chassis. Bent tubes are angled forward to mount the front wing forward, adding increased down force.



ALL55105 ALL55106 ALL55125 ALL55126

Nose Wing Wall Mount Brackets

ALL12214

Brackets attach to the side of trailer wall to hold a spare sprint

car front nose wing safely in place. Powdercoated aluminum brackets feature slotted arms that are fully adjustable to accommodate



a variety of nose wing shapes and sizes. Sold in pairs with retention straps to keep wing secure.

Tool Tray

ALL14170 Tool tray measures 12" x 18" x 3", with hooks on one side to fasten to race car nose or sprint/midget front wing and 6" stands on the opposite side so tray will sit level. Tray has 16 holes for spark plug and nozzle holder use.

Part No.	Description	Material
ALL55108	Bent, Aero With Round Tube	Steel
ALL55105	Bent	Aluminum
ALL55125	Bent	Titanium
ALL55106	Straight	Aluminum
ALL55126	Straight	Titanium
ALL55110	LH Sideboard Mount	Stainless Steel
ALL55111	RH Sideboard Mount	Stainless Steel

Wing Caps



Prevent rock and debris from damaging the leading edge of many popular sprint car wings with a protective cap.

ALL23220 Top Wing Cap, 60" Long, High-Impact Plastic ALL23222 Front Wing Cap, 36" Long, High-Impact Plastic

ALL23221 Top Wing, 60" Long, Carbon Fiber ALL23223 Front Wing, 36" Long, Carbon Fiber



Top Wing Trees

Wing trees have an "X" design for lateral and horizontal strength. Available in 16" and 18" tall



versions, each tree is adjustable and will extend up to 6" with adjustment holes located at 1" increments. 16" trees are ideal for X wedge cars to keep the back of the top wing lower while providing optimal top wing tilt at high-speed tracks. 4130 chrome moly 3/4" x .060" tube construction. Wing trees are 26" wide at the top and have a min/max bottom width of 25-3/4" to 26-1/2". Adjuster pins not included.

Part No.	Height	Finish
ALL55130	16" (Extends to 22")	Black
ALL55131	16" (Extends to 22")	Plated
ALL55132	18" (Extends to 24")	Black
ALL55133	18" (Extends to 24")	Plated

Related Components

ALL17028 Titanium Adjuster Pins, (1-Pair) **ALL55134**..... Top Wing Tree Slider, Black **ALL55135**..... Top Wing Tree Slider, Plated

Titanium Top Wing Pin Kit

ALL17028

Kit includes two pins with locking clips for adjusting wing tree height.

Manual Wing Adjuster ALL48004



Manual wing adjuster is for sprint car top wings when rules do not permit the use of hydraulic cylinders. Aluminum slider includes 3/8"-24 steel rod ends and is adjustable from 20" to 32" center-to-center in 1" increments with included 1/4" locking pin. Weighs less than 1 lb.

Hydraulic Wing Cylinders



Strong hydraulic wing cylinders have an aluminum body which houses a steel piston and pushrod assembly. Available in 10" and 12" lengths.

ALL48000 10" **ALL48002** 12"

Titanium Studs for Wing Cylinders

Single stud used to mount the wing cylinder to the chassis or wing tree. Stud has 3/8"-24 threads for mounting most cylinders. Mounting nuts not included. Sold each.



ALL17036 5/16"-24 x 3/8"-24 x 1.640" Stud **ALL17038** 3/8"-24 x 3/8"-24 x 1.600" Stud

Wing Line Kit

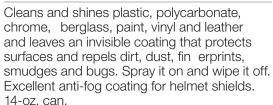
ALL48006

Kit includes lightweight, coated stainless steel braided lines and aluminum ttings to help simplify plumbing of KSE Gen2 steering gear and wing cylinder. Kit includes



(2) #4 slider lines (22" long and 36" long), (2) #4 pressure and return lines (18" long), (4) 45° 4AN to 1/8"NPT valve ttings, (2) 90° 4AN to 1/8"NPT cylinder ttings, and (2) high- ow -3 ORB to -4AN ttings.

Mud-X Cleaner ALL78232





Mud-X Concentrate

ALL78230

Mix concentrate with up to ten quarts of water to produce a coating that prevents mud, dirt, oil, rubber, and exhaust residue from sticking to body panels. Safe for metal, plastic, rubber, and painted surfaces. One-quart container.



Pressurized Sprayers

Sprayers are great for applying bulk cleaners, degreasers, solvents, penetrating oils, and other lubricants. Sprayer has a capacity of 32 ounces and includes a versatile nozzle adjustable from mist to a ne stream.



ALL10516 Black **ALL10518** Chrome

Mud Scraper ALL44165



Remove the stickiest mud and clay without damaging paint or decals. Lightweight and 32" long to reach wings, deck lids, and undercarriage. Use the convenient hole in end to hang scraper.



Front Axles

Lightweight .095" wall 4130 chrome moly front axles mea-



reamed for easy installation and also feature threaded Panhard bar stud and shock mounts. Available in black powder coat or chrome plated.

ALL55170..... Black **ALL55171**..... Chrome

Aluminum Steering Arms







Arms are strong and solid for rough tracks and t 3-1/4" spindles. Combo arm has a 1" lead.

ALL55062 Steering Arm RH

ALL55060 Combo Steering Arm LH, Solid ALL55058 Combo Steering Arm LH

Titanium Steering Stud Kit ALL17026

Kit includes four studs with nylon locking half nuts that thread into steering and pitman arms with 1/2"-20 threads for properly mounting steering



Left Front Caliper Mount

Machined aluminum mount keeps the caliper true and straight for maximum braking power. Bolts included.

ALL55070 Mount for 10-7/8" Rotor, Plain ALL55071 Mount for 10-7/8" Rotor, Black ALL55072 Mount for 10-1/8" Rotor, Plain ALL55073 Mount for 10-1/8" Rotor, Black

Titanium Fastener Kit for Front Hub

ALL17004

Kit includes ve 3/8"-16 x 1-1/4" smooth head fasteners with a builtin hex for securing into hub and ve shoulder nuts. Fasteners weigh a total of 90 grams.

Pitman Arms

Pitman arms for popular 48-spline boxes are manufactured from 2024 aluminum and feature two drag link mounting points with 1/2"-20 threads. Angle broached arms provide the extra offset needed on today's short steering boxes for header clearance.

ALL55030 Angle Broach, 15° ALL55032 Straight

Drag Link/Tie Rod

1-1/8" sprint car steering rods are made from 4130 chrome moly .065" wall tubing. Rods have 5/8" threads and a tapered threaded end.

Length	Black Powder Coated	Plated
46"	ALL55932-46	ALL55933-46
47"	ALL55932-47	ALL55933-47
48"	ALL55932-48	ALL55933-48
49"	ALL55932-49	ALL55933-49
50"	ALL55932-50	ALL55933-50
51"	ALL55932-51	_

Drag Link Tether

ALL10252

Keeps drag link tethered to the chassis if it becomes disconnected. Tethering of drag link is required by most sanctioning bodies. 22" L x 1" W, woven nvlon.



Titanium Pinch Bolt Kit for Torsion Arms and Pitman Arms ALL17032

Kit includes ve bolts to replace standard 3/8"-24 x 1-7/8" hardware found in most torsion and Pitman arms. Bolt kit weighs less than 90 arams.



Titanium Shock Stud Kit for Frame Boss and Spuds

Shock stud kits include four studs and nylon locking half nuts to mount shock to chassis or front axle. Studs have 1/2"-20 threads that thread directly into pre-threaded bungs.



ALL17022 Stud Kit for 1/2"-20 Threaded Bungs ALL17048 Black Half Nuts 1/2"-20, 10-Pack



Aluminum Torsion Arms

Manufactured from 2024 aluminum. Arms are exceptionally strong and will not ex.



ALL55002 Front Left S-Bend*

ALL55004 Right Clear

ALL55005 Right Angle Broach

ALL55010 Left **ALL55012....** Right ALL55034 XP Left**

ALL55036 XP Right**

* S-Bend Provides Added LF Tire Clearance

HD Billet Rear Torsion Arms



Heavy-duty, billet aluminum arms have a high resistance to twisting, ensuring a straight rear end while eliminating inconsistent spring rates. LR arms are approx. 3.05 lbs. RR arms are approx. 2.90 lbs. Pinch bolt included.

ALL55014..... Left **ALL55016** Right

Titanium Shock Studs for Rear Torsion Arms ALL17024

Shock stud kits include two studs with large support cones and four nylon locking half nuts to mount shock to most rear torsion arms. Studs and nuts weigh less than 50 grams.



Black Half Nuts ALL17048

Black plated steel 1/2"-20 nylon lock nuts are grade 8 and a lightweight option to keep fasteners in place. Package of 10.



Torsion Arm Stops

Stops are available in 1-3/4" or 2" split and are offered in aluminum, 4340 steel or titanium. Steel stops include a 9/16" bolt and nut. 2024 grade aluminum stops include a grade eight bolt with 5/8" head and an aluminum iam nut. Titanium

stops include a titanium bolt with 5/8" head and an aluminum jam nut.

1-3/4" Split Stops

ALL55020 Aluminum. Black ALL55024 Titanium ALL55028 Steel, Black

2" Split Stops

ALL55022 Aluminum, Black

Related Parts

Titanium Torsion Arm Stop Bolts With Nut

ALL55027 7/16"-20 with 9/16" Head

Titanium Torsion Arm Stop Adjuster Bolt Kit ALL17034

Kit includes four 7/16"-20 stop adjuster bolts with 9/16" heads to replace or upgrade standard hardware found in torsion arm stops. Kit weighs less than 80 grams.

Titanium Pinch Bolt Kit for Torsion Arms and

Pitman Arms ALL17032

Kit includes ve bolts to replace standard 3/8"-24 x 1-7/8" hardware found in most torsion and pitman arms. Bolt kit weighs less than 90 grams.

Torsion Arm Stop Kit

Kits hold torsion arm and stop in place if pinch bolts loosen or breakage occurs.

ALL10730 Clear **ALL10731** Black

Torsion Bar Bushings

Performance tested anti-friction nylon bushings are stepped to minimize binding of the torsion bar. Durable, lightweight material offers increased wear-resistance allowing for longer part life, decreased mating component wear and less down time!

ALL55140 Sprint 1-1/8" I.D. for .095" Wall Tubes, Each **ALL55140-10**. Sprint 1-1/8" I.D. for .095" Wall Tubes, 10-Pack

ALL55150 Midget, Each ALL55150-10. Midget, 10-Pack ALL55160 Mini Sprint, Each ALL55160-10. Mini Sprint, 10-Pack



^{**} For Use with XP Birdcages Only



Aluminum Birdcages

Single bearing design birdcages have replaceable components and are fi ted with grade 8 hardware.





XP Aluminum Birdcages

Center pull birdcages are one of the most innovative cages. XP cages eliminate bind on

the bearing and reduce drag, allowing for better weight and horsepower transfer. Must be used with XP rear torsion arms.

ALL55038 Left **ALL55039** Right

Related Components

ALL55034 XP Torsion Arm Left Black ALL55036 XP Torsion Arm Right Black

Non-Wing **Aluminum Birdcages**

Non-wing single bearing birdcages have lowered rear arm connection points, replaceable components, and are tted with grade 8 hardware.



Replacement Components

ALL55050 Brake Mount RR Steel

ALL55051 Flag ALL55052 Spud

ALL72336 28mm Bearing

ALL55054 Spirolox ALL55055 Arm Bolt ALL55056 XP Arm Bolt



Replacement bearings for Allstar birdcages and many other brands.

ALL72336 28mm Wide ALL72338 32mm Wide

Runout Checker ALL96440

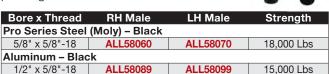
Fixture provides an easy way to check for bent torque tubes, drive shafts, torsion bars, or radius rods, and measures 16-1/2" overall.





Rod Ends

Two-piece spherical rod ends have a pivoting steel ball and are sold each.



Thin O.D. Jam Nuts

Specialty jam nuts have smaller outside diameters, allowing smaller wrenches to be used when changing radius rod lengths. Package of 4.



Thread Size	Wrench Size	Steel Part No.	Alum. Part No.	Black Alum. Part No.
5/8"-18 RH	3/4"	ALL18292	ALL18296	ALL18286
5/8"-18 LH	3/4"	ALL18293	ALL18297	ALL18287

Steel Radius Rods

tubing and have 5/8"-18



Aluminum Radius Rods

1-1/8" diameter aluminum radius rods are built from .156" wall tubing and have 5/8" threads to t most sprint cars and midgets.



Length	Black Anodized	Polished
18"	ALL56806-18	ALL56807-18
18-1/2"	ALL56806-185	ALL56807-185
19"	ALL56806-19	ALL56807-19
19-1/2"	ALL56806-195	ALL56807-195
20"	ALL56806-20	ALL56807-20
20-1/2"	ALL56806-205	ALL56807-205
21"	ALL56806-21	ALL56807-21
21-1/2"	ALL56806-215	ALL56807-215
22"	ALL56806-22	ALL56807-22
22-1/2"	ALL56806-225	ALL56807-225
23"	ALL56806-23	ALL56807-23
23-1/2"	ALL56806-235	ALL56807-235
24"	ALL56806-24	ALL56807-24
24-1/2"	ALI 56806-245	ALI 56807-245

Titanium Radius Rod Stud Kit ALL17020

Kit includes six 1/2-20 x double-sided studs that



install into the chassis providing a secure mounting point for radius rods in most chassis. Kit includes black plated steel nylon locking half nuts for securing studs and radius rods to chassis.

Individual Components

ALL17048 Black Half Nuts 10-Pack 1/2"-20



ALL55051

ALI 55052

ALL72336



Chrome Moly Jacobs Ladders

Jacobs Ladder is constructed of 4130 chrome moly with aluminum straps. Grade 8 bolts, nyloc nuts, and AN at washers are included. Approx. 2 lbs.

ALL55080 13-1/4" **ALL55081** 13-5/8" **ALL55082** 14"

ALL55084 12-1/4" Adjustable **ALL55085** 13-1/4" Adjustable **ALL55086** 13-5/8" Adjustable **ALL55087** 14" Adjustable



Replacement Component

ALL55090 Strap

Titanium Jacobs Ladders

Titanium Jacobs Ladder is completely assembled with aluminum straps, titanium bolts, mechanical lock nuts, and AN at washers. Titanium ladders are 1/2 lb.+ lighter than 4130 steel ladders and weigh only 1-1/2 lbs.



Replacement Component ALL55090 Strap



Protect the rear axle from rock chips and other debris. Real carbon ber cover is strong yet lightweight and attaches to all Jacobs Ladders with existing bolt or pin (not included).

ALL55091 3/8" ALL55092 1/2"



Pin kits offer a quick option for changing out a Jacobs Ladder. Kits include two 3/8" x 3-3/4" long strap pins, one 3/8" or 1/2" x 1-1/2" long pin for birdcage rod end, 3 clips and two springs that help keep the ladder free.

ALL55093 3/8" Steel ALL55095 3/8" Titanium ALL55094* ... 1/2" Steel ALL55096* ... 1/2" Titanium Replacement Components

ALL55097 3/8" Clip **ALL55098** 1/2" Clip **ALL55099** Spring

*Used with Allstar Jacobs Ladders

Jacobs Ladder Installation Kit

ALL17012

Installation kit includes a titanium pin kit and strap mounting

hardware for quickly changing out a Jacobs Ladder. A 1/2" birdcage rod end pin for use with most popular Jacobs Ladders is also included.

Shock Protectors

Shock protectors add extra protection from rocks and debris to your shock body. 11" tall plastic protector simply snaps onto your shock body. May need to be cut to length. Sold each.

ALL64202 2" Standard Body Shocks ALL64203 1-5/8" Small Body Shocks

Shock Bump Rubbers

Conical shaped bump rubbers ton most shock shafts up to 16mm to limit shock travel. Bump rubbers are 2-3/8" tall and have a 2" O.D. base. A letter designation is molded in the bottom to identify compound.

ALL64500 Soft (40 grams) **ALL64501** Medium (50 grams) **ALL64502** Hard (55 grams)

Ride Height Blocks

Chassis set-up blocks are adjustable in 1/4" increments. A quick-release pin holds block at desired height. Bottom surfaces of blocks are contoured to





t steel tubing or any at surface and have magnets for holding block to chassis. Short blocks adjust 1.75"-4". Tall blocks adjust 3"-6". Package of 2.

ALL10720..... Short **ALL10721** Tall

Adapters Cups for Ride Height Blocks

ALL10722

Adapters replace the standard at pad on set up blocks and are machined to cradle axle tubes during chassis set-up. Package of 2.



Cradle Rollers for Ride Height Blocks

ALL10723

Built-in rollers allow live axle rearends to rotate while on the cradles or when using the rear axle to rotate the engine to check or adjust the valve train. Package of 2.





SB Chevy Power Steering Kits

Kits include all the major components of a power steering system: power steering pump tted with a lightweight aluminum pulley, power steering tank, tank mounting bracket, and choice of head or block mounted pump bracket.



ALL48240 Head Mount Kit ALL48242 Block Mount Kit

Notes: Additional pulley or bracket shimming may be required on some applications. Head mount bracket may need to be modi ed to clear some water

Power Steering Pump with Pulley

Steel Type II style power steering pump with 6" diameter pulley provides smooth, consistent steering. Pump is rated at 3 gallons per minute and produces up to 1300 PSI at a recommended pump RPM range of 1500-6500. Pump features a -6AN pressure tting and a -10AN return tting.



ALL48250 Pump with Pulley ALL48252*... Pump with Pulley for 1/2" Belt

Replacement Components

ALL99252 Pump only with AN Fittings (.665" Shaft)

ALL48251 Pulley For ALL48250

ALL48253 Pulley For ALL48252 ALL99286 Return Fitting -10AN with 3/4"-16 Thread

ALL99287 Return Fitting -10AN with 7/8"-32 Thread

ALL99288 Pressure Fitting -6AN

*Designed for use with 1/2" wide industrial grade belt used with ALL31094 and ALL31095 1:1 pulleys.

Power Steering Pump with **Pulley and Reservoir**

ALL48245

Aluminum Type II style power steering pump with 6" diameter pulley and integral uid reservoir provides smooth, consistent steering. Pump is rated at 3 gallons per minute and produces up to 1300 PSI at a recommended pump RPM range of 1500-6500. Pump features a -6AN pressure tting and a -6AN return tting.

Replacement Parts

ALL48246 Cap

ALL48247 Tank and Clips

ALL48251 Pulley for ALL48245

V-Belts

Premium quality V-belts are perfect replacements for worn or cracked belts.



SB Chevy Power Steering Pump Bracket Kits

Power steering bracket kit provides proper installation of the Type II style power steering pump to most SB Chevy applications with a short style water pump. Bracket kit also includes bracket-to-engine and pump-to-bracket mounting hardware. Head mount locates the

0000 pump to the driver's side cylinder head and the block mount locates the pump to the lower driver's side of the block.

ALL48500 Head Mount Kit ALL48502 Block Mount Kit

Notes: Additional pulley or bracket shimming may be required on some applications. Head mount bracket may need to be modi ed to clear some water

Replacement Components

ALL48505 Bracket-to-Head Bolt Kit ALL48507 Pump-to-Bracket Bolt Kit ALL48508 Adjuster T-Nut

Economy SB Chevy Power Steering Pump Bracket Kits

Power steering bracket kit provides proper installation of the Type II style power steering pump to most SB Chevy applications with a short style water pump. Bracket kit also includes bracketto-engine and pump-to-bracket mounting hardware. Head mount locates the pump to the driver's side cylinder head and the block mount locates the pump to the lower driver's side of the block.

ALL48501 Head Mount Kit ALL48503 Block Mount Kit

Replacement Components

ALL48505 Bracket-to-Head Bolt Kit

Notes: Additional pulley or bracket shimming may be required on some applications. Head mount bracket may need to be modi ed to clear some water

Pulley Shim Kits

Use shim kits to properly align pulleys. Water pump shims have dual bolt hole pattern to t most GM and Ford water pumps. Crank pulley spacers are for small block Chevys. Kits include three shims.

ALL31064 Water Pump Shims, 1/16", 1/16", 1/8"

ALL31066 Crankshaft Shims, 1/16", 5/64", 1/8"





ALL31066

ALI 48500

ALL48502

ALI 48501

ALI 48503



Firewall Mount Power Steering Tanks

Aluminum tank measures 8" tall by 3" wide with mounting tabs spaced 4-1/4" apart. Tank features an internal baf e between the -6AN return and the -10AN supply to help prevent cavitation and includes a twist-off fil er cap.



ALL36136..... LH Inlet **ALL36137.....** RH Inlet

Economy Power Steering Tank with Bracket ALL36130

Aluminum tank has no internal baf es and is 8" tall overall by 3" in diameter with a -6AN return tting on the side and a -10AN tting on the bottom. A mounting bracket for 1-3/4" round tubing is included.



ALL36122..... Round Tube Mounting Bracket

Power Steering Tank with Bracket

Aluminum tank is 8-1/2" tall overall by 3-1/2" in diameter with a -6AN return tting on the side and a -10AN tting on the bottom. A baf e in the return tting prevents foaming and cavitation. A steel bracket for mounting tank is included.



ALL36120..... Tank with 1-3/4" Round **Tubing Bracket**

ALL36132..... Tank with 2-1/4" x 3-1/2" Flat Mount Bracket

ALL36121 Tank and Cap Only ALL36124..... Replacement Cap Only

ALL36122..... Round Tube Mounting Bracket

ALL36125..... Flat Mounting Bracket

Power Steering Tank Brackets







ALL36132

ALI 36123

Brackets secure 3" or 3-1/2" diameter power steering tanks to round tubing, or at surfaces such as rewalls. Tanks fasten to brackets with hose clamps or band clamps (not included).

ALL36122..... Horizontal Mount (1-3/4" Tubing) **ALL36123*** ... Horizontal Mount (Alum. Angle) ALL36125..... Flat Mount

*Bracket may be clamped to round tubing or bolted to the rewall.

Power Steering Hose Kits

Kits include hose and ttings to properly install a remote reservoir style power steering pump to most cars. Steering box ttings are sold separately.



Front Mount Kits - O.E. Style Location with Pump Mounted to Front of Engine

ALL48204 Kit for Stock Type Gear Box (Modi ed, Street Stock) ALL48200 Kit for Rack and Pinion Steering

Rear Mount Kits - Pump Mounted to Bellhousing Mounted Dry Sump Pumps, Fuel Pumps, etc.

ALL48201 Kit for Rack and Pinion ALL48205 Kit for Steering Box

Power Steering Hose

The same quality hose included in Allstar's power steering hose kits available in a variety of lengths for building custom power steering lines or making repairs. Hose is suitable for most steering applications.

-6AN Power Steering Hose

ALL48270-3...... 3' Long ALL48270-6..... 6' Long ALL48270-10 10' Long ALL48270-15 15' Long ALL48270-20..... 20' Long





Power Steering Hose Ends

The same quality hose ends included in Allstar's power steering hose kits for building custom power steering lines or making repairs. Fittings are suitable for most steering applications.



ALL48271 Straight **ALL48272** 45° **ALL48273** 90°

-10AN Hose Ends (Aluminum)

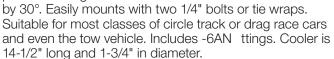
ALL48276 Straight **ALL48277** 45° **ALL48278** 90° ALL48279 120°



Al I 4827

In-Line Oil Cooler

Cool transmission or power steering uid



ALL52100 Clear **ALL52102....** Black



ALL52102



Power Steering Box Fittings

Allstar ttings convert most power steering boxes and racks to -6AN tting.











ALI 48212

ALL48210* ... -6AN Male to M16-1.50 Fitting with O-Ring **ALL48211**..... -6AN Male to M14-1.50 Fitting with O-Ring **ALL48212*** ... -6AN Male to M18-1.50 Fitting with O-Ring **ALL48214....** -6AN Male to 9/16"-18 Fitting with O-Ring

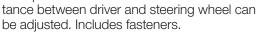
Non O-Ring Style Fittings

O-Ring Style Fittings

ALL48215..... -6AN Male to 5/8"-18 Fitting **ALL48217....** -6AN Male to 11/16"-18 Fitting

Steering Wheel Extensions

Aluminum steering wheel extensions t between steering wheel and quick disconnect so the dis-



ALL52310..... 1/2" ALL52312..... 1" ALL52314..... 1-1/2" ALL52316..... 2"



ALL52322

ALL10227

Molded pad ts at or dished 3-spoke steering wheels. Velcro straps are permanently secured to pad for quick installation.

Steering Wheel Pad ALL52320

Black vinyl-covered pad fastens to most three-spoke racing steering wheels with three hook/loop straps. 5-3/4" diameter foam pad is 2" thick.



Aluminum hook clamps to 1-3/4" roll cage tubing and provides an anchor for hanging your steering wheel when not in use.



Steering Wheel Disconnects

Disconnects allow easy installation and removal of three bolt style steering wheels, often used to ease the entering and exiting of vehicles. Quick-release aluminum steering wheel hub mates to a steel coupler, which is welded to a standard 3/4" steering shaft.



ALL52302 Hex Style (Pin Type)

ALL52318..... Spline Style (360° Flange)Economy

ALL52308 Spline Style (360° Flange) ALL52304 Spline Style (360° Flange) SFI

Replacement Components

ATTENTION: Do not mix components with other manufacturers' disconnects!









ALL52306

ALL52303 Hex Coupler for ALL52302

ALL52309 Spline Coupler for ALL52308 ALL52319..... Spline Coupler for ALL52318 ALL52305 Spline Coupler for ALL52304 (2" of Spline Area)

Loading Couplers

Loading coupler is a combination U-joint and a non-locking steering coupler that slips over

the splined end of the steering shaft for easier loading and unloading of cars in enclosed trailers through the use of a remote steering shaft. Coupler has a built-in U-joint that accepts 3/4" tubing.

ALL52306 19-Spline for Allstar/Sweet ALL52307 20-Spline for Woodward



ALL52305 19-Spline End for Allstar/Sweet Disconnect

^{*}These are the two most common ttings when O-rings are needed.



Steering Shaft Tubing

Seamless D.O.M. tubing is 3/4" O.D. with .120" wall thickness, making this an excellent choice when building a steering assembly to connect steering wheel to steering box or rack and pinion. ALL52132 oversized rod end is commonly used to support steering shaft. Consult sanctioning rules to verify proper installation when building a steering assembly.

ALL22190 5' Steering Shaft ALL22191 6' Steering Shaft

"Double D" Steering Shafts

Solid steel shaft has the appearance of two D's stacked back to back when viewed from the end or simply a 3/4" round shaft with ats on opposite sides. Often used with stock type couplers, this shaft can be used in assemblies without welding. Commonly connected to U-joints using a set screw, the shaft should be dimple drilled to help pilot set screws and help prevent the assembly from sliding apart. ALL52132 oversized rod end is commonly used to support steering shaft. Consult sanctioning rules to verify proper installation when building a steering assembly.

ALL52175.... 24" Shaft ALL52176.... 30" Shaft ALL52177.... 36" Shaft ALL52178.... 60" Shaft ALL52179.... 72" Shaft



Shaft Collars

Aluminum, 2-piece shaft collars are used on sway bars and steering column assemblies.

ALL52140..... 3/4" I.D. **ALL52145** 1-1/16" I.D. **ALL52142**..... 7/8" I.D. **ALL52146** 1-1/8" I.D. **ALL52148** 1-1/4" I.D.

Flange Bearing ALL52130

Self-aligning ange bearing has a .757" I.D. and installs in the rewall to accept the steering shaft. Includes locking collar. Bearing allows shaft to angle up to 40°.



Oversize Rod End Kit

ALL52132

Mounts to steering column bracket to hold steering shaft in place. Kit includes one rod end and two steel 3/4" RH jam nuts. Rod end is .757" I.D. (.007" oversized) to slide over a 3/4" O.D. shaft.



Steering Shaft Rod End Mounting Tab

ALL52133

Gusseted weld-on tab provides an excellent mounting point for the 3/4" oversized rod end (ALL52132) when building custom steering shaft assemblies. Tab is designed to cradle into round chassis tubing with built-in gussets, adding strength and reducing ex.



Collapsible Steering Shafts



Collapsible shaft is designed to be used in-line near the rack and pinion or steering box, allowing steering shaft compression. For proper installation, shaft should be extended when installed. The heavy-wall, 1.140" diameter tubular steel shaft has 3/4"-20 splines on both ends. The durable rubber boot keeps the sliding mechanism free of dirt and debris.

Note: This shaft is NOT designed for directly attaching a steering wheel disconnect.

ALL52170.......... Long Assembly 24-1/2", Collapses 7"
ALL52171.......... Short Assembly 13-1/2", Collapses 3"

Replacement Component

ALL52172..... Rubber Boot

Steering Column Brackets

Stamped-steel brackets weld to dash bars to create a mounting point for steering shaft when using a 3/4" oversized rod end.
Brackets are 3-1/8"

wide and available in a variety of lengths to t most applications. 4" and longer brackets are pre-notched for 1-1/2" dash bars but are easily modi ed to t other size bars.

ALL52120..... 2-1/2" Long **ALL52122**..... 4" Long **ALL52124**..... 8" Long **ALL52126**..... 10" Long

Clamp-On Steering Column Bracket

ALL52128

Aluminum bracket clamps to 1-3/4" tubing and is 7-1/2" center-to-center. Mounting bolts face the seat, so the driver can easily adjust the column up and down while sitting in the seat. An oversize rod end (sold separately, ALL52132) mounts horizontally through a 3/4" hole, allowing some left to right adjustment without moving the bracket or notching the interior panel.

Steering Quickener Bracket

ALL60028

Mounts all popular steering quickeners including AFCO, Coleman and Howe. Bracket has two holes spaced 1-3/4" apart, and may be welded to 1-1/2" or 1-3/4" diameter tubing.



Pitman Arms Replacement GM Pitman arms. ALL56354 ALL56355 4-7/8" ALL56356 ALL56356 ALL56357 ALL56356 ALL56357

A-Body (Chevelle)

ALL56354 '68-72, Use w/ 800 Series Power Box **ALL56355** '68-72, Use w/ Manual and 605 Small Power Box

G-Body Intermediate Metric (Monte Carlo)

ALL56357 '78-88, Use w/ 800 Series Power Box **ALL56356** '78-88. Use w/ Manual and 605 Small Power Box

Pitman Arm Nut Kit

ALL56358

Kit includes 7/8"-14 steel nut and lock washer.

Centerlinks



Centerlinks t GM applications. Mounting hardware included.

Allstar	Moog	Description	Year
		Buick Special, Skylark, Grand Sport	
ALL56310	DS749	Chevrolet Chevelle, El Camino, Monte Carlo	'68-72
		Oldsmobile Cutlass, Hurst, 442	
		Buick Century, Regal	
ALL56311	DS808	Chevrolet Chevelle, El Camino	'73-77
		Oldsmobile Cutlass, Hurst, 442	
		Buick Century, Regal, GN, GNX	'78-81
ALL56312	DS909	Chevrolet Malibu, El Camino, Monte Carlo	'78-88
ALL50312	D3909	Pontiac Bonneville	'82-86
		Pontiac Grand Prix	'78-87
		Cadillac Fleetwood, Brougham, Deville	'77-84
		Chevrolet Caprice, Impala, Impala SS	'77-96
ALL56313	DS899	Oldsmobile Delta 88	'77-85
		Pontiac Bonneville, Catalina	'77-81
		Pontiac Parisienne	'83-86
ALL56314	DS829	Chevrolet Camaro (1970-73 with Power Steering, All 1974-79, 1980-81 V8)	'70-81
		Pontiac Firebird And Trans Am (V8)	'80-81
ALL56316*	DS1049	Chevrolet Camaro	'82-92

 $^{^{\}star}\text{Commonly}$ used on INT GM metric chassis to correct bump steer

Adjustable Centerlinks



Centerlinks add strength and adjustability. Correct bump steer with specially designed inserts (available separately or in kits). Insert kits include one each of four different offsets. Lower center design adds engine oil pan clearance. OEM frame cross member must be modi ed.

ALL56330 Centerlink, Metric GM '78-88 ALL56331 Centerlink, Camaro '70-81

Note: some applications may require early style (shorter) Pitman arms.

Replacement Components

ALL99084 Stud for ALL56330 Pitman End (Long)
ALL99085 Stud for ALL56330 Idler End (Short)
ALL99086 Stud for ALL56331 Pitman End (Long)
ALL99087 Stud for ALL56331 Idler End (Short)
ALL99088 Centerlink Shims, 12-Pack (6 each .030"/.060")

Inserts For Adjustable Centerlinks

Adjustable centerlink inserts have tapered or straight-through designs. Tapered inserts have a 1-1/2" per foot taper and are com-

9999

monly used with stock type inner tie rods, while straight-through design are for use with a 5/8" bolt and rod end.

Description	Tapered Inserts	Straight-Through Inserts
Insert Kit (Centered, 1/8", 1/4", and 3/8")	ALL56334	ALL57334
Centered	ALL56335	ALL57335
1/8" Offset	ALL56336	ALL57336
1/4" Offset	ALL56337	ALL57337
3/8" Offset	ALL56338	ALL57338

Idler Arms

OE replacement parts.

		Application	
ALL56344	K5143	'68-72 Chevelle, '70-72 Monte Carlo	
ALL56345	K6187	1978-88 Monte Carlo	
ALL56347	K6186	1970-81 Camaro, 1975-79 Nova	

GM Metric Adjustable Idler Arm ALL56341

Adjustable arm for 1978-88 GM Metric G-body cars features a threaded assembly which aids in correcting bump steer problems by lowering the arm up to 3/4" compared to OE style arm. Arm is constructed of forged steel components

so there are no plastic parts or springs to wear out like OEM style arms. Not legal in all sanction bodies.





Tie Rod Ends

OE replacement parts.



Allstar	Moog	Description	Size (Thread and Length)	Application
ALL55900	ES323R	Inner Tie Rod	5/8"-18 RH Thread x 4" Long	1963-82 Corvette, 1963-64 GMC Truck
ALL55901	ES323L	Inner Tie Rod	5/8"-18 LH Thread x 4" Long	1963-82 Corvette, 1963-64 GMC Truck
ALL55902	ES370R	Inner Tie Rod	5/8"-18 RH Thread x 7-1/4" Long	1965-68 Impala, 1965-70 Chevrolet P/U
ALL55903	ES2034RLT	Inner Tie Rod	5/8"-18 LH Thread x 8-1/2" Long	1978-88 Monte Carlo (G-Body)
ALL55920	ES2033RLT	Outer Tie Rod	5/8"-18 RH Thread x 8-1/2" Long	1978-88 Monte Carlo (G-Body)
ALL55921	ES333RL	Outer Tie Rod	5/8"-18 RH Thread x 8-1/2" Long	1964-70 Chevelle
ALL55904	ES681N	Inner Tie Rod	5/8"-18 LH Thread x 9" Long	1968-70 Chevelle/Malibu
ALL55910	ES2020RLT	Inner Tie Rod	11/16"-18 LH Thread x 9" Long	1973-77 Chevelle, 1977-96 Impala
ALL55911	ES442L	Inner Tie Rod	11/16"-18 LH Thread x 9" Long	1975-81 Camaro, Left
ALL55912	ES443L	Inner Tie Rod	11/16"-18 LH Thread x 9" Long	1975-81 Camaro, Right
ALL55922	ES2019RLT	Outer Tie Rod	11/16"-18 RH Thread x 9" Long	1977-96 Impala

Steel Tie Rod Tubes

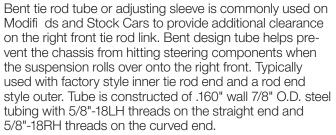
Steel tubes are built from 7/8" O.D., .083" wall D.O.M tubing

and swaged to accept 5/8" rod ends or O.E. style tie rod ends with 5/8-18 threads. Tubes are threaded LH on one end and RH on the other end for easy adjustments.

ALL57160 8"	ALL57172 14"
ALL57162 9"	ALL57173 14-1/2'
ALL57164 10"	ALL57174 15"
ALL57166 11"	ALL57175 15-1/2'
ALL57167 11-1/2"	ALL57176 16"
ALL57168 12"	ALL57178 17"
ALL57169 12-1/2"	ALL57180 18"
ALL57170 13"	ALL57182 19"
ALL57171 13-1/2"	ALL57184 20"

See Pages 194-195 for Additional Steering/Suspension Tubes.

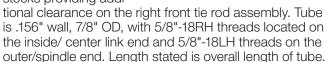
5/8" Bent Steel Tie Rod Tubes



ALL57008 10"	ALL57018 15"
ALL57010 11"	ALL57019 15-1/2"
ALL57012 12"	ALL57020 16"
ALL57013 12-1/2"	ALL57021 16-1/2"
ALL57014 13"	ALL57022 17"
ALL57015 13-1/2"	ALL57024 18"
ALL57016 14"	ALL57026 19"
ALL57017 14-1/2'	ALL57028 20"

Dropped Steel Tie Rod Tubes

Dropped steel
tie rod tubes
are popular on
modifi ds and street
stocks providing addi-



ALL57040-10	. 10"	
ALL57040-11	. 11"	
ALL57040-15	. 15"	
ALL57040-16	. 16"	
ALL57040-17	. 17"	NEW

Steel Tie Rod Tubes, with 5/8" RH and 11/16" LH

Swaged D.O.M. steel tube has a 1" O.D. and is commonly used with an O.E. style 11/16"-18 LH inner tie rod end and a 5/8" RH rod end.

ALL57302 9" **ALL57304** 10" **ALL57306** 11"

Tie Rod Adjusting Sleeves

O.E. style replacement sleeves fi many applications and have LH and RH threads for easily adjusting the toe setting.



Allstar	Moog	Size (Thread and Length)
ALL55930	ES2032S	5/8"-18 x 4-1/2" Long
ALL55931	ES2004S	11/16"-18 x 4-3/4" Long

Steering Rack Boot Cover

ALL52345

Neoprene cover ts most steering racks and helps protect against rocks and debris. Hookand-loop closure makes installation and removal simple.





Taper Reamers

Repair or enlarge tapered holes to accept tie rod ends or ball joints. Reamer may be used in a drill with a 1/2" chuck by removing the T-handle.

ALL11170....... 1-1/2" Per Ft. 7.15° **ALL11172**....... 2" Per Ft. 9.56°



Taper Reamer Speci cations for Ball Joints

Ball Joint	Taper Specs	Ball Joint	Taper Specs
ALL56204	1-1/2" Per Ft.	ALL56217	1-1/2" Per Ft.
ALL56206	2" Per Ft.	ALL56218	2" Per Ft.
ALL56208	2" Per Ft.	ALL56220	2" Per Ft.
ALL56210	1-1/2" Per Ft.	ALL56280	1-1/2" Per Ft.
ALL56212	2" Per Ft.	ALL56284	1-1/2" Per Ft.
ALL56214	1-1/2" Per Ft.	ALL56286	1-1/2" Per Ft.
ALL56216	1-1/2" Per Ft.	_	_

Inner Tie Rod Stud ALL56278

Stud replaces the stock inner tie rod end, allowing a 5/8" rod end to be used on both ends of the steering link. Inner tie rod stud and rod end combination also provides additional steering clearance compared to O.E. style inner tie rod and crossmember.



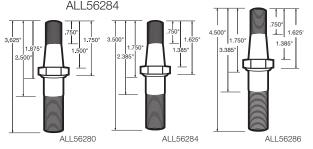
Bump Steer Studs

Studs replace the OE style outer tie rod end when converting to a 5/8" spherical rod end with a suspension/steering tube and features a 1-1/2" per foot taper to work with most popular spindles or rack eye. Kits include a stud, self-locking nuts, one .100"spacerm and three

.300" spacers to simplify setting bump steer; the $\,^{\rm ALL56280}$ ALL56286 also includes a .500" spacer.

ALL56280 Bump Steer Kit, Rack Eye Taper ALL56284 Bump Steer Kit Mustang II

ALL56286 Bump Steer Kit 1" Longer Shank Than



Set-Up Plates

Set-up plates are used for squaring and stringing chassis to ensure



accurate chassis set-up by eliminating wheel and tire differences. Plates are 1/2" thick and can also be used when setting bump steer or checking axle tubes for straightness. Sold each.

ALL10660..... 5x5, 7" x 28" **ALL10662**..... Wide 5, 12" x 28"

Bump Steer Kit ALL18600

Kit includes a 5/8"-18 x 3" bolt and 4 spacers (.100", .200", .300", and .500").



Bump Steer Spacer Kit ALL18601

Steel spacers have a 5/8" I.D. and are commonly used to space a steering rod end when correcting bump steer.

Kit includes 7 spacers, one of pack size: 030", 060", 100"

each size: .030", .060", .100", .200", .300", .400", and .500".



Bump Steer Spacers

Steel spacers have a 5/8" I.D. and are commonly used to space a steering rod end when correcting bump steer.

Size	2-Pack	10-Pack
.030"	ALL18602	ALL18602-10
.060"	ALL18603	ALL18603-10
.100"	ALL18604	ALL18604-10
.200"	ALL18605	ALL18605-10
.300"	ALL18606	ALL18606-10
.400"	ALL18607	ALL18607-10
500"	ALI 18608	ALI 18608-10



Tie Rod Spacer ALL56288

Spacer corrects bump steer on vehicles that use a rod end as an outer tie rod end. Spacer is used between the spindle arm and the rod end. Steel spacer is 2" tall and has a 5/8" hole.



Rack and Pinion Spacers

Place aluminum spacers between chassis and rack assembly to help achieve proper front end geometry.





Toe Plates

Aluminum plates simplify setting of toe-in and toe-out. Plates t against outside edges of tires. Using two tape measures (sold separately), measure the distance between plates front and rear. The difference in tape readings is the toe setting. Deluxe plates have radiused edges, slots for narrow and wide tape measures



and are 9" tall x 23" wide to work with vehicles with smaller wheel openings. Standard plates are 1/2" thick, 11" tall x 32" wide and work well for vehicles with larger wheels and wheel openings. Set of two plates.

ALL10117 Standard ALL10119 Deluxe



Mustang II Spindles

Mustang II/Pinto spindles are direct replacements for stock O.E. spindles featuring the stock 10° pin inclination and upper and lower ball joint tapers. Spindles accept Granada or Hybrid style rotors with corresponding caliper brackets, calipers and brake pads. IMCA-approved spindles features the of cial IMCA stamp of approval cast into the spindle.

Stock Height Spindles

ALL56307 Spindles, Pair ALL56308 Spindle LH ALL56309 Spindle RH

ALL56303 Spindle LH IMCA Approved ALL56304 Spindle RH IMCA Approved

2" Dropped Spindles

ALL56305 Spindles, Pair

Related Components

ALL42110 LH Caliper Bracket for Granada Rotor ALL42111 RH Caliper Bracket for Granada Rotor ALL42118 LH Caliper Bracket for Hybrid Rotor ALL42119 RH Caliper Bracket for Hybrid Rotor

ALL42084 LH GM Metric Caliper ALL42083 RH GM Metric Caliper

ALL72308 Granada Master Bearing and Seal Kit ALL72309 Hybrid Master Bearing and Seal Kit

Mustang II Spindles with **Reamed Lower Ball Joint Hole**

Mustang II/Pinto spindles are stock appearing and available with 10° (OE) or 8° pin inclination and 1-1/2" or 2" per foot lower ball joint taper. Spindles accept Granada or Hybrid style rotors with corresponding caliper brackets, calipers and brake pads. Spindle arms have been reamed to a straight hole to accept a 5/8" bolt and rod end.

10° (OE) Pin Inclination

Part No.		Lower B/J Taper	Lower B/J Major Dia.	Common Lower B/J	B/J
ALL55996	LH	1-1/2"	.830"	ALL56216 (K727)	Screw-In
ALL55997	RH	1-1/2"	.830"	ALL56216 (K727)	Screw-In
ALL55998	LH	2"	.830"	ALL56212 (K6117)	Press-In
ALL55999	RH	2"	.830"	ALL56212 (K6117)	Press-In

8° Pin Inclination

Part No.		Lower B/J Taper	Lower B/J Major Dia.	Common Lower B/J	B/J
ALL55990*	LH	1-1/2"	.710"	-	-
ALL55991*	RH	1-1/2"	.710"	-	-
ALL55994	LH	1-1/2"	.830"	ALL56216 (K727)	Screw-In
ALL55995	RH	1-1/2"	.830"	ALL56216 (K727)	Screw-In
ALL55992	LH	2"	.830"	ALL56212 (K6117)	Press-In
ALL55993	RH	2"	.830"	ALL56212 (K6117)	Press-In

^{*}This spindle features a steering arm with an OE style taper.

Related Components

ALL42110 LH Caliper Bracket for Granada Rotor ALL42111 RH Caliper Bracket for Granada Rotor ALL42118 LH Caliper Bracket for Hybrid Rotor ALL42119 RH Caliper Bracket for Hybrid Rotor

ALL42084 LH GM Metric Caliper ALL42083 RH GM Metric Caliper

ALL72308 Granada Master Bearing and Seal Kit ALL72309 Hybrid Master Bearing and Seal Kit

Mustang II 3-Piece Spindles

Modular design 3-piece Mustang II style spindle features a separate spindle body with bolt-on caliper bracket and steering arm for easy and affordable repairs. Spindle uses a GM metric brake rotor, bear-



ings and brake caliper while combining the features of a typical Mustang II spindle including an 8° pin inclination and a short steering arm with a straight hole for using a 5/8" rod end. Spindle accepts popular ALL56204 (K6024) bolt-in or ALL56214 (K772) screw-in style upper ball joint and a stock 1979-88 G-body lower ball joint. IMCA approved for IMCA modifi ds and sport mod divisions.

ALL55970 LH, 3-Piece Spindle Kit ALL55971 RH, 3-Piece Spindle Kit

Individual Components

ALL55974..... Spindle Body ALL55972 LH Steering Arm ALL55973 RH Steering Arm ALL55981 LH Brake Bracket ALL55982 RH Brake Bracket





ALL55981 ALL55983

Related Components

ALL42083 GM Metric Caliper, RH

ALL42084 GM Metric Caliper, LH 1979-81

ALL42086 Rotor with 5/8"-11 Wheel Studs, 5 on 5" B.C.

ALL72305+... Bearing and Seal Kit 1982-88

ALL42087 Rotor with M12-1.50 Wheel Studs, 5 on 4-3/4" B.C.

ALL42088 Rotor with 5/8"-11 Wheel Studs, 5 On 5" B.C.

ALL72306‡... Bearing and Seal Kit 1979-81

†Bearing for Race or Cup with a 1.97" O.D. ‡Bearing for Race or Cup with a 1.78" O.D.

AMC Pacer Spindles

The Pacer spindle is a modular design which allows the spindle to interchange from left to right by ipping the steering arm. Spindle features a 7° pin inclination with a 1-1/2" per foot upper ball joint taper.

Spindle also uses the same spindle pin as the Mustang II/Pinto which accepts Hybrid style 10-1/8" rotors. Caliper bracket for GM metric caliper/Hybrid 10-1/8" rotor is sold separately. Steering arm has been reamed to a straight hole to accept a 5/8" bolt and rod end.

ALL55960 Spindle w/ 1-1/2" (.750" Maj. Dia.) Lower B/J Taper ALL55961 Spindle w/ 2" (.830" Maj. Dia.) Lower B/J Taper

Individual Components

ALL55963 Bolt Kit ALL55964 Steering Arm ALL55965 Spindle Pin

ALL55966 Spindle Body 1-1/2" B/J ALL55967 Spindle Body 2" B/J

Related Components

ALL55962 Caliper Bracket Kit (1 side) ALL42084 LH GM Metric Caliper ALL42083 RH GM Metric Caliper

ALL72309 Hybrid Master Bearing and Seal Kit



Master Wheel Bearing and Seal Kits

Kits contain all components to install one brake rotor/hub assembly including hub seal, inner bearing, outer bearing, locknut kit, and dust cap.



ALI 72305

ALL72305[†] ... GM Intermediate Metric, 1979-81 ALL72306[‡] ... GM Intermediate Metric, 1982-88 ALL72308 Ford Granada, Mustang II ALL72309 Mustang II

†Bearing for Race or Cup with a 1.97" O.D. ‡Bearing for Race or Cup with a 1.78" O.D.

Metric Spindles

Replacement spindles for 1979-88 GM cars. Sold each.

ALL56318..... LH ALL56319..... RH

Related Components

ALL42084 LH GM Metric Caliper ALL42083 RH GM Metric Caliper ALL72305[†] ... Master Bearing Kit, 1979-81 ALL72306[‡] ... Master Bearing Kit, 1982-88

†Bearing for Race or Cup with a 1.97" O.D. ‡Bearing for Race or Cup with a 1.78" O.D.

Brake Rotor 1979-81

Outer bearing race has a 1.97" O.D.

ALL42086 Rotor with 5/8"-11 Wheel Studs, 5 on 5" B.C.

Brake Rotors 1982-88

Outer bearing race has a 1.78" O.D.

ALL42087 Rotor with M12-1.50 Studs, 5 on 4-3/4" B.C. **ALL42088** Rotor with 5/8"-11 Wheel Studs, 5 on 5" B.C.

Metric Spindle Savers

ALL42130

Stamped steel spindle savers strengthen GM Metric spindles, reinforcing the steering arm por-

tion of the spindle and making them suitable for wheelto-wheel racing. IMCA legal and easily installed, spindle savers are retained by the lower ball joint and tie rod end retaining nuts. Sold in pairs.

Individual Component ALL42135..... Left Only

ALL42135..... Left Only **ALL42136**..... Right Only

Spindle Slug Tool ALL11182

Tool easily removes spindle slugs that are pressed into fabricated spindles with a standard wrench or socket.



GM Metric 3-Piece Spindles

Three-piece GM metric G-Body spindle is a forged and heat-treated direct replacement for a factory spindle with the added bene t of a stronger, replaceable steering arm and brake caliper bracket.

Complete spindle includes a spindle body, bolt-on steering

arm, bolt-on brake bracket, and a hardware kit. Spindle accepts stock 1979-88 G-body upper and lower ball joints, tie rod end, rotor, caliper, and bearing kit. IMCA approved. Replacement components are also available for quick, easy and affordable repairs.

ALI 55976

ALL55976 LH, 3-Piece Spindle Kit ALL55977 RH, 3-Piece Spindle Kit.



Individual Components

ALL55980 Spindle Body ALL55978 LH Steering Arm ALL55979 RH Steering Arm ALL55981 LH Brake Bracket ALL55982 RH Brake Bracket ALL55983 Hardware Kit

Related Components

ALL42083 GM Metric Caliper, RH

ALL42084 GM Metric Caliper, LH 1979-81

ALL42086 Rotor with 5/8-11 Wheel Studs, 5 on 5" B.C.

ALL72305†... Bearing and Seal Kit 1982-88

ALL42087 Rotor with M12-1.50 Wheel Studs, 5 on 4-3/4" B.C.

ALL42088 Rotor with 5/8-11 Wheel Studs, 5 on 5" B.C. **ALL72306**‡... Bearing and Seal Kit 1979-81

†Bearing for Race or Cup with a 1.97" O.D. ‡Bearing for Race or Cup with a 1.78" O.D.

Impala Spindles

Direct replacement OE spindle for the #2 1977-96 Impalas, which is a popular choice on asphalt sportsman and modifi ds requiring more brake. Spindle accepts the larger 11-7/8" x .970 rotor with the 5x5 bolt pattern and large GM brake calipers. Spindle also features a 12° pin inclination and 2" per foot taper

upper (K5208) and lower (K6145 or 10277) ball joints.

ALL55988 LH ALL55989 RH

Related Components

ALL42081 Brake Caliper Big GM RH **ALL42082** Brake Caliper Big GM LH





Upper Ball Joints

Screw-In

ALL56214 (K772)

Most popular upper ball joint used. Originally used in Dodge, Chrysler, and Plymouth cars. Fits Allstar ball joint holders and Lefthander chassis style upper control arm or where a screw-in type ball joint is required. (Replaces Moog K772 or AFCO 20034.) 1-1/2" taper per foot.

Note: Actual product may appear different than product pictured.

Bolt-In

ALL56204 (K6024)

Fits UB Machine style upper control arm where a bolt-in style ball joint is required. (Replaces Moog K6024, TRW 10185, or AFCO 20031.) Outer mounting bolt holes are 2.82" CTC. 1-1/2" taper per foot.

Note: Actual product may appear different than product pictured.

ALL56208 (K6136)

Bolt-in type joint fi s Impala spindle.
Can be used to raise roll center on street stock and modi ed cars. Fits Impala, Camaro, and Chevelle spindles. (Replaces Moog K6136, TRW 10269, or AFCO 20032-1). Outer mounting bolt holes are 2.82" CTC. 2" taper per foot.

Note: Actual product may appear different than product pictured.

ALL56220 (K5208)

Fits full-size 1971-94 Impala spindles. Also ts 1971-81 Camaro and 1973-88 Chevelle/Monte Carlo. Replaces Moog K5208, TRW 10268, or AFCO 20032. Outer mounting bolt holes are 2-1/2" CTC. 2" taper per foot.

Note: Actual product may appear different than product pictured.

Steel Upper Ball Joint Wrench

ALL11190

Easily remove and install small body (ALL56214) Chrysler ball joints.

Ball Joint Spreader Tool ALL11174

Tool separates ball joint from the spindle. Inside of cylinder is shaped to t over tapered stud of most ball joints and presses against stud of other ball joint. Not for use on FWD or 4WD applications. Tool is 4" tall fully collapsed and 6" tall fully extended.

Related Component

ALL11175..... 1" Extensions (Set of 2)

Lower Ball Joints

Screw-In

ALL56216 (K727)

Fits Lefthander chassis style lower control arm or where a large screw-in type ball joint is required. (Replaces - Moog K727 or AFCO 20036). 1-1/2" taper per foot.



ALL56217 (K719)

Compatible with stock lower control arms modi ed with UB Machine UBM40-3303 or Allstar ALL56250 weld-in threaded sleeve. (Replaces - Moog K719). 1-1/2" taper per foot.

Note: Actual product may appear different than product pictured.

Press-In

ALL56206 (K6141)

Ball joint ts most tubular lower CT control arms and 1971-76 Impala. Taper ts most fabricated and Impala spindles. Base O.D. is 2.190". Replaces AFCO 20038. 2" taper per foot.

ALL56210 (K5103)

Weld-in lower joint to 1964-72 Chevelle and 1967-69 Camaro, control arms and spindle. Base O.D. is 2.015" (replaces Moog K5103, TRW 10197, or AFCO 20033). 1-1/2" taper per foot.

Note: Actual product may appear different than product pictured.

ALL56212 (K6117)

Weld-in joint ts Impala spindle. Can be used to raise the roll center on street stock or modi ed cars. Base O.D. is 1.975". (Replaces Moog K6117, TRW 10264, or AFCO 20038-1). 2" taper per foot.

Note: Actual product may appear different than product pictured.

ALL56218 (K6145) (10277)

Fits popular full-size 1977-96 Impala spindles. Also ts 1971-81 Camaro and 1973-88 Chevelle/G-Body. Base O.D. is 2.090" (replaces - Moog K6145, TRW 10277, or AFCO 20039). 2" taper per foot.

Note: Actual product may appear different than product pictured.















ALI 11175



Non-Take-Apart Low-Friction Ball Joints

Low-friction, economical OEM ball joints are high-performance units designed for smooth suspension travel. Some ball joints are available with longer-than-stock pin length for correcting roll centers. Ball joints have hardened pins with stock type housings and are not rebuildable. Legal for classes that require non-take apart ball joints as these are non-serviceable. For off-road use only.



Upper Ball Joints

							Take-Apart
Part No.	Style	Size	Pin Length	Taper	Reference	Repl. Pin Only	Style
ALL56010	Screw-In	Small	Standard	1-1/2"	K772	-	ALL56810
ALL56011	Screw-In	Small	1/2" Longer	1-1/2"	K772	-	ALL56811
ALL56012	Screw-In	Small	1" Longer	1-1/2"	K772	-	ALL56812
ALL56008	Screw-In	Small	1-1/2" Longer	1-1/2"	K772	-	-
ALL56009	Screw-In	Small	2" Longer	1-1/2"	K772	-	-
ALL56014	Bolt-In	Large	Standard	1-1/2"	K6024	-	-
ALL56015	Bolt-In	Large	3/8" Longer	2"	K6136	-	-
ALL56018	Bolt-In	Small	Standard	2" K5208 -		-	
ALL56019	Bolt-In	Small	1/2" Longer	1/2" Longer 2" K5208 -		-	
ALL56020	Bolt-In	Small	1" Longer	2"	K5208	-	-

Lower Ball Joints

						Repl. Pin	1
Part No.	Style	Size	Pin Length	Taper	Reference	Only	Take-Apart Style
ALL56030	Screw-In	Large	Standard	1-1/2"	K727	-	ALL56815
ALL56031	Screw-In	Large	1/2" Longer	1-1/2"	K727	-	ALL56816
ALL56034	Screw-In	Large	Standard	2"	K727 w/ K6141 Pin	-	ALL56820
ALL56035	Screw-In	Large	1/2" Longer	2"	K727 w/ K6141 Pin	-	ALL56821
ALL56049†	Screw-In	Small	Standard	2"	K772 w/ K6141 Pin	-	ALL56825†
ALL56050†	Screw-In	Small	1/2" Longer	2"	K772 w/ K6141 Pin	-	ALL56826†
ALL56051†	Screw-In	Small	1" Longer	2"	K772 w/ K6141 Pin	-	ALL56827†
ALL56042	Press-In	Chevelle	Standard	1-1/2"	K5103	-	-
ALL56027	Press-In	Chevelle	Standard	2"	K5103 w/ K6141 Pin	-	ALL56830
ALL56028	Press-In	Chevelle	1/2" Longer	2"	K5103 w/ K6141 Pin	-	ALL56831
ALL56029	Press-In	Chevelle	1" Longer	2"	K5103 w/ K6141 Pin	-	ALL56832
ALL56044	Press-In	-	Standard	2"	K6117	-	-
ALL56046	Press-In	-	Standard	2"	K6145	-	-
ALL56047	Press-In	-	1/2" Longer	2"	K6145	-	-
ALL56048	Press-In	-	1" Longer	2"	K6145	-	-

†Commonly used with ALL56256 ball joint adapter sleeve.





Frb Kyle Brown



Take-Apart Low-Friction Ball Joints

Low-friction serviceable ball joints are the same great quality you have come to expect from our original low friction ball joints with the ability to exchange pins to adjust roll center or make repairs. For off-road use only.

Ball Joint Reference Guide

Reference			
Part #	Description	Application	Pin Taper Per Foot
K772	Small Upper Screw-In	Dodge, Chrysler, Plymouth	1-1/2" (.730"600")
K727	Large Lower Screw-In	Dodge, Chrysler, Plymouth	1-1/2" (.880"755")
K5103	Press-In Lower	1964-72 Chevelle, 1967-69 Camaro	1-1/2" (.775"670")
K6141	Press-In Lower	1971-76 Impala	2" (.825"675")
K6145	Press-In Lower	1973-88 Chevelle, GM Metric/G Body 1970-81 Camaro, 1977-96 Impala	2" (.775"625")



Upper Ball Joints

Part No.	Style	Size	Pin Length	Pin TPF	Reference	Repl. Pin Only	Non-Take-Apart Style
ALL56810	Screw-In	Small	Std	1-1/2"	K772	ALL56915	ALL56010
ALL56811	Screw-In	Small	+1/2"	1-1/2"	K772	ALL56920	ALL56011
ALL56812	Screw-In	Small	+1"	1-1/2"	K772	ALL56925	ALL56012

Lower Ball Joints

Part No.	Style	Size	Pin Length	Pin TPF	Reference	Repl. Pin Only	Non-Take-Apart Style
ALL56815	Screw-In	Large	Std	1-1/2"	K727	ALL56935	ALL56030
ALL56816	Screw-In	Large	+1/2"	1-1/2"	K727	ALL56940	ALL56031
ALL56820	Screw-In	Large	Std	2"	K727 w/ K6141 Pin	ALL56955	ALL56034
ALL56821	Screw-In	Large	+1/2"	2"	K727 w/ K6141 Pin	ALL56960	ALL56035
ALL56822	Screw-In	Large	+1"	2"	K727 w/ K6141 Pin	ALL56965	_
ALL56825†	Screw-In	Small	Std	2"	K772 w/ K6141 Pin	ALL56955	ALL56049†
ALL56826†	Screw-In	Small	+1/2"	2"	K772 w/ K6141 Pin	ALL56960	ALL56050†
ALL56827†	Screw-In	Small	+1"	2"	K772 w/ K6141 Pin	ALL56965	ALL56051†
ALL56830	Press-In	Chevelle	Std	2"	K5103 w/ K6141 Pin	ALL56955	ALL56027
ALL56831	Press-In	Chevelle	+1/2"	2"	K5103 w/ K6141 Pin	ALL56960	ALL56028
ALL56832	Press-In	Chevelle	+1"	2"	K5103 w/ K6141 Pin	ALL56865	ALL56029

[†]Commonly used with ALL56256 ball joint adapter sleeve.

Build Your Own Ball Joints

Step #1-Select Ball Joint Housing – Includes housing, housing cap and lock screws

Part #	Description
ALL56900	K772 Housing (Small Screw-In Upper)
ALL56904	K727 Housing (Large Screw-In Lower)
ALL56905	K5103 Housing (Press-In Lower 1964-72 Chevelle)
ALL56906	K6145 Housing (Press-In Lower GM Metric/G-Body)



	K772 Pin	K727 Pin	K6141 PIN	K6145 PIN
	1-1/2" TPF	1-1/2" TPF	2" TPF	2" TPF
Pin Length	Part #	Part #	Part #	Part #
500"	ALL56910	_	_	_
Standard	ALL56915	ALL56935	ALL56955	ALL56975
+.100"	ALL56916	ALL56936	ALL56956	_
+.200"	ALL56917	ALL56937	ALL56957	_
+.300"	ALL56918	ALL56938	ALL56958	_
+.400"	ALL56919	ALL56939	ALL56959	_
+.500"	ALL56920	ALL56940	ALL56960	ALL56980
+1"	ALL56925	_	ALL56965	ALL56985
+1-1/2"	ALL56926	_	_	_
+2"	ALL56927	_	_	_







Straight Pin Take-Apart Low-Friction Ball Joints

Low-friction straight pin ball joints are designed to fi spindles with straight-through 3/4" mounting holes. Straight pin design allows height adjustment by relocating the shim stack for more accurate and precise changes versus changing out entire pin. For off-road use only.



Note: Machining of most standard spindles from tapered to straight through mounting holes is required for use with this style ball joint.

Part No.	Style	Size	Housing Ref.	Adj Range
ALL56871	Screw-In	Small	K772	Std to 1" Pin
ALL56872	Screw-In	Small	K772	1" to 2" Pin
ALL56875	Screw-In	Large	K727	Std to 1" Pin
ALL56876	Screw-In	Large	K727	1" to 2" Pin
ALL56878	Press-In	Chevelle	K5103	Std to 1" Pin
ALL56879	Press-In	Chevelle	K5103	1" to 2" Pin

Adjustable Upper Ball Joints



With mono-ball joints, upper control arm angles can be adjusted. Joints include plate, ball, tapered shaft, adjuster bushings, and nut.

ALL56260 LH Large GM

(ALL56204 /K6024 Style)

ALL56261 RH Large GM

(ALL56204 /K6024 Style)

ALL56264 LH Mid-Size GM

(ALL56220 /K5208 Style)

ALL56265 RH Mid-Size GM

(ALL56220 /K5208 Style)

ALL56267 Small Adjustable Screw-In

(ALL56214 /K772 Style)

Adjustable Lower Ball Joints

Replace standard ball joint with an adjustable mono-ball style lower ball joint. Includes adapter sleeve, ball, adjuster bushings, stud, and nut.

ALL56270 Screw-In Chrysler Stud

(Common Dirt, ALL56216 Style)

ALL56276 Screw-In GM Impala Stud (Common Asphalt)

ALL56216 Style with ALL56206 Pin

ALL56272 Press-In Large GM Impala Stud

(Common Asphalt, ALL56206 Style)

ALL56274 Press-In Mid-Size GM Stud (ALL56218 Style)

Ball Joint Sleeves

Steel sleeves allow custom fabrication of control arms.

ALL56250 Small Screw-In ALL56214/ALL56217 (K772/K719)

ALL56251 Large Screw-In ALL56216 (K727) **ALL56252** Large Press-In ALL56206 (K6141) **ALL56253** Med. Press-In ALL56212 (K6117)



ALI 56250

Ball Joint Adapter Sleeve

ALL56256

Adapter sleeve is ideal for modifying stock style Chevelle lower control arms to accept a screw-in style ball joint. Adapter sleeve has an O.D. of 2.010" to take the place of a press-in style ball joint (ALL56210/ K5103), allowing for installation of a screw in style ALL56214 with a 1-1/2" taper/ft. pin or ALL56049 with a 2" taper/ft. pin ball joint.

Note: Modi cations to control arms may be necessary for proper t of sleeve. Sleeve must be welded to the control arm after installation.

Adapter Bushing ALL56225

Convert a 2" taper per foot hole to accept a ball joint with a 1-1/2" taper per foot. For lower ball joints only.



ALL11172

ALL11170

Taper Reamers

Repair or enlarge tapered holes to accept tie rod ends or ball joints. Reamers may be used in a drill with a 1/2" chuck by removing the



Taper Reamer Speci cations for Ball Joints

Taper Per Ft.	Reference Part No.
1-1/2"	K6024
2"	K6141
2"	K6136
1-1/2"	K5103
2"	K6117
1-1/2"	K772
1-1/2"	K727
1-1/2"	K719
2"	K6145
2"	K5208



Upper Control Arms

Powder-coated, bushing style A-arms are available with steel or aluminum cross shaft and a straight or 10° ball joint position. Shaft bolt holes are 1/2" diameter, spaced 6" on center. Tig-welded .095"

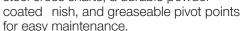


D.O.M. tube construction. Bolt-in style arms accept ALL56204 or Moog K6024 ball joints. Screw-in style arms accept ALL56214 or Moog K772 ball joints.

Cina	Bolt-In	Bolt-In	Screw-In 10°	Screw-In 10°
Size	Alum. Shaft	Steel Shaft	Alum. Shaft	Steel Shaft
7"	-	-	ALL57940	_
7-1/4"	-	-	ALL57941	-
7-1/2"	ALL57902	ALL57922	ALL57942	ALL57962
7-3/4"	ALL57903	-	ALL57943	-
8"	ALL57904	ALL57924	ALL57944	ALL57964
8-1/4"	ALL57905	-	ALL57945	-
8-1/2"	ALL57906	ALL57926	ALL57946	ALL57966
8-3/4"	ALL57907	-	ALL57947	-
9"	ALL57908	ALL57928	ALL57948	ALL57968
9-1/4"	ALL57909	-	ALL57949	_
9-1/2"	ALL57910	ALL57930	ALL57950	ALL57970
9-3/4"	ALL57911	-	ALL57951	_
10"	ALL57912	ALL57932	ALL57952	ALL57972
10-1/4"	ALL57913	_	ALL57953	_
10-1/2"	ALL57914	ALL57934	ALL57954	ALL57974
11"	ALL57916	ALL57936	ALL57956	ALL57976

Metric Upper Control Arms

Tubular style upper control arms replace OE stamped style arms found on Midsize GM metric chassis with mounts spaced 6-7/8" on center and accept bolt-in style ball joints. Arms feature steel cross shafts, a durable powder-



Control Arms for ALL56220 (K5208) Ball Joint

ALL57990 RH, 8" ALL57992 LH, 8-1/2" ALL57994 LH, 9" ALL57995 LH, 9-1/2" ALL57996 LH, 10"

Control Arms for ALL56204 (K6024) Ball Joint

ALL57980 RH, 8" ALL57982 LH, 8-1/2" ALL57984 LH, 9" ALL57985 LH, 9-1/2" ALL57986 LH, 10"

IMCA Legal Upper Control Arms

IMCA legal upper control arms fi stock 6-7/8" mounts, found on midsize GM Metric frames. Use with



ALL57990

bolt-in style ball joint, Allstar 56220 or Moog K5208. Steel control arms are available with steel or aluminum cross shaft and come complete with "IMCA certi ed" sticker.

ALL57830 RH, 8" with Steel Cross Shaft ALL57831..... LH, 8-1/2" with Steel Cross Shaft ALL57832 RH, 8" with Aluminum Cross Shaft ALL57833 LH, 8-1/2" with Aluminum Cross Shaft

Universal Ball Joint Holder

ALL56296

Universal style holder can be used in LH or RH applications and works well for builders that fabricate their own upper control arms. Holder features a straight stud with 5/8"-18 threads, a straight tab with a 3/8" hole to mount a clevis and accepts the ALL56214 or Moog K772 style screw-in style ball joint.

Unwelded Ball Joint Holder Kit

ALL56298

Kit allows components to be welded at any angle. Stud is 5/8"-18RH thread, bracket has a 3/8" hole.



Holder accepts ALL56214 or Moog K772 style screw-in upper ball joint.

Female Double Adjusters

Steel double adjusters increase adjustment capability of control arms, trailing arms, Panhard bars, tie rod ends, and other items using threaded tube. Adjuster includes two jam nuts, one LH and one RH.

ALL56198 5/8"-18 RH Male/LH Female, 4" Long **ALL56199** 5/8"-18 LH Male/RH Female, 4" Long

Steel Clevises





Clevises are commonly used with a ball joint holder when building upper control arm or with strut style lower control arm when attaching suspension tube for a strut rod.

ALL56192..... 3/4"-16 RH Thread Clevis with 1/2" Holes ALL56194.... 5/8"-18 RH Thread Clevis with 3/8" Holes



Mike McKinney



Upper Control Arm Mounting Bracket

ALL60190

Bracket is ame cut from 1/2" thick steel, with 6" bolt spacing. Welds to frame and accepts upper A-arm.



Upper Control Arm Shims

Individual steel shims t between the upper control arm and chassis mount to adjust caster and camber. Shims have 9/16" wide slots and easy-to-grasp tabs for installation and removal. Package of 10.

ALL60200 1/16" (0.062") **ALL60201** 1/8" (0.125")

1-Piece Upper Control Arm Shims

Dual mount shims t between the upper control arm and chassis mount to adjust camber. One-piece design works with most mounts/control arms with 6" bolt spacing using 1/2" mounting hardware. Sold each.

ALL60203 1/8" (0.125") ALL60204 3/16" (0.185") ALL60205 1/4" (0.250") ALL60206 3/8" (0.375") ALL60207 1/2" (0.500")



ALL60208 3/4" (0.750") **ALL60209** 1" (1.00")

ALL60210..... 7-Piece Kit, Includes ALL60203-60209 (1 of each)

Slotted Upper Control Arm Bracket Kit ALL60077

Kits contain (2) slotted brackets, (2) centered bushings, (2) reducer spacers for 5/8" rod end and a 1/2" bolt and nyloc nut. Offset aluminum bushings (sold separately) allow for plenty of adjustment options.



Insert Bushings

ALL60080	. Centered Bushings (Pair)
ALL60081	. 1/8" Offset Bushings (Pair)
ALL60082	. 1/4" Offset Bushings (Pair)
ALL60083	. 3/8" Offset Bushings (Pair)
ALL60084	. 1/2" Offset Bushings (Pair)

Individual Components

ALL60078	Slotted Upper Brackets (Pair)
ALL18612	Reducer Spacers for 5/8" Rod End
ALL16490	Hex Head Bolts 1/2"-20 x 3", Grade 5,
	5-Pack

ALL16074-10..... Thin Nyloc Insert Nuts 1/2"-20, 10-Pack

Upper Control Arm Brackets ALL60025

Stamped 3/16" mild steel brackets weld to chassis as a mounting point for upper control arm. Brackets have two 5/8" holes, spaced 7/8" apart for adjustment. May be trimmed to desired height. Package of 2.

Lightweight, Low-Friction Lower Control Arm Bushings

Designed speci cally for racing these bushings feature a lightweight housing

with 2 steel inner bushings, machined so they can be tightened without binding. O-rings on each side help keep the bushings in place while installing and also help keep dirt out. Bushings should be disassembled and reassembled with a good quality wheel bearing grease prior to installation.

Chevelle 1964 - 1974 ALL56227 Front ALL56229 Rear Metric 1978 - 1988 ALL56228 Front ALL56229 Rear



Steel Control Arm Bushings

Allstar Steel Control Arm Bushings replace stock rubber bushings and eliminate defliction, a common problem with original equipment bushings.



Lower Control Arm Bushing Applications

Part No.	Application	Bushing Position	O.D.	UHL	Hole Size		
Chevelle, Monte Carlo, GM Intermediates							
ALL56230	1964-66	Front (2nd Design)	1.345"	2.100"	.500"		
ALLUUZU	1967-74	Front	1.345"	2.100"	.500"		
	1964-66	Front (1st Design)	1.645"	2.100"	.500"		
ALL56232	1975-77	Front	1.645"	2.100"	.500"		
ALL30232	1964-72	Rear	1.645"	2.100"	.500"		
	1978-88	Rear	1.645"	2.100"	.500"		
ALL56233	_	-	1.645"	2.100"	.562"		
ALL56234	1973-77	Rear	1.900"	2.100"	.500"		
ALL56235	_	-	1.900"	2.100"	.562"		
ALL56236	1978-88	Front	1.440"	2.750"	.500"		
Camaro,	Firebird						
ALL56230	1967-74	Front	1.345"	2.100"	.500"		
ALL56232	1975-81	Front	1.645"	2.100"	.500"		
ALLJ0232	1967-72	Rear	1.645"	2.100"	.500"		
ALL56234	1973-88	Rear	1.900"	2.100"	.500"		
ALL56236	1982-92	Front	1.440"	2.750"	.500"		

Upper Control Arm Bushing Applications

5 PF							
Part No.	Application	Bushing Position	O.D.	UHL	Hole Size		
Chevelle,	Chevelle, Monte Carlo, GM Intermediates						
ALL56238	1967-72	All	1.275"	1.250"	.675"		
ALL56240	1978-88	All	1.530"	1.500"	.695"		
ALL56242	1973-77	Front	1.394"	1.500"	.690"		
ALL56244	1973-77	Rear	1.311"	1.425"	.690"		
Camaro, I	Camaro, Firebird						
ALL56238	1967-69	All	1.275"	1.250"	.675"		
ALL56242	1974-79	Front	1.394"	1.500"	.690"		
ALL56244	1974-79	Rear	1.311"	1.425"	.690"		



Roller Bearing Lower Control Arm Bushings

Free up stock front suspensions and help prevent binding commonly found with stock rubber and steel insert bushings. Steel bodied bushings are complete with needle roller bearings and hardened inserts that are ready to install and do not require special mounting hardware. All bushings have 1/2" I.D. mounting holes.





Part No.	Application	Bushing Position	O.D.	UHL	Hole Size
Chevelle, I	Monte Carlo,	GM Intermediat	es		
ALL56221	1964-66	Front (2nd Design)	1.345"	2.100"	.500"
ALL30221	1967-74	Front	1.345"	2.100"	.500"
	1964-66	Front (1st Design)	1.645"	2.100"	.500"
ALL56222	1975-77	Front	1.645"	2.100"	.500"
ALL30222	1964-72	Rear	1.645"	2.100"	.500"
	1978-88	Rear	1.645"	2.100"	.500"
ALL56223	1973-77	Rear	1.900"	2.100"	.500"
ALL56224	1978-88	Front	1.440"	2.750"	.500"
Camaro, F	irebird				
ALL56221	1967-74	Front	1.345"	2.100"	.500"
ALL56222	1975-81	Front	1.645"	2.100"	.500"
ALLS0222	1967-72	Rear	1.645"	2.100"	.500"
ALL56223	1973-88	Rear	1.900"	2.100"	.500"
ALL56224	1982-92	Front	1.440"	2.750"	.500"

Replacement Component

ALL99250 Thrust Bearing Set



ALL56226 Nylon Bushing Kit

(Optional bushings to replace roller bearings when conforming to some sanctioning body rules.)



1978-88 Metric Front Lower Control Arms

Reproduction of the originals, these arms are a direct replacement for 1978-88 metric chassis and accept stock ball joints.

ALL57804 RH ALL57805 LH



1964-72 Chevelle Lower Control Arms

Reproduction 1964-72 A-body lower control arms are coated and have the same t and appearance as the factory arms. Both versions are made to meet the same tolerance as



the original. The deluxe arms have a more precise spring pocket for more consistent suspension geometry. They also accept the larger wire diameter of heavier rated racing springs.

ALL57800 RH ALL57801 LH

ALL57802 RH Deluxe **ALL57803** LH Deluxe

Precision Lower Control Arm Kits

NEW

Precision lower control arms have the same appearance and function as the original factory arms but feature a precision stamping process over traditional reproduction arms providing a true bushing centerline axis.

These arms include our popular lightweight steel bushings pre-installed with an alignment rod and include a spacer kit to accurately position each arm to the speci c chassis. We recommend tack welding control arm bushings into the arm once the arm has been tted to the chassis.

1978-88 GM Metric G-Body ALL57806 ALL57807

1964-72 Chevelle ALL57808 ALL57809

Ball Joint Adapter Sleeve

ALL56256

Adapter sleeve is ideal for modifying stock style Chevelle lower control arms to accept a screw-in style ball joint. Adapter sleeve has an O.D. of 2.010" to take the place of a press-in style ball joint (ALL56210/K5103) allowing for installation of a screw in style ALL56214 with a 1-1/2" taper/ft. pin or ALL56049 with a 2" taper/ft. pin ball joint. Note: Modi cations to control arms may be necessary for proper t of sleeve. Sleeve must be welded to the control arm after installation.

TECH TIP

To minimize distortion of sleeve during press-in, it is recommended that the ball joint be threaded into sleeve during press-in procedure.

Lower Control Arm Limit Clamps

Clamps fasten around tubular lower control arms providing a lower mounting point for a suspension limit chain. Aluminum Clamps are double shear style and accept 5/16" hardware.

ALL68340 1" ALL68341 1-1/8" ALL68342 1-1/4"



Deece Schwartz



ALI 56320

ALL57810

Tubular Lower Control Arms

Tubular Lower Control Arms are made with 1-1/4" D.O.M. tubing. Black powder coated arms feature high quality rod ends and separate shock bracket which will require welding or bolting onto arm. Rod end spacer kit is required to adapt rod end to t in the stock frame mount (sold separately). These lower control arms are intended for racing and will not accept stock style lower ball joints.

Note: Ball joints should be tack welded into lower control arm after assembly.

Flat Rottom

Flat bottom design works with 5" or 5-1/2" conventional springs which must be mounted with the closed end seated in the control arm and the open end in the upper spring cup or a spring ramp (sold separately) may be welded onto the lower plate to place the open end down.

Press-In Ball Joint Control Arms (Use ALL56212/K6117)

ALL56320 RH, '64-72 Chevelle **ALL56321** LH, '64-72 Chevelle **ALL56323** RH, '68-74 Nova **ALL56324** LH, '68-74 Nova

Helix Bottom

Helix bottom correctly positions 5" or 5-1/2" conventional spring for proper performance.

Press-In Ball Joint Control Arms (Use ALL56212/K6117)

ALL57810......RH, '64-72 Chevelle **ALL57811**.....LH, '64-72 Chevelle

Screw-In Ball Joint Control Arms (Use ALL56216/K727)

ALL57812......RH, '64-72 Chevelle **ALL57814**......RH, '64-72 Chevelle 1" Longer **ALL57813**......LH, '64-72 Chevelle

Related Components:

ALL56322 '68-72 Chevelle Spacer Kit, 4-Pieces ALL56325 '68-74 Nova Spacer Kit, 5-Pieces ALL56326 Spring Ramp (Helix)

Lower Control Arm Kits

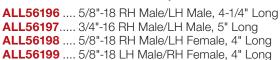
Universal kits are 2" longer than standard arms and must be cut to length before welding slug into place. Ball joint sold separately.



ALL56186 LH Kit, Use with Screw-In Ball Joint (ALL56216)
ALL56187..... RH Kit, Use with Screw-In Ball Joint (ALL56216)

Double Adjusters

Steel double adjusters increase adjustment capability of control arms, trailing arms, Panhard bars, tie rod ends and other items using threaded tube. Adjuster includes one LH and one RH jam nut.



Coarse Thread Weight Jack Bolts

Weight jack bolts have 1"-8 threads with 1/2" square drive. Use with ALL56113-56115, style spring cups.

ALL56106 8" Steel **ALL56107** 11" Steel

Weight Jack Bolts with Internal Thread

Bolts have a 7/16"-20 internal thread on one end for use with bolt-on and swiveler spring cups.
Coarse thread bolts have 1"-8 outer threads while ne thread bolts are 1-1/8"-12.

Coarse Thread 1"-8 with 3/4" Hex

ALL56094 4" Steel ALL56095 6" Steel ALL56066 8" Steel ALL56067 11" Steel

Fine Thread 1-1/8"-12 with 1/2" Square Drive

ALL56090 6" Aluminum **ALL56091** 8" Aluminum **ALL56092** 6" Steel **ALL56093** 8" Steel

Jam Nuts for Jack Bolts

Steel jam nuts for jack bolts







ALI 56106

ALL56095

ALI 56110 ALI 99052

ALL56068 1"-8 (Coarse) 1-1/8" Wrench **ALL56110** 1"-8 (Coarse) 1-1/2" Wrench **ALL99052** 1-1/8"-12 (Fine) 1-3/8" Wrench

Weight Jack Bolt Collars

Steel collar typically welds on to frame or chassis for installation of a threaded jack bolt. Collar includes grease fi ting.

ALL56099 1"-8 **ALL56098** 1-1/8"-12



Weight Jack Bolt Sleeves

Weld-in mild steel sleeve provides a mounting point for jack bolts or adjustable shock mounts. Sleeves are 2" long and have a 1-3/8" O.D. for welding onto chassis tubing.

ALL56109 1"-8, Coarse Thread **ALL56073** 1-1/8"-12, Fine Thread



ALL56073

Weight Jack Plate ALL56112

Heavy-duty steel plate has a threaded boss welded to the center to accept jack bolts with 1"-8 coarse threads. O.D. is 5".



Coarse Thread Nut with Sleeve ALL56111

Steel coarse thread nut with sleeve has 1"-8 coarse threads.



ALL56196



Coil-Over Load Bolt Assembly

ALL56074

Threaded aluminum bolt is 6" long with 1-1/8"-12 ne threads and is commonly used on big bar, soft spring cars. Load bolt offers the ability to easily change corner weights, change the center-to-center distance of the shock, adjust bump stop distances without adding shims and adjust ride height without running out of shock travel. Commonly used with ALL56098 threaded sleeve.



Replacement Component

ALL56075 Shock End

Upper Spring Cups

Steel cup ts in the top of a coil spring and when used with a weight jack bolt it allows adjustment of the spring load in a chassis. Cup will accept a 1" or 1-1/8" weight jack bolt.



ALL56114

ALL56114..... 5" O.D. Spring **ALL56115**..... 5-1/2" O.D. Spring

Lightweight Upper Spring Cup ALL56113

Lightweight steel cup works with most 5" and 5-1/2" O.D. springs and either 1" or 1-1/8" jack bolts.



Bolt-On Upper Spring Cup

ALL56097

Steel cup bolts to internal thread jack bolt and keeps 5" or 5-1/2" spring centered to the jack bolt.



Bolt-On Spring Cup ALL56117

Aluminum cup for 5" spring features a 1/2" mounting hole for use with internal threaded jack bolts, used as a rear lower cup or modi ed to t shock shafts.



Extended Length Upper Spring Cup ALL56125

Commonly used in rear suspensions, cup connects to jack bolt with a 7/16"-20 bolt to help maintain spring location. Extension sits 5" into the spring.

Extended Length "Swiveler" Spring Cup ALL56079

Extended length cup helps keep spring centered. Also keeps spring from falling out on some modern day long drop suspension packages.



"Swiveler" Spring Cups

Swiveler cup is used in place of a standard upper spring plate and weight jack bolt on vehicles using conventional style coil springs. Mono-ball stud mount allows cup to pivot as needed to prevent binding during suspension travel and requires a weight jack bolt with a 7/16"-20 internal threaded end for proper installation.

Welded Style ALL56080

The sleeve and top are welded together on this unit to t most applications using a 5" conventional spring.



Pro-Series

Components bolt together to select the desired spring top plate and sleeve separately to build custom size cups.



ALL56077 Spring Top Plate for 5" Spring ALL56078 Spring Top Plate for 5-1/2" Spring

ALL56086 ... 3-1/4" Spring Sleeve ALL56087 ... 3-1/2" Spring Sleeve ALL56088 ... 3-3/4" Spring Sleeve ALL56089 ... 4" Spring Sleeve



ALL56086

Coil Spring Spacer ALL56116

Spacer for 5" racing spring welds into spring pocket enabling chassis adjustments to Street Stock and other race cars that are not allowed to use weight jack bolts or threaded adjusters. 3" tall spacer may be cut to desired height before installation. Use coil shim spacers ALL56120 and ALL56121 to make chassis adjustments.



Coil Spring Shims

Used with ALL56116, or whenever weight jack bolts are not allowed, to raise car height for set-up purposes. 5" diameter, 3-5/8" I.D.



ALL56120..... 3/16" Shim **ALL56121**..... 1/8" Shim

Adjustable Coil Spring Spacers

Adjustable spacers for 5" racing springs weld into





ALI 56118 ALI 56119

spring pockets enabling chassis adjustments to street stock and other race cars that are not allowed to use weight jack bolts.

ALL56118..... All Steel Adjuster

ALL56119..... Steel Sleeve with Alum. Adj. Nut



Sway Bar Bolts

Bolts have 7/8"-9 threads and are available in a xed or swivel end design. Swivel end bolts have a 1/2" square drive end for quick and easy adjustments.

Eye Center to Eye Eye Part No. Description I.D. O.D. Width End of Threads 2" ALI 56070 Steel Swivel 1-5/8" 1-1/8" 11-1/2 ALL56071 Steel Swivel 2" 2-3/4" 1-1/8" 2" 10-1/2' ALL56100 Steel Non-Swivel 1-5/8" 1-1/8"

Related Components

ALL18266 Lock Nut for ALL56100-56102 **ALL56072** Weld Nut for ALL56070-56071



Swivel

ALL56072

Adjustable Sway Bar Bolt Kit

ALL56103

Kit includes a 3-5/8" long sleeve that welds into frame rail with a locking collar to prevent movement. Adjustment bolt has 4" of travel and adjusts with a 1/2" square drive ratchet. Inside eye diameter 1-1/2".

Replacement Component

ALL99020 Adjuster Bolt with Eye End

Adjustable Sway Bar Arms





Kit includes a CNC-machined aluminum adjuster and a 17-1/2" long steel arm. Adjuster is available in 30° or zero drop with 1-1/4" x 49 -spline or 1-1/2" x 48-spline. On cars with limited ground clearance, the zero drop kit positions the arm at the center line of the adjuster for additional ground clearance. Adjustment bolt has detents to lock at each half turn.

		Complete	Adjuster	Side Plate
Description	Spline	Assemebly	Assembly	Only
RH 30° Drop	1-1/4" x 49	ALL56380	ALL99470	ALL99471
RH 30° Drop	1-1/2" x 48	ALL56381	ALL99472	ALL99473
RH Zero Drop	1-1/4" x 49	ALL56382	ALL99474	ALL99475
RH Zero Drop	1-1/2" x 48	ALL56383	ALL99476	ALL99477

Sway Bar Arms

Splined sway bar arms are made from 3/4" thick mild steel. Arms are available straight or in 15° or 30° drop. Arms can be cut to length and bent



Part No.	Description	Spline
ALL56384	30° Drop	1-1/4" x 49
ALL56385	30 ° Drop	1-1/2" x 48
ALL56386	15° Drop	1-1/4" x 49
ALL56387	15° Drop	1-1/2" x 48
ALL56388	Straight	1-1/4" x 49
ALL56389	Straight	1-1/2" x 48



Shock Travel Indicator Kits

Check compression and rebound travel of coil-over shocks at a glance. Clamp aluminum bracket portion of the kit directly to the coil-over sleeve or shock body and attach the other end to the existing shock eye bolt or under spring cup. May be used with most coil-over and non-coil-over shocks. Clamp is included.

ALL60094 Kit for Use with 2-1/2" Spring

ALL60095 Kit for Use with 3" Barrel or 5" Springs



ALL60094 ALL60095

Ground Clearance Indicator

ALL10725

Determine how close the frame is to the ground on the race track. This unique kit features an aluminum bracket that rivets to the frame with an adjustable 4" plastic wear rod.



Replacement Component ALL10726.... Wear Rods, 4-Pack



Steve Needles



Quick Adjust External Bump Stop Kit

External bump stop allows adjustment of suspension travel separate from the coil-over unit. The detented adjuster nut can be turned on the rod end for quick engagement adjustment. Each half turn equals 1/16" eliminating the need for packer shims. Bump stop bolts to the outside of lower control arm and to an upper chassis location (may need to drill a hole or use a clamp on bracket). Fine tune vehicle set-up by adjusting the upper bushing plate. Includes built-in travel indicator and two yellow 75 durometer bushings. Will also accept bump springs with 5/8" I.D. retainers (not included)

ALL56361 Bump Stop w/ Bushings ALL56360 Bump Stop w/o Bushings



Stick replaces the coil-over shock and spring assembly during maintenance. Stick has many uses and may be adjusted to check settings at normal ride height, in race attitude or on the bump stops to evaluate suspension travel. Adjusts from 15" to 24", measured at the center of rod ends.

Shock Racks

Shock rack holds four shocks with 2-1/2" springs and easily mounts to trailer, shop wall or pit cart. Rack is designed to hold shocks in place by pushing shock rod end or eye over the outer O-ring or alternatively, the outer O-ring may be removed to expose a predrilled hole for a hairpin clip such as ALL18442, sold separately.

ALL12212 Standard Rack **ALL12211** Adjustable Base Rack

Extended Length Shock Rack Pin

ALL12215

Extended length pin replaces the pin used on our standard and adjustable shock racks allowing a shock or eliminator with a 5" spring

to be mounted to the rack. Pins are also ideal for creating custom mounting for use on toolboxes or pit carts. The outer O-ring may be removed to expose a predrilled hole for a hairpin clip such as ALL18442, sold separately.

Shock Eye Socket ALL64255

The ideal tool for shock rebuilders or anyone that disassembles shocks on a regular basis! Unique socket safely removes and installs the shock rod end without risk of damage to the spherical ball. Steel socket contacts





the outer housing of 1/2" rod ends up to .640" wide and has a 1/2" drive for ratchet or impact use.

Shock In ation Tool ALL64260

Shock in ation tool threads onto shock Schrader valves. Fill valve and 0-300 PSI gauge head independently rotates a full 360°, for easy lling and reading. Complete with built-in bleeder and includes a protective storage case.



Shock Workstation

ALL64264

The all-in-one shock workstation holds most shock bodies in the upright position for ease of shaft removal or assembly and holds shock shafts vertical or horizontal for easier repairs and re-valving. Aluminum workstation can be placed in a vise, bench mounted using optional mounting bracket or custom mounted using 1/4" fasteners.

Shock Workstation Base ALL64267

Steel base is helpful when mounting Allstar shock workstation (ALL64264) in a trailer or to a shop workbench.

Mounting hardware included.



Shock Canister Mounts

Shock canister mount ts all common shock canisters. Aluminum construction mount is rubber padded to protect shock canister and increase holding

tect shock canister and increase holding strength. Adjustable quick-release nylon strap will secure any shock canister from 1-1/2" to 3" in diameter.

ALL64270 1-1/4" Tubing **ALL64271** 1-1/2" Tubing **ALL64272** 1-3/4" Tubing **ALL64273** Flat Panel

Replacement Components ALL99295 Release Pin ALL99296 Retainer Strap

ALL64273

ALL64270

PERFORMANCE

ALI 64374

ALL64334

Bump Stop Kits

Kit makes it easy to start using bump stops. Includes a selection of 20 bump stop pucks ranging from 50 to 75 durometer, 8 backing washers, and 16 packer shims in a simple plastic carrying case.

ALL64360 ... 14mm Kit ALL64320 ... 16mm Kit



Bump Stop Pucks - 14mm

Pucks are replacement components found in ALL64360 bump stop kit, in addition to other durometer ratings for even more adjustability. 2" O.D. pucks have a 1/2" I.D. hole suitable for 14mm shocks as well as many other uses, including suspension limiters.

Bump Stop Pucks	1/2" Tall	3/4" Tall	1" Tall
40dr Brown	ALL64367	ALL64368	ALL64369
50dr Green	ALL64370	ALL64371	ALL64372
55dr Orange	ALL64373	ALL64374	ALL64375
60dr Purple	ALL64376	ALL64377	ALL64378
65dr Black	ALL64379	ALL64380	ALL64381
75dr Yellow	ALL64384	ALL64385	ALL64386

Bump Stop Pucks - 16mm

Pucks are replacement components found in ALL64320 Bump Stop Kit, in addition to other durometer ratings for even more adjustability. 2.10" O.D. pucks have a 5/8" I.D. hole suitable

for 16mm shocks as well as many other uses, including suspension limiters.

Bump Stop Pucks	1/2" Tall	3/4" Tall	1" Tall
40dr Brown	ALL64327	ALL64328	ALL64329
50dr Green	ALL64330	ALL64331	ALL64332
55dr Orange	ALL64333	ALL64334	ALL64335
60dr Purple	ALL64336	ALL64337	ALL64338
65dr Black	ALL64339	ALL64340	ALL64341
75dr Yellow	ALL64344	ALL64345	ALL64346

Aluminum Backing Washers

Aluminum washers are designed for use with bump stop pucks, as a backer washer or many other uses. Washer has a 2-1/4" O.D. and is 3/16" thick.

ALL64366 1/2" I.D. for 14mm Shock Shaft ALL64326 5/8" I.D. for 16mm Shock Shaft

Bump Stop Shims

Place within the bump stop stack to limit suspension travel. 2" O.D. shims work with most shocks.

Thickness	14mm	16mm
1/32" Shim	_	ALL64323
1/16" Shim	ALL64364	ALL64324
1/8"	ALL64365	ALL64325



Shock Bump Covers

These neoprene covers are perfect for protecting shock shafts and covering bump set ups. Fit 2" O.D. shocks. Not for use with coilover springs.

ALL64215..... 8" Tall Cover **ALL64216**..... 12" Tall Cover **ALL64218**..... 16" Tall Cover

Bump Stop Components for Bilstein Shocks

Speci cally designed for use with Bilstein shocks when using RSW or Christmas tree style bump stops. Lower support and cup rest directly on the shock rod end.

the Bump Stop Forces into Guide

ALL64277 ... Splitter Washer Used to Separate Stops on Stacked Stop Setups

ALL64274 ... Bump Stop Support 2-1/4" OD **ALL64275** ... Bump Stop Cup 2.100" ID

Threaded Bump Washers

Washer threads onto the end of the shock shaft with the shock end to create a solid foundation for bump stop bushings.

ALL64291 Bilstein M12-1.0 Thread ALL64292 Fox 7/16"-20 Thread ALL64293 Penske 1/2"-20 Thread

ALL64290 Spanner Wrench for Threaded Bump Washers

Bump Washer Dividers

Dividers tover the shock shaft between bump stop bushings.

ALL64296 1/2" I.D. for 14mm Shock Shaft

ALL64297 5/8" I.D. for 16mm Shock Shaft



Jason Feger



ALL64275



Roller Skate Wheel Bump Stops

Poly bump stops are 1" tall with a 5/8" diameter hole.









ALL64510..... 50 Durometer ALL64511 55 Durometer ALL64512..... 60 Durometer ALL64514..... 70 Durometer

Adjustable Poly Bump Stop Kit

ALL64505

Polyurethane bump stop is weather resistant and easily adjustable by adding packers to the inner ring. Five 1/16" thick packer shims included in the kit.



Shock Bump Rubbers

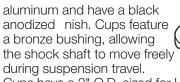
Conical bump rubbers t on most shock shafts up to 16mm to limit shock travel. Bump rubbers are 2-3/8" tall and have a 2" O.D. base. A letter designation is molded in the bottom to identify compound.

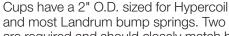




Lightweight bump spring cups are made from 6061-T6







are required and should closely match bump spring I.D. size to appropriate bump spring cup step O.D. size from chart. Sold each.

	Cup Step O.D. "B"			
Shaft Size "A"	1.160"	1.200"	1.280"	
14mm	ALL64348	ALL64349	ALL64350	
1/2"	ALL64352	ALL64353	ALL64354	
16mm, 5/8"	ALL64356	ALL64357	ALL64358	

Shock Shims

Uniquely designed shock shims are placed directly onto the shock shaft to simplify ne tuning of the chassis without disassembling the shock or even removing the shock from the chassis. Kits include a variety of shim designs and sizes for convenient tuning and set-up.



Size	Starter Kit	Standard Kit	Deluxe Kit
14mm	ALL64400	ALL64402	ALL64404
16mm	ALL64440	ALL64442	ALL64444

Starter Kit Contents:

U-Shaped Shims 1/16" (4 pcs), 1/8" (4 pcs) and 3/8" (2 pcs); Semi-Solid Shims 1/16" (4 pcs) and 1/8" (4 pcs).

Standard Kit Contents:

U-Shaped Shims 1/16" (12 pcs), 1/8" (12 pcs) and 3/8" (6 pcs); Semi-Solid Shims 1/16" (12 pcs) and 1/8" (12 pcs); 2-Piece Collar Shims 1/2" (2 pcs), 3/4" (2 pcs), and 1" (2 pcs); Storage Case.

Deluxe Kit Contents:

U-Shaped Shims 1/16" (12 pcs), 1/8" (24 pcs), and 3/8" (10 pcs); Semi-Solid Shims 1/16" (12 pcs) and 1/8" (24 pcs); 2-Piece Collar Shims 1/2" (6 pcs), 3/4" (6 pcs), and 1" (6 pcs); Storage Case.

Shock Shim Components

U-Shaped Shims - Designed for guick removal and installation into tight stacks and locations where twisting the shim into the stack is not an option or when the car is on the ground. Commonly used for ne tuning the suspension.



Semi-Solid Shims - Designed for quick removal, providing a secure installation that will not fall out vet requires 3/4" of space to install or remove. Typically installed when the vehicle is off the ground. Commonly used for ne tuning the suspension. 2-Piece Collar Shims - Designed to attach around the shaft of the shock and secure in place with a zip tie. Commonly used during initial set-up or to take up a large amount of travel.



ALI 64420

tial set up of to take up a	i lai go ai noc	in it or travol.	ALL0442U
Description	2-Pack	10-Pack	25-Pack
14mm (.550")			
U-Shaped Shim 1/16"	-	ALL64410	ALL64410-25
U-Shaped Shim 1/8"	_	ALL64412	ALL64412-25
U-Shaped Shim 3/8"	-	ALL64414	ALL64414-25
Semi-Solid Shim 1/16"	_	ALL64416	ALL64416-25
Semi-Solid Shim 1/8"	_	ALL64418	ALL64418-25
2-Piece Collar Shim Kit 1/2"	ALL64420	ALL64420-10	_
2-Piece Collar Shim Kit 3/4"	ALL64422	ALL64422-10	_
2-Piece Collar Shim Kit 1"	ALL64424	ALL64424-10	_
16mm (.630")			
U-Shaped Shim 1/16"	-	ALL64450	ALL64450-25
U-Shaped Shim 1/8"	-	ALL64452	ALL64452-25
U-Shaped Shim 3/8"	_	ALL64454	ALL64454-25
Semi-Solid Shim 1/16"	-	ALL64456	ALL64456-25
Semi-Solid Shim 1/8"	_	ALL64458	ALL64458-25
2-Piece Collar Shim Kit 1/2"	ALL64460	ALL64460-10	_
2-Piece Collar Shim Kit 3/4"	ALL64462	ALL64462-10	_
2-Piece Collar Shim Kit 1"	ALL64464	ALL64464-10	_



2.5" Coil-Over Kits

Kits include everything to assemble one complete shock. Slotted tops allow quick and easy spring changes. Kits are for 2-1/2" coil-over springs and are designed for use with 2" steel bodied shocks unless specified.



Shock	Kit Number	Replacement Top	Replacement 5" Sleeve	Replacement 7" Sleeve	Replacement Adjuster Nut
AFCO		•			•
Kit with 7" Sleeve	ALL64141	ALL64170	ALL64160	ALL64161	ALL64180
Bilstein					
Kit with 7" Sleeve	ALL64143	ALL64171	ALL64162	ALL64163	ALL64180
Fox					
Kit with 7" Sleeve	ALL64130	ALL64177	_	ALL64164	ALL64180
Integra					
(Avenger) Kit with 7" Sleeve	ALL64158	-	-	-	ALL64180
Kit for Aluminum Threaded Body	ALL64157	-	-	-	-
JRI					
Kit with 7" Sleeve	ALL64136	ALL64178	-	ALL64169	ALL64180
Koni					
Kit with 5" Sleeve	ALL64146	ALL64173	ALL64162	ALL64163	ALL64180
Kit with 7" Sleeve	ALL64147	ALL64173	ALL64162	ALL64163	ALL64180
Penske					
Kit with 7" Sleeve	ALL64149	ALL64174	ALL64162	ALL64163	ALL64180
Pro					
Kit with 7" Sleeve	ALL64151	ALL64175	-	ALL64165	ALL64180
QA1					
(50 Series) Kit with 7" Sleeve	ALL64145	ALL64172	-	ALL64165	ALL64180
Kit for Aluminum Smooth Body w/7" Sleeve	ALL64154	ALL64172	_	ALL64167	ALL64180

Replacement / Related Components

ALL64182..... 2-7/8" C/O Diaper Pin ALL64183..... Snap Ring Flat (Koni) ALL64184..... Snap Ring Round ALL64186..... Snap Ring (Fox) ALL11155 C/O Spanner Wrench









5" Coil-Over Adapter

Aluminum adapter con-

ALL64185

verts existing coil-over kit from a 2-1/2" spring to a 5" spring. Adapter inner hole I.D. is 2-1/2" to work with most coil-over sleeves. Sold each.



Shock Extensions

Steel extensions fasten directly to shock shaft for added suspension travel. Sold each.

M12-1.0 Thread (Bilstein) ALL60096 ... 1" Extension ALL60097 ... 2" Extension

7/16"-20 Thread (Fox)
ALL60098 ... 1" Extension
ALL60099 ... 2" Extension



Spring Spacers









Spring Spacers can be used with 2-1/2" coil-over springs or with coil-over kits and 5" adapter when extra spacing is needed. Spacers have a 3.5" O.D.

ALL64195..... 1" Spacer **ALL64196**..... 2" Spacer **ALL64197**..... 3" Spacer

Thrust Bearing Kits

Bearing kits are placed between the coil spring and the adjuster

nut to reduce friction when making adjustments. Kits are recommended for preloaded spring assemblies or when springs require adjustment while they are under pressure. Kits include one bearing and two races.

ALL64210..... 2.5" Kit (2.5" I.D. x 3.25" O.D.) **ALL64212**..... 3" Kit (3.025" I.D. x 3.730" O.D.) **ALL64214**..... 5" Kit (4.150" I.D. x 5.045" O.D.)



Spring Pre-Loader

Pre-loader allows use of a softer spring rate that is "pre-loaded" at ride height. The pre-loaded spring will have less rate increase as the suspension travels. For example, a 150 lb./in. spring can be pre-loaded to 400 lbs. at ride height, but still only increases at a rate of 150 lb./in. as suspension travels. The entire unit may also be exchanged with another unit with a different rate spring pre-installed to allow spring rate

changes without affecting ride height. Commonly used on the rear coil-overs, pre-loader requires 3" I.D. spring, includes a thrust bearing set and ts most shocks. Note: Unit is typically installed with slotted inner half towards the shock body. Always check components for possible interference.

ALL64230 Pre-Loader for 10" Tall Spring ALL64232 Pre-Loader for 12" Tall Spring ALL64234 Pre-Loader for 14" Tall Spring ALL64212..... Replacement 3" Bearing Set



ALL11187..... Pre-Loader Body Wrench ALL11188 Pre-Loader Nut Wrench



ALL11187

Coil-Over Shock Protector

ALL64201

Plastic shock protectors slide over aluminum threaded body shock to protect against wear from spring. Protector measures 6" from spring seat to end, has an I.D. that measures 2-1/4" and works with all 2-1/2" I.D. springs. Unit should just cover shock body and may need to be cut to speci c length.



Shock Protectors

Shock Protectors add extra protection from rocks and debris to your shock body. Plastic protector simply snaps onto your shock body. May need to be cut to length. Sold each.

ALL64202 ... 2" Standard Body Shocks ALL64203 ... 1-5/8" Small Body Shocks

Shock Shaft Boot ALL64198

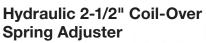
Rubber bellows style boot is 10" long, one end has an 1-1/4" opening while the other is 2". Boot ts most non-coil-over shocks.



5" Coil Over Adapter for Spring Pre-Loader

ALL64187

Aluminum adapter converts existing spring Pre-Loader from a 3" spring to a 5" spring. Adapter inner hole I.D. is 3" to work with spring Pre-Loader. Sold each, two are typically required.



ALL64220

Weight jack assembly allows driver to adjust car handling while driving. Turning the adjustment knob will extend spring cup up to 7/8" to increase or decrease spring pressure. Assembly includes hydraulic ram, hydraulic pump with adjustment knob, 9' braided hose, and two washers for use with standard or threaded body shocks. Black anodized nish.

Replacement Component

ALL64222 ... O-Ring Kit for ALL64220

Shock and Pull Bar Covers

Neoprene covers help protect from rock damage and to keep components clean while preventing the competition from knowing your secrets. Hook-and-loop material allows easy cover removal for adjustments. 3" covers are often used for 2-1/2" and 3" coil-over shocks and small diameter upper links. 6" covers work well on 5" springs and pull bar applications.

ALL64204 ... 3" x 14" ALL64205 ... 3" x 16" ALL64206 ... 6" x 7" ALL64207 ... 6" x 14" ALL64208 ... 6" x 16" **ALL64209** ... 6" x 20"



Coil-Over Eliminators

Steel body coil-over eliminator is designed for use with 5" springs and features a removeable spring cup for easy spring changes, a large ne thread adjustment nut with a built-in detent and two 1/2" rod ends for mounting. Length listed is fully extended length with 10" of travel.

ALL64112 Standard Length 26" ALL64113 Extended Length 28"





Weld-On Shock Brackets

Weld-on shock brackets mount standard and coil-over shocks with 1/2" I.D. inner bushing or 1/2" rod end to chassis as well as many other uses. 1/8" thick mild steel brackets include 1/2" bolt, spacer and locknut.

Notched Tube Mount

Bracket is notched for 1-1/2" – 1-3/4" round tubing to create a gusset style mount that welds on three sides. Notched design positions the bracket perpendicular to the tubing at a 90° angle for straight mount and approximately a 75° angle for angled mounts.

Straight Mount









ALL60103..... Short **ALL60104**..... Long

ALL60112..... Long Two Position **ALL60113**..... Extra Long Three Position

Angle Mount







ALL60100 Left Hand ALL60101..... Right Hand

Round Tube Mount

Bracket welds parallel onto tubing. Typically mounted above or below tubing and includes 1/2" shock mounting hardware. Mounting positions are on 1" centers.

ALL60107..... One Position **ALL60114**..... Two Position **ALL60115**..... Three Position







Flat Mount ALL60106

Bracket mounts to a at surface or square tubing.



Shock Spacers

Steel spacers have a 1/2" I.D. and 3/4" O.D. and can be used in a variety of other locations.



Shock Bracket Replacement Parts

ALL99100 Bolt, locknut, and bushing

ALL99101..... Bushing only

Length	2-Pack	10-Pack	25-Pack
1/4"	ALL64280	ALL64280-10	ALL64280-25
1/2"	ALL64282	ALL64282-10	ALL64282-25
5/8"	ALL64283	ALL64283-10	ALL64283-25
3/4"	ALL64284	ALL64284-10	ALL64284-25



Clamp-On **Shock Brackets**

Clamp-on shock brackets mount standard and coilover shocks with 1/2" I.D. inner bushings to round



mount or pivot mount when experimenting or trying different set-ups. Standard brackets position the shock approximately 1" below the chassis tubing. Drop mount brackets position the shock approximately 2-1/2" below the chassis tubing. Brackets include mounting hardware with nyloc locking nuts.

Clamp-On ALL60220 ... 1-3/4" ALL60221 ... 1-1/2" ALL60222 ... 1-1/4"

Drop Mount Clamp-On ALL60225 1-1/2"

Upper Coil-Over Shock Mount Kit ALL60230

Weld-in kit provides a mounting point for rear coil-over shock mounts in tube, boxed or stock frames with up to 48" between frame rails. Great for drag racing and street applications, kit includes a 48" long, .120" wall x 1-1/2"



mild steel tube, reinforced mounting tabs, 2" x 3" end plates, and 1/2" hardware.

1/2" Rod End Mount ALL60073

3/16" thick steel mount with 1/2" holes accepts rod ends up to 5/8" wide. Mount is 1-5/8" tall overall.



Track Bar Locator Brackets

Track bar locator brackets are an ideal bolton mounting point for rod ends commonly found on Panhard bars, track bars or rear axle housing track locators. For use with 1/2" diameter rod ends. Available with a 5/8" or 3/4" bracket mounting hole.

ALL60079 5/8" Hole, 1" Gap ALL60089 3/4" Hole, 1-3/16" Gap

Smart Tool ALL10113

Ensure that chassis tubing is level and plumb when building roll cages or checking driveshaft angles. A "hold" button freezes



and unfreezes readings which can be displayed as degrees, percentages, or in./ft. at the push of a button. Plus and minus signs indicate when pitch is more or less than that shown on the display. Pitch reads in 1/8 in./ ft. increments. Level emits a "beep" at level and plumb. The tool shuts off automatically if idle for more than six minutes. Powered by a standard 9-volt battery.

Steel Shock Quick Pin ALL60108

Steel shock quick pins allow coil-over shocks to be quickly serviced or changed. Works with Allstar coil-over brackets, eliminating the need for a separate bushing. Shock quick pins are 2-1/2" long and include a hairpin. Sold each.



Titanium Shock Quick Pins

Titanium shock quick pins allow coil-over shocks to be guickly serviced or changed. ALL17120 has a long shoulder and will work with Allstar coil-over brackets, eliminating the need for a separate bushing. ALL17121 is commonly used on nonbushing type brackets, but can be used with Allstar brackets along with bushing. Shock quick pins are 2-1/2" long and include a hairpin.

ALL17120 Quick Pin with Shoulder ALL17121 Quick Pin without Shoulder

Quick-Release T-Handle Pins

Positive lock quick-release pins hold tightly in place until the handle button is depressed,



allowing the pin to be inserted or removed into or out of a hole with ease. Handles are made from 380 die-cast aluminum, shanks are made from 4130 steel. Each pin is equipped with a stainless steel split ring, allowing the option to attach a cable assembly.

ALL60300 ... 1/4" x 1" **ALL60301** ... 1/4" x 1-1/2" ALL60302 ... 1/4" x 2" ALL60304 ... 5/16" x 1" ALL60306 ... 5/16" x 2" ALL60308 ... 5/16" x 3" **ALL60310**.... 3/8" x 1" ALL60312.... 3/8" x 2"

ALL60314 ... 3/8" x 3" ALL60318 ... 1/2" x 2" **ALL60320**... 1/2" x 2-1/2" ALL60322... 1/2" x 3" ALL60324 ... 1/2" x 3-1/2"

Quick Pin Lock Collar

Steel lock collar provides a positive lock for quick release pins. Black coated





189

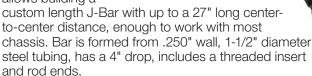
collar with button head machine screw allows attachment of a securing device, like an Allstar lanyard (ALL18461 or ALL18463).

ALL60335 1/2" Collar with 10-32 Screw ALL60336 5/8" Collar with 1/4"-28 Screw



Cut-to-Fit J-Bar Style Panhard Bars

Cut-to- t bar is an unwelded kit that allows building a



ALL56141 Bar with Standard Rod Ends ALL56142..... Bar with Aircraft Rod Ends ALL56143..... Replacement 3/4"-16 Insert

Adjustable J-Bar Style Panhard Bars

Bars are formed from 1-1/2" steel tubing and mount to the pinion rather than the axle tube to maintain adequate driveshaft clearance. J-bars have 3/4" rods ends and allow up to 2" of adjustment.

Part No.	Drop	Description
ALL56155	4"	17-1/2"-19-1/2"
ALL56156	4"	19-1/2"-21-1/2"
ALL56153	6"	17-1/2"-19-1/2"
ALL56154	6"	19-1/2"-21-1/2"

Replacement Components

ALL99050 Replacement Threaded Adjuster

ALL99052 Adjuster Nut

ALL58072 3/4" Male Moly Rod End

Climbing Style Frame Mount Panhard Bar Bracket

ALL60247

Easily adjust your Panhard bar with only one wrench! Climbing style adjuster allows any amount of adjustment without having to remove or re-align any spacer/ tabs. Radiused slot so you don't have to re-square the rear end after adjustments. Aluminum bracket fi s 2" x 2" tubing, center/inside mounting.



Adam Terry

Remote Adjustable **Panhard Bar Mounts**

Easily adjusted on frame side of Panhard bar, mount has a threaded shaft and fastens to 1-3/4" diameter tubing. Standard mount kit has 2" of adjustment, drop mount kit has 5" of adjust-

ment. Each turn of the shaft moves mount .100". Extension rod may be mounted in rear window or decking for quick, easy adjustments from outside of the car. Mounting hardware and a 3/4" Panhard bar bolt are included.

ALL60270 Standard Mount Kit ALL60273 Drop Mount Kit

Replacement Components:

ALL60272 ... Extension Rod with Bushing

ALL60274..... Flange Bushing

Clamp-On Panhard Bar Brackets

Adjustable steel or aluminum brackets clamp to square tubing, providing multiple Panhard bar mounting locations. Brackets are tapped for 3/4"-10 bolts. Steel brackets have

outer holes 5" apart. Aluminum brackets have outer holes 5.5" apart. Hole measurements are center-to-center.

Steel Brackets

ALL60240 For 2" x 2" Tubing **ALL60244** For 1-1/2" x 1-1/2" Tubing

Aluminum Brackets

ALL60243 Straight, for 2" x 2" Tubing **ALL60245** Angled, for 2" x 2" Tubing

Mini Panhard Bar Clevis

Aluminum clevis clamps to mini sprint and midget chassis providing an adjustable mounting point for a panhard bar. Clevis includes 3/8"

mounting hardware with a reducer bushing for mounting panhard bars with 1/2" rod ends.

ALL60232 1-1/8" I.D. ALL60233 1-1/4" I.D.

Panhard Bar Clevis

Black anodized aluminum clevis clamps around a chassis tube and connects to the 3/4" rod end on the long end of a J-bar style Panhard bar.

After loosening the two Allen bolts, the clamp may be slid up or down on the chassis tube to adjust the bar and change roll center.

ALL60182..... 1-1/2" I.D. **ALL60183** 1-3/4" I.D.









Quick Change Pinion Mount Panhard Bar Brackets



Pinion mounted brackets have a cam style adjuster for quick and easy setup of the Panhard or J-bar. Single cam adjuster features a cog style adjuster nut and threaded back nut that slides with adjuster for easy single wrench adjustment. Aluminum mounts replace the front pinion plate on most quick change rear ends. Radiused mounting slots eliminate the need to adjust J-bar or Panhard bar length.

ALL60286

ALL60285 Single Sided Bracket ALL60286 Double Sided Bracket

Quick Change 5-Hole **Panhard Bar Bracket**

ALL60170

Bracket mounts to

all standard quick change rear ends with six bolts. Made of 1/2" thick steel, bracket has ve 3/4" Panhard bar mounting holes for up to 5" of adjustment.



Mason Metzger



Bryce Bozell





Andv Bozell

Phil Bozell

Ford 9" Panhard Bar **Bracket ALL60176**

Ford center section bracket is 1/2" thick steel with four 3/4"-16 mounting holes to provide 3-3/8" of adjustment.



Ford 9" Upper Link **Brackets ALL60157**

Brackets are designed to weld to most Ford 9" style center sections. Steel brackets are 3/16" thick and provide multiple mounting locations for 90/10 shock, upper link, third link, or pull bar. Sold as a set.



Ford 9" housing brackets provide a mounting point for upper link. Weld-on brackets t standard steel Ford housings.

ALL60160 1" Dia. Holes, Sold in Pairs ALL60166 3/4" Dia. Holes, Set of 2

Quick Change Upper Link Brackets ALL60150

Bracket attaches to top of quick change and accepts upper link. Steel bracket has three 3/4" holes, 3" to the rear for forward traction. Sold in pairs.



Quick Change Upper Link Brackets ALL60156

Bracket attaches to top of most quick change rear end center sec tion. Steel bracket is 3/16" thick and provides multiple mounting locations for 90/10 shock, upper link, third link, or pull bar. Sold in pairs.



Panhard Bar/Third Link Brackets

Brackets have a built-in arch for adjustment of the Panhard bar or third link angle without changing the length of the arm. Brackets are 1/8" thick. Sold as a pair.

ALL60162.6-Hole Brackets with 1/2" Holes ALL60163.6-Hole Brackets with 5/8" Holes ALL60165.6-Hole Brackets with 3/4" Holes ALL60167.5-Hole Brackets with 3/4" Holes





Third Link Assembly without Bushings ALL56390

Designed to increase traction to rear tires, third link assembly uses interchangeable polyurethane bush-

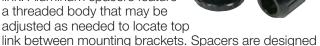
ings (sold separately, two required) to absorb energy under acceleration and braking. Bushings can be quickly changed to adjust to changing track conditions. Assembly is 2-1/4" wide x 3" tall and has a 3/4"-16 RH chrome moly stud for attaching a suspension tube. 3/4" I.D. inner steel bushings are stepped to keep link centered in poly bushings. A good starting point is a 70 durometer acceleration bushing and 90 durometer brake bushing.

ALL56391 Half Bushing Green, 50 Durometer ALL56392 Half Bushing Orange, 60 Durometer ALL56393 Half Bushing Yellow, 70 Durometer ALL56394 Half Bushing Blue, 80 Durometer ALL56395 Half Bushing Red, 90 Durometer

Upper Link Adjustable Spacer Kit ALL60178

for 3/4" hardware and adjust from 1-3/4" to 2-1/2" wide.

Kit includes two adjustable spacers to place on each side of your top link, pull bar, or third link. Aluminum spacers feature a threaded body that may be adjusted as needed to locate top



Upper Link Spacer Kits

Kits with multiple spacers allow the top link to be positioned wherever needed between brackets. Spacers have a 3/4" I.D. hole. Kits include bolt, nut, and spacers.

ALL60148..... Spacer Kit with Steel Spacers **ALL60158**..... Spacer Kit with Aluminum Spacers

90/10 Spacer Kits

Kits with multiple spacers allow positioning of the 90/10 shock wherever needed between brackets. Spacers have a .500" I.D. hole. Kits include bolt, nut, and spacers.

ALL60149.... Spacer Kit with Steel Spacers **ALL60159....** Spacer Kit with Aluminum Spacers



Brett Yackey

Poly Bushings

Poly bushings are designed for racing and work great in pull bars (torque links) and bump stops. Bushings' progressive rate start softly and quickly "ramp up." Bushings provide excellent performance when loaded, offering good abrasion and solvent resistance. Sold each.

Part No.	Color	Hardness	O.D.	I.D.	Height
ALL56369	Green	50	2.25"	.75"	1.06"
ALL56370	Purple	60	2.25"	.75"	1.06"
ALL56372	Yellow	75	2.25"	.75"	1.06"
ALL56373	Blue	80	2.25"	.75"	1.06"
ALL56374	Red	87	2.25"	.75"	1.06"
ALL56375	Orange	55	3.375"	.75"	2.50"
ALL56376	Yellow	75	3.375"	.75"	2.50"
ALL56378	Blue	80	3.375"	.75"	2.50"
ALL56379	Red	87	3.375"	.75"	2.50"

Bushing Washers

Required between poly bushings when stacking for optimum performance.

ALL99178..... Steel Washer for 2-1/4" Bushings
ALL99179..... Aluminum Washer for 2-1/4" Bushings

Rubber Bushings

Bushings absorb torque from rear end and may also be used as replacement in other applications. Sold each.





ALL56162

ALL56161.... 3" O.D., 1-1/2" Tall, 5/16" Shoulder **ALL56162....** 3" O.D., 1-1/2" Tall, No Shoulder

Convex Steel Washer

ALL18440

Washer features a convex shape to work with many rubber and poly bushings and measures 2-5/8" O.D. with a 3/4" I.D. Sold each.



Shock And Pull Bar Covers

Neoprene covers help protect from rock damage and keep components clean while preventing the competition from knowing your secrets. Hook-and-loop material allows easy cover removal for adjustments. 3" covers are often used for 2.5" and 3" coilover shocks and small diameter upper links. 6" covers work well on 5" springs and pull bar applications.

ALL64204 3" x 14" ALL64205 3" x 16" ALL64206 6" x 7" ALL64207 6" x 14" ALL64208 6" x 16" ALL64209 6" x 20"



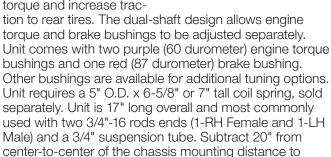


Spring/Bushing Style Pull Bar (Dual Shaft)

ALL56368

Torque link uses a coil spring to absorb

spring to absorb engine torque and increase trac-



determine required tube length. 9.3 lbs. without spring.

Spring/Bushing Style Pull Bar (Single Shaft) ALL56366

Torque link uses a combination of coil spring and poly bushings to absorb engine



torque and increase traction to rear tires. Ideal for the experienced driver and a car with radical suspension travel. Torque link comes standard with two yellow (75 durometer) poly bushings on the engine torque side and a single red (87 durometer) poly brake bushing. Other bushings are available for additional tuning options. Unit requires a 5" O.D. x 6-5/8" or 7" tall coil spring, sold separately. Unit is 16" long overall and most commonly used with two 3/4"-16 rod ends (1-RH Male and 1-LH Male) and a 3/4" suspension tube. Subtract 19" from center-to-center of the chassis mounting distance to determine required tube length. 8.5 lbs. without spring.

Spring Style Pull Bar (Dual Shaft) ALL56367

Torque link uses a coil spring to absorb engine torque and increase traction

to rear tires. The dual-shaft design allows engine torque and brake bushings to be adjusted separately. A single red (87 durometer) poly bushing is included. Other bushings are available for additional tuning options. Unit requires a 5" O.D. x 6-5/8" or 7" tall coil spring, sold separately. Unit is 18-1/2" long overall and most commonly used with two 3/4"-16 rods ends (1-RH Female and 1-LH Male) and a 3/4" suspension tube. Subtract 21-1/2" from center-to-center of the chassis mounting distance to determine required tube length. 8.5 lbs. without spring.

Small Bushing Style Pull Bar (Dual Shaft) ALL56362

Small bushing torque link features a reduce diameter (only 3-1/2") for



more compact applications and utilizes energy absorbing polyurethane bushings to absorb engine torque and increase traction to rear tires. Pull bar includes three blue (80 durometer) and two red (87 durometer) poly bushing on the engine torque side. This bushing combination works similar to a progressive spring; the softer bushings collapse at a faster rate than the harder bushings until the unit is solely working on the hardest bushing. A single red (87 durometer) poly brake bushing is also included. The dual shaft design allows engine torque and brake bushings to be adjusted separately. Unit is 19" long overall and only weighs 8lbs. Subtract 22" from center to center of the chassis mounting distance to determine required tube length.

Bushing Style Pull Bar (Dual Shaft)

ALL56365

Torque link uses energy absorbing polyurethane



bushings to absorb engine torque and increase traction to rear tires. Includes one blue (80 durometer) and one yellow (75 durometer) poly bushings on the engine torque side and a single red (87 durometer) poly brake bushing. These durometers work well for a majority of racers, especially those running open class mods such as UMP and USMTS cars. Other bushings are available for unlimited tuning options. Unit is 19-1/2" long overall and most commonly used with two 3/4"-16 rod ends (1-RH Female and 1-LH Male) and a 3/4" suspension tube. Subtract 22-1/2" from center to center of the chassis mounting distance to determine required tube length. 11 lbs.

Bushing Style Pull Bar (Single Shaft) ALL56364

Torque link uses energy absorbing polyurethane bushings to absorb engine torque and increase traction to rear



tires. Includes two blue (80 durometer) poly bushings on the engine torque side and a single red (87 durometer) poly brake bushing. These durometers work well for a majority of racers, especially those running open class mods such as UMP and USMTS cars. Other bushings are available for unlimited tuning options. Unit is 15-1/2" long overall and most commonly used with two 3/4"-16 rod ends (1-RH Male and 1-LH Male) and a 3/4" suspension tube. Subtract 18-1/2" from center-to-center of the chassis mounting distance to determine required tube length. 9.23 lbs.



Steel Suspension Tubes

Swaged D.O.M. tubes are black zinc coated.3/4" O.D.

tubes are .065" thick. 7/8" O.D.

tubes are .083" thick. 1" O.D. tubes are .095" thick.

taboo aro			
Length	1/2" Thread 3/4" O.D.	5/8" Thread 7/8" O.D.	3/4" Thread 1" O.D.
4"	ALL57052	ALL57152	-
4-1/2"	-	ALL57153	-
5"	ALL57054	ALL57154	ALL57254
5-1/2"	-	ALL57155	-
6"	ALL57056	ALL57156	ALL57256
6-1/2"	-	ALL57157	-
7"	ALL57058	ALL57158	ALL57258
7-1/2"	-	ALL57159	-
8"	ALL57060	ALL57160	ALL57260
9"	ALL57062	ALL57162	ALL57262
10"	ALL57064	ALL57164	ALL57264
11"	ALL57066	ALL57166	ALL57266
11-1/2"	-	ALL57167	-
12"	ALL57068	ALL57168	ALL57268
12-1/2"	-	ALL57169	
13"	ALL57070	ALL57170	ALL57270
13-1/2"	-	ALL57171	_
14"	ALL57072	ALL57172	ALL57272
14-1/2"	-	ALL57173	-
15"	ALL57074	ALL57174	ALL57274
15-1/2"	_	ALL57175	-
16"	ALL57076	ALL57176	ALL57276
17"	ALL57078	ALL57178	ALL57278
18"	ALL57080	ALL57180	ALL57280
19"	ALL57082	ALL57182	ALL57282
20"	ALL57084	ALL57184	ALL57284
21"	ALL57086	ALL57186	ALL57286
22"	ALL57088	ALL57188	ALL57288
23"	ALL57090	ALL57190	ALL57290
24"	ALL57092	ALL57192	ALL57292
25"	ALL57094	_	ALL57294
26"	ALL57096	-	_
27"	ALL57098	_	
28"	ALL57099	-	-

Bent Steel Suspension Tubes

Bent tubes work in

place of stan-

dard suspension tubes for additional clearance around suspension components. Tubes are constructed of .160" wall tubing with 5/8"-18LH threads on the straight 7/8" O.D. steel end and 5/8"-18RH threads on the curved end.

ALL57008 10"	ALL57018 15"
ALL57010 11"	ALL57019 15-1/2"
ALL57012 12"	ALL57020 16"
ALL57013 12-1/2"	ALL57021 16-1/2"
ALL57014 13"	ALL57022 17"
ALL57015 13-1/2"	ALL57024 18"
ALL57016 14"	ALL57026 19"
ALL57017 14-1/2"	ALL57028 20"

Heavy-Duty Steel Suspension Tubes

powder-coated fi ish.

Heavy-duty tubes are built from .160" wall 1026 DOM mild steel tubing for increased durability over standard steel suspension tubes and feature RH and LH threaded ends with a black

Length	5/8"-18 Thread 7/8" O.D.	3/4"-16 Thread 1" O.D.	Length	5/8"-18 Thread 7/8" O.D.	3/4"-16 Thread 1" O.D.
5"	ALL57344	ALL57444	15-1/2"	ALL57365	-
6"	ALL57346	ALL57446	16"	ALL57366	ALL57466
7"	ALL57348	ALL57448	16-1/2"	ALL57367	_
8"	ALL57350	ALL57450	17"	ALL57368	ALL57468
9"	ALL57352	ALL57452	18"	ALL57370	ALL57470
10"	ALL57354	ALL57454	19"	ALL57372	ALL57472
11"	ALL57356	ALL57456	20"	ALL57374	ALL57474
12"	ALL57358	ALL57458	21"	ALL57376	ALL57476
12-1/2"	ALL57359	_	22"	ALL57378	ALL57478
13"	ALL57360	ALL57460	22-1/2"	-	-
13-1/2"	ALL57361	-	23"	ALL57380	ALL57480
14"	ALL57362	ALL57462	23-1/2"	-	-
14-1/2"	ALL57363	-	24"	ALL57382	ALL57482
15"	ALL57364	ALL57464	25"	ALL57384	ALL57484

Threaded Tubing Ends

Chrome moly 4130 steel tubing ends are ideal for building custom length suspension tubes. Available in RH and LH threads.



Thread		Tube End		
Size	Tubing Size	Insert O.D.	RH Part No.	LH Part No.
10-32	3/8" x .058"	.259"	ALL22500	-
5/16"-24	1/2" x .058"	.384"	ALL22504	-
3/8"-24	5/8" x. 058"	.509"	ALL22508	ALL22509
3/8"-24	3/4" x .058"	.634"	ALL22512	ALL22513
1/2"-20	7/8" x .058"	.759"	ALL22518	ALL22519
1/2"-20	1" x .058"	.884"	ALL22522	ALL22523
1/2"-20	1" x .065"	.870"	ALL22526	ALL22527
1/2"-20	1-1/8" x .058"	1.00"	ALL22530	ALL22531
5/8"-18	1" x .058"	.884"	ALL22534	ALL22535
5/8"-18	1" x .095"	.810"	ALL22538	ALL22539
5/8"-18	1-1/4" x .095"	1.060"	ALL22542	ALL22543 [†]
5/8"-18	1-1/4" x .120"	1.010"	ALL22546	ALL22547 [†]
3/4"-16	1-1/4" x .065"	1.120"	ALL22548	ALL22549 [†]
3/4"-16	1-1/4" x .095"	1.060"	ALL22550	ALL22551 [†]
3/4"-16	1-1/4" x .120"	1.010"	ALL22554	ALL22555†
3/4"-16	1-3/8" x .095"	1.185"	ALL22558	ALL22559†

[†] Tube end has built-in hex for adjusting.

Smart Tool ALL10113

Ensure that chassis tubing is level and plumb when building roll cages or checking driveshaft angles. Powered by a standard 9-volt battery.





Aluminum Hex Suspension Tubes



Used in steering and suspension systems, hex tubes are easy to install and easy to adjust. Available in 7/8" hex with 5/8" threads tapped RH and LH, and 1-1/8" hex with 3/4" threads tapped RH and LH, tubes are black anodized for appearance and corrosion resistance. 6061-T6 material.

	5/8"	3/4"		5/8"	3/4"
Length	Thread	Thread	Length	Thread	Thread
3"	_	ALL56703	21"	ALL56621	ALL56721
4"	_	ALL56704	22"	ALL56622	ALL56722
5"	_	ALL56705	23"	_	ALL56723
6"	_	ALL56706	24"	_	ALL56724
7"	ALL56607	ALL56707	25"	_	ALL56725
8"	ALL56608	ALL56708	26"	_	ALL56726
9"	ALL56609	ALL56709	27"	_	ALL56727
10"	ALL56610	ALL56710	28"	-	ALL56728
11"	ALL56611	ALL56711	29"	_	ALL56729
12"	ALL56612	ALL56712	30"	-	ALL56730
13"	ALL56613	ALL56713	32"	_	ALL56732
14"	ALL56614	ALL56714	34"	-	ALL56734
15"	ALL56615	ALL56715	36"	-	ALL56736
16"	ALL56616	ALL56716	38"	-	ALL56738
17"	ALL56617	ALL56717	40"	-	ALL56740
18"	ALL56618	ALL56718	42"	_	ALL56742
19"	ALL56619	ALL56719	44"	-	ALL56744
20"	ALL56620	ALL56720			

Unthreaded 72" Hex Suspension Tubes

ALL56672 72" x 7/8" Hex for 5/8" Rod Ends **ALL56772** 72" x 1-1/8" Hex for 3/4" Rod Ends

Aluminum Suspension Tubes	
Swaged 1-1/8" O.D. tubes are built from .156" wall tubing and have 5/8" RH and LH threads.	

-		
	5/8" Thread	5/8" Thread
Length	Black Anodized	Polished Aluminum
10"	ALL56806-10	ALL56807-10
11"	ALL56806-11	ALL56807-11
12"	ALL56806-12	ALL56807-12
12-1/2"	ALL56806-125	ALL56807-125
13"	ALL56806-13	ALL56807-13
13-1/2"	ALL56806-135	ALL56807-135
14"	ALL56806-14	ALL56807-14
14-1/2"	ALL56806-145	ALL56807-145
15"	ALL56806-15	ALL56807-15
16"	ALL56806-16	ALL56807-16
17"	ALL56806-17	ALL56807-17
18"	ALL56806-18	ALL56807-18
18-1/2"	ALL56806-185	ALL56807-185
19"	ALL56806-19	ALL56807-19
19-1/2"	ALL56806-195	ALL56807-195
20"	ALL56806-20	ALL56807-20
20-1/2"	ALL56806-205	ALL56807-205
21"	ALL56806-21	ALL56807-21
21-1/2"	ALL56806-215	ALL56807-215
22"	ALL56806-22	ALL56807-22
22-1/2"	ALL56806-225	ALL56807-225
23"	ALL56806-23	ALL56807-23
23-1/2"	ALL56806-235	ALL56807-235
24"	ALL56806-24	ALL56807-24
24-1/2"	ALL56806-245	ALL56807-245

Aluminum Suspension Tubes

Clear anodized tubes have a machined wrench at on one end for ease of adjustment. Tubes have .156" wall thickness, are available in two diameters and a variety of lengths. The 56400 series tubes are 7/8" in diameter and both ends are tapped 5/8", one RH and LH. The 56500 series tubes are 1" in diameter and both ends are tapped 3/4", one RH and one LH 6061-T6 aluminum

THE AIR ONE LET. COOF TO AIGITIFICATE.							
Length	5/8" Thread	3/4" Thread	Length	5/8" Thread	3/4" Thread		
5"	ALL56405	_	18"	ALL56418	ALL56518		
6"	ALL56406	_	19"	-	ALL56519		
7"	ALL56407	_	20"	-	ALL56520		
8"	ALL56408	_	21"	_	ALL56521		
9"	ALL56409	_	22"	_	ALL56522		
10"	ALL56410	_	23"	-	ALL56523		
11"	ALL56411	_	24"	-	ALL56524		
12"	ALL56412	ALL56512	25"	-	ALL56525		
13"	ALL56413	ALL56513	26"	-	_		
14"	ALL56414	ALL56514	27"	-	-		
15"	ALL56415	ALL56515	28"	-	_		
16"	ALL56416	ALL56516	29"	-	_		
17"	ALL56417	ALL56517	30"	-	_		

Unthreaded 72" Suspension Tubes

ALL56472 7/8" O.D. Tube for 5/8" Rod Ends **ALL56572** 1" O.D. Tube for 3/4" Rod Ends





Rod Ends

Two-piece spherical rod ends have a pivoting steel ball and are sold each.



			RH	
Bore x Thread	RH Male	LH Male	Female	Strength
Standard Series	Steel			
1/4" x 1/4"-28	ALL58004	ALL58014	ALL58034	2,835 lbs
5/16" x 5/16"-24	ALL58005	ALL58015	ALL58035	4,517 lbs
3/8" x 3/8"-24	ALL58006	ALL58016	ALL58036	6,323 lbs
1/2" x 1/2"-20	ALL58008	ALL58018	ALL58038	10,046 lbs
5/8" x 5/8"-18	ALL58010	ALL58020	ALL58040	15,488 lbs
3/4" x 3/4"-16	ALL58012	ALL58022	ALL58042	15,894 lbs
3/4" x 3/4"-16‡	ALL58013*	_	_	15,894 lbs
Pro Series Stee	l (Moly) – Bla	ack		
1/2" x 1/2"-20	ALL58058	ALL58068	_	17,000 lbs
1/2" x 5/8"-18	ALL58059	ALL58069	_	19,300 lbs
5/8" x 5/8"-18	ALL58060	ALL58070	_	18,000 lbs
3/4" x 3/4"-16	ALL58062	ALL58072	_	25,000 lbs
Pro Series Stee	l (Moly) – Bla	ack (PTFE L	ined)	
1/2" x 1/2"-20	ALL58078	ALL58083	_	_
1/2" x 5/8"-18	ALL58079	ALL58084	_	17,650 lbs
5/8" x 5/8"-18	ALL58080	ALL58085	_	15,200 lbs
3/4" x 3/4"-16	ALL58082	ALL58086	_	21,400 lbs
Aluminum – Bla	ck			
1/2" x 1/2"-20	ALL58088	ALL58098	_	7,700 lbs
1/2" x 5/8"-18	ALL58089	ALL58099	_	15,000 lbs

^{*}ALL58013 has an oversized hole and is for use with steering shaft tubing.

Heavy-Duty 3/4" Chrome Moly Rod Ends

Heavy-duty or often referred to as "Aircraft Style", these 4130 chrome moly rod ends have larger bodies, making them 30% stronger than standard 3/4" rod ends. These rod ends are commonly used on Panhard bars and lower strut rods.



ALL99314 ALL99315

ALL99314..... RH Male, 3/4" x 3/4"-16 **ALL99315**..... RH Female, 3/4" x 3/4"-16

3/4" Solid Rod End ALL58112

Solid rod ends are built using 1045 steel and are then chrome plated for added wear resistance. End has a body width of 7/8" to match the width of standard rod ends.

Bolt Center Caps ALL10678

Caps slip over the head of standard 1/2" bolts to accurately measure the center-to-center length of installed suspension tube assemblies.



Machined step secures the end of a standard tape measure for easy reading of the length to the center of the opposite cap. Caps feature a built-in O-ring that allows the cap to swivel on the bolt head and keeps it from falling off. Package of 2.

Jam Nuts - Standard Hex

Allstar jam nuts have many uses. Great for locking rod ends tightly on suspension tubes or rack and pinion steering units. Package of 4, unless noted.





Steel Jam Nut Assortments

Assortments contain ve each of 1/4"-28, 5/16"-24,



ALL18290..... 35 Asst. RH Jam Nuts **ALL18291**..... 35 Asst. LH Jam Nuts

Jam Nuts - Small Hex

Specialty jam nuts have smaller outside diameters, allowing smaller wrenches to be used when changing radius rod lengths. Example: With 1/2" bolts, the same 3/4" wrench can be used to adjust radius rod or mounting hole locations. Package of 4.

Thread	Wrench			Black
Size	Size	Steel	Alum.	Alum.
5/8"-18 RH	3/4"	ALL18292	ALL18296	ALL18286
5/8"-18 LH	3/4"	ALL18293	ALL18297	ALL18287
3/4"-16 RH	15/16"	ALL18294	ALL18298	ALL18288
3/4"-16 LH	15/16"	ALL18295	ALL18299	ALL18289

Mono Ball Bearings

Mono balls are commonly used in fabrication of products including J-bars, control arms and trailing arms. Bearings have an external grease ring and ori ce which allows the bearing to be installed in custom applications that can be externally lubricated.

ALL58001 5/8" **ALL58002** 3/4"





High Misalignment Reducer Spacers

Dual-purpose spacers reduce fastener size mounting hole and allow the rod end to rotate more than 30° in each direction, which is 25% more than most standard spacers. Stainless steel spacers resist rust and corrosion. Package of 2.



Rod End	d	O.D.	Length	Overall	
Size	I.D.	"A"	"B"	Width "C"	Part No.
5/8"	1/2"	.750"	.465"	1.68"	ALL18785
3/4"	1/2"	.890"	.475"	1.825"	ALL18786
3/4"	5/8"	.890"	.475"	1.825"	ALL18787

5/8" Rod End Reducer Spacers

Reducer spacers t into 5/8" rod ends, reducing the hole size for 1/2" hardware while also spacing

the rod end away from chassis brackets. Standard

spacers are 3/4" O.D. and anged



ALI 1861

spacers have 1" O.D. anges to help support rod end. Size referenced indicates the amount of space between rod end pivot ball and chassis bracket. Package of 2.

Standard Spacers

ALL18615 Aluminum, 1/2" **ALL18617** Aluminum, 1"

ALL18618 Aluminum, 1-1/4" **ALL18619** Aluminum, 1-3/4"



Flanged Spacers

ALL18611 Aluminum, 1/4" **ALL18613** Aluminum, 1/2" **ALL18610** Steel, 1/4" **ALL18612** Steel, 1/2"



Rod End Reducer Bushings

Steel bushings reduce the rod end pivot ball I.D. to accept a smaller bolt size.



O.D. To I.D.	2-Pack	10-Pack
1/2" To 3/8"	ALL18565	ALL18565-10
5/8" To 1/2"	ALL18566	ALL18566-10
3/4" To 1/2"	ALL18567	ALL18567-10
3/4" To 5/8"	ALL18568	ALL18568-10

Shock Spacers

Steel spacers have a 1/2" I.D. and 3/4" O.D. and can be used in a variety of other locations.



Length	2-Pack	10-Pack	25-Pack
1/4"	ALL64280	ALL64280-10	ALL64280-25
1/2"	ALL64282	ALL64282-10	ALL64282-25
5/8"	ALL64283	ALL64283-10	ALL64283-25
3/4"	ALL64284	ALL64284-10	ALL64284-25

Aluminum Flat Spacers

Flat spacers are great for shimming and adding additional clearance to brackets for brake calipers, power steering, alternators, dry sump pumps or just about anything to help with alignment issues. Package of 2.

Length	3/8" I.D. (11/16" O.D.)	1/2" I.D. (1" O.D.)
1/8"	ALL18740	ALL18760
1/4"	ALL18742	ALL18762
3/8"	ALL18744	ALL18764
1/2"	ALL18746	ALL18766

Tapered Spacers

Universal spacers have many uses including spacing rod ends on linkages to prevent binding or just to provide clearance. Spacers provide a nished look when tting body

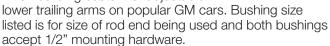


panels or spacing components away from oors and rewalls. Package of 2.

I.D.	Small O.D.	Large O.D.	Length	Steel	Aluminum
1/4"	.345	.500	1/4"	-	ALL18700
1/4	.343	.500	1/2"	-	ALL18702
5/16"	.475	.625	1/4"	-	ALL18706
3/10	.475	.025	1/2"	_	ALL18708
			1/4"	-	ALL18712
3/8"	.525	.680	1/2"	-	ALL18714
			1"	_	ALL18716
			1/4"	ALL18570	ALL18590
		.740 .995	3/8"	ALL18571	_
1/2"	.740		1/2"	ALL18572	ALL18592
1/2			3/4"	ALL18574	ALL18594
			1"	ALL18576	ALL18596
			1-1/2"	ALL18578	ALL18595
			1/4"	ALL18580	ALL18597
			1/2"	ALL18582	ALL18598
5/8"	.825	.995	3/4"	ALL18584	ALL18599
			1"	ALL18586	-
			1-1/2"	ALL18585	-
	3/4" .950 1.125		1/2"	ALL18587	-
3/4"		.950 1.125	3/4"	ALL18588	-
			1"	ALL18589	-

GM Trailing Arm Rod End Reducer Bushings

Reducer bushings are used with spherical rod ends to take the place of the OE style trailing arm bushing when building custom or adjustable



ALL18790..... 5/8" ALL18792..... 3/4"



6th Coil Assembly ALL64315

6th Coil Assembly Unit bolts in the center of the chassis to 1-1/2" tubing and the bottom connects to the front of a lift bar using the supplied 18" long chain which accepts 3/8" hardware and can be easily cut to required length. Accepts a 4" tall by 2-1/2" I.D. coil over spring (sold separately).



included.

Limit Chain Clamp, 2-Piece

Two-piece clamp bolts around most 3" O.D. axle tubes to provide a lower mounting point for a suspension limit chain. Twopiece design features a nylon liner allowing clamp to be installed without removing existing brake brackets and hubs.

ALL68336 Steel ALL68337 Aluminum



5th Coil Mount ALL60218

1-1/2" aluminum bracket bolts in the center of the chassis to mount a 5th coil shock assembly.



QC Lift Bar Brackets

Brackets mount to quick change rearends and accept most popular lift bars. Package of 2.



ALL68313..... Steel Lowers with 5/8" Hole **ALL68314....** Steel Lowers with 5/8" Hole (3/4" Drop)

ALL68317..... Aluminum Uppers with 5/8" Hole ALL68318..... Aluminum Uppers with 3/4" Hole

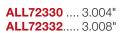
Lift Bar Retainer Clamp ALL68325

Bracket clamps around 3" axle tubes to provide a mounting point for a lift bar support rod. 1" wide bracket has angled tabs with 1/2" holes for mounting a strut rod with 1/2" rod ends.



Birdcage Bearings

Bearings replace damaged or binding bearings in most popular birdcages. Bearing O.D. is 3.625", inner race is .875" wide and outer shell is .745" wide.





Limit Chain Clamps 1-Piece

1-piece bearing style clamp slides over the end of most 3" O.D. axle tubes to provide a lower mounting point for a suspension limit chain.

ALL68332 Steel ALL68333 Aluminum



Retainer Clamps, 2-Piece

Retainer clamp bolts around most 3" O.D. axle tubes to keep birdcages, oater brackets. limit chain clamps in position. 2-piece design allows clamp to be installed without removing existing brake bracket and hub.

ALL68338 Steel ALL68339 Aluminum

Retainer Clamps, 1-Piece

Steel retainer clamp slides over the end of most 3" O.D. axle tubes to keep birdcages, flo ter brackets, and limit chain clamps in position. Powder-coated black nish.



Part No.	Description	Width	Thickness	Mounting Hardware
ALL68326	Lightweight	1/2"	1/8"	1/4"
ALL68327	Heavy-Duty	5/8"	1/4"	3/8"



ALL60145

Clamp-On Rings for 3" Axle Tubes

Clamp-on rings fasten around most 3" axle tubes to use as a starting point for building custom trailing arms. shock and spring mounts and many other uses. Ring are constructed

using 3/16" wall material and feature a two-piece design for easy installation and removal.

ALL60144..... 2-Bolt. 1" Wide ALL60145..... 2-Bolt, 1-3/4" Wide ALL60146..... 2-Bolt, 2" Wide ALL60147 4-Bolt, 3" Wide



Bracket clamps around 3" wide axle tubes to provide a mounting point for a suspension limiter such as a limiting strap or chain. 1" wide bracket with double shear tabs.

ALL68323 Bracket with 3/8" Holes ALL68324 Bracket with 1/2" Holes



Coil-Over Load Bolt Assembly

ALL56074

Threaded aluminum bolt is 6" long with 1-1/8"-12 ne threads and is commonly used as an adjustable travel limiter. Also used with ALL56098 threaded sleeve.

Replacement Component

ALL56075 Replacement Shock End

Ride Height Set-Up Stick ALL10658

Stick replaces the coil-over shock and spring assembly during maintenance. Stick has many uses and may be adjusted to check settings at normal ride height, in race attitude, or on the bump stops to evaluate suspension travel. Adjusts from 15" to 24", measured at the center of 1/2" rod ends.



Cory Crapser

Suspension Limiters

Single-bushing suspension limiter is commonly used on the chassis LR or RR to limit travel during acceleration "hike up" and control roll steer. Dual-bushing limiter is often used on the lift bar to control lift bar travel on deceleration. Bushing design reduces or absorbs shock when suspension is limited and helps reduce tire unloading. Top plate is drilled to attach a 1/2" rod end when used in a shock mount or for attaching to a weight jack bolt with 7/16"-20 internal threads using optional chrome moly stud ALL64304. Clevis has a 3/8" hole for simple attachment to a chain or cable.

ALL64300 Single Bushing Limiter ALL64302 Dual Bushing Limiter **ALL64346** Bushing for ALL64300 **ALL56372** Bushing for ALL64302

ALL64305 Clevis 1/2"-20 Thread w/ 3/8" Hole **ALL64304** Chrome Moly Stud w/ Jam Nut 7/16"-20

Limiter Chain Kit

Commonly used to limit rear suspension or lift bar travel. Chain is 18" long and can be easily cut to required length. Shrink sleeve installs over chain, and when heated with a heat gun, shrinks to keep

chain in position and prevent chain from binding or catching on itself.

ALL64312..... 3/16" Diameter Accepts 3/8" Pin or Bolt ALL64314..... 5/16" Diameter Accepts 1/2" Pin or Bolt

QC Axle Tube **Support Brackets**

Brackets provide mounting points for a strut rod assembly to help eliminate ex found in quick change rear ends. ALL68320

attaches to the side bell bolts on most quick change rear ends. ALL68322 has tabs with 5/8" holes and mounts directly onto a 3" axle tube.

ALL68320 Center Section Mount ALL68322 Axle Tube Mount





ALL68322

ALLSTAR' PERFORMANCE

Center-Pull Birdcage

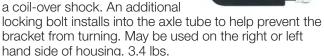
ALL60410

Birdcage clamps around most 3" O.D. machined axle tubes to provide a lower mounting point for a suspension. The two-piece design features a nylon liner allowing clamp to be installed without removing existing brake brackets and hubs. Clamp measures 3-1/4" wide including retaining clamps and accepts a 3/4" suspension tube.

Clamp-On Trailing Arm Bracket

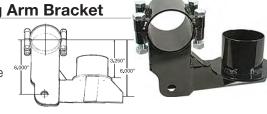
ALL60138

Aluminum bracket clamps to a 3" diameter axle tube, has three 3/4"-10 mounting holes for trailing arm location and a 1/2"-13 socket head bolt with two 1/4" spacers for mounting a coil-over shock. An additional





Steel bracket clamps on 3" axle tube to provide mounts



for shock, trailing arm and 5" O.D. coil spring. Grade 5 hardware included.

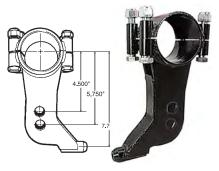
ALL60140..... LH Bracket ALL60141..... RH Bracket

BERLIN

Bubba Pollard Brian Campbell

Clamp-On Trailing Arm Brackets

Steel brackets clamp on 3" axle tube for attachment of coil-over shocks and trailing arms. Available with two 3/4" holes or a 2"



slot. Grade 5 hardware and Nyloc nuts included.

ALL60134..... Bracket with Two 3/4" Holes ALL60135..... Bracket with 2" Slot

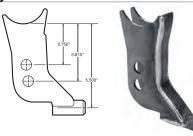
Clamp-On Trailing Arm Bracket ALL60136

Universal bracket mounts coil-over eliminator and shock next to axle and mounts trailing arm 4-1/2" below axle centerline, either inside or outside of bracket. Allows Limited Late Models and Modi eds to be changed from coilover to coil-over eliminator and shock. Grade 5 hardw

over to coil-over eliminator and shock. Grade 5 hardware and Nyloc nuts included.

Weld-On Trailing Arm Bracket ALL60126

Weld-on lower bracket to 3" axle tube to mount coilovers and trailing arms. Bracket are 3/16" steel with 9/16" shock hole and features two 3/4" trailing arm holes.



Weld-On Trailing Arm/ Shock Brackets

Flame-cut 1/2" thick steel brackets weld to 3" diameter axle tube, providing mounting points for trailing arm and shock. Brackets have two 3/4"-10 threaded

holes to mount trailing arm and a 1/2" diameter hole with spacer for mounting a shock.

ALL60110 LH Bracket ALL60111 RH Bracket





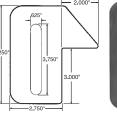
Trailing Arm Brackets

Steel brackets can be used as front mount for leaf spring or trailing arm. Assorted styles are available.

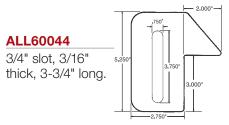
Sold each.

ALL60043

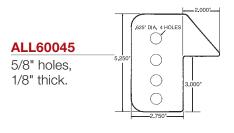
5/8" slot, 3/16" thick, 3-3/4" long.



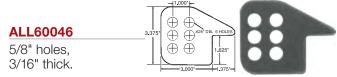


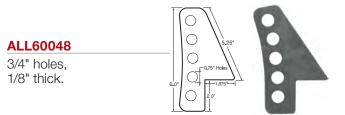












Trailing Arm Bracket ALL60042

Weld-on bracket has a curved 3/4" slot so rear end remains square as the trailing arm is raised or lowered. Notched for 2" x 3" square tubing. 1/4" thick.

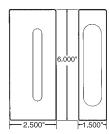


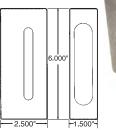
Slider Boxes

Slider boxes weld to the chassis and provide an adjustable mount for trailing

arms, Panhard bars and upper links. Boxes are constructed of .120" wall material and are 1-1/2" wide x 2-1/2" deep x 6" tall, with a 4" slot that provides 3" of adjustment.

ALL60186 4" x 1/2" Slot **ALL60188** 4" x 3/4" Slot





Slider Box Quick Adjust Kit

ALL60198

Weld-on kit adds an adjustable feature to standard 3/4" slider boxes. Slider boxes commonly used for trailing arms, Panhard bars and upper links can now be quickly adjusted with a wrench, socket or possibly a remote adjuster. 3/4"-16 threaded adjuster block features





Slider Box T-Nuts

a reference indicator.

T-nuts have slot built in to keep them from turning. No second wrench is needed to tighten or loosen. Use with ALL60186 and ALL60188 slider box. Sold each.



ALL60194.... 1/2"-13 (Coarse Thread) **ALL60195....** 1/2"-20 (Fine Thread) **ALL60196** 5/8"-11 (Coarse Thread) **ALL60197**..... 5/8"-18 (Fine Thread) **ALL60192**..... 3/4"-10 (Coarse Thread) **ALL60193**..... 3/4"-16 (Fine Thread)

Slider Box Rod End Spacers

Steel spacers are machined to work with ALL60186 and ALL60188 slider boxes tting between bracket and rod end to properly space rod end and prevent binding. May also be used as standard rod end spacers.





ALL60187..... Spacers for 1/2" Slider Box, 2-Pack ALL60187-10..... Spacers for 1/2" Slider Box, 10-Pack ALL60189...... Spacers for 3/4" Slider Box, 2-Pack ALL60189-10 Spacers for 3/4" Slider Box, 10-Pack

Swing Arms

Lower rear suspension link

with a 3/4" rod end on one end and threads in the other end to accept a 3/4" RH male rod end. Used on Dirt Late Models and Modifi ds.

ALL56052 13-1/2" ALL56053 15-1/2"





ALI 57826

GM Metric Trailing Arms

New, stamped steel C-channel arms are strong and sturdy.
Improve handling of the rear suspension on 1978-88 GM metric chassis by replacing twisted or worn out rear control arms. Sold each.

ALL57822

ALL57820 Upper, 2.6 lbs. **ALL57822** Lower, 3.6 lbs.

Adjustable GM Metric Chassis Trailing Arms

Adjustable steel 1978-88
G-body Metric upper and lower rear end trailing arms are complete with left and right 3/4" rod ends, step spacers reducing to a 1/2" hole and cut to t stock GM

type mounts. Upper arm aids in adjusting pinion angle and centering rear end. Lower arm will adjust wheel base.

ALL57824 Upper **ALL57826** Lower

GM Trailing Arm Rod End Reducer Bushings

Reducer bushings are used with spherical rod ends to take the place of the OE style trailing arm bushing when building custom or adjustable lower trailing arms on popular GM cars. Bushing size listed is for size of rod end being used and both bushings accept 1/2" mounting hardware.

ALL18790..... 5/8" **ALL18792**..... 3/4"

Universal Trailing Arm Brackets

Brackets have three 1/2" mounting holes spaced 1-1/4" apart and may be welded to 3" axle tubes to provide three trailing arm mount locations. ALL60058 is made of 3/16" steel and welds to the top of



the rear end housing, providing an attachment point for upper trailing arms.

ALL60050 Lower Bracket
ALL60051 Shock Bracket For Lower
ALL60058 Upper Bracket

Metric Upper Trailing Arm Mounts

ALL60059

Mounts weld to the top of Ford 9" housing creating a mounting point for GM Metric chassis upper trailing arms. Bushings not included.



GM Metric Chassis Trailing Arm Bracket Kits

Includes rear upper and lower trailing arm mounts. Upper mount must be cut to desired height depending on where housing is located in the chassis.



ALL60052 Kit with Single Hole Lower in Stock Location

ALL99282 Brackets Only, 1 Pair
ALL60053 Kit with Single Hole Lower,
Lowered to Increase Traction

ALL99283 Brackets Only, 1-Pair ALL60054 Kit with Multi-Hole Lower ALL99284 Brackets Only, 1-Pair

GM Trailing Arm Bushing

ALL56245

Direct replacement, heavy duty polyurethane bushing improves handling and traction. Fits most '65-88 Chevy Chevelle/ Malibu, Buick Skylark/GS, Olds Cutlass/442 and Pontiac LeMans/GTO. Accepts 1/2" hardware.

GM Trailing Arm Bushing

ALL56247

GM bushing with an elastomer bearing insert improves handling and traction while eliminating bind.

Use with stock trailing arms for race or street. Fits most 1965-88 Chevy Chevelle/Malibu, Buick Skylark/GS, Olds Cutlass/442 and Pontiac LeMans/GTO. Accepts 1/2" hardware.

GM Trailing Arm Bushing with Insert ALL56248

Popular GM bushing features an interchangeable polyurethane insert which can be exchanged to increase or decrease rear steer for

maximum traction. Bushing includes a 40 durometer insert. Use with stock or adjustable trailing arms. Fits most 1965-88 Chevy Chevelle/Malibu, Buick Skylark/GS, Olds Cutlass/442 and Pontiac LeMans/GTO. Accepts 1/2" hardware.

Related Components

ALL99400 Black Insert 40 Durometer (Soft)
ALL99401 Yellow Insert 60 Durometer (Medium)
ALL99402 Red Insert 80 Durometer (Hard)





Bolt-On Spring Cup ALL56117

Aluminum cup for 5" spring features a 1/2" mounting hole for use with internal threaded jack bolts, used as a rear lower cup or modi ed to t shock shafts.



Lower Spring Cups

Steel spring cup has a 7" wide curved base that welds to the top of a 3" diameter rear end axle tube creating a at mounting surface for 5" O.D. racing springs. Commonly used to replace OE style "pigtail" lower spring mount. Sold each.



ALL56124..... Standard Cup ALL56123..... Lightweight Cup

Leaf Spring Pad ALL56126

Steel pad welds to 3" diameter rear end axle tube when mounting rear end to most leaf springs. Pad is 2-1/2"W by 5-3/4"L and has a 5/8" center pilot hole. Sold each.



Steel clamp-on leaf spring pad ts 3" diameter axle tubes. Pad measurements are the same as ALL56126. Sold each.

ALL56131

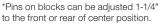
ALI 56136

ALL56065

Aluminum Lowering Blocks

Easily adjust ride height on leaf spring cars. Standard and adjustable styles are available in extruded or billet aluminum. Blocks are 2-1/2"W x 5"L. Sold each.

Part No.	Height	Pin Dia.				
Extruded Al	Extruded Aluminum					
ALL56130	1"	9/16"				
ALL56131	1-1/2"	9/16"				
ALL56132	2"	9/16"				
ALL56133	2-1/2"	9/16"				
ALL56134	3"	9/16"				
Billet Alumin	Billet Aluminum					
ALL56060	3/4"	5/8"				
ALL56061	1"	5/8"				
ALL56062	1-1/2"	5/8"				
ALL56063	2"	5/8"				
ALL56064	ALL56064 2-1/2" 5/8"					
ALL56065	3"	5/8"				
ALL56136*	1-1/2" Adj.	5/8"				
ALL56138*	2-1/2" Adj.	5/8"				



Leaf Spring U-Bolt

ALL68344

Leaf spring u-bolt ts 3" axle tubes, has a 1/2" diameter and is 10" long. Heat treated steel bolt is sold each.

U-Bolt Pads

Universal style U-bolt pads t 3" diameter axle







ALL6003

tubes and leaf springs up to 2-1/2" wide using 1/2" U-bolt fasteners. Center alignment hole is 5/8" to accept most lowering blocks or spring bolts. 1/4" thick formed steel pads have a gusseted shock mount with a welded bung to accept 1/2" mounting hardware.

ALL60036 RH Pad **ALL60037** LH Pad

ALL60038 Dual Mount Pad

Leaf Spring Slider Box

ALL60034

Leaf spring slider box replaces conventional leaf spring shackles to enable effortless suspension move-

ment and prevent binding. Box may be welded or bolted directly to chassis, and includes two nylon bushings with spring mounting hardware. Fits 2-1/2" wide Chrysler type leaf springs.



Leaf Spring Slider Box

ALL60035

Replace rear leaf spring shackles with Allstar's leaf spring slider box. Bolt-in slider box with roller bearing design eliminates leaf spring binding, freeing up car. Fits 2-1/2" wide Chrysler type leaf springs.



6-hole brackets for mounting leaf springs are 9" L x 2" W and have 1/2" diameter holes spaced 1" on center. Package of 2.

ALL60055 Steel 1/4" Thick **ALL60056** Aluminum 3/8" Thick







ALL60056

Wheelie Bar Wheels

Billet 6061-T6 aluminum wheels are

molded with a durable 4" O.D. polyurethane tire that will not dent or give like a rubber tire. Wheels are available with or without bearings and accept 3/8" mounting hardware. Mounting width: non-bearing wheel is 1-5/8", bearing style wheel is 1-1/4".

Without Bearings (1.625" Wide Mount)

ALL60510..... 5-Spoke **ALL60512**..... 5-Hole **ALL60514**..... 10-Spoke

With Bearings (1.250" Wide Mount)

ALL60511..... 5-Spoke **ALL60513**..... 5-Hole **ALL60515**..... 10-Spoke







Tubing Notcher ALL10411

Notcher works with most standard hole saws to creates a notch on end of round tubing for properly attaching round tubing to round tubing, often used when building roll cages, bumpers, or custom chassis. Notcher features an adjustable holding xture which automatically centers tubing to create a notch from 90-45 degrees in tubing up to 2". Notcher is commonly

clamped into a bench vise or bench mounted and used with a hand drill. Note: Hole saw used should be the size of tube accepting notched tube.

Replacement Component

ALL10402..... 5/8"-18 Thread Adapter

ALL10402

Tubing notcher includes a 1/2"-20 arbor thread and 5/8"-18 adapter. Most hole saws up to 1-1/8" diameter use 1/2"-20, larger hole saws use 5/8"-18 thread.

Hole Saw Set ALL10412

Use with tubing notchers. Does not include an arbor for a hand drill. Set includes one of each size: 3/4", 1", 1-1/4", 1-1/2" 1-5/8", and 1-3/4". Hole saws up to 1" diameter use 1/2"-20 thread; larger hole saws use 5/8"-18 thread.

Individual Hole Saws

ALL10413 3/4"	ALL10417 1-1/2"
ALL10414 1"	ALL10418 1-5/8"
ALL10416 1-1/4"	ALL10419 1-3/4"

Note: Hole saws up to 1" diameter use 1/2"-20 thread; larger hole saws use 5/8"-18 thread

Compact Digital Level

ALL10742

Digital level with magnetic base measures the angle of a single straight surface or the angle of a joint between two straight surfaces. Displayed value on the LCD screen rotates to right side up

when digital level is in an upside down position. Powered by three 3V CR2032 batteries (included). 2" x 2" x 1".

Punch and Flare Tools

Add strength and a smooth nish to hole edges. Unique tools can be used to punch and are new holes, or to are existing holes. Starting with a small center hole, the punch halves bolt together to cut and are at the same time.







Sample Punch and Flare

Smart Tool ALL10113

Ensure that chassis tubing is level and plumb when building roll cages or checking driveshaft angles. Powered by a standard 9-volt battery.



Tin Snips

Durable tin snips have offset blades to keep hands clear of metal while cutting. Non-slip jaws cut through sheet aluminum and up to 18-gauge low carbon steel. Blade length 1-1/4", total tool length 9-1/4".

ALL11030 Red Grips, Straight and LH Cut **ALL11031** Green Grips, Straight and RH Cut

Deburring Tool

ALL11036

A fast and easy way to remove burrs from the edges of machined or cut metals.

Five-piece kit includes handle, telescopic blade holder and three unique blades. Handle has built-in storage for blades. Blade holder adjusts from 1" to 5".

NEW

Replacement Component

ALL99328 Blades 3-pk

Graphic Trim Tool

ALL23101

Unique tool allows you to easily trim your graphics

around wheel openings and other body panel edges. Adjustable width allows you to choose how far you want your material from the edge and the adjustable head gives you a wide range of options in tight or open areas.

Body Roller

ALL23102

This handy "highside" body roller will allow you straighten body and deck panels while still on your car! Must have item for at track repairs.





Body Radius Tool ALL23100

Solid oak tool can be used to are edges of wheel openings when fabricating fenders and quarter panels out of aluminum. Tool has two different radiuses to create the correct are for your needs.

Sheet Metal Shrinker Stretcher Combo

Make smooth radius curves and contours with Allstar's shrinker/ stretcher combo. Shrinker creates inside curves and stretcher expands for outside curves. Each completely assembled tool includes a handle and mounting hardware for securing to a workbench. Tools are capable of forming 18-gauge mild steel, 16-gauge aluminum and 20-gauge stainless. Kit is great for forming fenders, radiator shrouds, or any item needing a smooth radius curve. ALL11023 1 Base with Two Jaws

ALL11024 2 Bases with Two Jaws

Spring Steel Drill Bit ALL23115

Specially hardened drill bit is required for drilling spring steel. The 17/64" size simpli es installation of 1/4" hardware. Sold each.

Hammer Type Spring Steel Punch ALL23116

Hammer type punch places a 1/4" diameter hole 1/2" from the end of most 1" x .062" thick spring steel material. Punch features a built-in stop which positions the material for accurate hole placement. Punch needs to be placed on a hard surface (i.e. concrete oor, steel anvil, etc.) and struck lightly with a 3- to 4-lb. hammer.

Replacement Component ALL99013 Mandrel for ALL23116

Impact Gun Spring Steel Punch ALL23117

Impact gun style punch places a 1/4" diameter hole 1/2" from the end of most 1" x .062" thick spring steel material. Punch features a built-in stop which positions the material for accurate hole placement. Punch may be placed in a vise or handheld and impact gun driven using a 3/4" socket.

Replacement Component

ALL99014..... Mandrel for ALL23117 ALL99173..... Mandrel Bolt

43/64" Wheel Stud Drill Bit ALL11045

43/64" bit is correct for drilling hubs or axle anges to accept most 5/8" wheel studs with .690' knurl diameter. 1/2" shank.

Fabrication Pen

Pencil works well for marking lines during metal layout and fabrica-



tion. Multiple uses include marking steel tubing for cutting or notching and marking patterns on painted aluminum or steel sheet metal. Silver re ective marks work best against darker surfaces during cutting or welding for high visibility. Pencil marks are resistant to torch ames and will not burn or rub off.

ALL12064..... Pencil, 3-Pack

ALL12066..... Mechanical Pencil, with Six Re Ils

Step Drill Sets

Drill multiple size holes with one bit. Drill sheet metal and aluminum without deforming or distorting. Bits start on contact, deburr and chamfer

while drilling, and do not require a center punch. Titanium nitride-coated high-speed steel. 1/4" shank.

ALL11040 (3-Piece Set)

Drill Bit	Sizes
Six Step	3/16", 1/4", 5/16", 3/8", 7/16", 1/2"
Nine Step	1/4", 5/16", 3/8", 7/16", 1/2", 9/16", 5/8", 11/16", 3/4"
Thirteen Step	1/8", 5/32", 3/16", 7/32", 1/4", 9/32", 5/16", 11/32", 3/8", 13/32", 7/16", 15/32", 1/2"

ALL11041 (2-Piece Set)

Drill Bit	Sizes
Eleven Step	1/4", 25/64", 35/64", 11/16", 13/16", 7/8", 1", 1-1/8", 1-7/32", 1-1/4", 1-3/8"
Twelve Step	3/16", 1/4", 5/16", 3/8", 7/16", 1/2", 9/16", 5/8", 11/16", 3/4", 13/16", 7/8"

Double-Ended Drill Bits

Double-ended bits are basically two bits in one. Convenient bit can be ipped around for a fresh sharp bit when drilling panels for Cleco fasteners or rivets. Package of 6.

ALL18201 1/8" ALL18204..... 3/16"

Drill Bit for Flange Rivets 13/64"

ALL18203

A common size bit for working with 3/16" ange type rivets. High-speed

steel bits have black oxide nishes and self-centering tips. Flute length: 1-3/16", overall length: 2-1/4". Package of 2.





Cordless Rivet Gun

ALL18212

Quickly set steel and aluminum mandrel rivets anywhere without the need of an air compressor. Kit includes 3/32", 1/8", 5/32", and 3/16" nose pieces, 3-in-1 spanner wrench, (2) 14.4-volt

Li-ion batteries, charger, and plastic carrying case.

Air Rivet Gun ALL18210

Durable air riveter speeds up assembly and quickly fastens steel or aluminum rivets into various materials. Includes nose pieces for 3/32", 1/8", 5/32", and 3/16" rivets.

Deluxe Air Rivet Gun

ALL18207

Heavy-duty air rivet gun can be used with steel or aluminum rivets from 3/32" to 3/16".

Replacement Components

ALL18209 Jaw Set

ALL99255 Nose Piece Set 3pcs

ALL99256 Mandrel Cup

Hand Rivet Gun





Kyle Krump

Threaded Insert Tool Kit

ALL19450

Tool works with a cordless drill to install a threaded insert into a panel

or bracket. Inserts are helpful when the backside of the panel is not easily accessible. Simply drill the correct size hole, install the threaded insert onto the mandrel, then place the insert into the hole and tighten using any cordless drill. Once the insert is compressed, reverse the drill and remove the mandrel from the insert. Kit includes mandrel and nosepiece for 1/4"-20, 5/16"-18, and 3/8"-16 inserts, other sizes available separately. Threaded inserts sold separately.

Replacement Components

ALL19452..... Mandrel and Nosepiece for 8-32 ALL19453..... Mandrel and Nosepiece for 10-24 ALL19454..... Mandrel and Nosepiece for 10-32 ALL19455..... Mandrel and Nosepiece for 1/4"-20 ALL19456..... Mandrel and Nosepiece for 5/16"-18

ALL19457..... Mandrel and Nosepiece for 3/8"-16

Threaded Inserts

Steel inserts are helpful when the backside of the panel is not easily accessible. Inserts work great for frequently removed items including gauge panels, switch panels, access panels, and body panels or when mounting items to trailer walls. Inserts are designed for installation using insert tool ALL19450 with coordinating mandrel and nosepiece. Package of 10.



ALL19454

	Thread	Pilot Hole	Grip	Body Length
Part No.	Size	Size	Range	(Before Comp.)
ALL19460	8-32	17/64"	Up to .080"	.420"
ALL19461	10-24	5/16"	Up to .130"	.475"
ALL19462	10-32	5/16"	Up to .130"	.475"
ALL19463	1/4"-20	13/32"	Up to .165"	.580"
ALL19465	5/16"-18	17/32"	Up to .150"	.690"
ALL19467	3/8"-16	17/32"	Up to .150"	.690"

Cleco Pin Fastener Kits

Cleco pins are reusable and easily make a temporary connection between pieces of sheet metal during tting. Pins will work with thicknesses up to 1/4", kits include pliers and 10 pins.

ALL18221 Kit with 1/8" Pins ALL18225 Kit with 3/16" Pins

Cleco Pliers ALL18220

Unique tool readily installs and removes Cleco fasteners.



ALL11170

ALL11172



Pin Type Cleco Fasteners

Cleco pins permit quick, easy installation and removal of sheet metal during tting. Pins work with thicknesses up to 1/4".

1/8" Dia. Pins **ALL18222....** 10-Pack **ALL18223**..... 25-Pack **ALL18224**..... 100-Pack

3/16" Dia. Pins ALL18226 10-Pack ALL18227 25-Pack ALL18228 100-Pack

TECH TIP: Drill holes one drill size smaller than the Cleco pin size to assure a

1/4" Pin Type Cleco Fastener

ALL18234

Cleco Pins are temporary fasteners that can easily be installed or removed in 1/4" holes when tting sheet metal or chassis tabs using the ALL18220 Cleco Pliers. 1/4" size pin is ideal to use in place of body bolts or other 1/4" fasteners. Package of 10.

Clamp Type Cleco Fastener

ALL18230

Use when drilling is not an option. Smooth throat prevents paint damage, and spring exerts strong clamping pressure. Throat depth is 1" with a maximum clamping range of 1/2".

Quick Turn Fastener Tool

The quick turn fastener tool ts slot head fasteners and reduces the risk of body panel or fastener damage when using screwdrivers for loosening or tightening.



ALL19400

ALL19400..... Tool with Flat Handle ALL19401 Tool with Screwdriver Handle

Quick Turn Spring Adjuster ALL19405

This tool is a must when adjusting tension of quick turn springs. Simply turn knob on adjuster to evenly pull or push spring without kinking or breaking spring.

Transfer Punches

Used to mark quick turn fastener locations, place transfer punch in the initial hole in weld plate or body panel. Position the panel to be marked over top of punch and lightly tap with a hammer.

ALL19402..... For 5/16" Fasteners **ALL19403.....** For 7/16" Fasteners

Quick Turn Spring Fixture

Accurately drill panels when installing quick turn fastener springs. Start with a 1/4" center hole and use the xture to locate and drill 1/8" holes for mounting the springs. Size listed is spring center-to-center distance.

ALL19406..... Fixture for 3/4" Spring ALL19407 Fixture for 1" Spring ALL19408..... Fixture for 1-3/8" Spring

Spindle Checker Tool Kit

Assure correct alignment of the upper and lower ball joint when checking for bent spindles. Insert slugs into spindle

and guide rod will t through slugs if spindle isn't bent. Kits t most aftermarket race and GM stock Metric spindles.

ALL11176..... Kit with GM Lower, K6117/K772 ALL11177..... Kit with Chrysler Lower, K727/K772 **ALL11184** Kit for GM Metric. K6145/K5208

Individual Components

ALL99140..... GM Lower Slug K6117 Style ALL99141 Chrysler Lower Slug K727 Style ALL99158..... GM Metric Lower Slug K6145 Style ALL99142..... Upper Slug K772 Style

ALL99159..... GM Metric Upper Slug K5208 Style

ALL99143..... Guide Rod

Taper Reamers

Repair or enlarge tapered holes to accept tie rod ends or ball joints. Reamers may be used in a drill with a 1/2" chuck by removing the T-handle.

ALL11170..... Reamer, 7.15°, 1-1/2" Taper Per Ft.

ALL11172..... Reamer, 9.56°, 2" Taper

Per Ft

Taper Reamer Speci cations for Ball Joints

Taper Per Ft.	Reference Part No.
1-1/2"	K6024
2"	K6141
2"	K6136
1-1/2"	K5103
2"	K6117
1-1/2"	K772
1-1/2"	K727
1-1/2"	K719
2"	K6145
2"	K5208

Ball Joint Spreader Tool ALL11174

Tool separates ball joint from the spindle. Inside of cylinder is shaped to tover tapered stud of most ball joints and presses against stud of other ball joint. Not for use on FWD or 4WD applications. Tool is 4" tall fully collapsed and 6" tall fully extended.

Related Component

ALL11175...... 1" Extensions (Set of two)

Spindle Slug Tool ALL11182

Tool easily removes spindle slugs that are pressed into fabricated spindles with a standard wrench or socket.





ALL19407



Taps

Tungsten steel taps are titanium coated. Economy taps are available in right-hand and left-hand threads.

ALL11060 ... 1/4"-20 RH ALL11061 ... 1/4"-28 RH ALL11062 ... 3/8"-16 RH ALL11063 ... 3/8"-24 RH ALL11064 ... 1/2"-20 RH

ALL11065 ... 1/2"-20 LH



NPT Taps

Alloy steel taps work well for chasing and cleaning threads before installing tings and plugs.

ALL11056 1/8"-27NPT **ALL11057** 1/4"-18NPT **ALL11058** 3/8"-18NPT **ALL11059** 1/2"-14NPT

Thread Files

Remove burrs from damaged or rusted external threads on bolts, spindles, axle tubes, threaded shaft, pipe, and pipe ttings. Choose from three different les, each 8-1/2" long. Standard and metric sizes.

ALL11037 11-12, 13-14, 16-18, 20-24TPI **ALL11038** 9-10, 12-16, 20-27, 28-32TPI

ALL1103980-1.00, 1.25-1.50, 1.75-2.00, 2.50-3.00mm

Flap Wheel Sanding Discs

Flap discs for 4-1/2" grinders with a 7/8" arbor quickly remove rust and other coatings from a variety of metal, stainless and steel surfaces. Ideal for grinding welds or preparing materials for welding. Sold each.

ALL12121 60 Grit **ALL12122** 80 Grit **ALL12123** 120 Grit



Flaps angled at 8° for increased surface contact and aggressive use. Best used at 15° - 25° angle.

Emery Cloth Rolls

1" wide emery cloth is perfect for many uses around the shop and trailer including cleaning, deburring and polishing. 150' box.

ALL12130 60 Grit **ALL12131** 120 Grit **ALL12132** 180 Grit



Twist-Lock Backing Pad ALL12100

Twist-lock backing pad accepts 2" twist lock style cleaning or sanding discs and features a 1/4" arbor to work with most drills or 90° die grinders. Pad is rated up to 30,000 rpm.

Twist-Lock Sanding Discs

2" O.D. sanding discs are great for sanding a variety of parts and surfaces. Use with ALL12100 twist-lock backing pad (sold separately). Package of 10.

ALL12105 60 Grit **ALL12106** 80 Grit **ALL12107** 120 Grit

1-

Twist-Lock Cleaning Discs

2" O.D. twist-lock discs are great for cleaning gasket material or paint from parts and surfaces. Use with ALL12100 twist lock backing pad (sold separately). Package of 5.

ALL12101 Coarse **ALL12102** Medium **ALL12103** Fine

Safety Wire Twister Pliers

ALL10120

Never lose another race because of loose bolts. Rugged pliers have an end bearing for smoother, faster twisting, especially in tight areas where a second pull is needed.

Safety Wire

Wire is used to mechanically lock pre-drilled fasteners for added security. Type 302/304 stainless steel wire features high corrosion resistance and good tensile strength in applications up to 500 degrees. Sold in a 1-lb. spool enclosed in a convenient dispensing container.

ALL10121032" Diameter **ALL11008**041" Diameter

Safety Wire Drill Fixture

ALL10122

Accurately drill holes in fasteners, allowing them to be mechanically locked in place with safety

wire. Fixture accommodates most 3/16", 1/4", 5/16", 3/8", 7/16", 1/2", and 5/8" socket head and hex-head fasteners. Guide bolt tightens against fastener, holding it secure for drilling. Fixture includes two guide bolts and two 1/16" drill bits conveniently stored within the xture.

Replacement Component ALL99102..... 1/16" Drill Bits, 2-Pack





Dial Indicator with Magnetic Base

ALL96414

Dial indicator with magnetic base is a necessity when degreeing a camshaft, checking crankshaft end play, deck heights, dome heights, transmission end play, or ring and pinion backlash. Universal magnetic base may be mounted anywhere. Shockproof dial indicator has 1" of travel in .001" increments. Base and dial indicator may also be purchased separately.

ALL96415..... Dial Indicator Only **ALL96416**..... Magnetic Base Only

Digital Calipers 0-6" with Case ALL96411

Measure inside, outside, and depth dimensions with easy-to-read Metric or SAE LCD display, in .001" increments up to 6". On/Off switch conserves battery and zero

setting assures accurate readings. Plastic case provides additional battery storage.

Dial Caliper ALL96410

Quality hardened stainless steel dial caliper is shockproof and capable of measuring items from .001" to 6" in increments of .001". Includes protective carrying case.



Runout Checker

ALL96440

Fixture provides an easy way to check for bent axles, torque tubes, drive shafts, torsion bars, or radius rods. Fixture measures 16-1/2" overall.

Braided Hose Cutter ALL11000



Tired of the jagged edges left after cutting braided hose with a hacksaw? Heavy-duty hose cutter makes clean, snag-free cuts every time. 1-3/8" forged steel jaws will cut up to -20AN steel braided hose.

Replacement Component

ALL11002 Blades for ALL11000

Koul Tool Kits

If you have ever struggled while building stainless steel braided lines, the Koul Tool is for you! Insert tting into the specially designed holder to help guide braided hose into fi ting. Kits include tools, fiting adapters for most ttings, detailed assembly instructions, and storage case. Not for use with PTFE-style hoses.



ALL11085 -6AN Kit **ALL11086** -8AN Kit **ALL11087** -10AN Kit

Pistol Grip Grease Gun

ALL14300

Quality gun has comfort grip handle for easy, one hand operation. Gun accepts a standard 14-oz. grease cartridge, features an air bleeder valve to eliminate air lock, and includes a exible 12" long II hose.



Grease Gun Tips

Tips reach to grease tings in tight areas, such as U-joints, and may also be used to grease the ball spline unit on

Bert transmissions. The 2" tip replaces the standard end on most guns with 1/8"NPT. Quick release 4" tip includes a small and large sleeve to t standard couplers. Tips are for hand operated grease guns only.

ALL14305..... 2" Grease Gun Tip **ALL14306**..... 4" Grease Gun Tip

Tubing Cutters

Cut plastic, aluminum, copper, or steel tubing without distorting or crushing. Standard cutter works with tubing from 1/8" up to 1-1/8" and has wide rollers for even tracking of cutter wheel, built-in reamer for cleaning inside of tubing, and an extra cutting wheel. Mini cutter can cut tubing from 1/8" to 5/8" in tight areas.

ALL11010 Mini ALL11011..... Standard



ALL11010



Double Flare Tool

ALL11015

Double ares 3/16", 1/4", 5/16", 3/8", and 1/2" steel or aluminum and .040" copper tubing at 45°, the most common fl re used in custom brake and fuel lines. Includes detailed instruc-



tions and a convenient plastic storage case.

Brake Pressure Gauge ALL11020

Gauge temporarily replaces the bleeder screw in most aftermarket brake calipers with 1/4"-28 thread bleeder screws to measure brake pressure. Swivel head positions the 2-3/4" diameter gauge for easy viewing. Convenient remote bleeder can be used to evacuate air in the system for accurate readings.



Related Component

ALL11022 Adapter converts ALL11020 and other gauges with 1/4"-28 thread to M10-1.50 thread for use with popular GM Metric



Brake Pressure Gauge Kit

ALL11026

Brake pressure gauge kit includes two gauges, allowing one gauge to



be used in the front and one in the rear brake system. Compare front to rear pressures to help diagnose problems or to preset your brake bias. Gauges easily replace 1/4"-28 brake bleeders which are commonly found in most aftermarket calipers.

Hard Brake Line Display Rack

ALL052

Display, organize, and inventory many lengths of 3/16" steel brake line. Rack measures 17" wide, and has 21 slots which hold 6 pieces each. Pre-punched mounting holes provide



xture. Not for use with braided brake lines.

Brake Bleeder Bottles

Contain the mess of bleeding brakes by capturing uid in this 16-oz. bottle with a 15" long hose which attaches to most bleeder screws. The removable cap has a built-in

tting to secure the hose during storage to help prevent spills. Choose from a steel lanyard retainer that suspends the bottle from a chassis or suspension component,

or a magnet retainer to secure the bottle to a steel object such as a brake drum or rotor during bleeding. ALL11017 has a magnet retainer and a built-in one way check valve for one person brake bleeding.

ALL11019 Bottle With Lanyard ALL11018 Bottle With Magnet

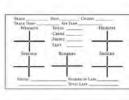
ALL11017 Bottle With Magnet And Check Valve

ALL99435 Replacement Hose

Circle Track Set-Up Book ALL043

Track important chassis settings with this 4" x 5" pocket size spiral bound book, Each book has 50



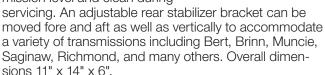


carbon-backed pages perforated for easy tear off.

Transmission Stand

ALL10174

Avoid damage and uid leaks during storage and transport of many popular transmissions. Multi-position stand also keeps the transmission level and clean during



sions 11" x 14" x 6".

Transmission Stand ALL10175

Stand is designed to accept most three- and four-speed GM manual transmissions and also Bert/Brinn style transmissions with modi cation to rear pad mount.





Engine Cradles

Engine cradles are available in standard-duty or heavy-duty, both with provisions for mounting wheels, and are made of 1" square tubing with



black powder coating. All cradles are for V8 engines, include Grade 5 fasteners ar

V8 engines, include Grade 5 fasteners and may be easily disassembled for storage. Wheel kits sold separately.

Standard-Duty

Standard-duty cradles accept wheel kits with 3/8" studs.

ALL10130 SB and BB Chevy **ALL10138** GM LS Series

ALL10145 SB Ford*

ALL10147 SB Ford Modular/Coyote

ALL10150 SB Mopar

ALL10151 Hemi (5.7 And 6.1)



Standard-Duty Wheel Mount

Heavy-Duty

Heavy-duty cradles accept wheel kits with 1/2" studs.

ALL10132 SB and BB Chevy ALL10139 GM LS Series ALL10142 Oldsmobile

ALL10144 Pontiac ALL10148 SB Ford*

ALL10149 SB Ford Modular/Coyote

ALL10152 SB Mopar **ALL10154** BB Ford **ALL10156** BB Mopar[†]



Heavy-Duty Wheel Mount

*Works with stock and most aftermarket blocks including Dart, World, and Ford Boss with ribbed engine mount bosses and bulged water jackets.

†Designed for most Mopar B and RB blocks. Will not work with 392 or 426 "hemi" Engines.

Caster Wheel Kits

Hard rubber wheel kits may be mounted to Allstar engine cradles ALL10130 thru ALL10159. Kits are also available with locking wheels, ideal for storing spare engines in trailer. Standard-duty kits feature 3/8" studs and heavyduty models use 1/2" studs. Four wheels per kit.

Standard Duty

ALL10162 3" Wheel Kit

ALL10163 3" Wheel Kit with Lock

Heavy Duty

ALL10164 3" Wheel Kit

ALL10165 3" Wheel Kit with Lock

ALL10166 5" Wheel Kit



SB Chevy Folding MEW Engine Cradle ALL10133

Engine cradle conveniently folds down to less than 4" tall for storage under a work bench or in a cabinet when not in use.

Designed for use on popular SB Chevy engines weighing up to 500 lbs. Sturdy base is powder coated and includes mounting hardware. Cradle does not have provisions for adding wheel casters.

SB/BB Chevy Economy Engine Cradle

ALL10171

Cradle is great for storing or transporting engines safely. Designed to t small and big block Chevrolet engines, cradle is fully welded from 1" square tubing and powder coated black. Cradle has provisions for mountaing our

standard duty wheel kits with 3/8" wheel studs.

GM LS Economy Engine Cradle

ALL10173

Cradle is great for storing or transporting engines safely. Designed to fi most GM LS series engines, cradle is fully welded from 1" square tubing and powder

coated black. Cradle has provisions for mounting our standard duty wheel kits with 3/8" wheel studs.



SB/BB Chevy Engine Cradle

ALL10172

A quality cradle for small block and big block Chevrolet engines. Casters included.

SB Chevy 2-Piece Engine Stand ALL10157

2-piece engine stand constructed from 1" x 2" steel tubing is specially designed to clear most oversized dry sump oil pans with up to a 9" deep sump. Stand includes six 3/8" x 1"

grade 5 bolts and accepts wheel kits with 3/8" studs.



Sprint Engine Cradle

ALL10159

Cradle bolts to most stock type and aftermarket SB Chevy blocks, including narrow pattern lightweight and standard bellhousing bolt patterns. Slotted front mounts accept most frame

width engine mounts. Provisions for standard wheel kits are positioned to support complete engines with attached radiators.





Engine Lift Plate ALL10123

Ease engine swaps with the Allstar engine lift plate. Bolts to manifold in place of carburetor. Yellow zinc-coated plate fi s standard Holley 4150/4160 and 4500 Dominator, Rochester Quadrajet, Carter, Motorcraft, Edelbrock, Edelbrock Q-Jet, and Carter AFB carburetors.

All-in-One Engine Lift Plate

ALL10137

Engine Plate has provisions to tall LS GM engine blocks and most Holley 4150/4160 and 4500 series, Rochester Quadrajet, Edelbrock, and Carter AFB Carburetors. Plate features three lifting points for various chain positioning which allows engine weight to be balanced or offset. An offset position is especially helpful when angling an engine (with transmission attached) in or out of a vehicle. Constructed of 3/16" thick zinc-plated steel.

Engine Lift Plates for LS Series GM Engines

Engine plates are designed for lifting LS series GM engines. Installation of lift plate requires removal of the intake manifold and valley cover tray to properly secure lift plate to engine block. Plate features three lifting points, allowing engine weight to be balanced or offset. Offset position is helpful when angling an engine (with transmission attached) in or out of a vehicle. Made from 3/16" thick zinc-plated steel.

ALL10140 Gen III Engines **ALL10143** Gen IV Engines **ALL10141** Gen V Engines

Ford EFI Engine Lift Plate ALL10125

Ease engine swaps with the Allstar engine lift plate. Fits standard 5.0L/5.8L EFI intakes: OEM, GT-40, Cobra, Holley, Edelbrock.

Engine Oil Pressure Primer Tank ALL10535

Primer tank supplies initial oil to the oil pump in engines equipped with a crank driven oil pump. Fill primer

tank with engine oil, then apply compressed air to force the uid throughout the engine via the oil pressure sender/switch port to pre-lube the entire engine including the oil pump.

Oil Filter Cutter ALL10538

Tool removes the outer shell of most spin-on style engine oil lters to inspect the lter material for contamination or debris.



Freeze Plug Driver Set ALL96482

Have problems installing freeze plugs? Use these plastic drivers along with a hammer or mallet for simple installation without damaging the plugs or the block. Three sizes per set: 1-1/2", 1-5/8", 1-3/4". (Size refers to size of plug)



Individual Drivers

ALL96483 1-1/2" Driver **ALL96484** 1-5/8" Driver **ALL96485** 1-3/4" Driver

SB Chevy Cam Bearing Tool ALL96470



For installing cam bearings quickly and easily without damage. Shaft is steel; pilot and driver are aluminum.

LS Main Cap Removal Tool

ALL96525

Quickly and easily pull main bearing caps off GM LS series V8 engines, especially those with main studs. Hook tool to the bottom of cap, press down on handles, and the balanced leverage pulls the cap out of the block with one swift motion. 26" long x 4" high.

Rod and Piston Holder

ALL96478

Holder safely supports piston and connecting rod assemblies during engine teardowns or assembly. Slots are 4-3/4"L x 1-1/2"W to accommodate most combinations. Holder measures 24" x 12" x 9-1/2" tall and can be disassembled for storage.

Rod Guide Tool ALL96480

Plastic tool slips over 3/8" or 7/16" rod bolts to aid piston installation and eliminate the chance of rod bolts hitting crank.

A must for any engine builder's toolbox.

Related Component

ALL96481 Rod Guide Tool Extensions 4.5", 1-Pair

Plastigage® Kit ALL96475

Plastigage strings are a simple and accurate way to verify crankshaft, main and rod bearing clearances. Kit includes two green .001" to .003" and one red .002" to .006" (12" long strings), individually packaged inside calibrated sleeves. Detailed instructions are included.



Valve Spring Compressor ALL96490

Adjustable C-clamp style compressor will t most heads including Hemi. Spring cup will t stock springs up to 1.750" diameter and has a 1.100" "working window" for access to keepers, which



may be too large for some small diameter spring/retainer combinations. Compressor has 9/16" hex for use with a wrench, ratchet, or impact. This tool will handle spring pressures in excess of 1200 lbs. without slipping off.

Feeler Gauges

Use in engine assembly to check connecting rod side clearance, piston ring end gap, spark plug gap, and valve lash. Gauges have Metric and SAE sizing designations etched in each blade. Choose straight or angled sets.



ALL96420 Straight ALL96421 Angled

Valve Lash Wrenches

Allstar valve lash wrenches save precious time and eliminate fumbling with two separate wrenches. Available for Jesel, T&D, and other poly-lock style rocker assemblies.



ALL96400 7/16" Box Wrench, 1/8" Allen Wrench, Jesel Assemblies

ALL96401 1/2" Box Wrench, 3/16" Allen Wrench, T&D Assemblies

ALL96402 9/16" Box Wrench, 3/16" and 7/32" Allen Wrenches

ALL96403 5/8" Box Wrench, 3/16" and 7/32" Allen Wrenches

Remote Starter Switch Kit

ALL76205

Kit includes a low-pro le, steel-cased foot pedal with 8' cord and assorted wire ends to work with many applications. Provides hands-free engine cranking when adjusting valves.



Remote Starter Button

ALL76206

Remote button is helpful when performing valve lash maintenance if the ignition panel can't be reached. Leads are 60"



long and come complete with gator clamps to connect to starter solenoid.

Spark Plug Index Shims

Stackable shims index spark plugs at 30° intervals up to 360° properly positioning ground strap in cylinder head for increased power and clearance between spark plug and piston. Shims are intended



for use with 14mm at seat spark plugs only. Package of 24 shims contains 12 silver 60°, 12 black 90°, detailed instructions, and dial chart.

ALL96505 Shim Kit, Standard O.D. (.800") **ALL96506** Shim Kit, Small O.D. (.720")*

*Shims are designed for close tolerance spark plug pockets such as those on ALL-PRO cylinder heads.

Spark Plug Indexing Tool



ALL96510

Indexing positions the ground strap of the spark plug properly for best piston dome clearance and un-shrouds the electrode for a more even burn and possible gains of 5-15 horsepower. Works with at gasket or taper seat 14mm spark plugs. Includes instructions.

Spark Plug Gap Tool

ALL96515

Used to set consistent plug gap. Insert plug into holder, then put feeler gauge between ground strap and electrode. Gently turn knurled knob until feeler gauge is snug.

Spark Plug Gap Tool Kit

ALL96516

Spark plug gap tool quickly and accurately gaps 14mm threaded spark plugs. Thread spark plug into tool, place the correct size feeler gauge beneath the ground strap, then tighten knob to set plug gap. Includes 17 different feeler gauge sizes .010" thru .035".



Port and Polish Kit

ALL11052

Kit includes an assortment of 60, 80 and 120 grit cartridge rolls for cleaning and modifying intake and exhaust ports to match gaskets, remove casting marks and for smoothing out runners. Two 1/4" mandrels are included with each kit.

Dykem Layout Fluid ALL12070

Apply layout uid to the work surface to enhance visibility of scribes during fabrication. Blue uid dries in minutes to a uniform, thin Im without cracking or chipping. 4-oz. container has a built-in brush under cap. Not intended for use in set up of ring and pinion gear sets.



Flywheel Locking Tool SB/BB Chevy ALL96426

Place ywheel locking tool onto rear block dowel pins to prevent the ywheel from turning while tightening or loosening balancer bolts, ywheel bolts, clutch/pressure plate bolts, or cam gear bolts. Locking tool works with 153- or 168-tooth vwheels and explates.

SB Chevy Crank Socket

ALL96424

Steel socket for rotating the crankshaft during engine assembly features a 1" hex and a 1/2" ratchet drive.

Compression Tester

ALL96520

Tester checks cylinder compression from 0 to 300 PSI and features an air-hold valve to reset gauge. Onepiece stepped brass end tting with O-rings ts 14mm and 18mm spark plug threads. Easy-to-read 2-1/2" dial is encased in a metal housing, surrounded by an anti-shock rubber cover. A quick-release coupler connects the included 12" exible hose to the gauge.

Pilot Bushing Install Tool

ALL26115

Driver simpli es installation of pilot bushings or bearings for manual transmissions including Muncie, Saginaw, Borg Warner, T-10, and many other popular transmissions with .590" pilot shafts.

Clutch Alignment Tools

Splined, high-impact plastic tools are helpful when aligning the clutch disc on the ywheel for proper insertion of the transmission input shaft.

ALL14290 1-1/8" Diameter, 10-Spline ALL14292 1-1/8" Diameter, 26-Spline

Flexible Magnetic Pickup Tool

ALL14172

Flexible tool bends to multiple positions, extends up to 24" and has a magnetic end to quickly retrieve parts.



Telescoping Magnet ALL14173

A strong (3 pound pull), telescoping magnet that will retrieve dropped tools or fasteners. Tool extends over 2', and retracts to just 5" to t in a shirt pocket.

Telescoping Mirror ALL14174

A 1-1/4" multipositional,



areas or locating engine oil leaks. Mirror is 6-1/2" long and extends to over 19".

Caps and Plugs

A must for keeping debris out of lines and hoses. Ideal for keeping internal components of dry sump pumps, fuel pumps, pressure regulators, etc. clean during storage. Caps and plugs t 37° ared ttings and straight threaded ports. Available in plastic and aluminum.









ALL50801

Сар	Plug	AN Size	Thread Size	No. Per Pkg.		
Plastic Cap	Plastic Caps and Plugs					
ALL50801	ALL50811	-3	3/8"-24	20		
ALL50802	ALL50812	-4	7/16"-20	20		
ALL50803	ALL50813	-6	9/16"-18	20		
ALL50804	ALL50814	-8	3/4"-16	20		
ALL50805	ALL50815	-10	7/8"-14	10		
ALL50806	ALL50816	-12	1-1/16"-12	10		
ALL50807	ALL50817	-16	1-5/16"-12	10		
ALL50808	ALL50818	-20	1-5/8"-12	5		
Aluminum (Caps and Plu	ıgs				
ALL50821	ALL50831	-3	3/8"-24	20		
ALL50822	ALL50832	-4	7/16"-20	20		
ALL50823	ALL50833	-6	9/16"-18	20		
ALL50824	ALL50834	-8	3/4"-16	20		
ALL50825	ALL50835	-10	7/8"-14	10		
ALL50826	ALL50836	-12	1-1/16"-12	10		
ALL50827	ALL50837	-16	1-5/16"-12	10		

Cap and Plug Kits



Kits include ve of each size, 3AN to 16AN.

ALL50800 Plastic Cap Kit ALL50810 Plastic Plug Kit ALL50820 Aluminum Cap Kit ALL50830 Aluminum Plug Kit



Utility Jugs

5-gallon utility jug features an O-ring sealed cap with a removable 1/2" NPT plug for installing a ller hose and a screw-on style vent with attached lanyard. Square-shaped body measures 9-1/2" x 9-1/2" x 23" tall. Utility jugs include a 12" exible ller hose with a capped end for a secure seal.



ALL40120.....Clear
ALL40121.....Red
ALL40122.....Blue
ALL40123.....Yellow
ALL40124.....Glow in the Dark
Replacement Components

ALL40126..... Utility Jug Cap, Black

ALL40127..... Utility Jug Cap, Glow-in-the-Dark

ALL40128..... Filler Hose **ALL40129** Vent Cap

Utility Jug Filler Hose ALL40128

Filler hose threads into the cap of most utility jugs to eliminate spills. 12" long exible hose assembly includes a 3/4" NPT threaded tting and a capped end for a secure seal.

Funnels

Heavy-duty plastic funnels are perfect for topping off fuel or other liquids. Available in several sizes.



ALL40100 6-Qt. Funnel with Brass Screen ALL40102..... 2-Qt. Funnel with Brass Screen ALL40104 1-Pint Funnel with Brass Screen

Funnel with Flexible Extension

ALL40107

1-Pint funnel with 18" exible extension works great for lling uids in hard-to-reach areas, ideal for differentials and manual transmissions. Built-in hang tab allows funnel to be secured to body or frame for hands-free lling.

Carb Hats

Carburetor hats are ideal to cover open carbs and prevent debris from falling into the engine while working in garage or pit area while the air cleaner is removed. 2-1/2" tall carb hats are designed to t most carbs or throttle bodies with a 5-1/8" diameter neck.



ALL26040 Plastic

ALL26042 Plastic with Screen

ALL26043 Aluminum,

ALL26044 Aluminum, with Sealing O-Ring

Note: Hats will not clear choke linkage or shaft on Holley style carbs but will clear choke horn with choke linkage and shaft removed.

Dominator Carb Hat

ALL26041

Plastic carb hat is 2-3/8" tall and ts over the 7-1/4" air cleaner opening of Holley Dominator

carburetors to prevent water or debris from entering the engine. Solid cover may be drilled when an air cleaner stud is used.



Aluminum stand simplies carb maintenance and will hold carb off of workbench surface. Works with Edelbrock, Quadrajet, and Holley 2- and 4-barrel carbs (except 4500 series).

llov 2, and

Tool Tray

ALL14170

Tool tray measures 12" x 18" x 3", with hooks on one side to fasten to race car nose or sprint-front wing and 6" standard transfer of the standard

front wing and 6" stands on the opposite side so tray will sit level. Tray has 16 holes for spark plug and nozzle holder use.

Engine Lift Handles

ALL10136

Aluminum handles are 4" long and will thread into most engine blocks or cylinder heads with 3/8"-16 coarse thread holes for easier lifting. Package of 4.





Wheelie Bar Wrenches

Billet aluminum wrench is the perfect tool for adjusting wheelie bar height. A highly visible scale printed directly onto the wrench helps to quickly measure height between 2" to 7" in 1/8" increments. Overall wrench length 9" x 3/8" thick.

ALL11195 Wrench for 3/4" Jam Nut ALL11196 Wrench for 15/16" Jam Nut ALL11197...... Wrench for 1" Jam Nut

Nitrous Combination Wrench ALL11151

4-in-1 wrench has four different sizes to accommodate -3AN, -4AN, and -6AN line



ttings, and 1-1/4" bottle tting. Compact enough to t in your pocket or glove box for quick bottle changes or to check lines at the track.

Aluminum AN Fitting Wrench Set

ALL11100

Five-piece, aluminum wrench set for use with aluminum AN-style, braided hose ttings manufactured by Aeroquip, Earl's, etc. Sizes included are -6AN, -8AN, -10AN,



-12AN, and -16AN. Each wrench is nished in different color anodizing for easy identification. Also sold each.

Individual Wrenches

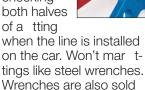
ALL11106 -6AN ALL11112 -12AN ALL111108 -8AN ALL111116 -16AN ALL11110..... -10AN ALL11118* -20AN

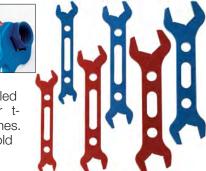
*-20AN wrench not included in set.

Double-Ended Aluminum AN Fitting Wrench Set ALL11120

Wrenches make quick work of checking both halves

individually.





Individual Double-Ended Wrenches

AN Size	Hose Wrenches (Red)	Fitting Wrenches (Blue)
-4, -6	ALL11124	ALL11126
-8, -10	ALL11128	ALL11130
-12, -16	ALL11132	ALL11134

Adjustable Aluminum Fitting Wrenches

Eliminate the guesswork of which wrench is needed to tighten, remove, or check steel braided hose ttings. Aluminum wrenches prevent damage to tting and are available in two sizes: 8" for ttings up to a -10AN, and 10" for

ALL11152..... 8" **ALL11153** 10"

ttings up to -20AN.

Drum/Barrel Pump ALL40114

Hand-siphon drum pump dispenses or transfers low viscosity uids from a 55-gallon drum. Self-priming bulb delivers up to 5 gallons per minute. Compatible with gasoline, methanol, and nitro methane.

Drum Pump Kit for Utility Jugs

Easily transfer low-viscosity uids from most popular utility jugs without lifting a heavy jug by converting jug into a hand pump unit. Kit includes a cap and hand pump to replace the original utility jug cap. Individual cap may be purchased separately when using an existing pump. Pump siphon tube will need to be cut to length depending on the size of jug used.



ALL40118 ALL401

ALL40116..... Kit for Use with Allstar, Scribner Jugs **ALL40117**..... Kit for Use with VP Jug

ALL40118..... Cap Only for Use with Allstar, Scribner Jugs

ALL40119..... Cap Only for Use with VP Jug

Carb Drain/Primer Bottle

ALL40091

Durable plastic 8-oz. squeeze bottle is ideal to assist draining and priming carburetors when making jet changes. Cap has an angled ller tube with a tapered tip that the easily into the vent tube of the carburetor to rell fuel bowl.

Primer Bottle ALL40090

Durable plastic squeeze bottle is ideal for priming alcohol engines. Cap has an angled ller tube, with tapered tip that easily ts into the vent tube of carburetor fuel bowl. 16-oz. capacity.

Steel Twelve-Point AN Wrenches

Steel twelve-point AN wrenches with rubber coated handles are commonly used in tight areas such as tightening hose ends on dry sump oil pumps or fuel lines.







Storage Cases

These handy storage cases help organize many items around the shop, trailer, or home such as electrical connectors, quick turn fasteners, tire groover and siper blades, small screws, fasteners, and many more items. Curved bottom compartments create a smooth scoop, making it easy to remove the smallest of items. Molded-in dividers prevent items from slipping under dividers and accidentally mixing product.



ALL14360..... Plastic, 15 Compartment, 11" x 7" x 1-3/4" ALL14361 Plastic, 18 Compartment, 11" x 7" x 1-3/4" ALL14365..... Metal, 21 Compartment, 9-1/2" x 13-1/2" x 2" ALL14366..... Metal, 24 Compartment, 9-1/2" x 13-1/2" x 2"

Test Light ALL76215

Quickly diagnose electrical problems by testing for current in electrical circuits, relays, switches, or fuses. Handheld test light has a 36" lead wire with an insulated clip which fastens to a common ground and a sharp piercing point to probe insulated wire or terminals. Indicator light illuminates identifying powered circuits in 6-12V systems.

Weather Pack Terminal Tool

ALL76264

Tool removes male and female pin terminals from Weather Pack connectors without damage.

Weather Pack Pliers ALL76221

Weather Pack pliers will crimp most popular 10-22 gauge non-insulated terminals. 8" overall length.

Impact Crimper ALL76135

Excellent for permanently crimping standard cable ends to battery cables.

Wire and Cable Cutters ALL11003

Capable of cutting copper stranded wire from 20-gauge primary wire to 1/0-gauge battery cable. These specially designed cutters will not atten wire during cutting, which is helpful when installing connectors and building battery cables. Cutters are not designed to cut steel wire.

Ratcheting Crimp Pliers

ALL76220

Perform professional-quality crimps on most standard electrical connectors. Pliers include jaws for 22-18, 16-14, and 12-10 gauge connectors and are easily compressed with help from the ratcheting mechanism which releases when connector is fully crimped.

Nylon Tie Wraps

Secure electrical wiring, gauge lines, and roll bar padding. 100 per bag.



Heavy-Duty Nylon Tie Wraps

Heavy-duty black nylon ties are ideal for emergency repairs and applications that require a secure attachment.

ALL14380	8", 25-Pack
ALL14381	14", 25-Pack
ALL14383	21", 10-Pack
ALL14385	36", 10-Pack



Nylon Flush-Fit Tie Wraps

Flush- t design ties have the excess portion of the tie exit in the same direction as the original tie, helping to eliminate the left-on protruding sharp portion found in standard ties. Package of 100.



ALL14395..... 8" ALL14396 11"

Nylon Tie Wraps with Mounting Holes

Built-in tab with mounting hole to easily secure wiring harnesses, hoses, or cables to a panel with rivets or other fasteners. Package of 25.





Tie Wrap Tool ALL11005

Tired of cuts from nylon tie wraps that have been trimmed with standard wire cutters? This tool does a great job of drawing nylon ties tight around bundles of wires or cables in tight areas and easily cuts ush with a twist of the wrist. ABS constructed tool has steel cutting blades and works with common size nylon wire ties.

Tie Wrap Mounting Bases

Self-adhesive mounting bases provide a location for attaching standard tie wraps to secure wiring, cables and hoses. Bases mount to clean at surfaces and accept 75# and smaller wire ties. Package of 10.

ALL14116..... 3/4" x 3/4" **ALL14117**...... 1-1/8" x 1-1/8"





Radiator Fin Tool Kit

ALL10680

Handheld tool straightens and repairs damaged fi s in most



radiators, coolers, and air conditioning condensers. Repairing damaged fi s provides better airfl w through core increasing cooling ability. Six interchangeable heads: 13, 15, 16, 17, 18, and 20 ns per inch.

Blower Fan ALL30002

Compact 115V, 2.3-amp plastic blower moves up to 300 CFM of air. The guiet electric blower can be adjusted to move cooling air wherever it's needed, up to 30 ft. away. Weighs just 8 lbs. with two built-in receptacles and a 12' long power cord.



Wall Mount Radiator Holder Kit ALL12216

Brackets fasten to trailer wall and hold radiator safely in place during transport to avoid

damage. Kit includes two 29" long aluminum brackets with adjustment holes at 2" increments and arms to t radiator cores up to 2-1/4" wide. Adjustable arms are slotted for quick adjustment with included thumbscrew knobs to ta variety of radiator heights.





Safety Glasses

ALL10258

Comfortable, lightweight, general-purpose safety glasses have a clear wraparound lens for maximum visibility. ANSI-Z87.1 rated.



Reusable Corded Earplugs

ALL12000

Corded earplugs t instantly without rolling or squeezing. Made of a soft material that cleans up easily in warm, soapy water.



Nitrile Gloves

Nitrile gloves protect against dirt and grime and help prevent oil and harsh chemicals from contacting the skin. Chemical-resistant gloves work well for general purpose



as well as jobs that involve oil, fuel, brake uid, and most cleaning chemicals such as brake and carb cleaners. Package of 100.

ALL12024..... Medium **ALL12025**..... Large **ALL12026**..... X-Large **ALL12027**..... XX-Large

Work Gloves

General purpose gloves protect hands from everyday abuse in the shop or at the racetrack. Lightweight, elastic-weave material with reinforced palm and fin ers allows mobility and unrestricted use.



Apron ALL99962

Black cloth apron has pockets to keep tools close at hand. Reverse apron to place pockets on the inside when grinding tires. Adjustable strap allows one size to tall.



Mud Scraper ALL44165



Remove the stickiest mud and clay without damaging paint or decals. Lightweight and 32" long to reach wings, deck lids and undercarriage. Use the convenient hole in end to hang scraper.

Pressurized Sprayers

Sprayers are great for applying bulk cleaners, degreasers, solvents, penetrating oils, and other lubricants. Sprayers have a capacity of 32 ounces. Versatile nozzle adjusts from mist to a stream.



ALL10516..... Black **ALL10518.....** Chrome



Racer's Tape

A hundred uses in the shop or at the track, this is true "Racer's Tape".



1" Wide x 90'
ALL14141 Black
2" Wide x 180'
ALL14150 Silver

ALL14151 White **ALL14152** Red **ALL14153** Black **ALL14154** Yellow ALL14155 Blue

2" Wide x 180'

ALL14156 Orange ALL14157 Green ALL14158 Burgundy **ALL14159** Purple **ALL14162** Teal

3" Wide x 1801 ALL14142 White ALL14143 Black

Gaffer's Tape

Vinyl-coated gaffer's tape has a dull appearance and is much stronger than standard racer tape.

2" Wide x 165'

ALL14251 White ALL14252 Red **ALL14253**.... Black **ALL14254**.... Yellow

ALL14255 Navy Blue

4" Wide x 165' ALL14261 White **ALL14263**.... Black

1" Wide x 150'

ALL14245..... Fluorescent Green ALL14246..... Fluorescent Pink ALL14247 Fluorescent Orange

ALL14248..... Fluorescent Yellow

2" Wide x 45'

ALL14145 Fluorescent Green ALL14146 Fluorescent Pink ALL14147 Fluorescent Orange ALL14148 Fluorescent Yellow

2" Wide x 150'

ALL14265 Fluorescent Green ALL14266..... Fluorescent Pink

ALL14267 Fluorescent Orange **ALL14268** Fluorescent Yellow

NEW NEW



Non-Skid Tape

Heavy-duty, non-skid tape is long lasting and may be used in the race car, shop, or trailer. Tape will handle temperatures up to 220°F.

ALL14175..... 2" x 10' ALL14165 4" x 10'

Black and White Checkered Tape ALL14149

Checkered tape has many uses such as signs, displays, race cars, trailers, etc. Rolls are 2" W and 45' L.



Air Box Tape

Metallized tape has special adhesives to secure and seal panels. Designed speci cally for sealing air boxes and other high-heat areas. Rolls are 2" W and 180' L.



ALL14240

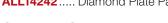
ALL14242

ALL14270 Silver **ALL14272** Black

Re ective Tape

Re ective tape is weather and solvent resistant for outdoor use on the side and rear of trailers. Can also be used on safety equipment, motorcycles, farm equipment, and large trucks. Material is manufactured with the correct required DOT certi cation markings. 6" Red/6" White pattern. Rolls are 2" W x 50' L.





Surface Guard Tape

Clear protective polyurethane tape can be applied directly over painted surfaces or decals to help prevent scratching, chipping or other damage. Use on wheel well openings, rocker panels, headlight decals, door edges, or anywhere added protection may be required. Tape is 8 mil thick and provides excellent resistance to ultraviolet light. Will not yellow over time.

ALL14275 2" x 30' ALL14276 3" x 30' ALL14277 4" x 30'

Shipping Tape

Seal shipping boxes and boxes of spare parts.

ALL14160 Clear 2" x 330' Roll ALL14161 Tan 2" x 330' Roll



Tape Gun ALL14163

Use with shipping tape.





Masking Tape

Premium masking tape is ideal for protecting areas when priming and painting. Waterproof backing is suitable for wet sanding and works with baking cycles up to 230° for 60 minutes. UV resistant.





ALL14236

Scott Rags ALL12005

Multi-purpose cloth-like disposable towels are perfect for shop and trailer. 10" x 12" towels are packaged in a 200 ct. box with pop-up dispenser. Mount to shop or trailer wall with ALL12220 holder.



Rags-in-a-Box Holder

ALL12220

Keep your work bench clean and your towels within easy reach!
White powder-coated steel holder fastens to your shop or trailer wall to keep your boxed shop towels up and out of the way. Works with most popular boxed towels measuring 9-1/2" x 9-1/2".

Electrical Tape ALL14280

Protect electrical connections and secure wires. 3/4" x 60' roll. UL approved.



Thread Sealant Tape ALL14282

PTFE tape seals threads on pipe connections. 1/2" x 21' roll.



Silicone Repair Tape

ALL14285

Tape is a self-fusing silicone with many uses including sealing plumbing and hoses, insulation of wiring from up to 500°F of heat, sealing electrical connections, and provides extra grip on steering wheels and tool handles. Resists fuels, oils, and solvents, and will not gum up or stick like most other tapes. Roll is 1" wide x 10' long x 20 mil thick.



Double-Sided Tape ALL14288

Double-sided tape is a suitable alternative for attaching panels or trim when standard mechanical fasteners are not an option. Tape is ideal for mounting items on trailer walls or attaching aluminum panels in enclosed trailers. Roll is 3/4"W x 15' L.



Cleaning Wipes

Disposable wipes are great for cleaning hands when washing is not an option. Perfect for use after fueling vehicles, making roadside repairs, or even as a pre-clean to remove stubborn grease. Durable textured wipes are pre-moistened, citrus scented, and enriched with aloe and vitamin E to deep clean and promote soft skin. Resealable package prevents product from drying out.

ALL12016 30 Ct. Pop-Up Dispenser ALL12017 60 Ct. Pop-Up Dispenser

shop or track. Rolls contain 60 individually perforated 11" x 9-1/2" disposable sheets.

Shop Towels ALL12006

Blue shop towels are much heavier than standard paper towels and work great for numerous tasks around the

Shop Towel Roll Holder

ALL12219
Aluminum shop towel holder is 11"
wide to hold most standard size towel
rolls. Two ip-over clips hold the towel rod in
place for easy roll replacement and a weighted
plate helps keep towels from unrolling when mounted to
trailer or shop wall.

Towels

Soft, absorbent terry cloth towels can be used for polishing, wiping up spills, or general detailing. Shop towels belong with every tool box as well as in the shop, garage or trailer.

ALL12010 Red Shop Towels, 25-Pack **ALL12011** White Shop Towels, 25-Pack **ALL12012** White Terry Towels, 12-Pack

Micro ber Towels ALL12008

12" x 12" terry micro ber towels are great for polishing, cleaning and many other uses around the shop or when detailing a vehicle. Different color towels keep jobs separated, and help eliminate cross contamination between various polishes or cleaners. Package of 3.



ALL12265



Cordless Drill Holders

Secure to shop wall or trailer to keep frequently used cordless drills guick at hand! Holder is 6-1/2" wide and available in white or black.





ALL12202..... White ALL12203 Black

Push Broom Holder

ALL12204

Stop tripping over the push broom! Handy bracket mounts to the shop or





trailer wall to keep push brooms up off the oor. 9" wide steel bracket holds most standard push brooms or oor squeegees.

Sprint Car Nose Wing Wall Mount Brackets ALL12214

Brackets attach to the side of trailer wall to hold a spare sprint car front nose wing safely in place. Powdercoated aluminum brackets feature





Wheel Cover Holder

ALL12205

Aluminum holder fastens to trailer or shop wall to keepmost wheel covers for 15" wheels within easy reach and organized. Holder is 3-1/2" deep end pre-drilled for mounting.

Aerosol Can Holders

Rolt to trailer or garage wall to hold cans up to 3" in diameter. Sturdy steel construction is pre-painted white.

ALL12200 Six Can Holder, 23" Long x 3-1/2" Deep x 5-1/2" Tall

ALL12201 Three Can Holder, 11-1/2" Long x 3-1/2" Deep x 5-1/2" Tall

Aerosol Can Trav

ALL12264

Bolt aluminum can tray in multiple locations of shop or trailer walls to keep frequently used

quickly accessible. Tray measures 16" long x 3-1/2" deep with a 2-1/4" tall front lip.



Oil Bottle Trays

Trays mount to shop or trailer wall and measure 4-1/2" deep making them perfectly sized to hold most quart oil containers. Travs are fabricated from 1/8" thick aluminum and feature a white powdercoated fi ish.

ALL12265..... 16" Long Trav

ALL12268..... 21" Long Trav

Absorbent Mats

A must for the workshop and trailer. These handy absorbent mats have bonded layers, allowing uid to spread quickly through material.



ALL12030..... Universal for All Fluid Types (Oil, Coolant, Water)

ALL12031 Oil Only

100-Pack (15" x 10" Individual Sheets)

ALL12032..... Universal for All Fluid Types (Oil, Coolant, Water)

ALL12033 Oil Only

Multi-Purpose Absorbent ALL12035

Organic material is a dust-free alternative when cleaning up spills. Sprinkle product on spills and sweep up. 5-lb. resealable bag.







Ratcheting Tie-Down Straps

Tie-downs are great for securing vehicles and pit equipment during transport. 2" x 8' long straps have heavyduty plated hardware and a ratchet designed to hold excess strap material as it is pulled through and wrapped up during tightening. ALL10196 has a built-in axle strap with protective sleeve for wrapping around a rear end housing or chassis and then back to itself. The working load limit is the maximum load a strap should be subjected to during normal use.

Part No.	Width	Length	Hook Type	Working Load Limit
ALL10184	2"	8'	Flat	1,660 lbs.
ALL10188	2"	8'	Direct	1,660 lbs.
ALL10192	2"	8'	Twist	1,660 lbs.
ALL10196	2"	8'	Twist	1,660 lbs.









Race Car Tie-Down Package ALL10209

Includes two ALL10196 axle combo ratchet straps and two ALL10200 axle tie back straps. Enough tie-downs to secure a car to any trailer.



Axle Straps

Axle straps or winch straps work great for wrapping around the chassis or axle tubes when securing a vehicle to the trailer or when winching a vehicle.

Adjustable protective sleeve can be positioned as needed to help prevent strap damage from sharp edges. The working load limit is the maximum load a strap should be subjected to during normal use.

Part No.	Width	Length	Hook Type	Working Load Limit
ALL10200	2"	24"-40" Adj.	Twist	1,660 lbs.
ALL10203	2"	21"	Delta Ring	3,300 lbs.
ALL10204	2"	21"	D-Ring	1,660 lbs.
ALL10207	2"	33"	Delta Ring	3,300 lbs.
ALL10208	2"	33"	D-Ring	1,660 lbs.



Chassis Tie-Down Brackets

ALL60075

Steel brackets weld to chassis and provide a secure mounting location to hook a tie-down strap or winch cable. Set of 2.



ALL10210

Heavy-duty recessed D-Ring.

D-Ring Backing Plate

ALL60074

Backing plate strengthens and reinforces the mounting area of Allstar recessed D-rings. Plate may also be used as a template when installing D-rings and is bare steel, allowing plate to be welded in place. 1/4" thick.

Ratchet Straps





Secure extra equipment in the trailer with these 1" wide straps made of heavy-duty nylon webbing. Easy, one-hand operation. Ratchet straps have a 1,000-lb. rating.

ALL10180..... Standard 8' Length ALL10182..... Heavy-Duty 16' Length

ALLSTA PERFORMANCE

Notched

Cup With

Rubber

Removable

Aluminum Pit Jack

Lightweight, 3,000-lb. capacity oor jack has a low prole to roll under the lowest slung race chassis with a 3-5/8" pad height. Made of high-quality aluminum, jack incorporates a patented hydraulic

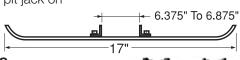
system to reach maximum height of 17-1/2". Large, two-piece handle has a spring detent to lock handle halves

together. Built-in stops on the jack prevent the handle from falling forward past the 12 o'clock position. Rolls easily on heavy-duty rear caster wheels. Optional dirt wing adapts lack for use in unpaved pits. 3-Pump and 6-Pump refers to the amount of pumps of the handle to lift the tires off the ground of a typical stock car.

ALL10422 3-Pump, Red ALL10425..... 6-Pump, Silver

Dirt Wing for Pit Jack ALL10426

Provides a sturdy base when using the pit jack on a dirt surface.



Jack Stands

ALL10124

Jack stands with unitized frame will support three tons. The ratchet locking mechanism assures safe. positive height control. Adjustable from 12-1/2" to 17-1/2". Sold in pairs.



be stacked together to conserve valuable space in the trailer or shop.

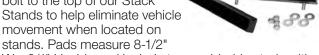
Stands are rated up to 3000lbs each and feature a sturdy 12" x 15" base. Sold in pairs.

ALL10253..... 11" Tall **11.1**

ALL10254..... 14" Tall

Stack Stand Pads ALL10256

Steel reinforced rubber pads bolt to the top of our Stack Stands to help eliminate vehicle movement when located on



W x 3/4" H wide and include two molded-in studs with hardware for easy installation. Drilling is required to Stack Stands for installation. Sold in pairs.

Pit Cart Chassis ALL10600

Universal kit is a good starting point for building your own custom pit cart. Welding is required and the kit includes all the necessary components to get you off the ground with a rolling platform. Includes a pre-welded front cross member, spindles, steering components, 1" x 2" steel frame tubing with main

rails drilled for rear axle, pre-welded rear axle assembly, wheels, tires, and a handle. Frame width is designed to be 14" and a maximum frame length of 60" with a 53" wheelbase. Frame may be shortened as needed.

Track Mat

High-density foam rubber mat provides added comfort when kneeling or laying on the ground. Mat is oil resistant and can be easily washed without absorbing water.

ALL10610 20" x 30" ALL10612 28" x 45"



Folding Track Mat ALL10126

Mat folds for easy storage and are ideal for use on asphalt, dirt, in the pits, or on the garage oor. Vinyl covered pad measures 52" x 24"

unfolded, 12" x 24" folded.

Moving Blanket

ALL12013

All-purpose padded moving blanket is an ideal ground cover at the track, fender/seat cover, or moving/ storage pad. Quilted with bound edges. 72"x 80".



Pit Mat ALL10605

Large 10' x 20' black pit mat is made from heavy-duty 18-oz. vinyl and includes securing grommets.





Air Jack Kits with Dirt Foot

The air jack system fastens directly to your chassis and uses air pressure supplied by a nitrogen tank to raise your entire car in seconds! Kits



include air jack cylinders with a 15.25" stroke length, cylinder mounting rings, air coupling with receiver, installation kit, safety stands, and detailed instructions. Lift cylinders feature a large 5" diameter base designed for use in dirt or soft pit areas. Air jack kit for complete car has a lifting capacity of 3000 lbs and kit with two air jack cylinders has a lifting capacity of 1500 lbs.



Dirt Foot

Note: A nitrogen tank, high-pressure regulator, and an air hose rated at a minimum of 400 PSI is required for operation.

ALL11301 Kit with 4 Lift Cylinders for Complete Car **ALL11303** Kit with 2 Lift Cylinders for Rear of Car Only

Air Jack Mounting Rings

Mounting rings secure around the lift cylinders found in the Allstar Air Jack Kits providing a mounting point to secure the lift cylinder to the chassis. The steel mounting rings are 3/4" tall and are direct replacement for the rings included in the Air Jack Kits. The 2-pc aluminum mounting rings are 3/4" tall and feature a 1/2"-13 socket head cap screw recessed into the clamp enabling the mounting ring to be secured to a weight bracket or a chassis tab.

ALL11319 Steel Mounting Ring Set 8 pcs **ALL11305** Aluminum Mounting Ring Set 8 pcs **ALL11313** Aluminum Mounting Ring Each

Regulator ALL11310

Nitrogen tank regulator is adjustable from 10-500 PSI and is designed for use with the Allstar Performance Air Jack Kits.



Premium Hose Kit for Air Jack System ALL11312

Premium hose kit includes 35' of 500 PSI hose and ttings to connect air jack systems to ALL11310 regulator.



Air Jack Kits

The air jack system fastens directly to your chassis and uses air pressure



supplied by a nitrogen tank to raise your entire car in seconds! Kits include four air jack cylinders with a 11.75" or 15.25" stroke length, cylinder mounting rings, air coupling with receiver, installation kit, safety stands, and detailed instructions. Air jack kits have a 3000-lb capacity.

Note: A nitrogen tank, high-pressure regulator, and an air hose rated at a minimum of 400 PSI is required for operation.

ALL11302 Kit with 11.75" Stroke Cylinders **ALL11300** Kit with 15.25" Stroke Cylinders

Nitrogen Air Tank Kit ALL10630

NEW

A portable nitrogen tank is ideal for making last minute adjustments to shock and tire pressures or raise air jack equipped vehicles. The kit includes a 21" x 5.25" diameter aluminum tank, aluminum



bottle stand/handle, adjustable pressure regulator, air hose with a quick disconnect and a transfer lling hose.

Note: Tank is sold empty and will require Iling before use.

Individual/Related Components

ALL10632..... Nitrogen Air Tank 5.25" x 21" Tall 2200 lbs *
ALL10633..... Nitrogen Air Tank 6.90" x 21" Tall 2200 lbs *
ALL10634..... Stand/Handle for 5.25" Nitrogen Bottle
ALL10635..... High Pressure Regulator 0-600 psi
ALL10636..... 30" Air Hose with Coupling
ALL10638..... Transfer Fill Hose

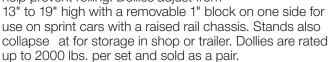
* Tank is sold empty and will require Iling before use.

Air Jack Lance ALL10637

60" long hose assembly connects to a portable nitrogen air tank with regulator to operate air jacks on equipped vehicles. Assembly includes lance with main II control valve and bleed valve for lowering vehicle.

Chassis Dollies

Steel chassis dollies allow a car or chassis to be moved around the shop easily and safely. Each dolly measures 30" across the top with high-density rubber pads and a single wheel brake to help prevent rolling. Dollies adjust from



ALL10625..... Standard Dollies **ALL10626**..... Black Dollies with Support Tabs*

*Dollies feature mounting tabs to mount a custom tie rod (not included) between the dollies for added support.





Air Hose

3/8" rubber hose with durable outer coating is weather, oil and solvent resistant. Maximum operating pressure is 200 PSI, burst pressure is 800 PSI. Solid brass 1/4"NPT end ttings.



ALL10526..... Air Hose 25' **ALL10527**..... Air Hose 50'

Nitrogen Bottle Holder ALL12210

Attach to trailer or shop wall to secure 9-1/4" diameter nitrogen bottle in upright position. Heavy steel bracket has a 1-1/2" wide hinged strap that pivots for easy bottle replacements. Overall bracket length is 17-1/2" with mounting holes 16" on center. Set of 2.

Pit Sockets

The same pit sockets used by many top race teams. Steel sockets have a 1/2" drive to work with most impact guns and a machined lug nut end (not hex), for use with 1" lugnuts.



Hex Pit Sockets with Extension

Hex style pit sockets with a built-in extension prevent extension and socket from separating during wheel changes.

3/8" Drive ALL10234..... 6" ALL10235..... 12" 1/2" Drive ALL10239..... 6" ALL10240..... 12"



Super Sockets with Extension

Pit sockets are available with 5" or 11"

extensions and include our Super Socket for fast wheel changes without jamming lug nuts. Sockets are not the traditional hex shape, these feature a unique inner shape to contact the edges of a 1" lug nut and a 1/2" drive for use with impact guns.

ALL10242..... 5" **ALL10241** 11"

Wheel Stud Thread Chaser

Designed to clean up damaged threads on wheel studs with 5/8"-11 threads. Thread chaser will not repair threads on bent wheel studs.

Note: We recommend using a lubricant such as WD-40 with thread chaser.

Economy Quick Spin Lug Wrench ALL10108

Lug wrench is a 1" diameter tube with a shallow 1" socket welded to one end and rotating piece of plastic pipe attached to the other. The 10" handles are angled with rubber grips and the overall length is 23".



Wheel Wrench ALL10655

powder-coated aluminum

Sprint car wheel wrench features a removable sleeve adapter to fi heavy-duty and light-weight axles. Six-point socket ts 3" axle hex nuts. Black

construction.

Aluminum Air Tanks

Portable lightweight aluminum tanks provide an easy way to air up tires.
Welded tanks will not rust or corrode and are pressure tested to military speci cations up to 300 PSI.
Tanks feature a 125psi pressure relief valve to prevent over lling.



ALL10531..... 7" x 10" Horizontal Tank, 1-1/2 Gallon **ALL10532**..... 7" x 24" Vertical Tank, 2-3/4 Gallon **ALL10530**..... 9" x 11" Horizontal Tank, 2-3/4 Gallon **ALL10534**..... 9" x 20" Horizontal Tank, 5 Gallon

Valve Stem Puller ALL44032

Puller threads onto valve stem and



properly pulls rubber valve stems into place. Large rubber block protects expensive wheels and creates leverage when pulling.

Valve Core Tool ALL44030

Easily remove and install new valve cores. Base of handle has a machined pattern to aid with grip. Ergonomically designed and crafted from stainless steel. Measures 3" overall length.

ALLSTAR' PERFORMANCE

Tire Pressure Gauges

2" gauge has a 12" ex hose with swivel chuck and pressure release valve. Accurate to within +/- 1%.

ALL44076 0-20 PSI **ALL44077** 0-40 PSI



Tire Pressure Gauges with Glow-in-the-Dark Face

Tire pressure gauge has a glow-in-the-dark face. Swivel chuck rotates 360° on a 14" long rubber hose for easy placement on valve stems with leak-free operation. A rubber cover surrounds the gauge for added protection against drops and has a ribbed molded pattern for increased grip. Gauge also



features a built-in pressure release valve for removing air in small amounts for precise pressure adjustments.

2-1/4" Diameter

ALL44056 0-15 PSI **ALL44057** 0-30 PSI **ALL44058** 0-60 PSI

4" Diameter

ALL44046 0-15 PSI **ALL44047** 0-30 PSI **ALL44048** 0-60 PSI

Tire Gauge Holders

Secure holder to shop or trailer wall to keep tire gauge conveniently located. Aluminum holder works with most tire gauges and has wraparound sides to hold gauge in place.





ALL12259

ALL12259..... Holds Gauges up to 3-1/2" O.D. **ALL12260**..... Holds Gauges up to 4" O.D.

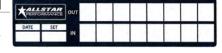
Tire Durometer ALL44034

Easily check tire hardness. Includes storage pouch.



Tire Log Decal

Easy to write on, vinyl decal is handy when recording



important tire information at the track. 8-1/2" x 2".

ALL047...... 4-Pack **ALL047-40** ... 40-Pack

Stagger Gauge

ALL10116

Measures tire diameter and automatically converts it to circumference. Strong tubular gauge will not ex and will provide accurate, consistent stagger measurements every time. Gauge measures from 65" to 115" in 1/4" increments.

Tire Tape

ALL10674

Easily gure out your tire stagger, the differ-

ence in circumference from one tire to the other with the help of this unique tire tape measure. The tape works by rst measuring the largest tire and then using this dimension when measuring the smaller tire. The tape does the math for you, the value the larger tire size aligns with is your stagger value or amount of stagger.

Tire Tape Measures

10' long tapes are ideal for measuring tire diameters and checking stagger.

ALL10111..... Economy ALL10112 Deluxe

Tire Crayons

Ideal for temporary tire marking. 1/2" x 4-5/8".

ALL12060..... White **ALL12061**..... Yellow

Paint Markers

Long-lasting, weather, water and UV-resistant markers work on glass, plastic, rubber, and metal. Durable ber tip permits ne or bold lines. Perfect for indicating tire stagger. Quick dry, lead-free paint.

ALL12050..... Silver
ALL12051..... Yellow
ALL12052..... White
ALL12053..... Red
ALL12054..... Blue
ALL12055..... Light Blue
ALL12056..... Black
ALL12057..... Orange



ALL10112

Sharpie Markers

Fine-point permanent

markers work great for many uses around the shop or track which includes layout and fabricating, marking tire sizes, gear set ratios, jet sizes, etc. Sold each.

ALL12072..... Black **ALL12073**..... Silver



ALL10577



Electric Tire Prep Stand

ALL10565

Electric tire prep stand eases grooving, siping, grinding, and even cleaning of tires. Two-way switch permits clockwise or counterclockwise rotation. Foot-operated pedal controls the rotation of the tire. A 110V accessory outlet is included for convenient plug-in of siper or groover. Stand will accommodate 5x5 or Wide 5 wheels.

Individual Components

ALL10566..... Wheel Mount/Motor Assembly

ALL10567 Cart/Stand for ALL10566



Tire Tool Adapter

ALL10570

Tire tool adapter is designed for use as an accessory to Allstar's electric tire prep stand ALL10565. Adapter arm with cushioned handles slides left and right to allow tire tool access to the entire width of tire. Mounting hardware and tire tool head are included.



Related Components

ALL10551 Tire Tool Head (Needler)

Foot Pedal for Standard Tire Prep Stand

ALL99490

Foot pedal is a replacement for the current ALL10565 Tire Prep Stand and a retro t pedal kit for earlier models with the small design plastic pedal.



Kit includes all wiring and instructions to convert older model tire prep stand to the current design.

Tire Perforator Tool

ALL10550

Tire tool perforates tire surface for better traction. Steel roller is 2" wide with a series of 1/4" tall, straight pin rows. 5" wood handle. Use caution when handling and storing tool; pins are needle sharp.

High-Torque Electric Tire Prep Stand

ALL10575

Electric tire prep stand with high-torque motor is a heavy-duty version of Allstar's standard tire prep stand that provides increased reliability and power when servicing tires. Prep stand eases grooving, siping, grinding and even cleaning of tires. Two-way switch permits clockwise or counter clockwise rotation. A foot-operated pedal



controls the rotation of the tire. A 110V accessory outlet is included for convenient plug-in of siper or groover. Stand will accommodate 5x5 or Wide

5 wheels.

Individual Components

ALL10576 Wheel Mount/Motor Assembly

ALL10577 Cart/Stand for ALL10576

Related Components

ALL10572 Tire Tool Adapter

ALL10574 Tire Wrapper Attachment

ALL10571 Tire Siper Holder

Tire Tool Adapter for High-Torque Tire Prep Stand

ALL10572

Tire tool adapter is designed for use as an accessory to Allstar's high-torque electric tire prep stand ALL10575. The adapter's arm features cushioned handles and slides side-toside, allowing perforator tool access to the entire width of

tire. A retractable leg helps support and stabilize the tire tool adapter and unit. Adapter also has mounting holes to accept the ALL10574 Tire Wrapper Attachment (sold separately) to wrap tires after prepping.

Tire Wrapper Attachment

ALL10574

Tire wrapper attachment mounts directly to tool perforator adapter ALL10572 to easily wrap tires after prep-

ping. Attachment accepts tire wrap tubes up to 18" wide with a core I.D. of 3".

Related Components

ALL44221 Black Stretch Wrap 1500' ALL44224 Clear Stretch Wrap 1500'





Tire Prep Stand

ALL10555

Steel tire prep stand is a must when grooving, siping, grinding, or even cleaning tires. Bolts together, and the pivoting head eases initial tire mount. A locking T-handle secures the head assembly. Can be used with 5x5 or Wide 5 wheels.



Tire Prep Mount ALL10561

Manual steel tire prep mount eases grooving, siping, grinding, or even cleaning tires. Special one-way bearings prevent "roll back" when grooving or siping. Bolt to a wall stud or other solid surface. Can be used with 5x5 or Wide 5 wheels. ALL10562 wall swivel (sold separately) allows use at various angles.



ALL10562..... Swivel Wall Mount Bracket

Tire Siper ALL10265

Get more sipes per swipe!
6-blade push or pull style
siper quickly and precisely
sipe tires for better traction.
Unit has adjustable sipe depth.
Lightweight sipers use standard utility
blades and are constructed for heavy-duty use.



Chad Simpson



Jared Spalding

Heated Tire Siper

ALL10266

Sipe tires quickly and effortlessly while maintaining precise control. Siping can greatly improve traction by allowing the tire to reach and maintain optimum

temperature. A locking lever and blade clamping screw secures up to 13 blades in the head assembly. Blades can be easily positioned up or down to desired cutting depth. A built-in blade rail holds blade strips



in place while individual blades are snapped away. Tool heats in 10-15 minutes. 110V plug in operation only.

Replacement Components

ALL99104 ... Tension Lever Kit **ALL99109** Heating Element



99104 ALL99109

Extra-Hot Tire Siper Heating Element

ALL99111

Element increases the output of the ALL10266 by about 25% over the original heating element which is ideal for siping harder compound tires.

Siping Blades ALL99108

Siping blades are designed to work in ALL10266 Heated
Tire Siper and ALL10540
8-Blade Siping Head. Four strips contain six individual break-away blades that are easily removed or separated using needle nose pliers. Package of 24 blades.

Multi-Blade Siping Head ALL10540



Siping head converts standard two-blade pistol-grip sipers into an eight-blade siper. Head holds up to eight individual break-away style blades that can be adjusted as needed for desired cutting depth. Head works with pistol-grip and other heated sipers that accept a .400" round mandrel. Blades are sold separately.

Related Component

ALL99108 Siping Blades, 24-Pack

ALI 44028

Wide Jaw



Backing Pads and Sanding Discs

Backing pads are designed to work with sanders that have a 5/8"-11 arbor. Sanding discs are speciet to each backing pad and sold in packs of 5.

7" Backing Pad and Sanding Discs

Backing pad is a multi-piece unit that features a hard backing. The sanding disc is secured to the sander along with the backing pad and reinforcing disc with one spanner nut.



ALL44186..... 7" Backing Pad ALL44187..... 7" Sanding Discs, 36 Grit, 5 Pack

8" Backing Pad and Sanding Discs

Backing pad is a one-piece unit that features a soft foam backing and a molded-in threaded insert to mount directly to the sander. The backing pad accepts hookand-loop style sanding discs.



ALL44188..... 8" Backing Pad

ALL44189..... 8" Sanding Discs, 36 Grit, 5 Pack ALL44198..... 8" Sanding Discs, 24 Grit, 5 Pack ALL44197..... 8" Sanding Discs, 16 Grit, 5 Pack

Tire Grinding Discs



Grind off the hardened outer "skin" on used dirt track tires and create round, aggressive sipes to increase traction. Use caution when handling and storing nail head disc, pins are needle sharp.

Part No.	Description	Diameter	Arbor Hole
ALL44180	Rounded Disc, 23 Grit	4"	5/8"
ALL44181	Flat Disc, 23 Grit	4"	5/8"
ALL44182	Rounded Disc, 16 Grit	7"	7/8"
ALL44183	Nail Head Disc	7"	7/8"
ALL44196	Nail Head Disc	8"	5/8"

Safety Note: To prevent bodily injury the tire must be mounted on the car or secured in a tire holder. Eye and hand protection is required.

Bead Breakers

Convenient tool makes quick work of breaking down even the most stubborn tire beads.

Durable steel

construction with rubber hand grips. Clamp the hook and inside jaw against the rim, while maintaining slight pressure on the outside handle, then press down on the inside handle, using the outer jaws to separate the tire from

the rim, moving around the rim as needed.

ALL44026 Bead Breaker for 10" Wheels **ALL44027** Bead Breaker for 13" Wheels **ALL10105** Bead Breaker for 15" Wheels

ALL10106..... Bead Breaker for 15" Wheels Wide Jaw* **ALL44028**.... Bead Breaker w/ Adjustable Arm for 10", 13", and 15" Wheels

*Wide jaw bead breaker works well with soft sidewall tires, helping prevent damage to sidewall.

Tire Spoons

Steel tire spoons help to mount and dismount tires after bead has been broken. Various sizes are available to work with most tire/wheel combinations. Small tool works well to t inside tire during removal while rounded ends help prevent damage to tire and wheel.



ALL10103..... 24" Straight with Round End ALL10104..... 16" Curved with Flat End ALL44037.... 16" Curved with Round End ALL44036.... 9" Curved with Round End



Ben Watkins

PERFORMANCE

"All-In-One" Heated Tire Groovers

Self-contained groover has built-in temperature controls, eliminating the additional cord and separate control box common with other groovers. Don't let the small package fool you; this groover has the ability to cut small intricate grooves yet still

handle removing material up to 1/2". Tapered, razor-sharp blade grooves fast and easy. To operate, insert a single blade into groover, set blade height with a tire depth gauge, and set the power level. Place the cutting edge against the tire surface and obtain instant heat by simply squeezing the trigger. Groover features a Hi/Low toggle switch and a temperature control dial in the handle for setting desired heat level. "All-In-One" groover requires "All-In-One" blades; do not use standard groover blades with this groover.

ALL10770 110V Groover Includes 1 Each 4/32", 5/32", 6/32", 8/32", and 10/32" Flat Blades.

ALL10772 220V Groover (Intended for International Use) Power cord requires the attachment of a 220 volt, grounded, 3-prong plug (not included). Includes 1 Each 4/32", 5/32", 6/32", 8/32", and 10/32" Flat Blades.

Replacement Components (for ALL10770 and ALL10772)

ALL99300 Head Assembly ALL99301 Head Rebuild Kit

ALL99302 Blade Clamps, 1-Pair ALL99303 Clamp Nuts, 1-Pair

ALL99304 Clamp Screws, 1-Pair

ALL99305 Cradle Springs, 1-Pair

ALL99306 Slide Pads, 3-Pair

ALL99307 Hex Wrench







ALL99302

ALL99306

Heated Tire Groovers

Groovers add extra traction in minutes. Tapered, razorsharp blade grooves fast and easy. To operate, insert a blade into groover, set blade height with a tire depth gauge, and set the power level. Features triggerless

activation - simply place the cutting edge against the tire surface and press down for instant heat. Includes 2 each 4/32", 6/32", 8/32", and 10/32" fl t blades.

ALL10260..... 110V Groover Features a 4-level dial and a hi/ low switch for 8 total heat settings.

ALL10590.... 220V Groover (Intended for International Use) Features a 4-level dial and a multi-positional dial for ne-tuned heat settings. Power cord requires the attachment of a 220-volt, grounded, 3-prong plug (not included).

Replacement Components

(for ALL10260)

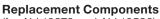
ALL99392 Head Assembly ALL99393 Head Rebuild Kit

ALL99394 Blade Clamps, 1-Pair

ALL99303 Clamp Nuts, 1-Pair ALL99304 Clamp Screws, 1-Pair

ALL99305 Cradle Springs, 1-Pair

ALL99306 Slide Pads. 3-Pair ALL99307 Hex Wrench



(for ALL10270 and ALL10590) ALL99104 Tension Lever Kit

ALL99105 Head Assembly

ALL99106 Front Pads w/Screws, 3-Pair

ALL99107..... Rear Pads w/Screws, 3-Pack ALL99127..... Head Blade Divider



ALL99105



ALL99393

ALI 99306

ALL99106



General-purpose gloves protect hands from everyday abuse in the shop or at the racetrack. Lightweight, elastic-weave material with reinforced palm and ngers allows mobility and unrestricted use.

ALL99940 Medium **ALL99941** Large ALL99942 X-Large

Allstar Apron ALL99962

Black cloth apron has pockets to keep tools close at hand. Reverse apron to place pockets on the inside when grinding tires. Adjustable strap allows one size to tall.





Storage Tote ALL059

Durable storage tote has many uses around the shop or in the trailer. Store extra parts or keep parts from being damaged during storage. Great for organizing ratcheting tie downs, specialty tools, such as tire

groover, siper, and related tools. Totes also work well for storing chemicals and uids to prevent spilling in cabinets. Interlocking lid design allows multiple totes to be securely stacked together. Inside dimensions are 20"L x 14"W x 12"H.

Dirt Tire Soap ALL78236

Clean your tires like the Pros! Simply mix with water and spray on your tires before washing them and the mud almost falls off. Cleaner also works for pre-treating your chassis and body before cleaning to help loosen dirt and clay. 1-gallon container.





"All-In-One" Groover Blades

Hard-tempered spring steel blades are designed for use with the ALL10770 and ALL10772 "All-In-One" Heated Tire Groovers. Blades are honed to a razor-like nish and have a tapered shape making the blade wider near the top where strength is needed and thinner at the bottom, greatly reducing drag as the blade cuts through the rubber. Blades are sold in packages of 12.

Note: All-In-One Groovers must use these All-In-One Blades but these blades can be used in any of our other groovers.



Size	Flat Bottom Blades	Round Bottom Blades
1/32"	_	ALL10790
2/32"	-	ALL10791
3/32"	ALL10780	ALL10792
4/32"	ALL10781	ALL10793
5/32"	ALL10782	ALL10794
6/32"	ALL10783	ALL10795
8/32"	ALL10784	ALL10796
10/32"	ALL10785	ALL10797
12/32"	ALL10786	ALL10798
14/32"	ALL10787	_
16/32"	ALL10788	=
	1/32" 2/32" 3/32" 4/32" 5/32" 6/32" 8/32" 10/32" 12/32" 14/32"	Size Blades 1/32" - 2/32" - 3/32" ALL10780 4/32" ALL10781 5/32" ALL10782 6/32" ALL10783 8/32" ALL10784 10/32" ALL10785 12/32" ALL10786 14/32" ALL10787

Heated Tire Groover Blades

Hard-tempered spring steel blades are designed for use with the ALL10260, ALL10270 and ALL10590 Heated Tire Groovers. Blades are honed to a razor-like nish and have a tapered shape making the blade wider near the top where strength is needed and thinner at the bottom, greatly reducing drag as the blade cuts through the rubber. Blades are sold in packages of 12.

Note: Do not use these blades in "ALL-IN-ONE" style groovers!



Blade	Size	Flat Bottom Blades	Round Bottom Blades
#1	1/32"	_	ALL10267
#2	2/32"	_	ALL10268
#3	3/32"	ALL10271	ALL10269
#4	4/32"	ALL10272	ALL10276
#6	6/32"	ALL10273	ALL10277
#8	8/32"	ALL10274	ALL10278
#10	10/32"	ALL10275	ALL10279

Heavy-Duty Flat-Bottom Grooving Blades

Heavy-duty blades are twice as thick as standard blades for removing large amounts of material with less chance

of blade damage. Commonly used in off-road racing. Package of 12.

Note: Do not use these blades in "ALL-IN-ONE" style groovers!

ALL10580 #16 Flat. 16/32" ALL10582..... #20 Flat. 20/32" ALL10584..... #24 Flat. 24/32" ALL10586..... #32 Flat, 32/32"

Tire Covers

Canvas cover is ideal for open wheel cars to keep tire out of direct sunlight.

ALL44255 8" Wheel/Tire **ALL44256** ... 10" Wheel/Tire **ALL44257** ... 12" Wheel/Tire



Easy Wrap Tire Covers

Cover tires quickly and easily. Elastic bands allow you to stretch the cover over your tires after washing or grinding to keep tires clean.



*ALLSTAR

Description	4-Pack	12-Pack
UMP Modified Ti es (85-89" Dia.)	ALL44222	ALL44222-12
Late Model Tires (93-96" Dia.)	ALL44223	ALL44223-12

Tire Wrap

Tires lose solvents and moisture over time but keeping them covered helps prevent

tires from drying out. Wrap also helps contain or reduce the amount of chemicals used during "soaking" by minimizing evaporation. Wrap is 18"W x 1500'L.

ALL44221 Black ALL44224 Clear

Tire Stack Cover

ALL44220

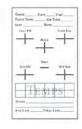
Easy access canvas cover features a full-length zipper. Perfect for use in the tire impound, keeping your tires out of the weather or hiding them from the eyes of your competition, 50" tall black cover will tall set of 4 tires with a 86" maximum circumference.



Asphalt Tire Book ALL041

Keep track of tire settings before and after race. 4" x 5" pocket size book includes 50 carbon-copy pages, perforated for easy tear off.







Toe Plates

Aluminum plates simplify setting of toe-in and toe-out. Plates t against outside edges of tires. Using two tape measures (sold separately), measure the distance front and rear, between plates. The difference in tape readings is the toe setting. Deluxe plates have radi-



used edges, slots for narrow and wide tape measures, and are 9" tall x 23" wide to work with vehicles with smaller wheel openings. Standard plates are 1/2" thick, 11" tall x 32" wide, and work well for vehicles with larger wheels and wheel openings. Set of two plates.

ALL10117 Standard ALL10119 Deluxe

16' Tape Measure ALL10675

16' x 3/4" blade has fractional markings every 1/8" for quick reference.



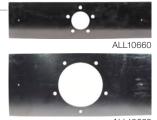
Caster Plate ALL10752

Not sure if you turned your wheels the same amount each time when adjusting caster settings on your race car? Unless

you have expensive turn plates, you're never certain, until now. This quick reference gauge positions under the upper ball joint nut, with markings facing up, for easy viewing. Place a mark on the shock body or fabricate an indicator to use as a reference point.

Set-Up Plates

Set-up plates are used for squaring and stringing chassis to ensure accurate chassis set-up by eliminating wheel and tire differences. Plates are 1/2" thick and can also be used when setting bump steer or checking axle tubes for straightness. Sold each.



ALL10662

ALL10660..... 5x5, 7" x 28" **ALL10662**..... Wide 5, 12" x 28"

Spindle Slug Tool ALL11182

Tool easily removes spindle slugs that are pressed into fabricated spindles with a standard wrench or socket.

Upper Ball Joint Wrench

Wrench is designed to remove and install common screw-in upper ball joints that are 1.900" wide (ALL56214).

Suspension Tube Set-Up Tool



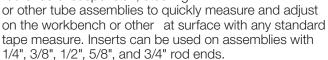
Slide rule device quickly measures and duplicates suspension or steering tube distances with 1/2", 5/8", and 3/4" rod ends. Set-up tool has an engraved scale with 1/16" increments for durability and accuracy.

Bolt Center Caps ALL10678

Caps slip over the head of standard 1/2" bolts to accurately measure the center-to-center length of installed suspension tube assemblies. Machined step secures the end of a standard tape measure for easy reading of the length to the center of the opposite cap. Caps feature a built-in O-ring that allows the cap to swivel on the bolt head and keeps it from falling off. Package of 2.

Rod End Centering Kit ALL10672

Compact inserts are placed into rod ends of suspension, steering



Ride Height Blocks

Chassis set-up blocks are adjustable in 1/4" increments. A quickrelease pin holds block at desired height. Bottom surfaces of blocks





are contoured to t steel tubing or any at surface and have magnets for holding block to chassis. Short blocks adjust 1.75"-4". Tall blocks adjust 3"-6". Package of 2.

ALL10720..... Short **ALL10721** Tall

Adapters Cups for Ride Height Blocks

ALL10722

Adapters replace the standard at pad on set-up blocks and are machined to cradle axle tubes during chassis set-up. Package of 2.

Cradle Rollers for Ride Height Blocks ALL10723

Built-in rollers allow live axle rearends to rotate while on the cradles or when using the rear axle to rotate the engine to check or adjust the valve train. Package of 2.







Ground Clearance Indicator

ALL10725

Determine how close the frame is to the ground on the race track. This unique kit features an aluminum bracket that rivets to the frame with an adjustable 4" plastic wear rod.



Replacement Component

ALL10726 Wear Rods, 4-Pack

Ride Height Set-Up Stick ALL10658

Stick replaces the coil-over shock and spring assembly during maintenance.

Stick has many uses and may be adjusted to check settings at normal ride height, in race attitude, or on the bump stops to evaluate suspension travel. Adjusts from 15" to 24", measured at the center of 1/2" rod ends.

Shock Racks

Shock rack holds four shocks with 2-1/2" springs and easily mounts to trailer, shop wall or pit cart. Rack is designed to hold shocks in place by pushing shock rod end or eye over the outer O-ring or alternatively, the outer O-ring may be removed to expose a predrilled hole for a hairpin clip such as ALL18442, sold separately.

ALL12212 Standard Rack **ALL12211** Adjustable Base Rack

Replacement Component
ALL12213 Shock Pin, O-Ring, and Bolt

Extended Length Shock Rack Pin

ALL12215

Extended length pin replaces the pin used on our standard and adjustable shock racks allowing a shock or eliminator



with a 5" spring to be mounted to the rack. Pins are also ideal for creating custom mounting for use on toolboxes or pit carts. The outer O-ring may be removed to expose a predrilled hole for a hairpin clip such as ALL18442, sold separately.

Shock Eye Socket

ALL64255

The ideal tool for shock rebuilders or anyone that disassembles shocks on a regular basis! Unique socket safely removes and installs the shock rod end without risk of damage to the spherical ball. Steel socket contacts the outer bousing of 1/2" rod ends up to



housing of 1/2" rod ends up to .640" wide and has a 1/2" drive for ratchet or impact use.

Shock Workstation

ALL64264

The all-in-one shock workstation holds most shock bodies in the upright position for ease of shaft removal or assembly and holds shock shafts vertical or horizontal for easier repairs and re-valving. Aluminum workstation can be placed in a vise, bench mounted using optional mounting bracket, or custom mounted using 1/4" fasteners.

Shock Workstation Base

ALL64267

Steel base is helpful when mounting Allstar workstation (ALL64264) in a trailer or to a shop workbench. Mounting hardware included.



Shock In ation Tool

ALL64260

Tool threads onto shock Schrader valves. Fill valve and 0-300 PSI gauge head independently rotates a full 360°, for easy lling and reading. Complete with built-in bleeder and includes a protective storage case.





David Stremme



Bench Yoke ALL11360

Bench yoke mounts to a workbench to hold transmissions, rear ends, differentials, and many other items for assembly or servicing. Yoke rotates 360° and features two 10" long pivoting arms that are 1" wide by 1/2" thick. Tool is unpainted so it can be modiled as needed.

Rear End Station Brackets

ALL10178

Stand adapter brackets fasten to adjustable arms of most engine stands. Supports full size car and light truck rear axle housings when servicing or replacing differential gear sets. Position housing onto arms and secure into place with included retaining straps.



Pinion Centering Jig

ALL68370

Pinion centering jig fastens to the rear end housing and locates the pinion centerline when building or narrowing housings. Machined slots are designed to retain most tape measure ends for accurate measurements. Applications include GM 12 and 14-Bolt, Dana 44 and 60, Chrysler 8-3/4", and Ford 8.8" and 9" housings.



Pinion Yoke Wrench

ALL68372

Wrench fastens to most popular pinion fl nges and companion anges to hold when setting bearing pre-load and tightening retaining bolt or nut. Wrench has provisions to work with 1/2" or 3/4" drive tool. Center hole is 2" to clear most sockets. Universal slotted bolt patterns for 1/4", 5/16", and 3/8" fasteners for most AMC, Dana, Ford, and GM yokes.

Spindle Nut Sockets

Aluminum hex style spindle nut socket features a 1/2" drive for use with a ratchet.

ALL10110 Socket for 2" Pin Wide 5 and 5x5 Spindle Nuts, 2-3/8"

ALL10114 Socket for 1-Ton Wide 5 Spindle Nuts, 2-5/8"

ALL10114 Socket for 1-10n Wide 5 Spindle Nuts, 2-5/8" ALL10115 Socket for 2-1/2" Pin 5x5 Spindle Nuts, 2-7/8"

Quick Change Tube Install/Removal Tool

ALL11350

Finally an easy and correct way to install and remove quick change axle tubes. Secure support tool into a vise or to a workbench with optional brackets. Components are included to remove and install tubes with the turn

of a wrench. An adapter for tubes with Wide 5 or 5 on 5" hubs is also included.

Related Components

ALL11355 Installation End Cap for

Bolt-On and 2-7/8" Pin Wide 5 Tubes

ALL11351 Mounting Bracket Kit for Quick Change Tube Install/Removal Tool



ALL11355

T-Handle Axle Puller

ALL66115

All-in-one T-handle puller threads into axle for easy installation or removal. Tool includes adapters to fi

3/8"-16 coarse- or 3/8"-24 ne-thread solid axles, and 3/4"-16 ne-thread gun-drilled axles.

Extreme Pressure Lube

ALL78246

Originally used throughout the tool and die industry, this lube provides superior durability and

wear protection, taking the place of anti-seize in many applications. Recommended for spline-to-spline contact, threaded adjusters, and engine fasteners. 4-ounce tube.



Quick Change Oil Plug Socket

ALL11161

Six-point 1-7/8" socket ts on a 1/2" drive ratchet to remove or install plugs on quick change rear ends. Socket ts plug in Winters Ford 9" housings. Not recommended for high-torque applications.





Quick Change Gear Case

ALL14355

Sturdy composite storage case protects and holds up to 8 sets of quick change gears. Case has molded-in carrying handles and metal hinges. 5" x 8" x 15-1/2" overall when closed.



Gear sets not included

Quick Change Gear Totes

Durable plastic quick change gear tote organizes extra gear sets and keeps them clean. Lid snaps shut to hold gears in place. 8"L x 5"W x 2"H.







Gear sets not included

Description	Single	10-Pack
White	ALL14350	ALL14350-10
Black	ALL14351	ALL14351-10
Yellow 6-Spline (Midget) Gear Set	ALL14352	ALL14352-10

Quick Change Gear Tote Tray

ALL12269

Neatly organize up to 10 quick change gear tote boxes vertically. Tray is 21" long x 5-1/2" deep with a 4" tall front edge, making them perfectly sized for Allstar gear tote boxes.





Plastic Drain Pan

ALL40112

Round drain pan has molded-in handles and pour spout. 13-1/2" x 11" x 4", 7-qt. capacity.



Aluminum Quick Change Drain Pan

ALL14166

Aluminum drain pan is handy when changing quick change gears. Built-in perforated shelf holds gears and allows lube to drain into pan. Pan is 10-1/4" wide, 12" long, and 3-3/4" deep.



Quick Change Drain Pan Plastic ALL14356

Tapered top drain pan, combined with an openow corner, allow quick change gear changes to happen even faster. Lowpro le, 2-piece plastic pan includes a stainless steel lter screen molded into the top tray. 4-qt. capacity.

Drain Pan with Pump ALL14171

Drain pan with built-in pump holds and re lls uids when changing rear end gears. Molded plastic basin and lid slide together to prevent



spilling of uid. A crank handle is included for hand operation along with a length of straight hex shaft for use with an electric drill. 16" square x 7" tall. 14-qt. capacity.

Absorbent Mats

A must for the workshop and trailer. These handy, absorbent mats have bonded layers, allowing uid to spread quickly through material.



ALL12030..... Universal for All Fluid Types (Oil, Coolant, Water)

ALL12031 Oil Only

100-Pack (15" x 10" Individual Sheets)

ALL12032..... Universal for All Fluid Types

(Oil, Coolant, Water)

ALL12033..... Oil Only



Brady Bacon



Aluminum Shifters

Anodized lightweight shifters include 3/8" rod ends, locknuts and rods. Rods are tapped for right and left hand 3/8" rod ends.



Shifters Include:

One-Lever Shifter – one 24" shifter rod **Two-Lever Shifter** – two 24" shifter rods

Three-Lever Shifter – one 16" and two 24" shifter rods

ALL54108..... One-Lever Shifter ALL54120..... Two-Lever Shifter ALL54112..... Three-Lever Shifter

Replacement Components

ALL58006 3/8" RH Male Rod End **ALL58016** 3/8" LH Male Rod End

ALL99015 Rod End Reducer Bushing 3/8" to 1/4"

Two-Lever Shifter with Lock

ALL54125

Black anodized shifter has a built-in lock to hold the transmission in gear when track is rough. Shifter includes two 24" long 3/8" shifter rods, 3/8" rod ends, and hardware.



Garrett Alberson

Two-Lever Shifter with Unequal Handles ALL54124

Black anodized aluminum shifter has two unequal length handles.
Shorter lever commonly used for reverse. Includes 3/8" rod ends, lock nuts, and 24" long rods.

Shifter for Gen II Bert Transmission

ALL54127

Black anodized aluminum shifter is designed speci - cally for the Gen II Bert transmission.

Shifter features a spring-loaded reverse lockout gate to help prevent accidental engagement and easy-to-read engraved range positions. Shifter includes a 14" long, 3/8" shifter rod with rod ends, and an installation template.

Aluminum Shifter Rods

Black anodized shifter rods are tapped for right and left hand 3/8" rod ends and work with Allstar aluminum shifter assemblies. Rods can be used in many other applications as well.

ALL54113 14" ALL54114 16" ALL54115 20" ALL54116 24" ALL54117 30" ALL54119 40"



Related Components

ALL58006 3/8"-24 RH Male Rod End ALL18254 3/8"-24 RH Jam Nut, 4-Pack ALL58016 3/8"-24 LH Male Rod End ALL18255 3/8"-24 LH Jam Nut, 4-Pack ALL99015 Rod End Reducer Bushing 3/8" to 1/4"

Universal Aluminum Shifter Arm

ALL54118

Made from 1/4" thick aluminum, arm has a 3/8" wide mounting slot and a 1/4" shifter rod mounting hole. Arm works with most transmissions.

Clevis Kit For Bert Transmission ALL54128

Aluminum clevises have 1/2" inside spacing with 3/8" mounting holes and 3/8"-24 RH threads to connect Allstar and most other shifters to Bert transmission. Two clevises per kit with jam nuts.

Shifter Boot ALL54130

Fire-resistant, black thermal boot helps prevent re from entering driver compartment.

Boot is 7" tall with Velcro strap closure at top. Base is 6" x 7". Used by many top Cup, x nity, Truck, CRA, and Late Model teams.



Thottle/Shifter Cables

Cables have many uses including use as a throttle cable or as a shifter cable in many applications. Cables have 7/16" mounting threads, #10-32 RH cable ends and 3" of travel.

	Overall	Mount to Mount
	Length	Length
ALL54142	43"	29" +/- 1"
ALL54145	60"	45" +/- 1"

Quick-Release Cable Ends

Quick-release ends are used when a connection needs to be removed and installed often. Steel constructed housing has a spring-loaded release to keep housing secure to pivot ball.

ALL54147..... #10-32 with #10-32 and 1/4"-28 Studs **ALL54149**..... 1/4"-28 with 1/4"-28 Stud

Morse Cable Half Clamp

ALL18325

Aluminum clamp fi s over groove in nonthreaded Morse style cables with a 3/8" housing to secure cable in place. Clamps feature a #10 (3/16") mounting hole. Sold each.



Positive Cam Lock Shifter

ALL54135

CNC-machined billet aluminum shifter clamps to the frame on driver's right. Designed for use with live axle shifter quick change. Shifter includes allsteel hardware, heavy-duty cable, and quick-release end.

Replacement Component ALL54142..... 43" Long Cable

Transmission Breather Kit

ALL36147

Breather kit provides a remote location for adding a larger breather to many popular manual transmissions. Kit relocates the breather exit location and helps prevent uid from leaking or blowing out of standard breathers. Includes a remote breather, 15" braided line, mounting bracket, and adapter ting with 1/8"NPT threads.

Hydraulic Throwout Bearing Remote Bleed Line Kit ALL46102

Bleed line kit connects to most popular hydraulic bearings to allow easier bleeding of system by placing the bleeder screw outside of the bell-housing. Kit includes a 10" long line with adapter tings for bearings with -3AN, -4AN, or 1/8" NPT bleed ports.

Locking Transmission Dipsticks

Dipsticks feature a positive lock to keep dipstick in place and seal tight to prevent uid leaks while sealing out moisture and debris. Steel case II tubes have a gold fi ish, include a welded-on mounting tab, and are tted with a rubber grommet type seal to reduce the risk of leaks common with traditional O-ring seals. Locking dipstick tubes are required on 10.99 and faster drag cars.

	a labior arag bars.	
Part No.	Description	
Powerglide	·	
ALL69100	Chevy Car	
ALL69101	LS Car	
ALL69102	Chevy Dragster	
ALL69104	Chevy Altered	
ALL69107	Dedenbear Car	
ALL69108	Dedenbear Dragster	
Turbo-Hydra	matic 350	
ALL69110	Chevy	
ALL69111	Buick, Olds, Pontiac	
Turbo-Hydra	matic 400	
ALL69112	Chevy	
ALL69113	Buick, Olds, Pontiac	
ALL69114	LS	
Chevy (Other	•)	
ALL69116	Chevy 200-4R	
ALL69117	Chevy 700R4	
ALL69115	LS 700R4	
ALL69118	Chevy/GMC 4L80-E	
ALL69119	LS 4L80-E	
Chrysler Tord	que ite	
ALL69120	727 Small Block	
ALL69121	727 Big Block	
ALL69124	904	
Ford		
ALL69126	Ford C-4 Case Fill	
ALL69127	Ford C-4 Pan Fill	
ALL69128	Ford C-6 Small Block	
ALL69129	Ford C-6 Big Block	
ALL69130	Ford Automatic Overdrive	



Replacement Component ALL99285 Sealing Grommet

Transmission Coolers

Universal coolers reduce operating temperature of the uid, extend life of the transmission, and provide better performance. Use as a stand-alone cooler or as an auxiliary unit to increase cooling



capacity of a stock system. Increased cooling is recommended when using a high-stall converter, or if the vehicle is used for towing. Coolers have 3/8" barbed things and include rubber hose, clamps, and mounting kit.

Part No.	Overall Size	Core Size	GVW
ALL26700	12.5" x 5"	9" x 5"	10,000 lbs.
ALL26702	16" x 5"	12" x 5"	12,000 lbs.
ALL26704	12.5" x 7.5"	9" x 7.5"	16,000 lbs.
ALL26706	16" x 7.5"	12.25" x 7.5"	18,000 lbs.
ALL26708	16" x 10"	12.25" x 10"	20,000 lbs.





Flexplates

Flexplates transfer engine power to the transmission, include the starter ring gear, and have dual (10-3/4" and 11-1/2") converter bolt patterns unless speci ed.

SFI explates meet SFI 29.1 speci cations including .035" thicker material than stock OE plates, starter ring gears welded on both sides, and a gold zinc chromate nish. 153-tooth explates measure approximately 12-7/8" in diameter. 168-tooth explates measure approximately 14-1/8" in diameter.

		Stock	
Description	Balanced	Replacement	SFI
SB Chevy 153-Tooth	Internally	ALL26835	ALL26830
SB Chevy 153-Tooth, 86-Up	Externally	ALL26836*	ALL26831*
SB/BB Chevy 168-Tooth	Internally	ALL26805	ALL26800
SB Chevy 168-Tooth, 86-Up	Externally	ALL26806	ALL26801
SB Chevy 400, 168-Tooth	Externally	ALL26815	ALL26810
BB Chevy 454, 168-Tooth	Externally	ALL26825	ALL26820
GM LS 3-Bolt, 168-Tooth	Internally	ALL26845 [†]	ALL26840 [†]

*Single 10-3/4" Torque Converter Bolt Pattern.

TWill not fi 1999-2000 6.0L applications with 0.400" extended crank ange originally equipped with at fl xplate and will not t 4L80E transmissions

Flywheel Locking Tool SB/BB Chevy ALL96426

Place ywheel locking tool onto rear block dowel pins to prevent the ywheel from turning while tightening or loosening balancer bolts, ywheel bolts, clutch/pressure plate bolts, or cam gear bolts. Locking tool works with 153- or 168-tooth ywheels and explates.

Balancing Plate ALL26120

Plate is installed between crankshaft ange and the ywheel allowing a popular internally balanced Chevy 350 ywheel to be used with an externally balanced 400 crankshaft.

Note: These are not designed to be used with an automatic transmission fl xplate.

GM LS Engine to TH350/TH400 Adapter Sleeve ALL26121

Crank adapter sleeve allows use of an early TH350/TH400 style transmission with an LS engine.

Torque Converters

Ideal for mild performance applications, including moderate drag racing, factory or street stocks. Economical converters are completely remanufactured with new pump drive hubs and thrust washers. Exact stall speeds will vary depending upon displacement, torque, and vehicle weight.



Part No.	Description	Stall Speed
ALL26908	TH-350/400 10-3/4" B.C.	2000-2200
ALL26906	TH-350/400 10-3/4" B.C.	2200-2600
ALL26900	TH-350/400 10-3/4" B.C.	2700-3000
ALL26902	TH-350/400 10-3/4" B.C.	3200-3500
ALL26904	TH-350/400 10-3/4" B.C.	3500+

Steel Chevy Bellhousing ALL26890

Steel bellhousing is non-SFI and ts small and big block Chevy engines. Works with 153 tooth or smaller y-wheel and is designed for use with hydraulic throw out bearing. Includes inspection, dust and starter hole covers. Black zinc fi ish.



NEW

Pilot Bushing Install Tool

ALL26115

Driver simplifi s installation of pilot bushings or bearings for manual transmissions including Muncie, Saginaw, BorgWarner, T-10, and many other popular transmissions with .590" pilot shafts.

Extended Length Pilot Bushings

Use these extra-long bushings when distance between engine and bellhousing has increased due to use of mid-plates, rear engine mounts, or adapters. Bushings help maintain true alignment of clutch disc to ywheel.

ALL26112..... Bronze Bushing

ALL26114[‡].... Steel Bushing with Roller Bearing

‡Bearing is shipped dry. Apply a good quality, high-temp grease upon installation.

Clutch Alignment Tools

Splined, high-impact plastic tools are helpful when aligning the clutch disc on the ywheel for proper insertion of the transmission input shaft.

ALL14290..... 1-1/8" Dia, 10-Spline **ALL14292**..... 1-1/8" Dia, 26-Spline

Transmission Stand

ALL10175

Stand is designed to accept most three- and four-speed GM manual transmissions and also Bert/Brinn style transmissions with modi cation to rear pad mount.



Transmission Blanket ALL69010

Contains transmission explosions on high-horsepower race cars with



stock rewall/ oor pan or where a transmission shield isn't practical. NHRA- and IHRA-approved blanket measures 12" x 47" and meets SFI 4.1 speci cations. Includes straps to secure it to any transmission.



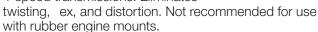
Bellhousing Dowel Pins

Steel dowel pins are approximately 1/2" longer than stock pins and are required when running an engine mid-plate, rear engine mounts, or an aftermarket bellhousing. These extended length pins also help with alignment when installing an engine. Pins t most GM blocks and are sold in pairs.

ALL38150..... Solid Pins **ALL38152**..... Hollow Pins

Solid Transmission Mount ALL38070

Solid 3/16" steel mount ts most TH350, TH400, Powerglide, and all BorgWarner, Muncie, and Chrysler 4-speed transmissions. Eliminates



Transmission Mount Bracket

ALL38072

May be welded to chassis to support manual or automatic transmissions. Steel bracket is 1/8" thick with 1" x 7/16" slots for mounting bolts.

Clutch Discs for Bert Transmission

Quality discs are a must when rebuilding the internal clutch of Bert transmissions. Friction disc and steel plate sets are sold separately.

ALL26950 ... Clutch Friction Discs 6-Pack **ALL26952** ... Steel Clutches 5-Pack

Bert Clutch Assembly Tool ALL14295

Shaft is used to help align counter shaft when replacing clutch discs and clutches. Shaft features a through hole for installing threaded rod when assembling counter gear assembly before installation, along with an internal thread to assist when removing if necessary.

Bert Ball Spline Ball Kit

ALL26963-12

Hardened steel balls are direct replacements for the ball spline tailshaft.



Winters Roller Slide Ball Kit

ALL26960-15

Hardened steel balls are direct replacements for the Winters roller slide tailshaft.



Tailshaft Seal and Bushing

The tailshaft bushing is a regular wear item, located inside the transmission tailshaft housing. It should be replaced when replacing the tailshaft seal or



when a driveshaft failure has occurred. A worn bushing will cause excessive side-to-side movement of the slip yoke and create a vibration or leak. Bushing and seal ts GM Powerglide, Turbo 350, Saginaw, Muncie, Bert, and Brinn transmissions.

ALL72150... Seal
ALL72152... Seal with Bushing

Slip Yokes

Slip yokes provide an important link in today's driveline and chassis combinations. Yokes are available in standard length for most street applications with minimal suspension travel to extra-long for racing suspensions that have a radical amount of travel. 27-spline yokes accept 1310 style U-joints and are for use in many popular transmissions including TH350, TH700R4, Muncie and Saginaw 3 and 4 speeds, Bert and Brinn non-ball spline.



ALL69042 ALL69043

ALL69040 6" ALL69042 6-3/4" ALL69044 7-1/2" ALL69046 8"

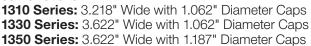
ALL69048 8" (Extra Clearance)

Hardened

ALL69043 6-3/4" ALL69045 7-1/2" ALL69047 8"

U-Joints

Performance U-joints are greasable and ta variety of driveshaft combinations.

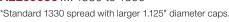


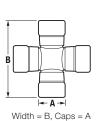
U-Joints with Same Cross Width

ALL69030 1310 Series **ALL69031** 1330 Series **ALL69032** 1350 Series

U-Joints with Different Cross Widths

ALL69034 1310 to 1330 **ALL69037** 1310 to 1330* **ALL69035** 1310 to 1350 **ALL69036** 1330 to 1350







Universal Plastic Wheel Covers with No Hardware



High-impact plastic wheel covers feature three reinforced slots for mounting wheel cover to wheel. Covers ta variety of 15" beadlock wheels including Weld, Bassett, and Aero. Mounting Hardware not included.

ALL44280 ... Black **ALL44281** ... White **ALL44282** ... Red ALL44283 ... Blue **ALL44285** ... Yellow ALL44286 ... Orange **ALL44287** ... Silver ALL44288 ... Neon Yellow ALL44289 ... Neon Green ALL44290 ... Neon Pink

Universal Plastic Wheel Covers with Quick Turn Fasteners



High-impact plastic wheel covers feature three quick turn fasteners located in a reinforced slot, allowing the same cover to t a variety of 15" beadlock wheels including Weld, Bassett, and Aero.

ALL44230 ... Black ALL44231 ... White **ALL44232** ... Red ALL44233 ... Blue **ALL44235** ... Yellow **ALL44236** ... Orange ALL44237 ... Silver ALL44238 ... Neon Yellow ALL44239 ... Neon Green ALL44240 ... Neon Pink

Replacement Components

ALL99338 Cover Fasteners, 3-Pack

Bolt-On Universal Plastic Wheel Cover

conversion kit. Wheel rings are also available to t non-

ALL44242

High-impact plastic wheel cover features three 1/4"-20 fasteners for secure bolt-on mounting, eliminating the struggle associated with aligning quick turn fasteners during wheel cover installation. Slotted mounting holes allow the same cover to ta variety of wheels including Weld, Basset, and Aero. Easily convert quick turn style beadlock wheels with quick turn fasteners to a bolt-on style using the appropriate bolt-on

beadlock wheels for attaching covers.



Wheel Cover Rings

Wheel rings t non-beadlock wheels by securing to the inside lip of most 15" racing wheels to provide a mounting point for a 3-fastener wheel cover.





Rings for Cover with Quick Turn Fasteners

ALL44228 Steel Round Style Ring ALL44229 Steel Flat Style Ring ALL44179..... Aluminum Flat Style Ring

Rings for Cover with Bolt-On Fasteners

ALL44243 Steel Round Style Ring ALL44245 Aluminum Flat Style Ring

Bolt-On Wheel Cover Conversion Kit

Kit includes 1/4"-20 insert plates, wheel cover bolts, and rivets to convert a wheel

cover retainer ring with troublesome quick turn fasteners to a bolt-on style ring.





Description	3-Pack	24-Pack
Kit to Replace 1" Quick Turn Springs	ALL44225	ALL44225-24
Kit to Replace 1-3/8" Quick Turn Springs [†]	ALL44226	ALL44226-24

†Most popular size found on non-beadlock wheel cover retainer rings.

Sprint Wheel Cover Bolt Kits

Kit includes 5/16"-28 bolts, 1-3/8" spread aluminum inse plates with steel threaded inserts, e-clips to keep bolts on the wheel cover,

and rivets. Package of 3. ALL44265 Stainless Steel ALL44266 Titanium

ALL99420 Replacement E-Clips, 12-Pack



Wheel Cover Holder

ALL12205

Aluminum holder fastens to trailer or shop wall to keep most wheel covers for 15" wheels within easy reach and organized. Holder is



3-1/2" deep and pre-drilled for mounting.



Weld Style Plastic Wheel Cover ALL44168

High-impact plastic wheel cover secures to Weld and Bassett 15" beadlock or non-beadlock wheels equipped with a wheel cover ring. Cover includes quick turn mounting fasteners.



Aluminum Wheel Covers

Prevent mud and dirt build up in outer wheel shell. 12-1/2" dia.covers fasten quickly with three quick turn fasteners. Covers t beadlock wheels only and do not cover beadlock bolts. Sold each.



ALL44175

ALLSTAR

ERFORMANCE

LLSTAR

FORMANCE

ALL44175..... Aero ALL44176..... Bassett/Weld

Weld Style Aluminum Wheel Covers

NEW DESIGNS

Aluminum wheel cover secures to Weld and Bassett 15" beadlock or non-beadlock wheels equipped with a wheel cover ring. Mounting fasteners sold separately.



Style	Polished	Black
Solid	ALL44170	ALL44171
Louvered	ALL44140	ALL44141
Multi-Holes	ALL44142	ALL44143
Large Hole	ALL44144	ALL44145

Wheel Cover Ring

ALL44178

Mounting ring installs between the rim and the beadlock ring on beadlock wheels, allowing installation of a wheel cover with a Weld pattern.



An economical way to prevent mud build-up inside racing wheels. Foam discs, in 5" and 3" widths, install quickly and easily in 15" diameter wheels. Allstar logo is imprinted on one side. Sold each.



ALL44150.... Black ALL44151 Red ALL44152..... Blue **ALL44153....** Orange

3" Mud Plug

ALL44190.... Black

Aluminum Inner Mud Shields

Aluminum shield ts over most 5x5 hubs and inside 15" wheels to help reduce mud build-up commonly found on the backside of the left rear wheel of dirt cars.

ALL44267 2" Backspace Wheel ALL44268 3" Backspace Wheel

Stainless Steel Inner Mud Shields

Stainless steel shield ts over most 5x5 hubs and inside 15" wheels to help reduce mud build-up commonly found on the backside of the left rear wheel of dirt cars.

ALL44270 2" Backspace Wheel ALL44271 3" Backspace Wheel ALL44272 4" Backspace Wheel

Wheel Rim Screws ALL44045

Self-tapping 1/4" diameter screws anchor the tire to the rim to prevent spinning. For drag use. Package of 35.









Wheel Studs

Larger-than-stock studs require redrilling of stock anges. Check sanctioning body for wheel stud requirements. Package of 5.



			Underhead	Thread	Knurl	Knurl
Part No.	Size	Thread	Length	Length	Length	Dia.
ALL44110	1/2"-20	Fine	2.000"	.925"	.250"*	.585"
ALL44111	1/2"-20	Fine	1.875"	1.250"	.500"*	.685"
ALL44112	1/2"-20	Fine	2.250"	1.300"	.600"*	.600"
ALL44114	5/8"-18	Fine	2.000"	1.250"	.560"	.685"
ALL44115	5/8"-11	Coarse	2.000"	1.00"	.375"	.690"
ALL44117 [†]	5/8"-11	Coarse	2.750"	1.750"	.375"	.690"
ALL44116‡	5/8"-11	Coarse	2.750"	1.450"	.725"	.690"
ALL44113 [†]	5/8"-11	Coarse	3.750"	2.750"	.375"	.690"
ALL44119 [‡]	5/8"-11	Coarse	3.750"	2.400"	.725"	.690"

*Lenath with shoulder. †Popular 5x5 Hub Wheel Stud ‡Popular Wide 5 Hub Wheel Stud



43/64" Wheel Stud Drill Bit ALL11045

43/64" bit is correct for drilling hubs or axle anges to accept most 5/8" wheel studs with .690" knurl diameter. 1/2" shank.



Wheel Stud Thread Chaser ALL11048

Designed to clean up damaged threads on wheel studs with 5/8"-11 threads. Thread chaser will not repair threads on bent wheel studs.

Note: We recommend using a lubricant such as WD-40 with thread chaser.

Glueless Lug Nuts

Open-end lug nuts attach to the wheel with springs for FASTER pit stops! Kits contain 5 glueless lug nuts with springs attached and self-tapping screws for mounting.



Lug Nuts

Large diameter, openend lug nuts are designed to t most racing wheel applications and will not pull through the wheel. Nuts are available in steel or aluminum with SAE or metric threads and feature a 45° tapered seat.

Aluminum Lug Nuts

Description	Pack Of 10	Box Of 100	Box Of 350	Box Of 400
5/8"-11 (Coarse)	ALI 44006	ALL44096-100		
Double Chamfer	ALL44090	ALL44090-100	_	_
5/8"-11 (Coarse)	ALI 44007	ALL44097-100		
Double Chamfer§	ALL44091	ALL44097-100	_	_

Steel Lug Nuts (Heat Treated and Zinc Plated)

Description	Pack Of 10	Box Of 100	Box Of 350	Box Of 400
5/8"-11 (Coarse)	ALL 44000	ALL44098-100		
Double Chamfer	ALL44090	ALL44096-100	_	-
5/8"-11 (Coarse)	ALL44106	ALL44106-100	-	ALL44106-400
5/8"-18 (Fine)	ALL44104	ALL44104-100	_	ALL44104-400
1/2"-20 (Fine)	ALL44102	ALL44102-100	ALL44102-350	-
7/16"-20 (Fine)	ALL44100	ALL44100-100	_	ALL44100-400
M12-1.25 (Metric)	ALL44103	ALL44103-100	ALL44103-350	-
M12-1.50	ALL44101	ALL44101-100	ALI 44101-250	
(Metric)^	ALL44101	ALL44101-100	ALL44101-330	_

Hex Pit Sockets with Extension

Hex style pit sockets with a built-in extension prevent extension and socket from separating during wheel changes.

3/8" Drive ALL10234..... 6" ALL10235..... 12" 1/2" Drive ALL10239.....6" ALL10240..... 12"



Super Sockets with Extension

Pit sockets are available with 5" or 11" extensions and include our Super Socket for fast wheel changes without jamming lug nuts. Sockets t 1" lug nuts and are used with 1/2" drive impact guns.

ALL10242.....5" ALL10241 11"

Economy Quick Spin Lug Wrench ALL10108

Lug wrench is a 1" diameter tube with a shallow 1" socket welded to one end and rotating piece of plastic pipe attached to the other. The 10" handles are angled with rubber grips



[^]Most popular metric for GM, Ford and Chrysler.



Aluminum Wheel Spacers

Change wheel offset without changing wheels! Universal design fi s 5 on 4-1/2", 5 on 4-3/4", and 5 x 5" patterns. Uses 5/8" stud slot to aid in centering.



ALL44216..... 1/4" ALL44217..... 1/2" ALL44218..... 3/4" ALL44219..... 1"

Aluminum Wheel Spacers

Spacers t 4-1/2", 4-3/4", and 5" bolt circle patterns. Spacers increase track width, requiring less wheel offset. Sold each.



ALL44120..... 1/4" ALL44121 1/2" ALL44122..... 3/4" ALL44123..... 1"

Note: 4-1/2" and 4-3/4" bolt patterns machined to clear 1/2" studs; 5" bolt pattern machined to clear 5/8" studs.

4-Lug Steel Wheel Spacer

ALL44200

Steel spacer is 1/4" thick, ts 4x4-1/4" and 4x4-1/2" bolt patterns with 1/2" wheel studs.



5x5" Steel Wheel Spacers

Spacers t 5x5" hubs with 5/8" studs and provide maximum tread width for adjustment of chassis weight distribution. Spacers are made from tough 1018 steel and have a 3-1/2" I.D. and a 7" O.D.



ALL44124..... 1/16" ALL44125..... 1/8" ALL44126..... 1/4"

Aluminum Wide 5 **Wheel Spacers**

One-piece aluminum spacer moves Wide 5 wheel outboard. Sold each.



ALL44129.... 1/8" Thick ALL44127..... 1/4" Thick

Aluminum Wide 5 Threaded Wheel Spacers

Aluminum spacers thread directly onto wheel studs of Wide 5 hubs with 5/8"-11 threads. Hex design is easily installed and removed. Longer studs may be required when using spacers. Package of 5.





Aluminum Wheel Adapter

ALL44128

Adapter bolts to stock 5 x 4-1/2" or 4-3/4" bolt circle hub or axle anges when adapting to 5 x 5" bolt circle pattern wheels. Adapter is tted with 5/8"-11 coarse thread studs and measures 1" thick. Adapters are bolted from the backside of hub or axle using 1/2"-20 mounting hardware (not-included). Not for use with additional wheel spacers and additional machining may be required for proper installation.

Backing Pads and Sanding Discs

Backing pads are designed to work with sanders that have a 5/8"-11 arbor. Sanding discs are speciet to each backing pad and sold in packs of 5.

7" Backing Pad and Sanding Discs

Backing pad is a multi-piece unit that features a hard backing. The sanding disc is secured to the sander along with the backing pad and reinforcing disc with one spanner nut.

ALL44186.... 7" Backing Pad ALL44187 7" Sanding Discs, 36 Grit

8" Backing Pad and Sanding Discs

Backing pad is a one-piece unit that features a soft foam backing and a molded-in threaded insert to mount directly to the sander. The backing pad accepts hook-and-loop style sanding discs.





Tire Grinding Discs











0

ALI 44180

ALL44181

ALL44182

ALI 44183

Grind off the hardened outer "skin" on used dirt track tires and create round, aggressive sipes to increase traction. Use caution when handling and storing nail head disc; pins are needle sharp.

Part No. Description		Diameter	Arbor Hole
ALL44180	Rounded Disc, 23 Grit	4"	5/8"
ALL44181	Flat Disc, 23 Grit	4"	5/8"
ALL44182	Rounded Disc, 16 Grit	7"	7/8"
ALL44183	Nail Head Disc	7"	7/8"
ALL44196	Nail Head Disc	8"	5/8"

Safety Note: To prevent bodily injury the tire must be mounted on the car or secured in a tire holder. Eye and hand protection is required.



"All-In-One" Heated Tire Groovers

Self-contained groover has built-in temperature controls, eliminating the additional cord and separate control box common with other groovers. Don't let the small package fool you; this groover has



the ability to cut small intricate grooves yet still handle removing material up to a 1/2". Tapered, razor-sharp blade grooves fast and easy. To operate, insert a single blade into groover, set blade height with a tire depth gauge, and set the power level. Place the cutting edge against the tire surface and obtain instant heat by simply squeezing the trigger. Groover features a Hi/Low toggle switch and a temperature control dial in the handle for setting desired heat level. "All-In-One" groover requires "All-In-One" blades; do not use standard groover blades with this groover.

ALL10770 110V Groover Includes 1 Each 4/32", 5/32", 6/32", 8/32", and 10/32" Flat Blades.

ALL10772 220V Groover (Intended for International Use) Power cord requires the attachment of a 220volt, grounded, 3-prong plug (not included). Includes 1 Each 4/32", 5/32", 6/32", 8/32", and 10/32" Flat Blades.

"All-In-One" Groover Blades

Hard-tempered spring steel blades are designed for use with the ALI 10770 and ALI 10772 "All-In-One" Heated Tire Groovers. Blades are honed to a razor-like nish and have a tapered shape making the blade wider near the top where strength is needed and thinner at the bottom, greatly reducing drag as the blade cuts through the rubber. Blades are sold in packages of 12.

Note: All-In-One Groovers must use these All-In-One Blades but these blades can be used in any of our other aroovers.



Blade	Size	Flat Bottom Blades	Round Bottom Blades
#1	1/32"	_	ALL10790
#2	2/32"	-	ALL10791
#3	3/32"	ALL10780	ALL10792
#4	4/32"	ALL10781	ALL10793
#5	5/32"	ALL10782	ALL10794
#6	6/32"	ALL10783	ALL10795
#8	8/32"	ALL10784	ALL10796
#10	10/32"	ALL10785	ALL10797
#12	12/32"	ALL10786	ALL10798
#14	14/32"	ALL10787	-
#16	16/32"	ALL10788	-

Heated **Tire Groovers**

Groovers add extra traction in minutes. Tapered, razor-sharp blade grooves fast and easy. To operate, insert a blade into groover, set blade height with a tire depth

gauge, and set the power level. Features triggerless activation – simply place the cutting edge against the tire surface and press down for instant heat. Includes 2 each 4/32", 6/32", 8/32", and 10/32" fl t blades.

ALL10260..... 110V Groover Features a 4-level dial and a hi/ low switch for 8 total heat settings.

ALL10590.....

220V Groover (Intended for International Use) Features a 4-level dial and a multi-positional dial for ne-tuned heat settings. Power cord requires the attachment of a 220-volt, grounded, 3-prong plug (not included).

Heated Tire Groover Blades

Hard-tempered spring steel blades are designed for use with the ALL10260, ALL10270, and ALL10590 Heated Tire Groovers. Blades are honed to a razor like nish and have a tapered shape making the blade wider near the top where strength is needed and thinner at the bottom, greatly reducing drag as the blade cuts through the rubber. Blades are sold in packages of 12.

Note: Do not use these blades in "ALL-IN-ONE" style groovers!



Blade	Size	Flat Bottom Blades	Round Bottom Blades
#1	1/32"	-	ALL10267
#2	2/32"	_	ALL10268
#3	3/32"	ALL10271	ALL10269
#4	4/32"	ALL10272	ALL10276
#6	6/32"	ALL10273	ALL10277
#8	8/32"	ALL10274	ALL10278
#10	10/32"	ALL10275	ALL10279

Heavy-Duty Flat Bottom Grooving Blades

Heavy-duty blades are twice as thick as standard blades for removing large amounts of material with less chance of blade damage. Commonly used in off-road racing. Package of 12.

ALL10580 #16 Flat, 16/32" ALL10582..... #20 Flat, 20/32" ALL10584 #24 Flat, 24/32" ALL10586 #32 Flat, 32/32"

ALI 44028



Tire Covers

Canvas cover is ideal for open wheel cars to keep tire out of direct sunlight.

ALL44255 ... 8" Wheel/Tire **ALL44256** ... 10" Wheel/Tire **NEW ALL44257** ... 12" Wheel/Tire **NEW**



Easy Wrap Tire Covers

Cover tires quickly and easily. Elastic bands allow you to stretch the cover over your tires after washing or grinding to keep tires clean.



Description	4-Pack	12-Pack
UMP Modified Ti es (85-89" Dia.)	ALL44222	ALL44222-12
Late Model Tires (93-96" Dia.)	ALL44223	ALL44223-12

Tire Wrap

Tires lose solvents and moisture over time but keeping them covered helps prevent tires from drying out.

Wrap also helps contain or reduce the amount of chemicals used during "soaking" by minimizing evaporation. Wrap is 18"W x 1500'L.

ALL44221 Black **ALL44224** Clear



Easy access canvas cover features a full length zipper. Perfect for use in the tire impound, keeping your tires out of the weather or hiding them from the eyes of your competition. 50" tall black cover will taset of 4 tires with a 86" maximum circumference.



Check Out Our Tool Section! For more tire related tools see pages 221-227.

Dirt Tire Soap ALL78236

Clean your tires like the Pros! Simply mix with water and spray on your tires before washing them and the mud almost falls off. Cleaner also works for pre-treating your chassis and body before cleaning to help loosen dirt and clay. 1-gallon container.



Steel tire spoons help to mount and dismount tires after bead has been broken. Various sizes are available to work with most tire/wheel combinations. Small tool works well to tinside tire during removal while rounded ends help prevent damage to tire and wheel.

ALL10103..... 24" Straight with Round End ALL10104..... 16" Curved with Flat End ALL44037.... 16" Curved with Round End ALL44036.... 9" Curved with Round End

Bead Breakers

Convenient tool makes quick work of breaking down even the most stubborn tire beads.

Durable steel construction with rubber hand grips. Clamp the hook and inside jaw against the rim, while maintaining slight pressure on the outside handle, then press down on the inside handle, using the outer jaws to separate the tire

from the rim, moving around the rim as needed.

ALL44026 Bead Breaker for 10" Wheels
ALL44027 Bead Breaker for 13" Wheels
ALL10105 Bead Breaker for 15" Wheels

ALL10106..... Bead Breaker for 15" Wheels Wide Jaw*
ALL44028.... Bead Breaker w/ Adjustable Arm for 10", 13",
and 15" Wheels

*Wide jaw bead breaker works well with soft sidewall tires, helping prevent damage to sidewall.

Aluminum Air Tanks

Portable lightweight aluminum tanks provide an easy way to air up tires. Welded tanks will not rust or corrode and are pressure tested to military speci cations

up to 300 PSI. Tanks feature a 125 PSI pressure relief valve to prevent over Iling





Wide Jaw



ALL10532



Tire Pressure Gauges, Glow In The Dark

Tire pressure gauge has a glow-in-the-dark face. Swivel chuck rotates 360° on a 14" long rubber hose for easy placement on valve stems with leak-free operation. A rubber cover surrounds the gauge for added protection against drops and has a ribbed molded pattern for increased grip. Gauge also features a built-in pressure release valve for removing air in small amounts for precise pressure adjustments.

2-1/4" Diameter

ALL44056 0-15 PSI, 2-1/4" **ALL44057** 0-30 PSI, 2-1/4" **ALL44058** 0-60 PSI, 2-1/4"

4" Diameter

ALL44046 0-15 PSI, 4" **ALL44047** 0-30 PSI, 4" **ALL44048** 0-60 PSI, 4"

Tire Gauge Holders

Secure holder to shop or trailer wall to keep tire gauge conveniently located. Aluminum holder works with most tire gauges and has wraparound sides to hold gauge in place.





ALL44047

ALL12259..... Holds Gauges up to 3-1/2" O.D. **ALL12260**..... Holds Gauges up to 4" O.D.

Tire Gauges

2" gauge has a 12" ex hose with swivel chuck and pressure release valve. Accurate to within +/- 1%.

ALL44076 0-20 PSI **ALL44077** 0-40 PSI



ALI 10111

ALL10112

Tire Tape Measures

10' foot long tapes are ideal for measuring tire diameters and checking stagger.

ALL10111..... Economy ALL10112 Deluxe

Tire Tape ALL10674

Easily fi ure out your tire stagger, the difference in circumference from one tire to the other, with the help



of this unique tire tape measure. The tape works by rst measuring the largest tire and then using this dimension when measuring the smaller tire. The tape does the math for you, the value the larger tire size aligns with is your stagger value or amount of stagger.

In-Car Memory Tire Temp Gauge



Digital tire temp gauge with memory (maximum temp). Gauge will show real-time temp and allows you to recall max temp after your race. Align and mount the sensor within 24" of tire to monitor for best results. Designed for use with 12- and 16-volt systems. Temp Range 0-300°F. Gauge size is 2.75" wide x 1.375" tall. Sensor size is 3/4" x 3/4". Sensor mounting bracket 1.5" wide. Complete kit includes gauge, sensor, wiring and instructions.

ALL80085 Complete Kit **ALL80086** Replacement Sensor

Stagger Gauge

ALL10116

Measures tire diameter and automatically converts it to circumference. Strong tubular gauge will not ex and will provide accurate, consistent stagger measurements every time. Gauge measures from 65" to 115" in 1/4" increments.

Replacement Component ALL99044 Tape Decal

Tire Crayons

Ideal for temporary tire marking. 1/2" x 4-5/8".

ALL12060..... White **ALL12061**..... Yellow

Paint Markers

Long-lasting, weather, water, and UV-resistant markers work on glass, plastic, rubber and metal. Durable ber tip permits ne or bold lines. Perfect for indicating tire stagger. Quick dry, lead-free paint.

ALL12050..... Silver ALL12051..... Yellow ALL12052..... White ALL12053..... Red ALL12054..... Blue ALL12055..... Light Blue ALL12056..... Black ALL12057..... Orange





Tire Durometer ALL44034

Easily check tire hardness. Includes storage pouch.



Schrader Valves ALL44065

Infl ting tires through quick disconnects mounted in rim eliminates an extra valve stem. Valves work with Allstar Performance center reliefs and other popular plastic or aluminum quick disconnect ttings. Sold in pairs.



Wheel Disconnects

Fit 5/8" diameter valve stem hole for use with center reliefs and Schrader (Fill) valve (ALL44065).









ALL44061

ALI 44066

ALL44063 Aluminum, Each

ALL44066 Sealing Washer, 4-Pack ALL44067 Grommet, 4-Pack

Valve Stem Puller ALL44032

Puller threads onto valve stem and properly pulls rubber valve stems into place. Large rubber block protects expensive wheels and creates leverage when pulling.

Valve Core Tool ALL44030

Easily remove and install valve cores. Base of handle has a machined pattern to aid with grip. Ergonomically designed and crafted from stainless steel. Measures 3" overall length.



Bryan Barber

Brass Valve Stems

Brass bolt-in valve stem resists cutting during contact. Sold each.

ALL44134..... Brass Valve Stem. Fits .625" Hole ALL44135..... Chrome Plated Brass Valve Stem. Fits .453" or .625" Hole

Replacement Components

ALL99150.... Valve Core, 10-pack ALL99151 Valve Stem Caps, 10-Pack

Snap-In Rubber Valve Stems

Economical rubber valve stems pull through wheel for easy installation. Large stem for 5/8" hole is the most popular size valve stem used in racing wheels. Smaller stem for .453" hole is commonly found in stock steel and utility vehicle wheels.

ALL44136...... Stem for 5/8" (.625") Hole, 4-Pack ALL44136-50..... Stem for 5/8" (.625") Hole, 50-Pack ALL44139...... Stem for .453" Hole, 4-Pack

Flush Mount Valve Stem Kit ALL44137

Chrome- nished steel, bolt-in valve stem mounts in standard valve stem location and provides a clean semi- ush appearance.

Valve stem features an O-ring to seal against the outside of the wheel and a rubber grommet, washer and nut that seals against the inside of the wheel. Kit includes four valve stems with dust covers and an extension ller tube. Valve stems are designed for use in wheels with .453" valve stem holes.

Replacement Components

ALL44138..... Filler Tube

Valve Stem Cores

This inner portion of the valve stem is often damaged or leaking. Cores are easy to replace with ALL44030 tool when replacing tires to assure a leak-free valve stem. Universal design ts most standard valve stems.

ALL99150...... 10-Pack ALL99150-100 ... 100-Pack

Valve Stem Caps

An often overlooked item, caps prevent dirt and debris from entering the core portion of valve stems. Stainless steel caps have an inner seal for additional sealing.

ALL99151..... 10-Pack ALL99151-100 ... 100-Pack

Hex-Head Valve Stem Caps

ALL44053

Keep dirt and debris out of valve stems while providing an attractive fi ishing touch to wheels. Chrome plated brass hex caps t most valve stems and have a built-in inner seal to prevent air loss. Package of 4.



ALI 44134











Hats

Hats have Allstar Performance logo embroidered on the front and an adjustable head band.



ALL99957 Black with Black Mesh Back ALL99959 Black with White Mesh Back



Beanie ALL99953



T-Shirts

T-shirts have a large Allstar Performance logo on the back and a small logo on the front left chest. Available in black, red, gray, or charcoal. Specify size when ordering (YS*, YM*, YL*, S, M, L, XL, XXL, XXXL).

ALL99902 Black **ALL99904** Red **ALL99906** Gray **ALL99907** Charcoal

*Sizes YS, YM and YL only available in Black



Graphic T-Shirt

ALL99903

Black T-shirt with red and gray graphics on front and back. Specify size when ordering (S, M, L, XL, XXL, XXXL).

Circle Track T-Shirt ALL99901

Dark gray T-shirts have a circle track theme and Allstar Performance logos on front and back. Specify size when ordering (S, M, L, XL, XXL, XXXL).



Ladies Vintage T-Shirts

Available in burgundy, charcoal, or navy.
Specify size when ordering (S, M, L, XL, XXL).

ALL99920 Burgundy **ALL99921** Charcoal **ALL99922** Navy



Full Zip Hoodie

ALL99917

Charcoal full zipper style hoodie features a small Allstar Performance logo on left chest and is made from a 50/50 blend of soft spun cotton and poly eece. Specify size when ordering (S, M, L, XL, XXXL, XXXL).



Hoodie ALL99916

Allstar Performance hoodie features a two color design and is 100% polyester for a wrinkle-free look. Specify size when ordering (S, M, L, XL, XXL, XXXL).



Hooded Sweatshirt

ALL99913

Black hooded sweatshirt has large Allstar Performance logo across the chest, drawstring hood and a large pocket.
Specify size when ordering (YM, YL, S, M, L, XL, XXL, XXXL).



Graphic Hooded Sweatshirt ALL99919

Black hooded sweatshirt has red and gray graphics across the chest and back, drawstring hood, and large pocket. Specify size when ordering (M, L, XL, XXL).





Lightweight Jacket

ALL99918

Black jacket has a small Allstar Performance logo on front left chest area. Specify size when ordering (M, L, XL, XXL).



Backpack ALL99970

Quality backpack has many features including a front compartment with multiple pockets and inner padded compartments for up to a 15" laptop and tablet. Additional features include side pockets for water bottles or cups, padded shoulder straps with connecting buckle and a padded carrying handle. 19" x 12" x 6".



Apron ALL99962

Black cloth apron has pockets to keep tools close at hand. Reverse apron to place pockets on the inside when grinding tires. Adjustable strap allows one size to tall.



Work Gloves

General purpose gloves protect hands from everyday abuse in the shop or at the racetrack. Lightweight, elastic weave material with reinforced palm and fin ers allows mobility and unrestricted use.



ALL99940 Medium **ALL99941** Large **ALL99942** X-Large



Versatile umbrella is only 16" long when retracted, but opens to a full 36".



Can Cooler ALL99965

Keep your hand warm and your favorite beverage cool and covered.





Merchandising Displays

Allstar Performance merchandising displays for race, street, and drag. Each 4' x 4' display features a variety of fast-selling products to satisfy customer needs. A layout diagram is supplied to simplify set up. Display packages include free bonus items such as Allstar header display, Allstar decals, Allstar hang tags, and hooks. Display rack not included.

ALL070... Circle Track ALL071... Circle Track ALL072... Drag Race **ALL073** .. Street Performance **ALL074** ... Open Wheel/Sprint

Brake Fitting Displays

8" x 10" card includes an assortment (1 piece each) of popular brake line t-tings. Visit website for breakdown.

ALL080	Display #1
ALL081	Display #2
ALL082	Display #3
ALL083	Display #4



Clock ALL99968

Silver framed 10" diameter clock features a bright white face with easy-to-read black numbers and hands. Includes AA battery.





Decals

Show support for your favorite parts supplier by placing one of these decals on your vehicle, tool box or your shop refrigerator.



ALL029 2" x 6" ALL030 3" x 10" ALL031 6" x 18" ALL032 8" x 26" ALL034 10" x 32"

Banner ALL010

Allstar Performance banner is 30" tall x 72" wide.



Hang Tags ALL040

Place tags behind product in showroom or parts trailer to provide part number, description, and price information for reordering. Package of 100.



Black Plastic Bags ALL048

18"L x 14-1/2"W. Package of 100.

Catalog Display Rack

Display Allstar catalogs next to

products on counter top or as

part of pegboard or slat wall display. Includes 10 Allstar Performance catalogs.



Showroom Display Header ALL038



Display header provides an excellent way to display Allstar products. Precut 6" x 48" black painted aluminum header may be trimmed to desired width.

Peg Hooks

Peg hooks t standard 1" spaced peg board. Available in 2", 4", or 6" lengths, 1/8" diameter. Package of 50.



1/8"

Counter Mat ALL062

18"L x 11-1/2"W.

ALL042



Product Fix-It Tags

Clear plastic tags are used to repair or reinforce the peg hook hole of most carded and bagged product. Tags have a self-adhesive backing which provides a quick and easy option for repairing display merchandise.



ALL020 10-Pack **ALL020-50**... 50-Pack



Rico Abreu

Note Pads ALL044

Ruled 5-1/2" x 8-1/2" note pads are great to have in the shop or trailer to keep track of parts you need to order or keeping track of important set-up information. Package of 6.





Part No.	Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.
010	250	10139	211	10235	225	10441	149	10590	230	11002	209
020	250	10140	212	10239	225	10445	149	10600	223	11003	217
029	250	10141	212	10240	225	10446	150	10605	223	11005	217
030	250	10142	211	10241	225	10452	45	10610	223	11008	93
031	250	10143	212	10242	225	10453	45	10612	223	11010	209
032	250	10144	211	10246	153	10454	45	10625	224	11011	209
034	250	10145	211	10247	153	10455	46	10626	224	11015	210
038	250	10147	211	10248	153	10456	46	10630	224	11017	210
040	250	10148	211	10249	153	10457	46	10632	224	11018	210
041	231	10149	211	10252	160	10458	46	10633	224	11019	210
042	250	10150	211	10253	223	10459	46	10634	224	11020	210
043	210	10151	211	10254	223	10460	46	10635	224	11022	210
044	250	10152	211	10256	223	10464	46	10636	224	11023	205
047	226	10154	211	10258	218	10466	46	10637	224	11024	205
048	250	10156	211	10260	230	10468	46	10638	224	11026	210
052	210	10157	211	10265	228	10470	46	10644	47	11030	204
054	250	10159	211	10266	228	10475	149	10655	225	11031	204
055	250	10162	211	10267	231	10480	149	10658	183	11036	204
056	250	10163	211	10268	231	10482	149	10660	232	11037	208
059	230	10164	211	10269	231	10485	46	10662	232	11038	208
062	250	10165	211	10271	231	10486	46	10672	232	11039	208
070	249	10166	211	10272	231	10487	46	10674	226	11040	205
071	249	10171	211	10273	231	10488	46	10675	232	11041	205
072	249	10172	211	10274	231	10489	46	10676	232	11045	205
073	249	10173	211	10275	231	10490	46	10678	232	11048	225
074	249	10174	211	10276	231	10510	151	10680	218	11052	213
080	249	10175	238	10277	231	10512	151	10720	232	11056	208
081	249	10178	234	10278	231	10513	151	10721	232	11057	208
082 083	249	10180 10181	222 155	10279 10280	231 153	10516	218	10722 10723	232	11058 11059	208
10103	249	10182	222	10283	153	10518 10526	225	10725	182	11060	208
10103	229	10184	222	10283	153	10526	225	10725	182	11060	208
10104	229	10188	222	10285	153	10527	225	10720	161	11062	208
10105	229	10192	222	10286	153	10530	225	10730	161	11063	208
10108	225	10196	222	10287	153	10532	225	10742	204	11064	208
10110	234	10200	222	10288	153	10534	225	10752	232	11065	208
10111	226	10203	222	10289	153	10535	212	10770	230	11066	208
10112	226	10204	222	10290	153	10538	212	10772	230	11067	208
10113	204	10207	222	10291	153	10540	228	10780	231	11068	208
10114	234	10208	222	10293	153	10550	227	10781	231	11069	208
10115	234	10209	222	10294	153	10551	227	10782	231	11070	204
10116	226	10210	222	10295	153	10555	228	10783	231	11072	204
10117	232	10211	153	10298	153	10561	228	10784	231	11074	204
10119	232	10214	153	10299	153	10562	228	10785	231	11075	204
10120	208	10217	152	10402	204	10565	227	10786	231	11076	204
10121	93	10218	152	10411	204	10566	227	10787	231	11078	204
10122	208	10219	152	10412	204	10567	227	10788	231	11080	209
10123	212	10221	152	10413	204	10570	227	10790	231	11081	209
10124	223	10222	152	10414	204	10572	227	10791	231	11082	209
10125	212	10223	146	10416	204	10574	227	10792	231	11083	209
10126	223	10227	150	10417	204	10575	227	10793	231	11085	209
10130	211	10228	146	10418	204	10576	227	10794	231	11086	209
10132	211	10229	146	10419	204	10577	227	10795	231	11087	209
10133	211	10230	225	10422	223	10580	231	10796	231	11100	216
10136	211	10232	225	10425	223	10582	231	10797	231	11106	216
10137	212	10233	225	10426	223	10584	231	10798	231	11108	216
10138	211	10234	225	10439	149	10586	231	11000	209	11110	216



Part No. Page No. 11116 216 12026 218 13001 147 14147 92 14246 92 11120 216 12030 221 13007 147 14149 219 14248 92 11124 216 12031 221 13008 22 14150 92 14251 92	14431 14436 14437 14450 14451	45 45 45
11116 216 11118 216 12027 218 11120 216 12030 221 13001 147 14147 92 14148 92 14149 219 14246 92 14247 92 14248 92 14248 92	14436 14437 14450	45
11118 216 12027 218 13004 147 14148 92 14247 92 11120 216 12030 221 13007 147 14149 219 14248 92	14437 14450	
11120 216 12030 221 13007 147 14149 219 14248 92	14450	
		45
		45
11126 216 12032 221 13009 22 14151 92 14252 92	14452	45
11128 216 12033 221 13010 22 14152 92 14253 92	14453	45
11130 216 12035 221 13011 147 14153 92 14254 92	14454	45
11132 216 12050 226 13012 147 14154 92 14255 92	14455	45
11134 216 12051 226 13014 147 14155 92 14261 92	14456	45
11151 216 12052 226 13018 147 14156 92 14263 92	14457	45
11152 216 12053 226 13020 147 14157 92 14265 92	14458	45
11153 216 12054 226 13021 147 14158 92 14266 92	14459	45
11155	14474	45
11161 234 12056 226 13025 147 14160 219 14268 92	14475	45
11170 207 12057 226 13100 146 14161 219 14270 219	14480	46
11172 207 12060 226 13104 146 14162 92 14272 219	14481	46
11174 207 12061 226 13106 146 14163 219 14275 219	14483	46
11175 207 12064 205 13107 146 14165 219 14276 219	14485	46
11176 207 12066 205 13108 146 14166 235 14277 219	14486	46
11177 207 12070 213 13109 146 14170 215 14280 62	16000	101
11178 216 12072 226 13115 46 14171 235 14282 220	16001	101
11179 216 12073 226 14100 152 14172 214 14285 220	16002	101
11180 216 12100 208 14101 152 14173 214 14288 220	16003	101
11181 216 12101 208 14102 152 14174 214 14290 214	16004	101
11182 207 12102 208 14103 152 14175 219 14292 214	16005	101
11184 207 12103 208 14104 152 14176 46 14295 239	16006	101
11187 187 12105 208 14105 152 14177 46 14300 209	16010	101
11188 187 12106 208 14106 152 14178 46 14305 209	16011	101
11190 232 12107 208 14110 152 14179 46 14306 209	16012	101
11195 216 12121 208 14111 152 14180 46 14350 235	16013	101
11196 216 12122 208 14112 152 14181 46 14351 235	16014	101
11197 216 12123 208 14115 152 14182 46 14352 235	16015	101
11300 224 12130 208 14116 93 14183 46 14355 235	16016	101
11301 224 12131 208 14117 93 14184 46 14356 235	16020	101
11302 224 12132 208 14120 93 14185 46 14360 217	16021	101
11303 224 12200 221 14122 93 14186 46 14361 217	16022	101
11305 224 12201 221 14123 93 14187 46 14365 217	16023	101
11310 224 12202 221 14124 93 14188 46 14366 217	16024	101
11312 224 12203 221 14125 93 14189 46 14380 93	16025	101
11313 224 12204 221 14126 93 14190 46 14381 93	16026	101
11319 24 12205 221 14127 93 14192 46 14383 93	16030	101
11350 234 12210 225 14128 93 14193 46 14385 93	16031	101
11351 234 12211 233 14129 93 14194 46 14390 93	16032	101
11355 234 12212 233 14130 93 14195 46 14391 93	16033	101
11360 234 12213 233 14132 93 14196 46 14392 93	16034	101
12000 218 12214 221 14133 93 14197 46 14395 93	16036	101
12005 220 12215 233 14134 93 14198 152 14396 93	16041	101
12006 220 12216 156 14135 93 14200 59 14408 45	16042	101
12008 220 12219 220 14136 93 14201 59 14409 45	16043	101
12010 220 12220 220 14137 93 14205 46 14414 45	16044	101
12011 220 12259 226 14138 93 14208 46 14415 45	16045	101
12012 220 12260 226 14139 93 14235 220 14418 45	16050	101
12013 223 12264 221 14141 92 14236 220 14419 45	16051	101
12016 220 12265 221 14142 92 14237 220 14422 45	16052	101
12017 220 12268 221 14143 92 14240 219 14423 45	16053	101
12024 218 12269 235 14145 92 14242 219 14430 45	16054	101



16060 101 16214 100 16350 100 16907 100 18051 90 1 16061 101 16221 100 16402 100 16914 100 18052 90 1 16062 101 16222 100 16404 100 16920 100 18053 90 1	8153 8156	Page No.
16061 101 16221 100 16402 100 16914 100 18052 90 1 16062 101 16222 100 16404 100 16920 100 18053 90 1		
16062 101 16222 100 16404 100 16920 100 18053 90 1	0.1=0	90
16062 101 16222 100 16404 100 16920 100 18053 90 1	8158	90
16063 101 16223 100 16406 100 16922 100 18054 90 1	8162	90
	8164	90
16064 101 16224 100 16422 100 16924 100 18056 90 1	8168	90
16065 101 16225 100 16424 100 16925 100 18060 91 1	8170	90
	8174	90
16070 101 16228 100 16442 100 16936 100 18062 91 1	8175	90
16071 101 16241 100 16446 100 16938 100 18063 91 1	8176	90
16072 101 16242 100 16462 100 16940 100 18070 91 1	8177	90
16073 101 16243 100 16464 100 16941 100 18071 91 1	8178	90
16074 101 16244 100 16466 100 16944 100 18074 91 1	8180	90
16075 101 16245 100 16468 100 16946 100 18075 91 1	8181	90
16076 101 16246 100 16470 100 17000 241 18080 91 1	8183	91
16080 101 16248 100 16472 100 17004 160 18081 91 1	8184	91
16081 101 16250 100 16474 100 17006 155 18082 91 1	8185	91
16082 101 16252 100 16476 100 17008 157 18083 91 1	8187	91
16083 101 16254 100 16482 100 17010 155 18084 91 1	8188	91
16084 101 16256 100 16484 100 17012 163 18085 91 1	8189	91
16085 101 16258 100 16486 100 17016 158 18086 91 1	8190	92
16086 101 16262 100 16488 100 17020 162 18087 91 1	8191	92
16100 101 16263 100 16490 100 17022 160 18090 91 1	8192	92
16101 101 16264 100 16492 100 17024 161 18091 91 1	8193	92
16102 101 16265 100 16518 100 17026 160 18092 91 1	8194	92
16103 101 16266 100 16520 100 17028 159 18093 91 1	8195	92
16104 101 16268 100 16522 100 17030 155 18094 91 1	8196	92
16110 101 16273 100 16536 100 17032 160 18095 91 1	8197	92
16111 101 16281 100 16538 100 17034 161 18096 91 1	8198	92
16112 101 16282 100 16540 100 17036 159 18097 91 1	8199	92
16113 101 16283 100 16542 100 17038 159 18098 92 1	8200	92
16114 101 16284 100 16546 100 17048 101 18099 92 1	8201	205
16115 101 16285 100 16550 99 17120 103 18101 90 1	8202	92
16116 101 16286 100 16552 99 17121 103 18103 90 1	8203	205
16120 101 16287 100 16553 99 18000 90 18105 90 1	8204	205
16121 101 16288 100 16554 99 18001 90 18107 90 1	8206	206
16122 101 16289 100 16555 99 18002 90 18109 90 1	8207	206
	8209	206
	8210	206
	8212	206
	8215	92
	8216	98
	8220	206
	8221	206
	8222	207
	8223	207
	8224	207
	8225	206
	8226	207
	8227	207
	8228	207
	8230	207
	8232	104
	8234	207
	8250	101
	8251	101
16212 100 16347 100 16903 100 18040 90 18151 90 1	8252	101



Part No.	Page No.										
18253	101	18322	105	18479	104	18552	40	18622	89	18760	102
18254	101	18323	105	18480	104	18553	99	18623	89	18762	102
18255	101	18325	127	18481	104	18554	99	18624	89	18764	102
18256	101	18326	58	18482	104	18555	101	18626	89	18766	102
18257	101	18327	58	18484	104	18556	101	18628	98	18785	102
18258	101	18330	121	18487	104	18557	101	18629	98	18786	102
18259	101	18334	121	18488	104	18558	99	18630	98	18787	102
18260	101	18338	121	18489	104	18559	99	18631	98	18790	197
18261	101	18342	121	18491	104	18560	99	18632	98	18792	197
18262	101	18344	105	18496	14	18561	99	18633	98	18800	102
18263	101	18345	105	18497	14	18564	99	18634	98	18802	102
18264	101	18347	105	18498	14	18565	102	18635	98	18804	102
18266	101	18349	105	18499	14	18566	102	18638	98	18806	102
18274	101	18350	105	18500	104	18567	102	18639	98	18808	102
18275	101	18351	105	18501	104	18568	102	18654	99	18810	102
18276	101	18352	105	18502	104	18570	102	18655	99	18812	102
18277	101	18353	105	18503	104	18571	102	18656	99	18814	102
18278	101	18354	105	18504	104	18572	102	18658	98	18816	102
18279	101	18355	105	18506	104	18574	102	18659	98	18818	102
18280	101	18360	120	18507	104	18576	102	18660	98	18820	102
18281	101	18362	120	18508	104	18578	102	18661	98	18822	102
18282	101	18363	120	18509	104	18580	102	18662	98	18824	102
18283	101	18364	120	18510	104	18582	102	18663	98	18826	102
18286	101	18365	120	18511	104	18584	102	18664	98	18828	102
18287	101	18366	120	18512	104	18585	102	18665	98	18830	102
18288	101	18367	120	18513	104	18586	102	18680	98	18832	102
18289	101	18368	120	18514	104	18587	102	18681	98	18834	102
18290	101	18430	15	18515	104	18588	102	18682	98	18836	102
18291	101	18431	15	18516	104	18589	102	18683	98	18838	102
18292	101	18432	15	18517	15	18590	102	18684	98	18840	99
18293	101	18433	15	18518	15	18592	102	18685	98	18841	99
18294	101	18434	15	18519	15	18594	102	18686	98	18845	99
18295	101	18435	15	18520	14	18595	102	18687	98	18846	99
18296	101	18436	15	18521	14	18596	102	18688	98	18847	99
18297	101	18437	15	18522	15	18597	102	18689	98	18848	99
18298	101	18438	15	18523	15	18598	102	18690	98	18849	99
18299	101	18439	15	18524	104	18599	102	18691	98	18850	99
18300	105	18440	192	18525	104	18600	170	18692	98	18851	99
18301	105	18442	105	18526	104	18601	170	18693	98	18852	99
18302	105	18444	105	18527	104	18602	170	18694	98	18853	99
18303	105	18446	105	18530	17	18603	170	18695	98	18854	99
18304	105	18448	105	18531	17	18604	170	18696	98	18985	97
18305	105	18452	105	18532	17	18605	170	18697	98	18986	97
18306	105	18454	105	18533	17	18606	170	18698	98	18990	94
18307	105	18460	104	18534	17	18607	170	18699	98	18991	94
18308	105	18461	105	18540	17	18608	170	18700	102	18992	94
18309	105	18462	104	18541	17	18610	102	18702	102	18993	94
18310	105	18463	105	18542	17	18611	102	18706	102	18996	94
18311	105	18468	105	18543	17	18612	102	18708	102	18997	94
18312	105	18470	15	18544	17	18613	102	18712	102	18998	94
18313	105	18471	15	18546	40	18615	102	18714	102	18999	94
18314	105	18472	104	18547	99	18617	102	18716	102	19000	94
18315	105	18473	104	18548	99	18618	102	18740	102	19000	94
18317	105	18476	104	18549	40	18619	102	18740	102	19001	94
18320	105	18477	104	18550	40	18620	89	18744	102	19002	94
	105	18478	104	18551	40	18621	89	18746	102	19003	
18321	100	104/0	104	10001	40	10021	69	10/40	102	19004	94



Part No. Page No. 19005 94 19145 94 19252 94 19361 96 22032 37 19006 94 19152 95 19256 94 19362 96 22040 37 19008 94 19153 95 19257 94 19363 96 22042 37 19010 94 19155 95 19258 94 19364 96 22044 37 19012 94 19162 95 19259 94 19365 96 22045 37 19046 94 19162 95 19260 94 19366 96 22046 37 19050 94 19164 95 19261 94 19380 96 22050 37 19052 94 19168 95 19263 <	22132 22133 22134 22135 22136 22137 22138 22139 22140 22141 22144 22145 22146 22147 22148 22149 22150 22151	Page No. 36 36 36 36 36 36 36 36 36 36 36 36 36 36 36 36 36 36
19008 94 19153 95 19257 94 19363 96 22042 37 19010 94 19154 95 19258 94 19364 96 22044 37 19046 94 19165 95 19259 94 19365 96 22045 37 19048 94 19163 95 19260 94 19366 96 22046 37 19050 94 19163 95 19261 94 19367 96 22050 37 19050 94 19164 95 19262 94 19380 96 22050 37 19052 94 19165 95 19263 94 19380 96 22060 37 19058 94 19168 95 19266 94 19384 96 22061 37 19060 94 19170 95 19268 94 19390 <td< th=""><th>22134 22135 22136 22137 22138 22139 22140 22141 22144 22145 22146 22147 22148 22149 22150</th><th>36 36 36 36 36 36 36 36 36 36 36 36 36 3</th></td<>	22134 22135 22136 22137 22138 22139 22140 22141 22144 22145 22146 22147 22148 22149 22150	36 36 36 36 36 36 36 36 36 36 36 36 36 3
19010 94 19154 95 19258 94 19364 96 22044 37 19046 94 19162 95 19260 94 19365 96 22045 37 19048 94 19163 95 19260 94 19366 96 22046 37 19050 94 19164 95 19262 94 19380 96 22050 37 19052 94 19165 95 19263 94 19380 96 22060 37 19056 94 19168 95 19266 94 19384 96 22060 37 19058 94 19169 95 19267 94 19386 96 22061 37 19060 94 19170 95 19268 94 19390 96 22062 37 19064 94 19172 95 19270 94 19394 <td< td=""><td>22135 22136 22137 22138 22139 22140 22141 22144 22145 22146 22147 22148 22149 22150</td><td>36 36 36 36 36 36 36 36 36 36 36 36 36</td></td<>	22135 22136 22137 22138 22139 22140 22141 22144 22145 22146 22147 22148 22149 22150	36 36 36 36 36 36 36 36 36 36 36 36 36
19012 94 19046 94 19048 94 19048 94 19050 94 19050 94 19052 94 19056 94 19058 94 19060 94 19060 94 19062 94 19058 94 19060 94 19060 94 19060 94 19060 94 19060 94 19060 94 19060 94 19060 94 19060 94 19060 94 19171 95 19269 94 19060 94 19171 95 19269 94 19060 94 19171 95 19269 94 19390 96 22062 37 19063 94 19171 95 19269 94 19390 96 22064 37 19270 94 19394 96 22070 37	22136 22137 22138 22139 22140 22141 22144 22145 22146 22147 22148 22149 22150	36 36 36 36 36 36 36 36 36 36 36 36
19046 94 19048 94 19048 94 19050 94 19052 94 19056 94 19058 94 19060 94 19060 94 19163 95 19261 94 19380 96 22050 37 19380 96 22054 37 19262 94 19380 96 22054 37 19382 96 22060 37 19384 96 22061 37 19386 96 22061 37 19384 96 22062 37 19267 94 19386 96 22062 37 19268 94 19390 96 22063 37 19269 94 19392 96 22070 37 19068 94 19176 95 19271 94 19272 94 19400 207 22080 37	22137 22138 22139 22140 22141 22144 22145 22146 22147 22148 22149 22150	36 36 36 36 36 36 36 36 36 36 36
19046 94 19048 94 19050 94 19050 94 19052 94 19056 94 19058 94 19060 94 19060 94 19163 95 19262 94 19380 96 22054 37 19052 94 19056 94 19168 95 19058 94 19169 95 19260 94 19380 96 22054 37 19382 96 22060 37 19384 96 22061 37 19386 96 22061 37 19386 96 22062 37 19268 94 19390 96 22062 37 19390 96 22063 37 19269 94 19394 96 22070 37 19068 94 19173 95 19271 94 19400 207	22138 22139 22140 22141 22144 22145 22146 22147 22148 22149 22150	36 36 36 36 36 36 36 36 36 36
19048 94 19163 95 19261 94 19367 96 22050 37 19050 94 19164 95 19262 94 19380 96 22054 37 19052 94 19165 95 19263 94 19382 96 22060 37 19056 94 19168 95 19266 94 19384 96 22061 37 19058 94 19169 95 19267 94 19386 96 22062 37 19060 94 19170 95 19268 94 19390 96 22062 37 19062 94 19171 95 19269 94 19390 96 22063 37 19064 94 19172 95 19270 94 19394 96 22070 37 19068 94 19173 95 19272 94 19400 <td< td=""><td>22138 22139 22140 22141 22144 22145 22146 22147 22148 22149 22150</td><td>36 36 36 36 36 36 36 36 36 36</td></td<>	22138 22139 22140 22141 22144 22145 22146 22147 22148 22149 22150	36 36 36 36 36 36 36 36 36 36
19050 94 19052 94 19056 94 19056 94 19058 94 19060 94 19062 94 19060 94 19062 94 19068 94 19068 94 19068 94 19068 94 19070 94 19071 95 19072 95 19178 95 19271 94 19273 94 19400 207 22082 37 19401 207 22082 37 19402 207 22082 37 19401 207 22082 37 19401 207 22080 37 19401 207 22080 37 19402 207 22082 37 19402 207 22084 37	22139 22140 22141 22144 22145 22146 22147 22148 22149 22150	36 36 36 36 36 36 36 36 36
19052 94 19056 94 19058 94 19060 94 19062 94 19064 94 19068 94 19068 94 19068 94 19070 94 19072 95 19179 95 19263 94 19266 94 19267 94 19386 96 19386 96 19390 96 19390 96 19390 96 19392 96 19392 96 19394 96 19394 96 19394 96 19394 96 19394 96 19394 96 19394 96 19396 96 19396 96 19400 207 19400 207 19401 207 19402 207 19402 207 19403 207 19403 207 19403 207 194403 207 194403 <td< td=""><td>22140 22141 22144 22145 22146 22147 22148 22149 22150</td><td>36 36 36 36 36 36 36 36</td></td<>	22140 22141 22144 22145 22146 22147 22148 22149 22150	36 36 36 36 36 36 36 36
19056 94 19058 94 19060 94 19062 94 19064 94 19066 94 19068 94 19068 94 19070 94 19071 95 19173 95 19267 94 19386 96 19390 96 22063 37 19269 94 19270 94 19392 96 22070 37 19270 94 19394 96 22070 37 19400 207 22079 37 19400 207 22080 37 19071 95 19178 95 19274 94 19402 207 22082 37 19072 95 19179 95 19275 94 19403 207 22084 37	22141 22144 22145 22146 22147 22148 22149 22150	36 36 36 36 36 36 36 36
19058 94 19060 94 19062 94 19064 94 19066 94 19068 94 19070 94 19071 95 19178 95 19269 94 19390 96 19392 96 22063 37 19392 96 19394 96 19394 96 22070 37 19396 96 19394 96 19396 96 22070 37 19396 96 22070 37 19400 207 22079 37 19401 207 22080 37 19402 207 22082 37 19072 95 19179 95 19275 94 19403 207 22084 37	22144 22145 22146 22147 22148 22149 22150	36 36 36 36 36 36
19060 94 19062 94 19062 94 19064 94 19066 94 19068 94 19068 94 19070 94 19071 95 19072 95 19173 95 19269 94 19269 94 19392 96 19394 96 19394 96 19396 96 19396 96 19396 96 19396 96 19396 96 19396 96 19396 96 19396 96 22072 37 19400 207 22080 37 19071 95 19178 95 19274 94 19402 207 22082 37 19072 95 19179 95 19275 94 19403 207 22084 37	22145 22146 22147 22148 22149 22150	36 36 36 36 36
19062 94 19064 94 19066 94 19068 94 19070 94 19071 95 19178 95 19271 94 19392 96 19394 96 19396 96 19396 96 19396 96 19396 96 19396 96 19396 96 19396 96 19396 96 19396 96 19396 96 19396 96 19396 96 19396 96 19396 96 19396 96 19396 96 19396 96 19396 96 19396 96 19400 207 19401 207 2080 37 19072 95 19179 95 19274 94 19403 207 2082 37 19403 207 2084 37	22146 22147 22148 22149 22150	36 36 36 36
19064 94 19066 94 19068 94 19070 94 19071 95 19072 95 19173 95 19271 94 19272 94 19396 96 22072 37 19272 94 19400 207 22079 37 19401 207 22080 37 19072 95 19179 95 19274 94 19402 207 22082 37 19403 207 22084 37	22147 22148 22149 22150	36 36 36
19066 94 19068 94 19070 94 19071 95 19072 95 19178 95 19272 94 19273 94 19400 207 22079 37 19401 207 22080 37 19402 207 22082 37 19403 207 22084 37	22148 22149 22150	36 36
19068 94 19070 94 19071 95 19072 95 19178 95 19072 95 19179 95 19273 94 19401 207 19402 207 19402 207 22082 37 19403 207 22084 37	22149 22150	36
19070 94 19177 95 19273 94 19401 207 22080 37 19071 95 19178 95 19274 94 19402 207 22082 37 19072 95 19179 95 19275 94 19403 207 22084 37	22150	
19071 95 19072 95 19178 95 19274 94 19402 207 19403 207 22082 37 19403 207 22084 37		
19072 95 19179 95 19275 94 19403 207 22084 37	22131	38
	22152	38
19073 95 19160 95 19276 95 19405 207 22065 36	22152	
		38
	22155	38
19075 95 19186 94 19278 95 19407 207 22090 37 10070 05 10400 07 10400 07 00000 07	22156	38
19076 95 19188 94 19279 95 19408 207 22093 37 10077 05 10000 05 10000 05 10000 05 10000 05	22157	38
19077 95 19190 94 19280 95 19410 95 22095 32	22158	38
19078 95 19192 94 19281 95 19420 99 22096 31	22160	36
19098 94 19200 94 19282 95 19422 99 22097 31	22163	36
19099 94 19202 94 19283 95 19430 97 22098 31	22164	36
19100 94 19210 94 19284 95 19431 97 22099 32	22169	36
19101 94 19211 95 19285 95 19432 97 22100 32	22175	36
19102 94 19212 94 19286 95 19433 97 22101 32	22182	36
19103 94 19213 95 19287 95 19434 97 22102 32	22183	36
19110 94 19214 95 19288 95 19435 97 22103 32	22184	36
19112 94 19215 95 19289 95 19450 206 22104 31	22190	167
19113 94 19216 95 19290 95 19452 206 22105 32	22191	167
19114 94 19218 95 19291 95 19453 206 22106 32	22192	40
19115 94 19220 95 19292 95 19454 206 22107 32	22194	40
19116 94 19221 95 19293 95 19455 206 22108 34	22196	40
19117 94 19222 95 19294 95 19456 206 22109 32	22199	40
19118 94 19223 95 19295 95 19457 206 22110 33	22200	9
19128 94 19224 95 19296 96 19460 206 22111 34	22201	9
19129 94 19225 95 19298 96 19461 206 22112 34	22202	9
19130 94 19226 95 19300 96 19462 206 22113 31	22203	9
19131 94 19227 95 19302 96 19463 206 22114 33	22204	9
19132 94 19228 95 19310 96 19465 206 22115 33	22205	9
19133 94 19229 95 19312 96 19467 206 22116 33	22206	9
19134 94 19230 95 19320 96 22000 37 22117 36	22207	9
19135 94 19231 95 19322 96 22005 37 22118 33	22208	9
19136 94 19232 95 19330 97 22010 37 22119 34	22209	9
19137 94 19233 95 19332 96 22012 37 22120 36	22210	9
19138 94 19236 94 19336 96 22015 37 22122 33	22211	9
19139 94 19238 94 19338 96 22017 37 22124 36	22212	9
19140 94 19240 94 19340 96 22020 37 22126 33	22213	9
19141 94 19241 94 19342 96 22022 37 22127 36	22214	9
19142 94 19242 94 19350 96 22024 37 22128 36	22215	9
19143 94 19243 94 19352 96 22026 37 22129 36	22216	9
19144 94 19250 94 19360 96 22030 37 22130 36	22217	9



Part No.	Page No.										
22218	9	22315	27	22427	10	22610	31	23066	30	23243	16
22219	9	22320	27	22430	10	22620	31	23067	30	23245	16
22220	10	22322	29	22431	10	22621	31	23068	11	23246	13
22222	10	22326	27	22432	10	22622	31	23073	30	23248	13
22223	10	22328	27	22440	10	22623	31	23075	12	23249	13
22224	10	22329	27	22441	10	22628	31	23080	12	23250	17
22226	10	22333	26	22442	10	22630	31	23088	12	23251	17
22228	10	22336	26	22460	10	22640	31	23100	205	23255	17
22230	9	22337	26	22461	10	22641	34	23101	204	23256	17
22231	10	22343	26	22462	10	22642	31	23102	204	23260	15
22232	10	22344	26	22464	10	22643	34	23105	11	23266	13
22233	9	22350	27	22465	10	22645	34	23106	11	23267	13
22234	9	22352	27	22466	10	22650	31	23107	11	23268	13
22236	9	22365	28	22470	10	22652	34	23110	12	23269	13
22237	9	22366	28	22471	10	22653	34	23112	12	23270	13
22238	9	22367	28	22480	9	22654	34	23113	12	23272	13
22240	9	22369	28	22482	9	22670	33	23115	205	23274	13
22242	9	22370	28	22484	9	22675	33	23116	205	23278	30
22243	9	22371	27	22486	9	22678	32	23117	205	23280	13
22244	9	22372	27	22488	9	22680	32	23120	12	23282	13
22245	9	22373	29	22500	37	22682	32	23122	16	23284	13
22246	10	22374	45	22504	37	22684	32	23124	11	23288	13
22248	10	22375	26	22508	37	22960	17	23125	17	23291	13
22250	38	22376	27	22509	37	22961	17	23126	17	23292	13
22251	38	22377	26	22512	37	22973	17	23127	17	23293	13
22253	38	22378	29	22513	37	22992	17	23128	17	23297	13
22254	38	22379	26	22518	37	22999	17	23130	11	23300	15
22255	38	22380	26	22519	37	23010	28	23131	11	23301	15
22256	38	22381	26	22522	37	23011	28	23132	11	23302	15
22257	38	22382	26	22523	37	23014	28	23134	11	23304	15
22258	38	22384	26	22526	37	23015	29	23135	11	23305	15
22260	10	22385	26	22527	37	23016	29	23138	11	23306	15
22262	10	22386	26	22530	37	23017	29	23140	11	25900	6
22265	10	22388	26	22531	37	23019	12	23141	11	25901	6
22267	10	22389	26	22534	37	23020	12	23142	11	25902	6
22268	10	22390	34	22535	37	23021	12	23170	16	25903	6
22270	10	22391	34	22538	37	23022	17	23171	16	25904	6
22272	10	22392	34	22539	37	23023	17	23180	16	25905	6
22273	10	22393	26	22542	37	23030	28	23181	16	25906	6
22276	10	22394	26	22543	37	23031	28	23215	16	25907	6
22277	10	22395	26	22546	37	23032	28	23220	158	25910	6
22280	40	22396	26	22547	37	23033	28	23221	158	25911	6
22281	40	22400	10	22548	37	23034	28	23222	158	25912	6
22282	40	22401	10	22549	37	23035	28	23223	158	25913	6
22283	40	22402	10	22550	37	23038	28	23224	154	25914	6
22284	40	22405	10	22551	37	23040	29	23225	154	25915	6
22285	40	22406	10	22554	37	23041	29	23226	154	25916	6
22286	40	22407	10	22555	37	23042	29	23228	78	25917	6
22287	40	22410	10	22558	37	23043	29	23229	78	25920	6
22290	40	22411	10	22559	37	23044	29	23230	13	25921	6
22291	40	22412	10	22600	31	23045	29	23232	13	25922	6
22292	40	22420	10	22601	31	23046	29	23233	13	25923	6
22294	40	22421	10	22602	31	23047	29	23235	13	25924	6
22300	26	22422	10	22603	31	23048	29	23237	13	25925	6
22311	30	22425	10	22604	31	23058	29	23240	16	25926	6
22312	30	22426	10	22608	31	23064	30	23242	16	25927	6
					<u> </u>						



Part No.	Page No.										
25940	6	26055	7	26156	124	26700	237	30037	50	30131	53
25941	6	26056	7	26157	124	26702	237	30038	50	30132	53
25942	6	26057	7	26158	124	26704	237	30039	50	30133	53
25943	6	26058	7	26159	124	26706	237	30040	50	30134	53
25944	6	26059	126	26164	124	26708	237	30041	50	30136	53
25945	6	26060	126	26165	124	26800	238	30042	50	30139	53
25946	6	26061	126	26166	124	26801	238	30043	50	30142	79
25947	6	26062	126	26167	124	26805	238	30044	51	30143	79
25950	7	26063	126	26168	124	26806	238	30045	50	30144	79
25951	7	26064	126	26169	124	26810	238	30046	50	30145	78
25954	7	26065	126	26170	82	26815	238	30047	50	30146	78
25955	7	26066	126	26171	82	26820	238	30048	50	30158	51
25956	7	26067	126	26172	82	26825	238	30060	53	30160	51
25957	7	26068	126	26176	82	26830	238	30061	53	30163	51
25970	126	26069	126	26177	82	26831	238	30062	53	30165	158
25972	126	26077	7	26179	126	26835	238	30063	53	30166	158
25973	126	26081	6	26180	126	26836	238	30064	53	30170	57
25975	126	26084	6	26181	126	26840	238	30070	53	30171	57
25977	126	26085	6	26182	126	26845	238	30072	53	30172	57
25980	125	26086	6	26183	126	26890	238	30072	53	30172	57
25981	125	26087	6	26184	126	26900	238	30074	53	30173	57
25982	125	26088	6	26185	126	26902	238	30070	54	30174	59
25983	125	26090	6	26186	126	26902	238	30079	51	30178	59
25984	125		6	26187	126		238	30091	54		54
25986		26091			126	26906	238		_	30180	_
25990	125	26092	6	26188		26908		30092	54	30182	54
	125	26094	6	26189	126	26950	239	30093	54	30183	54
25991	125	26095	6	26190	126	26952	239	30094	54	30184	54
25992	125	26097	6	26200	215	26960	103	30095	54	30186	54
25993	125	26098	6	26210	82	26961	103	30096	54	30188	54
25994	125	26099	6	26211	82	26962	103	30097	54	30190	54
25996	125	26100	7	26212	75	26963	103	30099	54	30192	54
26000	8	26101	7	26216	75	27500	73	30100	54	30200	121
26002	8	26104	7	26217	75	27502	73	30101	54	30202	121
26004	8	26106	6	26220	8	27503	73	30102	54	30204	121
26006	8	26112	238	26221	8	27504	73	30103	54	30206	121
26010	8	26114	238	26222	8	27505	73	30104	54	30208	121
26014	7	26115	214	26224	8	30001	52	30105	54	30210	121
26015	7	26120	76	26225	8	30002	218	30106	54	30212	121
26020	8	26121	238	26227	83	30005	52	30107	54	30214	121
26021	8	26125	76	26228	83	30006	52	30108	54	30220	121
26022	8	26126	76	26230	8	30007	52	30109	54	30222	121
26023	8	26127	76	26232	83	30010	50	30110	54	30224	121
26028	8	26132	76	26234	85	30011	50	30111	54	30226	121
26029	8	26133	76	26236	68	30012	50	30112	54	30228	121
26030	8	26134	76	26240	76	30014	50	30114	54	30240	58
26040	215	26135	76	26241	76	30016	50	30115	54	30241	58
26041	215	26137	82	26310	125	30020	50	30116	54	30242	58
26042	215	26139	82	26311	125	30021	50	30120	50	30250	121
26043	215	26143	82	26313	125	30022	50	30121	50	30251	121
26044	215	26145	82	26314	125	30024	50	30122	50	30252	121
26045	7	26147	82	26315	125	30026	50	30123	50	30253	121
26046	7	26150	124	26316	125	30028	154	30124	53	30254	121
26047	7	26151	124	26320	82	30030	154	30125	53	30255	121
26048	7	26152	124	26322	82	30033	50	30126	53	30256	121
26053	7	26153	124	26324	126	30035	50	30129	53	30257	121



Part No.	Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.
30260	58	31085	56	34250	86	36150	59	38118	154	40197	123
30270	57	31090	56	34251	86	36151	59	38119	154	40198	123
30271	57	31092	56	34252	86	36154	59	38120	87	40199	123
30272	57	31093	56	34253	86	36155	59	38121	87	40200	130
30273	57	31094	56	34254	86	36160	109	38122	87	40201	130
30300	52	31095	56	34255	86	36161	109	38124	87	40203	130
30301	52	31100	55	34256	86	36164	109	38126	154	40208	123
30302	52	31105	55	34257	86	36165	109	38128	154	40210	123
30304	52	31106	55	34262	93	36166	109	38130	154	40213	130
30306	52	31120	57	34264	93	36167	109	38132	87	40215	130
30308	52	31122	55	34266	86	36168	109	38142	87	40216	123
30310	52	31130	57	34272	74	36169	109	38143	87	40217	123
30333	50	31135	57	34273	74	36170	109	38145	154	40218	123
30335	50	31136	57	34274	74	36171	109	38150	239	40219	123
30336	50	31137	57	34275	74	36172	109	38152	239	40220	123
30337	50	31138	57	34280	60	36173	109	38200	89	40221	123
30343	50	31139	57	34282	60	36174	109	38250	89	40221	123
30345	50	31140	57	34284	60	36175	109	38251	89	40227	123
30346	50	31150	57	34285	60	36176	109	40090	216	40228	123
30340	50	31151	57	34286	60	36177	109	40090	216	40228	123
30347	57	31152	57	34290	60	36180	109	40100	215	40229	123
30370	57	31153	57	34290	60	36181	109	40100	215	40230	123
30371	57	31154	57	34294	60	36182	109	40102	215	40232	123
30372	57	31154	57	34294	60	36183	109	40104	215	40233	123
					60				_		_
30375	57	31160	57	34296	154	36202	83	40112	235	40239	123
30376	57	31170	55	36092		36203	83	40114	216	40240	123
30377	57	34145	86	36093	154 143	36204	83	40116	216	40242	123
30380 30381	57 57	34146 34150	86 86	36103 36106	143	36205 36208	83	40117	216 216	40243	123 123
	57		86		143		_	40118			
30382		34152		36107	79	36212	143	40119	216	40245	123
31020	56	34153	86	36108	79	36213	143	40120	215	40246	123
31022	56	34180	86	36109		36216	143	40121	215	40250	123
31024	56	34181	86	36110	143	36217	143	40122	215	40251	123
31026 31028	56	34182	86	36111 36112	143 59	38060 38061	88	40123 40124	215	40254 40255	79 79
31028	56 55	34183 34212	85	36115	59	38064	88		215	40255	122
31030	56		85	36116	59	38065	88	40126 40127	215 215	40257	122
31031		34213	_		_				_		_
	56	34214	85	36117	79	38070	239	40128	215	40258	122
31033	56	34215	85	36120	165	38072	45	40129	215	40260	122
31034	56	34217	85	36121	165	38080 38082	88	40133	130	40261	122
31035 31036	56	34218 34219	85 85	36122 36123	165 165	38084	88	40134 40136	130	40262 40266	122
	56										
31037	56	34220	86	36124	143	38085	88	40137	130	40267	122
31038	56	34230	86	36125	165	38090	89	40160	130	40290	122
31040	55	34231	86	36126	165	38098	88	40161	130	40300	79
31050	55	34232	86	36130	165	38100	88	40162	130	40301	79
31064	55	34233	86	36132	165	38101	88	40168	130	40302	79
31066	55	34238	86	36134	143	38102	88	40170	130	40303	79
31070	55	34240	86	36136	165	38108	88	40180	118	40304	79
31071	55	34241	86	36137	165	38109	88	40185	118	40305	79
31072	55	34242	86	36140	143	38110	88	40186	118	40306	79
31073	55	34243	86	36141	143	38112	88	40190	123	40307	79
31080	56	34244	86	36142	143	38113	88	40191	123	40320	122
31082	56	34245	86	36145	143	38114	89	40192	123	40322	122
31083	56	34246	86	36147	237	38115	89	40193	123	40325	155
31084	56	34247	86	36148	143	38116	89	40196	123	40327	155



Part No.	Page No.										
40340	118	42040	19	42134	20	44112	242	44210	243	46301	112
40341	118	42041	19	42135	172	44113	242	44211	243	46302	112
40342	118	42042	19	42136	172	44114	242	44212	243	46304	112
40343	118	42043	19	42137	20	44115	242	44214	243	46310	114
40350	118	42046	23	42140	22	44116	242	44215	243	46312	114
40351	118	42052	115	42141	22	44117	242	44216	243	46332	114
40353	118	42053	115	42142	22	44119	242	44217	243	46340	114
40354	118	42054	115	42143	22	44120	243	44218	243	46341	114
40354	118	42056	115	42144	22	44121	243	44219	243	46400	112
40357	118	42057	115	42150	22	44122	243	44220	231	46401	112
41005	23	42057	115	42151	22	44123	243	44221	231	46402	112
41005	23	42038	115	42152	22	44124	243	44221	231	46404	112
41007	23	42061	115	42154	22	44125	243	44223	231	46420	114
41007	23			42155	22		243	44224	231		114
		42062	115			44126				46440	
41009	23	42070	25	42160	22	44127	243	44225	240	48000	159
41012	23	42071	25	42180	20	44128	243	44226	240	48002	159
41013	23	42072	25	42181	20	44129	243	44228	240	48004	159
41014	23	42073	25	42185	20	44130	132	44229	240	48006	159
41015	23	42074	25	42186	20	44131	132	44230	240	48010	25
41026	23	42077	25	44026	229	44134	247	44231	240	48011	25
41027	23	42078	25	44027	229	44135	247	44232	240	48012	25
41028	23	42079	19	44028	229	44136	247	44233	240	48013	25
41031	156	42080	19	44030	225	44137	247	44235	240	48014	25
41032	156	42081	19	44032	225	44138	247	44236	240	48017	25
41033	156	42082	19	44034	226	44139	247	44237	240	48018	117
41040	24	42083	19	44036	229	44140	241	44238	240	48019	117
41042	24	42084	19	44037	229	44141	241	44239	240	48020	117
41043	24	42086	18	44045	241	44142	241	44240	240	48021	117
41044	24	42087	18	44046	226	44143	241	44242	240	48022	117
41045	24	42088	18	44047	226	44144	241	44243	240	48023	117
41046	24	42089	18	44048	226	44145	241	44245	240	48025	24
41048	24	42090	18	44053	247	44150	241	44255	245	48026	117
41049	24	42091	18	44056	226	44151	241	44256	245	48027	117
41050	22	42094	18	44057	226	44152	241	44257	245	48028	117
41051	22	42095	18	44058	226	44153	241	44265	240	48030	117
41060	23	42100	20	44060	247	44165	218	44266	240	48032	117
41061	23	42101	20	44061	247	44168	241	44267	241	48033	117
41062	23	42102	20	44062	247	44170	241	44268	241	48034	117
41064	23	42103	20	44063	247	44171	241	44270	241	48035	117
42000	19	42104	20	44065	247	44175	241	44271	241	48036	117
42001	19	42105	20	44066	247	44176	241	44272	241	48037	24
42004	19	42108	20	44067	247	44178	241	44280	240	48038	24
42005	19	42109	20	44076	226	44179	240	44281	240	48040	116
42010	19	42110	20	44077	226	44180	229	44282	240	48048	116
42011	18	42111	20	44096	242	44181	229	44283	240	48050	116
42019	21	42112	22	44097	242	44182	229	44285	240	48052	116
42024	21	42113	22	44098	242	44183	229	44286	240	48054	116
42025	111	42116	22	44100	242	44186	229	44287	240	48056	116
42026	19	42117	22	44101	242	44187	229	44288	240	48058	116
42027	111	42118	20	44102	242	44188	229	44289	240	48060	116
42029	21	42119	20	44106	242	44189	229	44290	240	48062	116
42029	21	42119	19	44107	242	44190	241	46100	115	48200	165
42030	111	42128	19	44107	242	44196	229	46101	115	48200	165
42032	111	42129	19	44109	242	44197	229	46102	237	48204	165
42033	19	42129	172	44110	242	44197	229	46110	115	48204	
42036	19	42130			242	44198	243	46300			165
42009	13	42100	20	44111	242	44200	240	40300	112	48210	165



	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.		Part No.	Page No.	ı	Part No.	Page No.	Part No.	Page No.
	48211	165	48354	113	48419	113		49382	106		49512	107	49606	107
	48212	165	48355	113	48420	113		49383	106	Ī	49513	107	49610	107
	48214	165	48356	113	48422	113		49384	106	Ī	49514	107	49611	107
	48215	165	48358	113	48423	113		49385	106	Ī	49517	107	49612	107
Ī	48217	165	48359	113	48424	113	1	49386	106	Ī	49518	107	49613	107
Ī	48240	164	48360	113	48425	113	1 [49411	106	ı	49519	107	49614	107
	48242	164	48361	113	48426	113	1 1	49412	106	Ì	49520	107	49615	107
	48245	164	48362	113	48427	113	1 1	49413	106	ı	49521	107	49616	107
	48246	164	48363	113	48430	113	1 1	49414	106	Ì	49532	107	49620	107
f	48247	164	48364	113	48434	113	1 1	49415	106	ı	49535	107	49621	107
	48250	164	48365	113	48435	113	1	49416	106	Ì	49536	107	49622	107
! [48251	164	48366	113	48440	113	1 1	49422	106	ı	49537	107	49623	107
<u> </u>	48252	164	48367	113	48444	113	1	49423	106	l	49538	107	49624	107
H	48253	164	48368	113	48445	113	1 1	49424	106	ı	49539	107	49625	107
H	48260	157	48369	113	48465	113	1	49425	106	Ì	49540	107	49626	107
П	48261	157	48370	113	48466	113	1 1	49426	106	ľ	49541	107	49630	108
Ιħ	48262	157	48371	113	48500	164	1 1	49431	106	ł	49542	107	49631	108
H	48263	157	48372	113	48501	164	1 1	49432	106	ł	49543	107	49632	108
Гì	48270	165	48373	113	48502	164	1	49433	106	ł	49544	107	49633	108
H	48271	165	48374	113	48503	164	1 1	49434	106	ł	49547	107	49634	108
Ьì	48272	165	48375	113	48505	164	1	49435	106	ł	49548	107	49640	108
Гľ	48273	165	48376	113	48507	164	1	49436	106	ł	49549	107	49641	108
H	48275	165	48378	113	48508	164	1	49442	106	ł	49550	107	49642	108
Гľ	48276	165	48379	113	49312	106	1	49443	106	ł	49551	107	49643	108
H	48277	165	48380	113	49313	106	1	49444	106	ł	49562	107	49644	108
Гľ	48278	165	48381	113	49314	106	1 1	49445	106	ł	49565	107	49645	108
Н	48279	165	48382	113	49315	106		49446	106	ł	49566	107	49646	108
Гľ	48300	116	48383	113	49316	106	1 1	49451	106	ł	49567	107	49650	108
H	48301	116	48384	113	49322	106	1	49452	106	ł	49568	107	49651	108
Гľ	48302	116	48385	113	49323	106	1 1	49453	106	ł	49569	107	49652	108
H	48303	116	48386	113	49324	106	1	49454	106	ł	49570	107	49653	108
Гŀ	48304	116	48387	113	49324	106	} }	49455	106	ł	49570	107	49670	108
H	48305	116	48388	113	49326	106	1	49456	106	ł	49572	107	49671	108
Ьħ	48306	116	48389	113	49332	106	} }	49462	106	ł	49572	107	49672	108
Н	48307	116	48390	113	49333	106		49463	106	ł	49574	107	49673	108
IН	48308	116	48392	113	49334	106	} }	49464	106	ł	49577	107	49674	108
H	48310	116	48393	113	49335	106	1	49465	106	ł	49578	107	49675	108
	48311	116	48394	113	49336	106	-	49466	106	ł	49579	107	49676	108
1	48312	116	48398	113	49342	106		49472	106	ł	49580	107	49680	108
	48313	116	48399	113	49342	106		49472	106	-	49581	107	49681	108
-	48314	116	48400	113	49344	106	-	49473	106	-	49584	107	49682	108
+	48315	116	48401	113	49344	106		49474	106	-	49585	107	49683	108
-	48316	116	48402	113	49345	106	-	49475	106	-	49587	107	49684	108
	48317	116	48403	113	49352	106		49482	106	ł	49588	107	49685	108
	48318	116	48404	113	49353	106		49483	106	ł	49589	107	49686	108
-	48322	116	48405	113	49354	106	-	49484	106	ł	49590	107	49700	107
-	48326	116	48407	113	49355	106		49485	106	ł	49591	107	49700	107
-	48327	116	48408	113	49356	106		49486	106	-	49591	107	49701	
	48328	116	48409	113	49362	106		49466	100	-	49592	107	49702	107
-	48330	116	48410	113	49362	106		49502	107	-	49596	107	49703	107
	48332	116	48413	113	49364	106	-	49505	107	-	49599	107	49704	107
-	48332	113	48414	113	49364	106		49506	107	-	49600	107	49705	107
		_		_		_				-				
+	48350	113	48415	113	49372	106		49508	107	-	49602	107	49710	107
	48351	113	48416	113	49373	106		49509	107	-	49603	107	49711	107
-	48352	113	48417	113	49374	106		49510	107	-	49604	107	49712	107
L	48353	113	48418	113	49375	106	l	49511	107		49605	107	49713	107



Part No.	Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.
49714	107	49803	108	50067	110	50184	110	50782	109	52102	165
49715	107	49804	108	50068	110	50185	110	50783	109	52113	157
49716	107	49805	108	50070	110	50199	108	50784	109	52114	157
49720	107	49811	108	50072	110	50200	108	50785	109	52115	157
49721	107	49812	108	50076	110	50201	108	50800	214	52116	157
49722	107	49813	108	50077	110	50202	108	50801	214	52120	167
49723	107	49814	108	50080	110	50202	59	50802	214	52122	167
49724	107	49820	108	50080	110	50203	59	50802	214	52124	167
49725	107	49821	108	50090	114	50204	113	50804	214	52126	167
49723	107	49821	108	50090	114	50212	113	50805	214	52128	167
49730	107	49830	109	50091	114	50215	113	50806	214	52130	167
49731	107	49831	109	50092	114	50213	19	50807	214	52130	167
49732	107	49832	109	50093	114	50250	19	50807	214	52133	167
49733	107	49833	109	50094	114	50300	116	50810	214	52140	167
49735	107	49834	109	50095	114	50300	116	50810	214	52140	167
49736	107	49836	109	50090	114	50310	108	50812	214	52144	167
49737	107	49837	109	50097	114	50320	108	50813	214	52144	167
49737	107	49838	109	50098	114	50321	108	50814	214	52145	167
49739	107	49839				50323		50815			167
49739	107	49839	109	50100 50101	111	50324	108	50816	214	52148 52170	-
			109				108		214		167
49741	107	49842	109	50102	111	50330	108	50817	214	52171	167
49742	107	49843	109	50103	111	50331	108	50818	214	52172	167
49743	107	49844	109	50104	111	50332	108	50820	214	52175	167
49744	107	49845	109	50105	111	50333	108	50821	214	52176	167
49745	107	49847	109	50108	114	50334	108	50822	214	52177	167
49746	107	49848	109	50109	114	50732	109	50823	214	52178	167
49747	107	49849	109	50110	116	50733	109	50824	214	52179	167
49748	107	49850	109	50111	116	50734	109	50825	214	52302	166
49749	107	49852	109	50113	116	50735	109	50826	214	52303	166
49750	107	49853	109	50114	116	50740	109	50827	214	52304	166
49751	107	49854	109	50115	116	50741	109	50830	214	52305	166
49752	107	49855	109	50116	116	50742	109	50831	214	52306	166
49753	107	49857	109	50117	116	50743	109	50832	214	52307	166
49754	107	49858	109	50118	116	50744	109	50833	214	52308	166
49755	107	49859	54	50119	116	50745	109	50834	214	52309	166
49756	107	50000	110	50120	111	50750	109	50835	214	52310	166
49760	108	50001	110	50121	111	50751	109	50836	214	52312	166
49761	108	50004	110	50125	111	50752	109	50837	214	52314	166
49762	108	50010	110	50127	111	50753	109	50855	111	52316	166
49763	108	50011	110	50129	111	50754	109	50890	124	52318	166
49765	108	50018	110	50130	111	50760	109	50892	124	52319	166
49770	108	50019	110	50131	111	50761	109	50894	124	52320	148
49771	108	50020	110	50132	111	50762	109	50896	124	52322	148
49772	108	50021	110	50133	111	50763	109	50900	124	52345	169
49773	108	50029	110	50135	111	50764	109	50901	124	52350	170
49774	108	50030	110	50136	111	50765	109	50902	124	52351	170
49775	108	50032	110	50137	111	50766	109	50904	124	52352	170
49776	108	50035	110	50138	110	50770	109	50905	124	54050	22
49777	108	50036	110	50139	110	50771	109	50906	124	54060	22
49778	108	50037	110	50140	116	50772	109	50907	124	54070	33
49780	108	50040	110	50142	116	50773	109	50910	124	54071	33
49781	108	50060	110	50143	116	50774	109	50915	122	54072	33
49785	108	50061	110	50150	111	50775	109	50916	122	54090	129
49800	108	50062	110	50180	111	50776	109	50950	124	54091	129
49801	108	50063	110	50182	110	50780	109	50951	124	54092	129
49802	108	50066	110	50183	111	50781	109	52100	165	54094	156



Part N	No. Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.
5409		54200	127	55039	162	55140	161	55998	171	56094	180
5409		54201	127	55040	162	55150	161	55999	171	56095	180
5409		54202	127	55042	162	55160	161	56008	174	56097	181
5410		54203	127	55044	162	55170	160	56009	174	56098	180
5410		54210	127	55046	162	55171	160	56010	174	56099	180
5410		54211	127	55050	162	55220	155	56011	174	56100	182
5410		54214	127	55051	162	55224	155	56012	174	56103	182
5410		54215	127	55052	162	55226	155	56014	174	56106	180
5410		54218	127	55054	162	55230	157	56015	174	56107	180
5410		54219	127	55055	162	55232	157	56018	174	56109	180
541		54222	127	55056	162	55900	169	56019	174	56110	180
541		54223	127	55058	160	55901	169	56020	174	56111	180
541		54224	127	55060	160	55902	169	56027	174	56112	180
541	15 236	54225	127	55062	160	55903	169	56028	174	56113	181
5411	16 236	54226	127	55070	160	55904	169	56029	174	56114	181
541	17 236	54227	127	55071	160	55910	169	56030	174	56115	181
5411	18 236	54230	127	55072	160	55911	169	56031	174	56116	181
5411	19 236	54231	127	55073	160	55912	169	56034	174	56117	181
5412	20 236	54234	127	55077	163	55920	169	56035	174	56118	181
5412	24 236	54235	127	55078	163	55921	169	56042	174	56119	181
5412	25 236	54238	127	55080	163	55922	169	56044	174	56120	181
5412	27 236	54239	127	55081	163	55930	169	56046	174	56121	181
5412	28 236	54240	127	55082	163	55931	169	56047	174	56123	203
5413	30 236	54241	127	55084	163	55932	160	56048	174	56124	203
5413	35 156	54276	127	55085	163	55933	160	56049	174	56125	181
5414		54277	127	55086	163	55960	171	56050	174	56126	203
5414		54278	127	55087	163	55961	171	56051	174	56127	203
5414		54279	127	55090	163	55962	171	56052	201	56130	203
5414		54280	122	55091	163	55963	171	56053	201	56131	203
5415		54282	122	55092	163	55964	171	56060	203	56132	203
5415		54284	122	55093	163	55965	171	56061	203	56133	203
5415		54286	122	55094	163	55966	171	56062	203	56134	203
5415 5415		54288 54290	122 122	55095 55096	163 163	55967 55970	171	56063 56064	203	56136 56138	203
5416		54292	122	55097	163	55971	171	56065	203	56141	190
5416		54298	122	55098	163	55972	171	56066	180	56142	190
5416		54302	13	55099	163	55973	171	56067	180	56143	190
5416		54304	13	55100	158	55974	171	56068	180	56153	190
5416		55000	161	55101	158	55976	172	56070	182	56154	190
5416		55002	161	55102	158	55977	172	56071	182	56155	190
5417		55004	161	55103	158	55978	172	56072	182	56156	190
5417		55005	161	55105	158	55979	172	56073	180	56161	192
5417		55010	161	55106	158	55980	172	56074	199	56162	192
5417	79 128	55012	161	55107	158	55981	171	56075	199	56186	180
5418	30 127	55014	161	55108	158	55982	171	56077	181	56187	180
5418	81 127	55016	161	55110	158	55983	171	56078	181	56192	177
5418	82 127	55020	161	55111	158	55988	172	56079	181	56194	177
5418	85 126	55022	161	55112	157	55989	172	56080	181	56196	180
5418		55024	161	55125	158	55990	171	56086	181	56197	180
5418		55027	161	55126	158	55991	171	56087	181	56198	177
5418		55028	161	55130	159	55992	171	56088	181	56199	177
5419		55030	160	55131	159	55993	171	56089	181	56204	173
5419		55032	160	55132	159	55994	171	56090	180	56206	173
5419		55034	161	55133	159	55995	171	56091	180	56208	173
5419		55036	161	55134	159	55996	171	56092	180	56210	173
5419	97 127	55038	162	55135	159	55997	171	56093	180	56212	173



	Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.
56214	173	56307	171	56385	182	56622	195	56842	175	57017	169
56216	173	56308	171	56386	182	56672	195	56845	175	57018	169
56217	173	56309	171	56387	182	56703	195	56846	175	57019	169
56218	173	56310	168	56388	182	56704	195	56850	175	57020	169
56220	173	56311	168	56389	182	56705	195	56851	175	57021	169
56221	179	56312	168	56390	192	56706	195	56852	175	57022	169
56222	179	56313	168	56391	192	56707	195	56871	175	57024	169
56223	179	56314	168	56392	192	56708	195	56872	175	57026	169
56224	179	56316	168	56393	192	56709	195	56875	175	57028	169
56225	176	56318	172	56394	192	56710	195	56876	175	57040	169
56226	179	56319	172	56395	192	56711	195	56878	175	57052	194
56227	178	56320	180	56405	195	56712	195	56879	175	57054	194
56228	178	56321	180	56406	195	56713	195	56880	175	57056	194
56229	178	56322	180	56407	195	56714	195	56881	175	57058	194
56230	178	56323	180	56408	195	56715	195	56882	175	57060	194
56232	178	56324	180	56409	195	56716	195	56885	175	57062	194
56233	178	56325	180	56410	195	56717	195	56886	175	57064	194
56234	178	56326	179	56411	195	56718	195	56890	175	57066	194
56235	178	56330	168	56412	195	56719	195	56892	175	57068	194
56236	178	56331	168	56413	195	56720	195	56900	175	57070	194
56238	178	56334	168	56414	195	56721	195	56904	175	57072	194
56240	178	56335	168	56415	195	56722	195	56905	175	57074	194
56242	178	56336	168	56416	195	56723	195	56906	175	57076	194
56244	178	56337	168	56417	195	56724	195	56910	175	57078	194
56245	202	56338	168	56418	195	56725	195	56915	175	57078	194
56247	202	56341	168	56472	195	56726	195	56916	175	57080	194
56248	_	56344	168	56512	195		195	56917	175		
56250	202	56345	168	56513	195	56727 56728	195	56918	175	57084 57086	194 194
56251	176 176	56347	168	56514	195	56729	195	56919	175	57088	194
56252	176	56354	168	56515	195	56730	195	56920	175	57090	194
56253	176			56516			195		175		_
		56355	168		195	56732	_	56925	175	57092	194
56256	179	56356	168	56517	195	56734	195 195	56926	175	57094	194
56260	176	56357	168	56518	195	56736	_	56927	175	57096	194
56261	176	56358	168	56519	195	56738	195	56935		57098	194
56262	176	56360	183	56520	195	56740	195	56936	175	57099	194
56264	176	56361	183	56521	195	56742	195	56937	175	57152	194
56265	176	56362	193	56522	195	56744	195	56938	175	57153	194
56266	176	56364	193	56523	195	56772	195	56939	175	57154	194
56267	176	56365	193	56524	195	56806	195	56940	175	57155	194
56270	176	56366	193	56525	195	56807	195	56955	175	57156	194
56271	176	56367	193	56572	195	56810	175	56956	175	57157	194
56272	176	56368	193	56607	195	56811	175	56957	175	57158	194
56273	176	56369	192	56608	195	56812	175	56958	175	57159	194
56274	176	56370	192	56609	195	56815	175	56959	175	57160	194
56275	176	56372	192	56610	195	56816	175	56960	175	57162	194
56276	176	56373	192	56611	195	56820	175	56965	175	57164	194
56278	170	56374	192	56612	195	56821	175	56975	175	57166	194
56280	170	56375	192	56613	195	56822	175	56980	175	57167	194
56284	170	56376	192	56614	195	56825	175	56985	175	57168	194
56286	170	56378	192	56615	195	56826	175	57008	169	57169	194
56288	170	56379	192	56616	195	56827	175	57010	169	57170	194
56296	177	56380	182	56617	195	56830	175	57012	169	57171	194
56298	177	56381	182	56618	195	56831	175	57013	169	57172	194
56303	171	56382	182	56619	195	56832	175	57014	169	57173	194
56304	171	56383	182	56620	195	56840	175	57015	169	57174	194
56305	171	56384	182	56621	195	56841	175	57016	169	57175	194



-	Part No.	Page No.		Part No.	Page No.								
	57176	194	57372	194	57908	177	58012	103	60022	39		60085	34
ł	57178	194	57374	194	57909	177	58013	103	60023	40		60086	39
Ì	57180	194	57376	194	57910	177	58014	103	60024	39	Г	60087	39
Ì	57182	194	57378	194	57911	177	58015	103	60025	178		60088	39
Ì	57184	194	57380	194	57912	177	58016	103	60026	43	Г	60089	42
Ì	57186	194	57382	194	57913	177	58018	103	60027	39		60090	39
Ì	57188	194	57384	194	57914	177	58020	103	60028	167	Г	60091	39
ł	57190	194	57444	194	57916	177	58022	103	60029	39		60092	39
	57192	194	57446	194	57922	177	58034	103	60030	39		60093	114
Ì	57254	194	57448	194	57924	177	58035	103	60031	33		60094	182
1	57256	194	57450	194	57926	177	58036	103	60032	33		60095	182
	57258	194	57452	194	57928	177	58038	103	60033	33		60096	186
	57260	194	57454	194	57930	177	58040	103	60034	203	Г	60097	186
H	57262	194	57456	194	57932	177	58042	103	60035	203		60098	186
H	57264	194	57458	194	57934	177	58058	103	60036	203	Г	60099	186
H	57266	194	57460	194	57936	177	58059	103	60037	203		60100	42
П	57268	194	57462	194	57940	177	58060	103	60038	203		60101	42
П	57270	194	57464	194	57941	177	58062	103	60039	86		60103	42
П	57272	194	57466	194	57942	177	58068	103	60040	86		60104	42
li	57274	194	57468	194	57943	177	58069	103	60041	39		60106	42
П	57276	194	57470	194	57944	177	58070	103	60042	201		60107	42
H	57278	194	57472	194	57945	177	58072	103	60043	201		60108	103
П	57280	194	57474	194	57946	177	58078	103	60044	201	Г	60110	200
H	57282	194	57476	194	57947	177	58079	103	60045	201		60111	200
П	57284	194	57478	194	57948	177	58080	103	60046	201	Г	60112	42
H	57286	194	57480	194	57949	177	58082	103	60048	201		60113	42
П	57288	194	57482	194	57950	177	58083	103	60050	202		60114	42
ΙÌ	57290	194	57484	194	57951	177	58084	103	60051	202		60115	42
H	57292	194	57800	179	57952	177	58085	103	60052	202		60126	200
	57294	194	57801	179	57953	177	58086	103	60053	202		60134	200
	57302	169	57802	179	57954	177	58088	103	60054	202		60135	200
	57304	169	57803	179	57956	177	58089	103	60055	203		60136	200
Ш	57306	169	57804	179	57962	177	58098	103	60056	203		60138	200
Ш	57334	168	57805	179	57964	177	58099	103	60058	202		60140	200
Ш	57335	168	57806	179	57966	177	58112	103	60059	202	L	60141	200
Ш	57336	168	57807	179	57968	177	60000	39	60060	45		60144	199
	57337	168	57808	179	57970	177	60001	39	60061	45	L	60145	199
	57338	168	57809	179	57972	177	60002	39	60062	45		60146	199
	57344	194	57810	180	57974	177	60003	39	60063	45	L	60147	199
"	57346	194	57811	180	57976	177	60004	39	60064	69		60148	192
	57348	194	57812	180	57980	177	60005	39	60065	43	L	60149	192
	57350	194	57813	180	57982	177	60006	39	60066	43		60150	191
	57352	194	57814	180	57984	177	60007	39	60067	39		60156	191
	57354	194	57820	202	57985	177	60008	39	60068	39		60157	191
	57356	194	57822	202	57986	177	60009	39	60072	39		60158	192
	57358	194	57824	202	57990	177	60010	39	60073	42		60159	192
	57359	194	57826	202	57992	177	60011	39	60074	222		60160	43
	57360	194	57830	177	57994	177	60012	39	60075	41		60162	43
}	57361	194	57831	177	57995	177	60013	39	60076	39		60163	43
}	57362	194	57832	177	57996	177	60014	39	60077	41		60165	43
}	57363	194	57833	177	58001	196	60015	39	60078	41		60166	43
}	57364	194	57902	177	58002	196	60016	39	60079	42		60167	43
}	57365	194	57903	177	58004	103	60017	39	60080	41		60170	191
}	57366	194	57904	177	58005	103	60018	39	60081	41		60176	191
	57367	194	57905	177	58006	103	60019	39	60082	41		60178	192
	57368	194	57906	177	58008	103	60020	39	60083	41		60182	190
	57370	194	57907	177	58010	103	60021	39	60084	41		60183	190



Bollisto 2011 600396 1032 64200 187 64335 184 64450 185 66386 135 66186 201 600350 69 64202 187 64335 184 64454 185 66386 135 60189 201 60033 69 64202 187 64335 184 64458 185 66386 135 60189 201 60033 69 64203 187 64335 184 64458 185 66386 135 60189 201 60036 40 64204 187 64338 184 64458 185 66327 133 60192 201 60036 40 64205 187 64339 184 64460 185 66371 133 60193 201 60036 40 64205 187 64340 184 64460 185 66371 133 60193 201 60030 42 64286 187 64341 184 64460 185 66371 133 60193 201 60000 42 64280 187 64341 184 64460 185 67000 134 60195 201 60510 203 64209 187 64344 184 64500 188 67000 134 60197 201 60511 203 64201 186 64344 184 64500 188 67000 134 60198 201 60512 203 64210 186 64348 184 64501 185 67002 134 60198 201 60512 203 64212 187 64348 184 64501 185 66860 140 66000 178 60019 203 64214 188 64360 185 64361 185 64501 185 66800 140 66000 178 60019 203 64214 188 64350 185 64351 185 64500 185 66000 140 66000 178 66000 178 64112 187 64218 184 64500 185 64511 185 66000 140 66000 178 64113 187 64220 187 64352 185 64511 185 66000 140 66000 178 64113 186 64220 187 64352 185 66115 234 66077 140 66000 178 64113 186 64220 187 64358 185 64510 185 66000 140 66000 178 64114 186 64220 187 64358 185 64510 185 66000 140 66000 178 64114 186 64200 187 64359 185 66000 135 66000 135 66000 178 64114 186 64200 187 64350 187 64200 187 64260 187 64350 185 66000 135 66000 135 66000 135 66000 135 66000 135 66000 135 66000 135 66000 135 66000 135 66000 135 6	Part No.	Page No.										
60187 2011 60350 69 64201 187 64355 184 64452 185 66361 135 66188 2011 60353 69 64202 187 64327 184 64456 185 66366 135 60189 2011 60353 69 64203 187 64327 184 64456 185 66367 135 60192 2011 60361 40 64205 187 64328 184 64460 185 66370 135 60193 2011 60365 40 64205 187 64329 184 64460 185 66370 135 60193 2011 60400 2000 64207 187 64340 184 64460 185 66370 135 60193 2011 60410 2000 64207 187 64341 184 64464 185 67500 134 60196 2011 60510 203 64209 187 64344 184 64464 185 67500 134 60196 2011 60510 203 64210 186 64346 184 64500 185 66376 135 60197 2011 60511 203 64212 186 64346 184 64500 185 67501 134 60196 2011 60512 203 64212 187 64344 184 64500 185 67502 134 60196 2011 60513 203 64212 187 64345 185 64500 185 66500 140 60200 178 60033 203 64214 186 64390 185 64510 186 66500 180 60000 140 60203 178 60515 203 64215 184 64350 185 64510 186 66060 140 60203 178 60515 203 64215 184 64350 185 64510 186 66060 140 60205 178 64113 187 64220 187 64254 185 64514 185 66067 140 60205 178 64114 186 64220 187 64254 185 64510 185 66077 140 60205 178 64114 186 64220 187 64254 185 64510 185 66077 140 60205 178 64114 186 64220 187 64254 185 64511 185 66067 140 60205 178 64114 186 64220 187 64254 185 64510 185 66077 140 60205 178 64114 186 64220 187 64354 185 64510 185 66512 140 66077 140 66025 178 64114 186 64220 187 64354 185 66121 140 66077 140 66025 135 66121 140 66025 135 66121 140 66025 135 66121 140 66025 135 66121 140 66025 135 66121 140 66025 135 66121		_										_
60198 2011 60352 69										_		_
BOTISP 2011 BOSS3 69												
60190										_		
60198												
60193 201 60365 40 6 84206 187 64340 184 64482 185 663276 135 60194 201 60410 200 64207 187 64341 184 64464 185 67501 134 60196 201 60510 203 64209 187 64345 184 64501 185 67501 134 60196 201 60510 203 64209 187 64345 184 64501 185 67502 134 60197 201 60511 203 64210 186 64346 185 67502 134 60198 201 60512 203 64212 187 64348 185 64502 185 68002 140 60200 178 60513 203 64214 186 64349 185 64510 185 68000 140 60200 178 60513 203 64215 184 64391 185 64510 185 68000 140 60201 178 60513 203 64215 184 64350 185 64505 185 68000 140 60201 178 60514 203 64215 184 64350 185 64510 185 68000 140 60201 178 60514 203 64215 184 64350 185 64510 185 68000 140 60201 178 60514 203 64215 184 64350 185 64510 185 68000 140 60204 178 64113 187 64220 187 64354 185 64514 185 68007 140 60207 178 64130 186 64220 187 64356 185 66110 185 68007 140 60207 178 64130 186 64220 187 64356 185 66115 234 68007 140 60207 178 64130 186 64220 187 64356 185 66115 234 68007 140 60207 178 64130 186 64220 187 64356 185 66110 135 68007 140 60208 178 64143 186 64230 187 64357 185 66120 140 68074 140 60208 178 64145 186 64230 187 64357 185 66120 140 68074 140 60208 178 64145 186 64250 233 64356 184 66265 135 68114 140 60216 178 64145 186 64250 233 64356 184 66265 135 68114 140 60216 178 64145 186 64260 233 64356 184 66265 135 68112 140 60210 178 64145 186 64260 233 64356 184 66265 135 68112 140 60210 178 64145 186 64260 233 64356 184 66265 135 68112 140 60210 140 60214 186 64264 233 64356 184 66265 135 68112 140 60216 186 64167 186 64267 233 64356 184 66261 135 68110 140 6021												
60194 201												
60196												
60196 2011 60510 203 64200 187 64345 184 64501 185 67502 134 60198 2011 60511 203 64210 186 64346 184 64505 185 68000 140 60020 178 60513 203 64214 186 64349 185 64505 185 68000 140 60020 178 60514 203 64214 186 64349 185 64510 185 68006 140 60023 178 60515 203 64216 184 64350 185 64510 185 68006 140 60023 178 60515 203 64216 184 64352 185 64512 185 68006 140 60023 178 64113 187 64220 187 64354 185 64512 185 68006 140 60020 178 64113 187 64220 187 64354 185 66100 135 68070 140 60020 178 64130 186 64222 187 64354 185 66100 135 68070 140 60020 178 64136 186 64230 187 64355 185 66115 234 68071 140 60020 178 64143 186 64232 187 64356 185 66120 140 68074 140 60020 178 64143 186 64232 187 64356 185 66120 140 68074 140 60020 178 64145 186 64230 187 64356 184 66265 135 68115 140 600215 41 64146 186 64260 233 64366 184 66265 135 68120 140 60021 42 64145 186 64260 233 64366 184 66265 135 68120 140 60021 42 64145 186 64260 233 64366 184 66226 135 68120 140 60022 42 64151 186 64267 233 64366 184 66226 135 68120 140 60022 42 64154 186 64270 133 64366 184 66226 135 68160 140 60022 42 64154 186 64270 133 64366 184 66281 135 68160 140 60022 42 64154 186 64270 133 64366 184 66281 135 68162 140 60022 42 64154 186 64270 133 64368 184 66281 135 68160 140 60022 140 64162 186 64270 133 64367 184 66280 135 68164 140 60022 140 64162 186 64270 138 64370 184 66280 135 68164 140 60023 190 64161 186 64276 133 64367 184 66280 135 68161 140 60022 190 64162 186 64276		_										
60197 201 60511 203 64210 186 64348 184 64502 185 68060 140												
60188 2011 60512 203 64212 187 64348 185 64505 185 68060 140 60201 178 60513 203 64214 186 64349 185 64510 185 68062 140 60203 178 60515 203 64216 184 64350 185 64511 185 68064 140 60203 178 60515 203 64216 184 64352 185 64512 185 68066 140 60204 178 64112 187 64220 187 64353 185 66100 135 68067 140 60205 178 64113 187 64220 187 64354 185 66100 135 68070 140 60206 178 64136 186 64222 187 64355 185 66120 140 68074 140 60207 178 64136 186 64220 187 64357 185 66120 140 68074 140 68027 140 60208 178 64141 186 64223 187 64356 185 66120 140 68074 140 66027 178 64145 186 64225 187 64356 184 66266 135 68115 140 66210 178 64145 186 64225 233 64364 184 66266 135 68115 140 66216 189 64147 186 64260 233 64366 184 66266 135 68120 140 66221 140 66221 140 66221 140 66221 140 66221 140 66221 140 66221 140 66221 140 66221 140 66221 140 66222 140						_						-
60200 178 60513 203 64214 186 64350 185 64510 185 68062 140						_						
60201 178												
60200												
600204 178												
60205 178												
60206 178												
60207 178												
60208 178 64141 186 64232 187 64358 185 66121 140 68114 140 60209 178 64145 186 64234 187 64360 184 66265 135 68120 140 60215 41 64146 186 64255 233 64364 184 66266 135 68120 140 60215 41 64146 186 64260 233 64365 184 66275 135 68121 140 60218 198 64147 186 64264 233 64366 184 66275 135 68121 140 60220 42 64149 186 64267 233 64366 184 66276 135 68160 140 60221 42 64151 186 64267 183 64368 184 66280 135 68160 140 60222 42 64154 186 64271 183 64368 184 66281 135 68161 140 60222 42 64157 186 64271 183 64369 184 66285 135 68162 140 60230 42 64158 186 64272 183 64370 184 66286 135 68163 140 60230 142 64158 186 64272 183 64371 184 66290 135 68163 140 60230 140 64160 186 64274 184 64373 184 66290 135 68163 140 60231 190 64161 186 64275 184 64373 184 66295 135 68165 140 60240 190 64162 186 64276 184 64373 184 66295 135 68166 140 60240 190 64162 186 64276 184 64373 184 66295 135 68166 140 60240 190 64162 186 64276 184 64373 184 66295 135 68166 140 60240 190 64162 186 64276 184 64377 184 66300 135 68166 140 60243 190 64164 186 64280 188 64376 184 66301 135 68202 136 60244 190 64164 186 64280 188 64376 184 66301 135 68202 136 60247 190 64167 186 64280 188 64376 184 66301 135 68202 136 60274 190 64167 186 64280 188 64376 184 66301 135 68201 136 60274 190 64167 186 64282 188 64377 184 66301 135 68202 136 60274 190 64170 186 64282 184 64381 184 66316 135 68201 136 68208 136 60272 190 64170 186 64292 184 64381 184 66311 135 68201 136 68208 136 60274 190 64177 186 64301 199 64384 184 66311 135 68201 136 60273 190 64177 186 64301 199 64384 184 66311 135 68201 136 68202 136 60301 103 64178 186 64320 184 64404 185 66330 135 68202 136 60301 103 64177 186 64321 199 64384 184 66316 135 68201 136 68202 136 60300 103 64178 186 64320 184 64404 185 66330 135 68221 136 60301 103 64177 186 64322 184 64404 185 66330 135 68220 136 60301 103 64181 186 64322 184 64404 185 66330 135 68220 136 60301 103 64183 186 64326 184 64404 185 66331 135 68221 136 60301 103 64180 186 64327 184 64404 185 66335 135 68224 136 60302 103 64183 186 64327 184 644				_								
60209 178												
60210 178 64146 186 64255 233 64364 184 66266 135 68120 140 60215 41 64146 186 64260 233 64365 184 66276 135 68121 140 60220 42 64149 186 64264 233 64367 184 66276 135 68122 140 60221 42 64151 186 64267 233 64368 184 66280 135 68160 140 60222 42 64157 186 64271 183 64367 184 66285 135 68161 140 60225 42 64157 186 64272 183 64370 184 66286 135 68163 140 60230 42 64158 186 64274 184 64371 184 66291 135 68164 140 60233 190 6416												
60215 41 64146 186 64260 233 64365 184 66275 135 68121 140 60218 198 64147 186 64267 233 64366 184 66276 135 68122 140 60221 42 64151 186 64270 183 64368 184 66280 135 68160 140 60222 42 64157 186 64271 183 64369 184 66285 135 68161 140 60225 42 64158 186 64272 183 64370 184 66285 135 68162 140 60230 42 64158 186 64273 183 64371 184 66280 135 68165 140 60233 190 64161 186 64275 184 64372 184 66295 135 68165 140 60243 190 641												
60218 198 64147 186 64264 233 64366 184 66276 135 68122 140 60220 42 64149 186 64270 183 64367 184 66220 135 68160 140 60221 42 64154 186 64271 183 64369 184 66285 135 68161 140 60225 42 64157 186 64271 183 64370 184 66286 135 68163 140 60230 42 64158 186 64273 183 64371 184 66280 135 68163 140 60233 190 64161 186 64275 184 64373 184 66295 135 68166 140 60233 190 64163 186 64277 184 64374 184 66295 135 68166 140 60240 190 64		178	64145	186								140
60220 42 64149 186 64267 233 64367 184 66280 135 68160 140 60221 42 64151 186 64271 183 64368 184 66281 135 68160 140 60225 42 64157 186 64271 183 64370 184 66286 135 68162 140 60230 42 64158 186 64273 183 64371 184 66286 135 68163 140 60232 190 64160 186 64274 184 64372 184 66290 135 68165 140 60233 190 64161 186 64276 184 64373 184 66290 135 68166 140 60240 190 64163 186 64276 184 64373 184 66296 135 68166 140 60243 190 64												
60221 42		198	64147		64264		64366		66276		68122	140
60222 42 64154 186 64271 183 64369 184 66285 135 68162 140 60225 42 64157 186 64272 183 64370 184 66286 135 68163 140 60230 42 64158 186 64273 183 64371 184 66290 135 68164 140 60233 190 64161 186 64275 184 64372 184 66295 135 68166 140 60240 190 64162 186 64276 184 64373 184 66296 135 68166 140 60243 190 64163 186 64277 184 64376 184 66300 135 68167 140 60244 190 64167 186 64282 188 64377 184 66305 135 68204 136 60247 190 6	60220	42	64149	186	64267	233	64367	184	66280	135	68160	140
60225 42 64157 186 64272 183 64370 184 66286 135 68163 140 60230 42 64158 186 64273 183 64371 184 66290 135 68164 140 60233 190 64160 186 64275 184 64373 184 66291 135 68166 140 60240 190 64162 186 64276 184 64373 184 66296 135 68167 140 60243 190 64163 186 64277 184 64375 184 66296 135 68167 140 60244 190 64164 186 64277 184 64375 184 66301 135 68202 136 60244 190 64165 186 64282 188 64377 184 66305 135 68203 136 60270 190	60221	42	64151	186	64270	183	64368	184	66281	135	68161	140
60230 42 64158 186 64273 183 64371 184 66290 135 68164 140 60232 190 64160 186 64274 184 64372 184 66291 135 68165 140 60233 190 64161 186 64275 184 64373 184 66296 135 68166 140 60243 190 64163 186 64277 184 64375 184 66300 135 68167 140 60243 190 64165 186 64280 188 64375 184 66301 135 68202 136 60244 190 64165 186 64280 188 64376 184 66301 135 68202 136 60247 190 64167 186 64283 188 64378 184 66305 135 68204 136 60272 190 <td< td=""><td>60222</td><td>42</td><td>64154</td><td>186</td><td>64271</td><td>183</td><td>64369</td><td>184</td><td>66285</td><td>135</td><td>68162</td><td>140</td></td<>	60222	42	64154	186	64271	183	64369	184	66285	135	68162	140
60232 190 64160 186 64274 184 64372 184 66291 135 68165 140 60233 190 64161 186 64275 184 64373 184 66295 135 68166 140 60240 190 64163 186 64277 184 64375 184 66296 135 68167 140 60243 190 64163 186 64277 184 64375 184 66301 135 68202 136 60245 190 64165 186 64282 188 64377 184 66301 135 68203 136 60247 190 64167 186 64281 188 64377 184 66305 135 68203 136 60270 190 64169 186 64284 188 64379 184 66311 135 68206 136 60272 190 <t< td=""><td>60225</td><td>42</td><td>64157</td><td>186</td><td>64272</td><td>183</td><td>64370</td><td>184</td><td>66286</td><td>135</td><td>68163</td><td>140</td></t<>	60225	42	64157	186	64272	183	64370	184	66286	135	68163	140
60233 190 64161 186 64275 184 64373 184 66295 135 68166 140 60240 190 64162 186 64276 184 64374 184 66296 135 68167 140 60243 190 64163 186 64277 184 64375 184 66300 135 68202 136 60244 190 64164 186 64280 188 64376 184 66301 135 68202 136 60247 190 64167 186 64282 188 64377 184 66305 135 68204 136 60270 190 64169 186 64284 188 64378 184 66310 135 68204 136 60272 190 64170 186 64292 184 64380 184 66315 135 68211 136 60274 190 <t< td=""><td>60230</td><td>42</td><td>64158</td><td>186</td><td>64273</td><td>183</td><td>64371</td><td>184</td><td>66290</td><td>135</td><td>68164</td><td>140</td></t<>	60230	42	64158	186	64273	183	64371	184	66290	135	68164	140
60240 190 64162 186 64276 184 64374 184 66296 135 68167 140 60243 190 64163 186 64277 184 64375 184 66300 135 68202 136 60244 190 64165 186 64280 188 64376 184 66301 135 68203 136 60247 190 64165 186 64282 188 64377 184 66305 135 68203 136 60270 190 64167 186 64284 188 64379 184 66306 135 68206 136 60273 190 64170 186 64292 184 64381 184 66315 135 68210 136 60274 190 64172 186 64304 199 64381 184 66316 135 68212 136 60285 191 <t< td=""><td>60232</td><td>190</td><td>64160</td><td>186</td><td>64274</td><td>184</td><td>64372</td><td>184</td><td>66291</td><td>135</td><td>68165</td><td>140</td></t<>	60232	190	64160	186	64274	184	64372	184	66291	135	68165	140
60243 190 64163 186 64277 184 64375 184 66300 135 68202 136 60244 190 64164 186 64280 188 64376 184 66301 135 68203 136 60245 190 64165 186 64282 188 64377 184 66305 135 68204 136 60270 190 64167 186 64283 188 64378 184 66306 135 68204 136 60270 190 64170 186 64282 188 64378 184 66310 135 68204 136 60273 190 64171 186 64292 184 64381 184 66315 135 68210 136 60274 190 64172 186 64304 199 64384 184 66316 135 68211 136 60285 191 <t< td=""><td>60233</td><td>190</td><td>64161</td><td>186</td><td>64275</td><td>184</td><td>64373</td><td>184</td><td>66295</td><td>135</td><td>68166</td><td>140</td></t<>	60233	190	64161	186	64275	184	64373	184	66295	135	68166	140
60244 190 64164 186 64280 188 64376 184 66301 135 68203 136 60245 190 64165 186 64282 188 64377 184 66305 135 68204 136 60270 190 64169 186 64284 188 64379 184 66301 135 68206 136 60272 190 64170 186 64284 188 64379 184 66310 135 68208 136 60273 190 64171 186 64292 184 64380 184 66311 135 68210 136 60274 190 64172 186 64304 199 64384 184 66316 135 68211 136 60285 191 64173 186 64305 199 64386 184 66320 135 68213 136 60300 103 <t< td=""><td>60240</td><td>190</td><td>64162</td><td>186</td><td>64276</td><td>184</td><td>64374</td><td>184</td><td>66296</td><td>135</td><td>68167</td><td>140</td></t<>	60240	190	64162	186	64276	184	64374	184	66296	135	68167	140
60245 190 64165 186 64282 188 64377 184 66305 135 68204 136 60247 190 64167 186 64283 188 64378 184 66306 135 68206 136 60270 190 64169 186 64284 188 64379 184 66310 135 68208 136 60272 190 64170 186 64292 184 64380 184 66311 135 68208 136 60273 190 64171 186 64297 184 64381 184 66311 135 68210 136 60274 190 64172 186 64305 199 64384 184 66316 135 68211 136 60285 191 64173 186 64312 199 64385 184 66320 135 68213 136 60300 103 <t< td=""><td>60243</td><td>190</td><td>64163</td><td>186</td><td>64277</td><td>184</td><td>64375</td><td>184</td><td>66300</td><td>135</td><td>68202</td><td>136</td></t<>	60243	190	64163	186	64277	184	64375	184	66300	135	68202	136
60247 190 64167 186 64283 188 64378 184 66306 135 68206 136 60270 190 64169 186 64284 188 64379 184 66310 135 68208 136 60272 190 64170 186 64292 184 64380 184 66311 135 68210 136 60274 190 64171 186 64297 184 64381 184 66315 135 68211 136 60285 191 64173 186 64304 199 64384 184 66316 135 68212 136 60285 191 64174 186 64305 199 64385 184 66320 135 68212 136 60300 103 64175 186 64314 199 64386 184 66321 135 68215 136 60301 103 <t< td=""><td>60244</td><td>190</td><td>64164</td><td>186</td><td>64280</td><td>188</td><td></td><td>184</td><td>66301</td><td>135</td><td>68203</td><td>136</td></t<>	60244	190	64164	186	64280	188		184	66301	135	68203	136
60270 190 64169 186 64284 188 64379 184 66310 135 68208 136 60272 190 64170 186 64292 184 64380 184 66311 135 68210 136 60273 190 64171 186 64297 184 64381 184 66315 135 68211 136 60274 190 64172 186 64304 199 64384 184 66316 135 68211 136 60285 191 64173 186 64305 199 64385 184 66320 135 68212 136 60300 103 64175 186 64314 199 64386 184 66321 135 68215 136 60301 103 64177 186 64315 198 64400 185 66326 135 68218 136 60302 103 <t< td=""><td>60245</td><td>190</td><td>64165</td><td>186</td><td>64282</td><td>188</td><td>64377</td><td>184</td><td>66305</td><td>135</td><td>68204</td><td>136</td></t<>	60245	190	64165	186	64282	188	64377	184	66305	135	68204	136
60272 190 64170 186 64292 184 64380 184 66311 135 68210 136 60273 190 64171 186 64297 184 64381 184 66315 135 68210 136 60274 190 64172 186 64304 199 64384 184 66316 135 68211 136 60285 191 64173 186 64305 199 64385 184 66320 135 68213 136 60286 191 64174 186 64312 199 64386 184 66320 135 68213 136 60300 103 64175 186 64314 199 64400 185 66325 135 68218 136 60301 103 64178 186 64320 184 64402 185 66326 135 68220 136 60304 103 <t< td=""><td>60247</td><td>190</td><td>64167</td><td>186</td><td>64283</td><td>188</td><td>64378</td><td>184</td><td>66306</td><td>135</td><td>68206</td><td>136</td></t<>	60247	190	64167	186	64283	188	64378	184	66306	135	68206	136
60273 190 64171 186 64297 184 64381 184 66315 135 68211 136 60274 190 64172 186 64304 199 64384 184 66316 135 68212 136 60285 191 64173 186 64305 199 64385 184 66320 135 68213 136 60300 103 64175 186 64314 199 64400 185 66325 135 68218 136 60301 103 64177 186 64315 198 64402 185 66325 135 68218 136 60302 103 64178 186 64320 184 64404 185 66326 135 68220 136 60304 103 64180 186 64323 184 64404 185 66330 135 68222 136 60308 103 <t< td=""><td>60270</td><td>190</td><td>64169</td><td>186</td><td>64284</td><td>188</td><td>64379</td><td>184</td><td>66310</td><td>135</td><td>68208</td><td>136</td></t<>	60270	190	64169	186	64284	188	64379	184	66310	135	68208	136
60274 190 64172 186 64304 199 64384 184 66316 135 68212 136 60285 191 64173 186 64305 199 64385 184 66320 135 68213 136 60286 191 64174 186 64312 199 64386 184 66321 135 68215 136 60300 103 64175 186 64314 199 64400 185 66325 135 68218 136 60301 103 64178 186 64320 184 64402 185 66326 135 68220 136 60304 103 64180 186 64323 184 64404 185 66330 135 68222 136 60306 103 64182 186 64324 184 64410 185 66331 135 68224 136 60308 103 <t< td=""><td>60272</td><td>190</td><td>64170</td><td>186</td><td>64292</td><td>184</td><td>64380</td><td>184</td><td>66311</td><td>135</td><td>68210</td><td>136</td></t<>	60272	190	64170	186	64292	184	64380	184	66311	135	68210	136
60285 191 64173 186 64305 199 64385 184 66320 135 68213 136 60286 191 64174 186 64312 199 64386 184 66321 135 68215 136 60300 103 64175 186 64314 199 64400 185 66325 135 68218 136 60301 103 64177 186 64315 198 64402 185 66326 135 68220 136 60302 103 64178 186 64320 184 64404 185 66330 135 68220 136 60304 103 64180 186 64323 184 64410 185 66331 135 68222 136 60308 103 64182 186 64324 184 64412 185 66335 135 68224 136 60310 103 <t< td=""><td>60273</td><td>190</td><td>64171</td><td>186</td><td>64297</td><td>184</td><td>64381</td><td>184</td><td>66315</td><td>135</td><td>68211</td><td>136</td></t<>	60273	190	64171	186	64297	184	64381	184	66315	135	68211	136
60286 191 64174 186 64312 199 64386 184 66321 135 68215 136 60300 103 64175 186 64314 199 64400 185 66325 135 68218 136 60301 103 64177 186 64315 198 64402 185 66326 135 68220 136 60302 103 64180 186 64320 184 64404 185 66330 135 68222 136 60306 103 64182 186 64323 184 64410 185 66330 135 68224 136 60308 103 64182 186 64324 184 64410 185 66335 135 68224 136 60310 103 64183 186 64325 184 64414 185 66336 135 68226 136 60312 103 <t< td=""><td>60274</td><td>190</td><td>64172</td><td>186</td><td>64304</td><td>199</td><td>64384</td><td>184</td><td>66316</td><td>135</td><td>68212</td><td>136</td></t<>	60274	190	64172	186	64304	199	64384	184	66316	135	68212	136
60300 103 64175 186 64314 199 64400 185 66325 135 68218 136 60301 103 64177 186 64315 198 64402 185 66326 135 68220 136 60302 103 64178 186 64320 184 64404 185 66326 135 68220 136 60304 103 64180 186 64323 184 64410 185 66330 135 68222 136 60308 103 64182 186 64324 184 64412 185 66335 135 68224 136 60310 103 64183 186 64325 184 64412 185 66336 135 68226 136 60312 103 64184 186 64327 184 64416 185 66340 135 68231 136 60314 103 <t< td=""><td>60285</td><td>191</td><td>64173</td><td>186</td><td>64305</td><td>199</td><td>64385</td><td>184</td><td>66320</td><td>135</td><td>68213</td><td>136</td></t<>	60285	191	64173	186	64305	199	64385	184	66320	135	68213	136
60301 103 64177 186 64315 198 64402 185 66326 135 68220 136 60302 103 64178 186 64320 184 64404 185 66330 135 68222 136 60304 103 64180 186 64323 184 64410 185 66330 135 68222 136 60306 103 64182 186 64324 184 64412 185 66335 135 68224 136 60308 103 64183 186 64325 184 64412 185 66335 135 68226 136 60310 103 64184 186 64326 184 64414 185 66336 135 68228 136 60312 103 64185 186 64327 184 64418 185 66341 135 68231 136 60314 103 <t< td=""><td>60286</td><td>191</td><td>64174</td><td>186</td><td>64312</td><td>199</td><td>64386</td><td>184</td><td>66321</td><td>135</td><td>68215</td><td>136</td></t<>	60286	191	64174	186	64312	199	64386	184	66321	135	68215	136
60302 103 64178 186 64320 184 64404 185 66330 135 68222 136 60304 103 64180 186 64323 184 64410 185 66330 135 68222 136 60306 103 64182 186 64324 184 64412 185 66335 135 68224 136 60308 103 64183 186 64325 184 64414 185 66336 135 68226 136 60310 103 64184 186 64326 184 64416 185 66336 135 68228 136 60312 103 64185 186 64327 184 64418 185 66340 135 68230 136 60314 103 64186 186 64328 184 64420 185 66345 135 68231 136 60320 103 <t< td=""><td>60300</td><td>103</td><td>64175</td><td>186</td><td>64314</td><td>199</td><td>64400</td><td>185</td><td>66325</td><td>135</td><td>68218</td><td>136</td></t<>	60300	103	64175	186	64314	199	64400	185	66325	135	68218	136
60304 103 64180 186 64323 184 64410 185 66331 135 68224 136 60306 103 64182 186 64324 184 64412 185 66335 135 68224 136 60308 103 64183 186 64325 184 64414 185 66336 135 68228 136 60310 103 64184 186 64326 184 64416 185 66340 135 68228 136 60312 103 64185 186 64327 184 64418 185 66341 135 68230 136 60314 103 64186 186 64328 184 64420 185 66345 135 68231 136 60318 103 64187 187 64329 184 64422 185 66346 135 68234 136 60322 103 <t< td=""><td>60301</td><td>103</td><td>64177</td><td>186</td><td>64315</td><td>198</td><td>64402</td><td>185</td><td>66326</td><td>135</td><td>68220</td><td>136</td></t<>	60301	103	64177	186	64315	198	64402	185	66326	135	68220	136
60306 103 64182 186 64324 184 64412 185 66335 135 68226 136 60308 103 64183 186 64325 184 64414 185 66336 135 68228 136 60310 103 64184 186 64326 184 64416 185 66340 135 68230 136 60312 103 64185 186 64327 184 64418 185 66341 135 68230 136 60314 103 64186 186 64328 184 64420 185 66345 135 68231 136 60318 103 64187 187 64329 184 64422 185 66346 135 68232 136 60320 103 64195 186 64330 184 64424 185 66350 135 68234 136 60322 103 <t< td=""><td>60302</td><td>103</td><td>64178</td><td>186</td><td>64320</td><td>184</td><td>64404</td><td>185</td><td>66330</td><td>135</td><td>68222</td><td>136</td></t<>	60302	103	64178	186	64320	184	64404	185	66330	135	68222	136
60308 103 64183 186 64325 184 64414 185 66336 135 68228 136 60310 103 64184 186 64326 184 64416 185 66336 135 68230 136 60312 103 64185 186 64327 184 64418 185 66341 135 68230 136 60314 103 64186 186 64328 184 64420 185 66345 135 68232 136 60318 103 64187 187 64329 184 64422 185 66346 135 68232 136 60320 103 64195 186 64330 184 64424 185 66350 135 68234 136 60322 103 64196 186 64331 184 64440 185 66351 135 68240 136 60324 103 <t< td=""><td>60304</td><td>103</td><td>64180</td><td>186</td><td>64323</td><td>184</td><td>64410</td><td>185</td><td>66331</td><td>135</td><td>68224</td><td>136</td></t<>	60304	103	64180	186	64323	184	64410	185	66331	135	68224	136
60310 103 64184 186 64326 184 64416 185 66340 135 68230 136 60312 103 64185 186 64327 184 64418 185 66340 135 68230 136 60314 103 64186 186 64328 184 64420 185 66345 135 68232 136 60318 103 64187 187 64329 184 64422 185 66346 135 68234 136 60320 103 64195 186 64330 184 64424 185 66350 135 68235 136 60322 103 64196 186 64331 184 64440 185 66350 135 68240 136 60324 103 64197 186 64332 184 64442 185 66355 135 68240 136	60306	103	64182	186	64324	184	64412	185	66335	135	68226	136
60312 103 60312 103 60314 103 60314 103 60318 103 60320 103 64195 186 64321 184 64329 184 64329 184 64329 184 64320 185 66340 135 66340 135 66340 135 66340 135 68231 136 68232 136 68234 136 68234 136 68235 136 68236 135 68237 136 68231 136 68234 136 68235 136 68236 135 68237 136 68237 136 68237 136 68237 136 68237 136 68240 136 68240 136 68240 136 68240 136 68240 136 68240 136 68240 136 68240 136 <t< td=""><td>60308</td><td>103</td><td>64183</td><td>186</td><td>64325</td><td>184</td><td>64414</td><td>185</td><td>66336</td><td>135</td><td>68228</td><td>136</td></t<>	60308	103	64183	186	64325	184	64414	185	66336	135	68228	136
60314 103 60318 103 60318 103 60320 103 64195 186 64321 184 64322 185 64422 185 66346 135 66346 135 66346 135 66346 135 66346 135 66346 135 66350 135 68232 136 68234 136 68235 136 68236 135 68237 136 68236 135 68237 136 68236 135 68237 136 68237 136 68237 136 68237 136 68237 136 68237 136 68238 136 68239 136 68231 136 68232 136 68235 135 68240 136 68240 136 68240 137 68240 136 68240 136 68240 136 <t< td=""><td>60310</td><td>103</td><td>64184</td><td>186</td><td>64326</td><td>184</td><td>64416</td><td>185</td><td>66340</td><td>135</td><td>68230</td><td>136</td></t<>	60310	103	64184	186	64326	184	64416	185	66340	135	68230	136
60318 103 60320 103 64195 186 64330 184 64322 185 64350 135 66346 135 66350 135 68234 136 68235 136 68236 135 66350 135 68235 136 68240 136 68240 136 68240 136 68240 136 68240 136 68240 136 68240 136 68240 136 68240 136 68240 136 68244 136	60312	103	64185	186	64327	184	64418	185	66341	135	68231	136
60320 103 60322 103 64195 186 64330 184 64424 185 66350 135 66351 136 68235 136 64440 185 66351 135 68240 136 68240 136 68244 136	60314	103	64186	186	64328	184	64420	185	66345	135	68232	136
60322 103 64196 186 64331 184 64440 185 66351 135 68240 136 60324 103 64197 186 64332 184 64442 185 66355 135 68244 136	60318	103	64187	187	64329	184	64422	185	66346	135	68234	136
60322 103 64196 186 64331 184 64440 185 66351 135 68240 136 60324 103 64197 186 64332 184 64442 185 66355 135 68244 136		103	64195	186	64330	184	64424	185		135		136
60324 103 64197 186 64332 184 64442 185 66355 135 68244 136												
							-					
130 15280 150 160 164440 160 164440 167 168240 1693 1693 1693 1693 1693	60335	103	64198	187	64333	184	64444	185	66356	135	68246	136



Down No	Done No	Dowt No.	Dogo No.	Dowt No.	Dono No	Down No.	Dono No.	Doub No.	Dono No	Dowt No.	Dono No
Part No 6824		Part No. 68509	Page No.	Part No. 69013	Page No.	Part No. 70032	Page No.	Part No. 72142	Page No.	Part No. 72316	Page No.
6825		68510	138	69014	141	70032	139	72143	141	72317	134
6825		68511	138	69015	141	70034	139	72144	141	72317	134
6825		68512	138	69016	141	70038	139	72144	141	72310	134
6826		68513	138	69017	141	70030	139	72146	141	72319	132
6826		68515	138	69018	141	70040	139	72147	141	72322	132
6826		68518	138	69025	141	70042	139	72147	141	72323	132
6826		68519	138	69030	141	70100	139	72150	239	72324	132
6826		68521	138	69031	141	70110	139	72152	239	72325	132
6827		68531	138	69032	141	70112	139	72155	141	72330	198
6827		68532	138	69034	141	70112	139	72156	141	72332	198
6827		68533	138	69035	141	70114	139	72160	132	72336	162
6827		68534	138	69036	141	70115	139	72161	132	72338	162
6827		68537	138	69037	141	70116	139	72164	132	76000	62
6828		68538	138	69040	239	70117	139	72165	132	76001	62
6830		68539	138	69042	239	70118	139	72173	132	76002	62
6830		68540	138	69043	239	70120	139	72176	132	76003	62
6830		68541	138	69044	239	70122	139	72177	131	76004	62
6830		68542	138	69045	239	70124	139	72200	131	76005	62
6830		68543	138	69046	239	70126	139	72202	131	76006	62
6831		68610	138	69047	239	70128	139	72210	131	76007	62
6831		68611	138	69048	239	72040	140	72212	131	76008	62
6831		68613	138	69100	237	72042	134	72215	131	76010	62
6831	6 198	68615	138	69101	237	72043	134	72216	131	76011	62
6831	7 198	68616	138	69102	237	72044	140	72217	131	76012	62
6831	8 198	68618	138	69104	237	72045	140	72225	131	76013	62
6832	0 199	68619	138	69107	237	72050	137	72230	131	76014	62
6832	2 199	68621	138	69108	237	72052	137	72231	131	76015	62
6832	3 199	68622	138	69110	237	72054	137	72245	131	76016	62
6832	4 199	68631	138	69111	237	72056	137	72246	131	76017	62
6832	5 198	68633	138	69112	237	72058	137	72247	131	76018	62
6832	6 199	68634	138	69113	237	72059	137	72255	131	76020	62
6832	7 199	68637	138	69114	237	72060	137	72256	131	76021	62
6833	0 133	68639	138	69115	237	72061	137	72260	131	76022	62
6833	2 199	68700	133	69116	237	72074	137	72270	131	76023	62
6833	3 199	68704	133	69117	237	72075	137	72274	131	76024	62
6833	6 198	68708	133	69118	237	72099	135	72275	131	76025	62
6833	7 198	68710	133	69119	237	72100	135	72277	131	76026	62
6833	8 199	68711	133	69120	237	72101	135	72278	131	76027	62
6833	9 199	68756	134	69121	237	72102	135	72290	131	76028	62
6834		68757	134	69124	237	72103	135	72291	131	76030	62
6834		68758	134	69126	237	72104	135	72292	131	76031	62
6834		68759	134	69127	237	72105	135	72293	131	76032	62
6834		68806	131	69128	237	72108	135	72294	131	76033	62
6834		68807	131	69129	237	72114	132	72300	131	76034	62
6834		68820	133	69130	237	72115	132	72301	131	76035	62
6837		68822	133	70010	139	72120	132	72302	131	76036	62
6837		68824	133	70012	139	72121	132	72303	131	76037	62
6837		68830	133	70014	139	72122	132	72305	132	76038	62
6837		68832	133	70016	139	72123	132	72306	132	76040	62
6837		68834	133	70018	139	72124	132	72308	132	76041	62
6838		69000	142	70020	139	72125	132	72309	132	76042	62
6838		69002	142	70022	139	72126	132	72310	131	76043	62
6838		69004	142	70024	139	72128	132	72311	131	76044	62
6838		69006	142	70026	139	72130	132	72313	131	76045	62
6838		69010	238	70028	139	72140	137	72314	131	76046	62
6839	6 141	69011	76	70030	139	72141	135	72315	134	76047	62



Part No.	Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.
76048	62	76128	66	76264	217	76404	150	76600	60	80083	70
76050	62	76129	66	76265	61	76405	150	76602	60	80085	246
76050	62	76129	66	76266	61	76406	150	76604	60	80086	246
76051	62	76131	66	76267	61	76407	150	76610	60	80090	70
76053	62	76133	66	76268	61	76409	150	76612	60	80091	70
76054	62	76135	217	76269	61	76415	78	76614	60	80092	70
76055	62	76137	66	76270	61	76416	78	76616	60	80093	70
76056	62	76138	66	76272	61	76420	78	76618	60	80095	70
76057	62	76139	69	76273	61	76422	78	78100	49	80096	70
76058	62	76140	69	76274	61	76424	78	78101	49	80097	70
76060	62	76141	69	76275	61	76428	125	78105	49	80098	70
76061	62	76142	66	76276	61	76430	69	78107	49	80099	70
76062	62	76146	64	76277	61	76432	69	78108	48	80110	70
76063	62	76147	65	76280	61	76434	69	78110	49	80113	70
76064	62	76150	66	76281	61	76436	69	78111	49	80114	70
76065	62	76152	67	76282	61	76500	60	78115	48	80120	70
76066	62	76153	67	76283	61	76501	60	78116	48	80123	70
76067	62	76154	66	76284	61	76502	60	78117	48	80129	67
76068	62	76160	63	76288	61	76503	60	78118	48	80138	71
76070	62	76161	63	76289	61	76504	60	78120	49	80140	71
76071	62	76162	63	76290	61	76505	60	78122	49	80141	71
76072	62	76163	63	76291	61	76506	60	78123	49	80142	71
76073	62	76164	63	76292	61	76510	60	78124	49	80146	71
76074	62	76165	63	76293	61	76511	60	78125	49	80150	71
76075	62	76166	63	76294	61	76512	60	78126	49	80152	67
76076	62	76167	63	76295	61	76513	60	78127	49	80153	67
76077	62	76170	64	76296	61	76514	60	78128	49	80154	67
76078	62	76172	64	76297	61	76515	60	78129	49	80155	67
76080	62	76180	64	76298	61	76516	60	78130	49	80156	67
76081	62	76186	64	76299	61	76540	60	78131	49	80157	67
76082	62	76188	64	76300	69	76541	60	78132	49	80158	67
76082	62	76197	125	76300	69	76542	60	78133	49	80159	67
76084	62			76301			60	78134			
76085	_	76198	125		69	76543	_		49	80160	71
	62	76201	68	76310	69	76544	60	78135	49	80162	
76086	62	76202	68	76311	69	76545	60	78136	49	80164	71
76087	62	76203	68	76312	69	76546	60	78137	49	80165	71
76088	62	76205	213	76320	69	76550	60	78138	49	80167	71
76090	64	76206	213	76321	69	76551	60	78139	49	80168	71
76091	64	76208	68	76322	69	76552	60	78201	47	80170	25
76099	65	76209	68	76323	69	76553	60	78202	47	80172	25
76100	65	76212	64	76324	69	76554	60	78203	47	80175	71
76101	65	76215	217	76325	69	76555	60	78205	47	80176	71
76102	65	76216	61	76328	66	76556	60	78211	47	80177	71
76103	65	76220	217	76329	66	76560	60	78213	47	80180	71
76105	65	76221	217	76330	66	76561	60	78220	49	80181	71
76107	65	76224	62	76341	65	76562	60	78230	47	80200	124
76110	65	76231	61	76360	64	76563	60	78232	47	80202	124
76111	65	76232	61	76362	64	76565	60	78234	47	80204	124
76112	65	76233	61	76363	64	76566	60	78236	47	80206	124
76114	65	76234	61	76364	64	76567	60	78240	131	80208	124
76115	65	76235	61	76365	64	76568	60	78241	131	80210	124
76116	66	76250	24	76366	64	76570	60	78242	131	80214	124
76117	66	76251	24	76367	64	76571	60	78246	135	80216	124
76118	66	76252	24	76368	64	76572	60	78250	139	80218	124
76119	66	76253	24	76369	64	76575	60	80080	70	80250	59
76120	66	76260	61	76400	150	76576	60	80081	70	80500	69
76122	66	76262	61	76401	150	76577	60	80082	70	80501	69
10122	- 55	. 52.02	_ <u> </u>	7.5-10.1	.00	. 0011		0000L		30001	



	Part No.	Page No.										
	80505	69	81330	75	87216	82	90050	81	96415	209	99062	70
	80515	68	81332	70	87217	82	90052	81	96416	209	99063	70
	80516	68	81340	74	87218	82	90053	81	96420	213	99064	70
	80520	68	81341	74	87220	85	90054	81	96421	213	99065	70
	80521	68	81345	74	87230	85	90055	81	96424	214	99066	71
	80522	68	81350	74	87231	85	90060	81	96426	214	99068	71
	80523	68	81360	74	87236	85	90065	79	96440	209	99069	71
	80524	68	81361	74	87238	85	90067	78	96470	212	99070	152
	80525	68	81365	74	87240	85	90068	78	96475	212	99071	152
	80526	68	81366	74	87250	85	90070	78	96478	212	99084	168
	80527	68	81370	74	87260	85	90071	78	96480	212	99085	168
	80530	68	81371	74	87262	85	90072	78	96481	212	99086	168
	80532	68	81380	74	87264	85	90073	78	96482	212	99087	168
	81200	73	81381	74	87266	85	90075	107	96483	212	99088	168
	81202	73	81382	74	87268	85	90076	107	96484	212	99092	176
	81204	73	81400	75	87280	80	90080	81	96485	212	99094	176
	81205	73	81401	75	87282	80	90081	81	96490	213	99096	176
	81206	73	81402	75	90000	81	90085	81	96505	74	99097	176
	81207	73	81403	75	90001	81	90086	81	96506	74	99098	176
	81208	73	86120	56	90002	81	90087	81	96510	213	99100	42
	81210	73	86121	56	90003	81	90088	81	96515	213	99101	42
	81211	73	86122	56	90004	81	90089	81	96516	213	99102	208
	81212	73	86123	56	90005	81	90090	80	96520	214	99104	228
	81213	73	86124	56	90007	81	90100	81	96525	212	99105	230
	81214	61	86125	56	90008	80	90106	79	98100	151	99106	230
	81215	61	86127	56	90009	80	90107	79	98110	151	99107	230
	81216	72	86128	56	90010	80	90206	84	98111	151	99108	228
	81218	72	86129	56	90011	80	90207	84	98112	151	99109	228
	81220	72	86130	56	90014	80	90208	84	98113	151	99111	228
	81221	72	86132	56	90015	80	90230	84	98115	151	99116	25
	81222	72	86134	56	90016	80	90235	84	98116	151	99117	25
	81224	72	86136	56	90017	80	90240	84	98117	151	99127	230
	81225	72	86138	56	90018	80	90241	84	98118	151	99136	57
	81226	72	87000	84	90019	80	90242	84	98120	151	99140	207
	81227	72	87002	84	90020	81	90244	84	98121	151	99141	207
	81228	72	87004	84	90021	81	90250	84	98125	157	99142	207
	81229	72	87005	84	90022	81	92000	120	98130	151	99143	207
	81230	72	87006	84	90023	81	92001	120	99013	205	99145	70
	81232	72	87010	84	90024	81	92003	120	99014	205	99146	71
	81234	75	87020	84	90025	81	92004	120	99015	236	99147	70
	81240	72	87024	84	90027	81	92005	120	99020	182	99150	247
	81242	72	87026	84	90028	80	92006	120	99021	147	99151	247
	81244	72	87028	84	90029	80	92020	120	99022	147	99158	207
	81246	72	87030	81	90030	81	92022	77	99023	147	99159	207
	81248	72	87032	81	90031	81	92025	77	99028	130	99160	152
	81250	72	87034	81	90033	81	92027	77	99029	130	99161	152
	81252	72	87040	76	90036	81	92040	76	99030	110	99162	152
	81254	72	87200	85	90037	81	92041	76	99043	76	99163	152
	81255	72	87202	85	90039	120	92043	76	99044	246	99165	241
	81300	73	87204	85	90040	120	96400	213	99050	190	99173	205
	81308	73	87206	85	90041	120	96401	213	99052	190	99175	65
	81309	73	87207	6	90042	120	96402	213	99055	203	99176	65
	81310	73	87210	82	90043	120	96403	213	99056	70	99177	65
	81311	73	87212	82	90044	120	96410	209	99057	70	99178	192
	81324	75	87214	82	90045	120	96411	209	99058	70	99179	192
L	81326	75	87215	82	90048	120	96414	209	99059	70	99250	179



Part No.	Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.
99255	206	99913	248	916015	- ' 	921015	146	931115	
99256	206	99916	248	916016		923114	146	931116	
99282	202	99917	248	916041	145	923214	146	931117	
99283	202	99918	249	916042	145	926011	146	931121	
99284	202	99919	248	916044		926012	146	931122	
99285	237	99920	248	916045		926014	146	931124	
99287	164	99921	248	916091	145	926015	146	931125	
99288	164	99922	248	916092		926110	146	931126	
99295	183	99940	218	916094	145	926111	146	931127	7 144
99296	183	99941	218	916095	145	926112	146	931171	
99300	230	99942	218	918122	146	926114	146	931172	2 144
99301	230	99951	248	918124	146	926115	146	931174	1 144
99302	230	99953	248	918125	146	926116	146	931175	5 144
99303	230	99957	248	918126	146	926117	146	931176	3 144
99304	230	99959	248	918127	146	926118	146	931177	7 144
99305	230	99960	249	918128	146	926119	146	931211	144
99306	230	99962	218	918129	146	926210	146	931212	2 144
99307	230	99965	249	918130	146	926211	146	931213	3 144
99312	59	99968	249	918131	146	926212	146	931214	1 144
99314	103	99970	249	918132	146	926214	146	931215	5 144
99315	103	910011	145	918133	146	926215	146	931216	3 144
99320	202	910012	145	918134	146	926216	146	931217	7 144
99321	202	910014	145	918222	146	926217	146	935011	144
99328	204	910015	145	918224	146	926218	146	935012	2 144
99338	240	911011	145	918226	146	926219	146	935013	3 144
99347	76	911012	145	918227	146	926411	146	935014	1 144
99388	128	911014	145	918228	146	926412	146	935015	5 144
99390	80	911015	145	918229	146	926414	146	935016	3 144
99392	230	913011	145	918230	146	926415	146	935017	7 144
99393	230	913012	145	918231	146	929010	146	935022	2 144
99394	230	913014	145	918232	146	929313	146	935023	3 144
99400	202	913015	145	918234	146	931011	144	935024	1 144
99401	202	913041	145	918722	146	931012	144	935025	5 144
99402	202	913042	145	918724	146	931013	144	935026	144
99415	55	913044	145	918726	146	931014	144	935072	144
99420	240	913045	145	918727	146	931015	144	935073	3 144
99430	122	913091	145	918728	146	931016	144	935074	1 144
99433	20	913092	145	918729	146	931017	144	935075	5 144
99435	210	913094	145	918730		931021	144	935076	
99466	31	913095	145	918731	146	931022	144	935111	_
99468	31	915011	145	918732		931023	144	935112	
99470	182	915012	145	918734		931024	144	935113	
99471	182	915014	145	919070		931025	144	935114	
99472	182	915015	145	919080		931026	144	935115	
99473	182	915016	145	919090		931027	144	935116	
99474	182	915021	145	919095		931071	144	935117	
99475	182	915022	145	919100		931072	144	935121	
99476	182	915024	145	919105		931073	144	935122	
99477	182	915025	145	919110		931074	144	935124	
99490	227	915071	145	919115		931075	144	935125	
99901	248	915072	145	919120		931076	144	935126	
99902	248	915074	145	919130		931077	144	935127	
99903	248	915075	145	919140		931111	144	935171	
99904	248	916011	145	920014		931112	144	935172	
99906	248	916012	145	921011	146	931113	144	935174	
99907	248	916014	145	921014	146	931114	144	935175	5 144

Part No.	Page No.
935176	144
935177	144
935211	144
935212	144
935213	144
935214	144
935215	144
935216	144
935217	144
991212	147
991312	147



A		B (Cont.)		B (Cont.)	
Absorbent		Banjo Bolts/Fittings		Bolt(s) (Cont.)	
Mats/Pads		Barrel Pump	216	Center Caps	
Powder		Battery		Countersunk	
Access Panels	17	Boxes	65	Cylinder Head	
Accessory Clamps	46	Cable Kits	65	Hex Head	
Air		Cable Terminals	66	Intake Manifold	
Hose	224-225	Cable Thru-Stud	66	Jack	180-181
Jacks		Charging Posts		Load Bolt	181
Pans		Charging Post Bracket.		Rotor	19
Regulators		Disconnect Switch		Socket Head	100
Rivet Guns		Hold Down (Optima)		Sway Bar	182
Tanks		Quick Disconnects		Boot, Shifter	236
Air Cleaner(s)		Terminals		Bottle Brackets	45
Covers		Terminal Covers		Bracket(s)	
Nuts/Studs		Bead Breakers		Accessory	46
Air Filter Element(s)		Bell Cranks, Throttle		Ballast	
				Caliper	
Sealing Foam		Bellhousing		Charging Posts	
Alternators	09	Bellhousing Dowel Pins	239	Control Arm	
Aluminum	00	Belt(s)	50	Fire Extinguisher	
Angle and Flat Stock		Gilmer		Fuel Cell Mounting	
Sheet Metal		Seat		Fuel Filter	
Strapping		Torque Tube		Nitrogen Bottle	
Tubing		V-Groove		Over ow Tank	
Apron		Bench Yoke	234	Panhard Bar	
Arm Restraints		Bert Transmission			
Axle(s)	134-135	Ball Spline Ball Kit	239	Power Steering Pump .	
Bearing	134	Clevis Kit	236	Power Steering Tank	
C-Clips	140	Clutch Discs	239	Quick Turn Fasteners	
Front (Sprint)	158	Shifter	236	Seat Mounts	
Housings		Tool	239	Shock	
Housing Ends		Birdcages	162, 200	Spoiler	
Housing Seal		Birdcage Bearings		Steering Column	
Nut Wrench (Sprint)		Blanket(s)		Steering Quickener	
Plug		Moving/Utility	223	Tie Down	
Puller, T-Handle		Torque Ball (Safety)		Trailing Arm	
Retainers		Transmission (Safety)		Transmission Mount	239
Straps		Bleeder Bottles		Universal	
Tubes		Bleeder Screws		Braided Hose Cutter	209
Tube Seals		Blower Fan		Braided Steel Lines	111-115
Tube Tool		Duct	22	Brake	
1006 1001	204	Helmet		Bias Adjusters	25
В		Radiator		Bias Gauges	
=	104	Body	210	Bleeder Bottles	
Backing Plate Bolts		/	00	Boosters	
Backpack		Bolts		Calipers	
Back-Up Washers		Braces		Caliper Bolts	
Balance Plate		Graphic Tool		Caliper Brackets	
Ballast		Radius Tool		Caliper Spacers	
Brackets		Reinforcing Plates		Combination Valve	
Ball Joint(s)		Roller		Combination Valve Bra	
Adapter Bushing		Strapping		Combination Valve Blee	
Holders		Support Panels	11		
Sleeves		Bolt(s)		Ducts	
Spreader Tool	207	Backing Plate		Duct Blower	
Taper Reamer		Beadlock		Duct Flange	
Wrench		Body	99	Duct Hose	
Ball Spline Ball Kit	239	Button Head	100	Fittings	
Band Clamps		Caliper		Fluid	21



B (Cont.)	C (Cont.)	C (Cont.)
Brake (Cont.)	Camshaft (Cont.)	Control Arm(s) (Cont.)
Hose Kits115	Locking Plate81	Shims
Kits, Disc21	Seal Plates81	Crankshaft
Light Switches24	Caps, Plastic and Aluminum 120	Balancing Plate76
Lines 111-117	Car Covers	Hub81
Line Adapters/Fittings 110-111	Carburetor	Keys81
Line Defl ctors19	Bushing Kits 128	Pulley Mandrel Kit56
Line Display Rack116	Fittings 124	Socket
Line Flaring Tool210	Gaskets 126	Crankcase Evacuation System 86
Line Kits115	Hats215	Crayons, Tire226
Line Lock Kit25	Hold Down Nuts126	Cross Pins 140
Master Cylinder23	Line/Log Kits 124	Crush Washers110
Pedal Assemblies23	Linkage Kits 128-129	Cylinder Head
Pedal Clevises23	Return Springs 128	Bolts84
Pedal Mounts22-23	Shear Plates 126	Dowel Pins84
Pressure Gauges25	Spacers 125-126	
Proportioning Valve24	Stand 215	D
Quick Disconnects113	Caster Plate232	Dash Panels16
Remote Reservoir23	Caster Wheels211	Deburring tool204
Residual Valves24	Catalog Rack250	Degreaser 47
Rotors18-19	C-Clips 140	Dial/Digital Calipers209
Rotor Bolt Kit19	Centerlinks 168	Dial Indicator209
Rotor Hats19	Charging Post(s)69	Dial-In Board13
Shut-Off Valves25	Mounting Bracket69	Dial-In Window Marker47
Breathers83	Chassis Dollies224	Diamond Plate, Aluminum9
Breather Covers83	Chassis Set-Up Blocks232	Diaper Pins 105
Breather Tanks 79, 143	Chassis Tie Down Brackets 41	Digital Level204
Broom Holder221	Chrome Moly Tubing37	Dipsticks, Transmission237
Bulbs, LED70	Circuit Breaker64	Disc Brake Kits21
Bulkhead Fittings 107-108, 111, 114	Clamp-On Rings 199	Disconnect Switches, Battery 67
Bumper(s)26-29	Cleaning Discs209	Distributor(s)
Covers28-29	Cleaning Wipes220	Gasket85
Hook Up Kit27	Cleco	Gears73
Bump Rubbers/Stops 184-185	Fasteners206-207	Hold Downs73
Bump Steer Studs 171	Pliers206	Dollies
Bump Steer Spacers 170	Clevises 177	Chassis224
Bungs	Clock249	Engine211
Weld-In 109	Clutch	Door Bars33
0286	Alignment Tools238	Door Bar Clamp33
Burst Panel Components125	Discs, Bert239	Door Bar Padding 150
Buss Bars64	Lines115	Door Bar Swing-Out Kit33
	Coil Mounts75	Door Plate33
C	Coil-Over Shock	Double Adjusters177, 180
Cable Tie(s)	Bearing Kit186	Dowel Pins, Bellhousing239
Mounting Bases93	Eliminators187	Down Nozzle.
Nylon93	Kits186	Breather Ring 155
Stainless Steel93	Load Bolt Assembly 199	Plugs 155
Tool93	Spring Adapter (5") 186	D-Rings222
Caliper(s)	Spring Adjuster, Hydraulic 187	D-Ring Backing Plate222
Bolts	Coil Spring	Drag Links160
Brake	Cups 181	Drag Link Tether160
Brackets20	Shims 181	Drain Pans235
Dial/Digital209	Spacers 186	Drain Plug
Fittings110-111	Compression Tester214	Drill Bit(s)
Spacers 19	Control Arm(s) 177, 179-180	Double Ended205
Camshaft	Brackets/Mounts178	Flange Rivet205
Bearing Tool212	Bushings178-179	Spring Steel205
Button Spacers81	Limit Clamps180	Step205



D (Cont.)	F (Cont.)	F (Cont.)	
Drill Bit(s) (Cont.)	Feeler Gauges 213	Fuel (Cont.)	_
Wheel Stud205	Fender Braces12	Dry Break Valves13	
Drill Holders221	Fender Washers98	Filters12	
Drink Bottle Kit148	Files, Thread208	Filter Brackets12	
Drive Flange Gaskets 137	Fill Line Kit143	Fragrances4	
Driver Air System 147	Fill Tanks143	Injection Fittings 12	4
Driving Suits144	Filler Cap Kit109	Line116, 11	8
Driving Gloves145	Filter	Line Kits, Carb12	
Driving Shoes146	Air8	Logs12	4
Driveshaft Loops142	Breather83	Lubricant4	9
Drum Pump 216	Fuel123	Pressure Gauges70, 12	4
Dry Break Valves130	Oil76	Pressure Regulator12	2
Duct Blower22	Fin Comb218	Pressure Reg. Brackets12	2
Durometer 226	Fire Extinguisher Mount Brackets 151	Primer Bottle21	6
Dust Caps 132	Fire Suits144	Pumps 12	2
	Firewall Cable Bushing66	Pump Block-off Plates 12	2
E	Fitting(s)	Pump Gaskets8	5
Earplugs 218	Brake 110-111	Pump Mounting Plate12	
Electrical Connectors61-62	Carburetor 124	Shut-Off Valve 12	
Electrical Outlet(s)69	Fuel Injection 124	Funnels21	
Mounting Brackets69	Inverted Flare111	Fuses6	4
Electrical	NPT108, 110	Fuse Terminals6	4
Pliers217	Oil Inlet120	Fuse Block6	
Relay64	Power Steering166		
Tape220	Radiator50, 59	G	
Wire60	Reducer, AN107	Gas Pedals (Throttle)12	9
Emery Cloth208	Flange Bearing165	Gasket(s)	-
Engine	Flaring Tool210	Carburetor12	6
Conversion Kits91	Flexplates238	Distributor8	
Cover85	Floor Jack223	Engine8	
Cradles211	Floor Plates31	Ford 9"14	
Cradle Wheel Kits211	Flywheel Locking Tool214	Fuel Pump8	
Diapers	Fogging Oil49	Header8	
Lift Handles211	Ford 9"	Oil Pan8	
Lift Plates212	Axles134-135	Quick Change Cover 13	
Mid-Plates87	Axle Housing Seal 135	Thermostat Housing8	
Motor Plates87	Axle Retainers 134	Valve Cover8	
Mounts 88-89	Backing Plate T-Bolts134	Gauge(s)	_
Primer Tank212	Gasket140	Brake Pressure2	5
Evacuation System, Crankcase 86	Housings 133-134	Feeler21	
Exhaust	Housing Ends134	Lines11	
Block Off Plates85	Housing Studs140	Mechanical5	
Cut Outs (Electric)86	Pinion Centering Jig234	Panels7	
Gaskets85	Pinion Nuts141	Sending Units7	
Hangers86	Pinion Support141	Stagger22	
.	Pinion Yokes141	Tire22	
Shields86	Truss Support		U
Wrap86	Frame Repair Plate34	Gear(s) Distributor7	2
E	Freeze Plug Driver		
Fabrication Pencil205	Fuel	Marking Compound	
		Ring and Pinion	
Fan(s)	Cell Cap and Bung130 Cell Guard45	Totes	
Blower		Tote Trays23	
Electric53	Cell Mounting Prockets 130 157	Gear Drive8	
Mechanical54	Cell Mounting Brackets 130, 157	Gilmer Belts5	0
Reinforcement Plate54	Cell Top Plate Hardware 157	Gloves	_
Shrouds	Check Valve	Disposable21	
Spacers 54	Drum Pump	Driving 14	\sim



G (Cont.)	H (Cont.)	J (Cont.)
Gloves (Cont.)	Honeycomb51	
Work218	Hood Hinge Kits15	Junction Block64
Graphic Trim Tool204	Hood Pin	
Grease	Kits14	
Gun/Tips209	Mounts/Adapters14	
High-Pressure131	Supports14	
Remover/Cleaner47	Hood Prop	
Wheel Bearing 131	Hood Scoops 13	
Grommets62	Hose(s)	L
Ground Clearance Indicator 182	Air224-225	
Ground Straps66	Assembly Tools209	
Ground Stud65	Brake Duct22	
Guide Plates84	Clamps 58, 105	
Gussets40	Cutter209	
	Helmet Vent149	1 440
Н	Fittings106-109	
Half Clamps46	Fuel118	011401 200
Hat(s)	Radiator58	
Baseball248	Reducer58	
Beanie248	Restrictor58	
Carb215	Vacuum118	
Rotor19	Housing Stud Kit, Ford 9" 140	Lift Bar Retainer Clamp 198
Header Tab Kit86	Hub(s)	Lift Handles211
Header Gaskets85	Covers 132	Ent i latoo, Engino
Header Wrap86	Seals132	
Headlight Decal Kits28-29	5x5131	Lifter Valley Vents79
Heat Shrink63		Light Bulbs70
Heat Sleeve60	I	Limiter Chain 199
Heat Wrap86	Idle Speed Adjuster 129	Elimiter Chain Clamps 180, 199
Heaters	Idler Arms168	
Immersion78	Ignition Box Mount75	Line Lock Kit25
Pads78	Ignition Coil75	
Heel Riser129	Ignition Coil Mounts75	Load Bolts 180-181
HEI Distributors73	Ignition Panels71	
HEI Mechanical Advance Kit73	Impact Crimper217	7 Sleeves 180
HEI Wire Connectors73	Indicator Lights71	
Heims (See Rod Ends)	In-line Duct Blower22	
Helmet	In-Line Thermostat Housing 57	
Blower System 148-149	Inner Mud Shield241	
Dryer 147	Intake Manifold Bolt Kit84	
Hooks 147	Inverted Flare Fittings111	Lug Nuts242
Skirts 147	Inverted Flare Nuts116	Lug Wrenches242
Supports147		
Vent Hose149	J	M
Vent149	Jacks	Magnets 214
Hinges, Aluminum117	Air224	man cap nomeral recimination 212
Holder(s)	Pit223	
Aerosol Can221	Jack Bolts180	
Ball Joint177	Jam Nuts 180	
Broom221	Plate180) Master Cylinder(s)23
Drill221	Sleeves 180	Reservoirs23
Nitrogen Bottle225	Jack Post Kit, Right Hand34	Mat, Absorbent221
Paper Towel220	Jack Post Quick Change 137	
Radiator218	Jack Stands223	
Rod and Piston212	Jacobs Ladders 163	
Tire Gauge226	Pin Kits 163	Metal Snips204
Hole Saws204	Jam Nuts196	



Mid-Plates 87 Mini-Spools 140 Mirrors, Rear View 150 Mirror, Telescoping 214	0 (Cont.)	P (Cont.)
Mirrors, Rear View	Oil Eater47	Primer Bottle 216
Mirror, Telescoping214	Over ow	Proportioning Valve24
Mirror, Telescoping214	Check Valves (Fuel) 130	Pull Bar(s) 192-193
Maria Dall Danillana 400	Fitting59	Brackets 191
Mono Ball Bearings 196	Nozzle58	Covers 192
Morse Cable Clamps237	Tanks59	Pulley(s)
Motor Mount(s) 88-89	Tank Brackets59	Aluminum55-56
Spacers89		Shims55
Motor Plates87	P	Punch and Flare Tools204
Moving Blanket223	Padding	Pushrod Guide Plates84
MSD Box Mount75	Door Bar 152	rusiliou duide riales04
Mud Plugs 241	Roll Bar152	0
Mud Scraper	Paint Markers226	Quick Change
Mud-X47	Panhard Bar(s)190	Axles135
	Adjusters 190-191	Axle Tubes
N	Brackets/Mounts190-191	
Nitrogen Bottles 224	Pedal Extensions22	Axle Tube Support Brackets 199
Nitrogen Bottle Holder225	Pedal Plate, Floor22	Axle Tube Tool
Nitrous Bottle Warmer 125	Peg Hooks250	Cover Gasket
Nitrous Combination Wrench 216	Petcock110	Cover Nuts
Nitrous Pressure Control Kits 125	Pilot Bearings/Bushings238	Drain Pan235
Nitrous Switches (WOT)	Installation Tool238	Gear Tote235
	Pinion	Oil Plug Socket234
Non-Skid Tape219		Side Bell O-Ring137
Nosepieces	Centering Jig234	Quick Disconnects, Battery71
Nose Supports29-30	Nuts141	Quick Disconnect Fittings115
Nose Wing Posts	Seals141	Quick Release Pin(s)103
Nose Wing Wall Mount221	Support141	Lock Collar103
Notcher, Tubing204	Yokes141	Throttle End128
Novus Cleaner and Polish47	Yoke Wrench234	Quick Turn
Nuts	Pit	Fasteners94-96
Air Cleaner7	Cart223	Insert Plates97
Carburetor 126	Jacks223	Mounting Brackets96
Hex101	Mats223	Reinforcing Plates97
Insert97	Sockets225	Spring Adjuster207
Jam196	Pitman Arm(s)	Spring Fixture207
Lug242	Nut Kit168	Tool207
Pinion141	Plastic	Transfer Punches207
Spindle 132	Rolled/Sheets10	
Weld-on40	Caps and Plugs 120	R
	Plastigage212	Racers Tape219
0	Pliers	Rack and Pinion Spacers 170
O2 Sensor Plug and Bung86	Cleco206	Radiator(s)50-52
○: I	Electrical217	Air Scoop154
Oil	Safety Wire208	Caps53
Bottle Tray221	Polycarbonate Sheet(s) 10	
Bottle Tray		Fan Shroud 53-54
Bottle Tray221	Cleaner 47	Fan Shroud 53-54 Fin Comb 218
Bottle Tray		Fin Comb218
Bottle Tray 221 Coolers 78-79 Cooler Scoop 78	Cleaner 47	Fin Comb218 Fittings50
Bottle Tray 221 Coolers 78-79 Cooler Scoop 78 Filter 76	Cleaner 47 Port and Polish Kit 213	Fin Comb
Bottle Tray 221 Coolers 78-79 Cooler Scoop 78 Filter 76 Filter Adapters 77	Cleaner 47 Port and Polish Kit 213 Power Brake Boosters 23	Fin Comb 218 Fittings 50 Honeycomb 51 Hoses 58
Bottle Tray 221 Coolers 78-79 Cooler Scoop 78 Filter 76 Filter Adapters 77 Filter Cutter 212 Galley Plugs 78 Heaters 78	Cleaner	Fin Comb 218 Fittings 50 Honeycomb 51 Hoses 58 Hose Clamps 58
Bottle Tray 221 Coolers 78-79 Cooler Scoop 78 Filter 76 Filter Adapters 77 Filter Cutter 212 Galley Plugs 78	Cleaner 47 Port and Polish Kit 213 Power Brake Boosters 23 Power Steering 165	Fin Comb 218 Fittings 50 Honeycomb 51 Hoses 58 Hose Clamps 58 Mounting Brackets 50
Bottle Tray 221 Coolers 78-79 Cooler Scoop 78 Filter 76 Filter Adapters 77 Filter Cutter 212 Galley Plugs 78 Heaters 78	Cleaner 47 Port and Polish Kit 213 Power Brake Boosters 23 Power Steering 165 Fittings 166	Fin Comb 218 Fittings 50 Honeycomb 51 Hoses 58 Hose Clamps 58 Mounting Brackets 50 Over ow Tanks 59
Bottle Tray 221 Coolers 78-79 Cooler Scoop 78 Filter 76 Filter Adapters 77 Filter Cutter 212 Galley Plugs 78 Heaters 78 Inlet Fittings 77	Cleaner 47 Port and Polish Kit 213 Power Brake Boosters 23 Power Steering 165 Fittings 166 Hose Kits/Fittings 165	Fin Comb 218 Fittings 50 Honeycomb 51 Hoses 58 Hose Clamps 58 Mounting Brackets 50 Over ow Tanks 59 Rock Screen 51
Bottle Tray 221 Coolers 78-79 Cooler Scoop 78 Filter 76 Filter Adapters 77 Filter Cutter 212 Galley Plugs 78 Heaters 78 Inlet Fittings 77 Pan and Pick-Up 76	Cleaner 47 Port and Polish Kit 213 Power Brake Boosters 23 Power Steering 165 Fittings 166 Hose Kits/Fittings 165 Pump 164	Fin Comb 218 Fittings 50 Honeycomb 51 Hoses 58 Hose Clamps 58 Mounting Brackets 50 Over ow Tanks 59 Rock Screen 51 Shaker Screen 51
Bottle Tray 221 Coolers 78-79 Cooler Scoop 78 Filter 76 Filter Adapters 77 Filter Cutter 212 Galley Plugs 78 Heaters 78 Inlet Fittings 77 Pan and Pick-Up 76 Pan Gaskets 85	Cleaner 47 Port and Polish Kit 213 Power Brake Boosters 23 Power Steering 165 Fittings 166 Hose Kits/Fittings 165 Pump 164 Pump Brackets 164	Fin Comb 218 Fittings 50 Honeycomb 51 Hoses 58 Hose Clamps 58 Mounting Brackets 50 Over ow Tanks 59 Rock Screen 51



Radus Pod Studs	R (Cont.)	S (Cont.)	S (Cont.)
Reamer/Taper. 207	Radius Rod Studs162	Schrader Valves247	Shock (Cont.)
Reamer/Taper	Ratchet Binder/Straps222	Scoop(s)	Infla ion Tool233
Bearing and Shim kits	•	Dragster13	Protector 187
Fill Tanks	·	· ·	Quick Pins 189
Fill Tanks	Bearing and Shim Kits138	Mounts13	Racks233
Gear Sets. 139			Shims185
Station Brackets			Spacers 197
Station Brackets			Travel Indicator 182
Truss Support		•	Workstation233
Rear Main Seal Adapters			Shop Towels220
Rear Tank Guard			
Reducer Bushings	·		Side Bell O-Ring139
Reducer Fittings		Seal(s)	Sipers, Tire228
Refl ctive Tape		• ,	
Relays			Slider Box(es)201
Remote Fill Tanks.		Pinion141	Adjuster 201
Remote Reservoir. 23, 163 Timing Cover .80-81 Smart Tool .204			
Remote Starter	Remote Reservoir23, 163	-	Smart Tool204
Residual Check Valves	· · · · · · · · · · · · · · · · · · ·	_	Snouts138
Return Springs		Mount Kits/Brackets 33, 151	Soap/Cleaners47
Ride Height Blocks	Return Springs 126-128		Sockets
Ride Height Set-Up Stick 233			Crank214
Installation Kits	· ·	` '	Lug/Pit225
Šet 139 Sending Units 70 Shock Eye. 233 Installation Kits 138 Set Screws 100 Spindle Nut 234 Ring Gear Spacer 139 Set-Up Soler Slugs. 66 Ring Terminals 62, 66 Blocks. 232 Spolder Slugs. 68 Rivets 90-92 Book 210, 231 Jumper Wire 68 Rivet Guns 206 Plates 232 Spacer(s) Rocker Arm Studs 84 Stick. 233 Bolt 102 Rock Screen 16, 51 Shackles, Leaf Spring. 203 Caliper 19 Rod Ends 103 Shaker Screen .53 Crank Mandrel. 56 Rod Ends 103 Shaker Screen .53 Crank Mandrel. 56 Rod End Bushings/Spacers 102 Shear Plates 126 Engine/Motor Mount 89 Rod End Bushings/Spacers 102 Shear Plates 126 Fan. 54 Rod End Centering Too			
Installation Kits			
Ring Gear Spacer			
Ring Terminals			
Rivets 90-92 Book 210, 231 Jumper Wire 68		•	
Rivet Guns			
Rocker Arm Studs 84 Stick 233 Bolt 102 Rock Screen 16, 51 Shackles, Leaf Spring 203 Caliper 19 Rod and Piston Holder 212 Shaft Collars 167 Carb 125-126 Rod Ends 103 Shaker Screen 53 Crank Mandrel 56 Rod End Bushings/Spacers 102 Shear Plates 226 Engine/Motor Mount 89 Rod End Bushings/Spacers 102 Shear Plates 126 Fan 54 Rod End Centering Tools 232 Sheet Metal 9 Rack and Pinion 170 Rod Guide Tool 212 Shifter(s) 236 Rod End 102 Rod Guide Tool 212 Shifter(s) 236 Rod End 102 Rod Guide Tool 212 Arm 236 Rod End 102 Rod Guide Tool 212 Arm 236 Rod End 102 Rod Guide Tool 212 Arm 236 Rod End 102			
Rock Screen 16, 51 Shackles, Leaf Spring 203 Caliper .19 Rod and Piston Holder 212 Shaft Collars .167 Carb .125-126 Rod Ends 103 Shaker Screen .53 Crank Mandrel .56 Rod End Kit, Oversize 167 Sharpie Markers .226 Engine/Motor Mount .89 Rod End Bushings/Spacers 102 Shear Plates .126 Fan .54 Rod End Centering Tools .232 Sheet Metal .9 Rack and Pinion .170 Rod End Could Tool .212 Shifter(s) .236 Rod End .102 Roll Bar/Cage Kit(s) .31-32 Arm .236 Rod End .102 Front Arch Support .34 Boot .236 Tapered .102 Front Support Kit .34 Cable .237 Thermostat Housings .57 Installation Kit .31 Shim(s) .70 Upper Link Kit .192 Roll Bar Padding .152 Control Arm			Bolt 102
Rod and Piston Holder 212 Shaft Collars 167 Carb 125-126 Rod Ends 103 Shaker Screen .53 Crank Mandrel .56 Rod End Kit, Oversize 167 Sharpie Markers 226 Engine/Motor Mount .89 Rod End Bushings/Spacers 102 Shear Plates 126 Fan .54 Rod End Centering Tools 232 Sheet Metal 9 Rack and Pinion .170 Rod Guide Tool 212 Shifter(s) 236 Rod End .102 Roll Bar/Cage Kit(s) 31-32 Arm 236 Shock 90/10 Kit 192 Front Arch Support Kit .34 Boot 236 Tapered .102 Front Support Kit .34 Cable .237 Thermostat Housings .57 Installation Kit .31 Shim(s) Tie Rod .170 Rear Support Kit .34 Bump steer .170 Upper Link Kit .192 Roof(s) .16 Pulley .57 Spark Plug			Caliper 19
Rod Ends 103 Shaker Screen 53 Crank Mandrel 56 Rod End Kit, Oversize 167 Sharpie Markers 226 Engine/Motor Mount 89 Rod End Bushings/Spacers 102 Shear Plates 126 Fan 54 Rod End Centering Tools 232 Sheet Metal 9 Rack and Pinion 170 Rod Guide Tool 212 Shifter(s) 236 Rod End 102 Roll Bar/Cage Kit(s) 31-32 Arm 236 Shock 90/10 Kit 192 Front Arch Support 34 Boot 236 Tapered 102 Front Support Kit 34 Cable 237 Thermostat Housings 57 Installation Kit 31 Shim(s) Tie Rod 170 Rear Support Kit 34 Bump steer 170 Upper Link Kit 192 Rolf Bar Padding 152 Control Arm 178 Wheel 170 Roof(s) 16 Pulley 57 Spark Plug Spark Plug <td></td> <td>Shaft Collars167</td> <td></td>		Shaft Collars167	
Rod End Kit, Oversize 167 Sharpie Markers 226 Engine/Motor Mount .89 Rod End Bushings/Spacers 102 Shear Plates .126 Fan. .54 Rod End Centering Tools 232 Sheet Metal .9 Rack and Pinion .170 Rod Guide Tool .212 Shifter(s) .236 Rod End .102 Roll Bar/Cage Kit(s) .31-32 Arm .236 Shock 90/10 Kit .192 Front Arch Support .34 Boot .236 Tapered .102 Front Support Kit .34 Boot .236 Tapered .102 Installation Kit .31 Shim(s)			Crank Mandrel56
Rod End Bushings/Spacers 102 Shear Plates 126 Fan .54 Rod End Centering Tools .232 Sheet Metal .9 Rack and Pinion .170 Rod Guide Tool .212 Shifter(s) .236 Rod End .102 Roll Bar/Cage Kit(s) .31-32 Arm .236 Shock 90/10 Kit .192 Front Arch Support .34 Boot .236 Tapered .102 Front Support Kit .34 Cable .237 Thermostat Housings .57 Installation Kit .31 Shim(s) Tie Rod .170 Rear Support Kit .34 Bump steer .170 Upper Link Kit .192 Roll Bar Padding .152 Control Arm .178 Wheel .170 Roof(s) .16 Pulley .57 Spark Plug .170 Cap .16 Shock .185 Boot Protectors .74 Support .16 Shipping Tape .219 Gap Tool .213			Engine/Motor Mount89
Rod End Centering Tools 232 Sheet Metal 9 Rack and Pinion 170 Rod Guide Tool 212 Shifter(s) 236 Rod End 102 Roll Bar/Cage Kit(s) 31-32 Arm 236 Shock 90/10 Kit 192 Front Arch Support 34 Boot 236 Tapered 102 Front Support Kit 34 Boot 236 Tapered 102 Front Support Kit 34 Cable 237 Thermostat Housings 57 Installation Kit 31 Shim(s) Tie Rod 170 Rear Support Kit 34 Bump steer 170 Upper Link Kit 192 Roll Bar Padding 152 Control Arm 178 Wheel 170 Roof(s) 16 Pulley 57 Spark Plug Spark Plug Cap 16 Shock 185 Boot Protectors 74 Support 16 Shipping Tape 219 Gap Tool 213 Runout Checker			
Rod Guide Tool 212 Shifter(s) 236 Rod End 102 Roll Bar/Cage Kit(s) .31-32 Arm 236 Shock 90/10 Kit 192 Front Arch Support .34 Boot 236 Tapered 102 Front Support Kit .34 Cable 237 Thermostat Housings .57 Installation Kit .31 Shim(s) Tie Rod .170 Rear Support Kit .34 Bump steer .170 Upper Link Kit .192 Roll Bar Padding .152 Control Arm .178 Wheel .170 Roof(s) .16 Pulley .57 Spark Plug Spark Plug Cap .16 Shock .185 Boot Protectors .74 Support .16 Shipping Tape .219 Gap Tool .213 Runout Checker .209 Shock .187 Indexing Shims .74 Safety Glasses .218 Bump Spring Cups .184 Wire Iooms .74 S			Rack and Pinion 170
Roll Bar/Cage Kit(s) 31-32 Arm 236 Shock 90/10 Kit 192 Front Arch Support 34 Boot 236 Tapered 102 Front Support Kit 34 Cable 237 Thermostat Housings 57 Installation Kit 31 Shim(s) Tie Rod 170 Rear Support Kit 34 Bump steer 170 Upper Link Kit 192 Roll Bar Padding 152 Control Arm 178 Wheel 170 Roof(s) 16 Pulley 57 Spark Plug Spark Plug 57 Cap 16 Shock 185 Boot Protectors 74 Support 16 Shipping Tape 219 Gap Tool 213 Runout Checker 209 Shock Indexing Shims 74 Safety Glasses 218 Bump Rubbers 188 Wire looms 74 Safety Wire 208 Bump Rubbers 184-185 Wire Retainers 74 Orill Fixture			Rod End102
Front Arch Support 34 Boot 236 Tapered 102 Front Support Kit 34 Cable 237 Thermostat Housings 57 Installation Kit 31 Shim(s) Tie Rod 170 Rear Support Kit 34 Bump steer 170 Upper Link Kit 192 Roll Bar Padding 152 Control Arm 178 Wheel 170 Roof(s) 16 Pulley 57 Spark Plug 57 Cap 16 Shock 185 Boot Protectors 74 Support 16 Shipping Tape 219 Gap Tool 213 Runout Checker 209 Shock Indexing Shims 74 Boot 187 Brackets 188 Wire looms 74 Safety Glasses 218 Bump Rubbers 184-185 Wire Retainers 74 Safety Wire 208 Bump Spring Cups 184 Wire Sets 74 Drill Fixture 208 Canister Mounts		Arm236	Shock 90/10 Kit 192
Front Support Kit 34 Cable 237 Thermostat Housings 57 Installation Kit 31 Shim(s) Tie Rod 170 Rear Support Kit 34 Bump steer 170 Upper Link Kit 192 Roll Bar Padding 152 Control Arm 178 Wheel 170 Roof(s) 16 Pulley 57 Spark Plug Cap 16 Shock 185 Boot Protectors 74 Support 16 Shipping Tape 219 Gap Tool 213 Runout Checker 209 Shock Indexing Shims 74 Boot 187 Brackets 188 Wire looms 74 Safety Glasses 218 Bump Rubbers 184-185 Wire Retainers 74 Safety Wire 208 Bump Spring Cups 184 Wire Sets 74 Drill Fixture 208 Canister Mounts 183 Spindle(s) 171-172 Twister Pliers 208 Covers			Tapered 102
Installation Kit			Thermostat Housings57
Rear Support Kit 34 Bump steer 170 Upper Link Kit 192 Roll Bar Padding 152 Control Arm 178 Wheel 170 Roof(s) 16 Pulley 57 Spark Plug Spark Plug Spark Plug Spark Plug Boot Protectors 74 Spark Plug Spark Plug <t< td=""><td>Installation Kit31</td><td></td><td>Tie Rod 170</td></t<>	Installation Kit31		Tie Rod 170
Roll Bar Padding 152 Control Arm 178 Wheel 170 Roof(s) 16 Pulley 57 Spark Plug Cap 16 Shock 185 Boot Protectors 74 Support 16 Shipping Tape 219 Gap Tool 213 Runout Checker 209 Shock Indexing Shims 74 Boot 187 Indexing Tools 74 Safety Glasses 218 Bump Rubbers 184 Wire looms 74 Safety Wire 208 Bump Rubbers 184 Wire Retainers 74 Drill Fixture 208 Canister Mounts 183 Spindle(s) 171-172 Twister Pliers 208 Covers 184-185 Checkers 207 Sanding Discs 208, 229 Extensions 186 Ducts 22 Scale Buddy 210 Eye Socket 233 Nut Kits 132		• •	Upper Link Kit 192
Roof(s) 16 Pulley 57 Spark Plug Cap 16 Shock 185 Boot Protectors 74 Support 16 Shipping Tape 219 Gap Tool 213 Runout Checker 209 Shock Indexing Shims 74 Boot 187 Indexing Tools 74 Safety Glasses 218 Bump Rubbers 188 Wire looms 74 Safety Wire 208 Bump Rubbers 184-185 Wire Retainers 74 Safety Wire 208 Canister Mounts 183 Spindle(s) 171-172 Twister Pliers 208 Covers 184-185 Checkers 207 Sanding Discs 208, 229 Extensions 186 Ducts 22 Scale Buddy 210 Eye Socket 233 Nut Kits 132			
Cap 16 Shock 185 Boot Protectors 74 Support 16 Shipping Tape 219 Gap Tool 213 Runout Checker 209 Shock Indexing Shims 74 Boot 187 Indexing Tools 74 Safety Glasses 218 Bump Rubbers 188 Wire looms 74 Safety Wire 208 Bump Rubbers 184-185 Wire Retainers 74 Drill Fixture 208 Canister Mounts 183 Spindle(s) 171-172 Twister Pliers 208 Covers 184-185 Checkers 207 Sanding Discs 208, 229 Extensions 186 Ducts 22 Scale Buddy 210 Eye Socket 233 Nut Kits 132			Spark Plug
Support 16 Shipping Tape 219 Gap Tool 213 Runout Checker 209 Shock Indexing Shims 74 Boot 187 Indexing Tools 74 Safety Glasses 218 Brackets 188 Wire looms 74 Safety Wire 208 Bump Rubbers 184-185 Wire Sets 74 Drill Fixture 208 Canister Mounts 183 Spindle(s) 171-172 Twister Pliers 208 Covers 184-185 Checkers 207 Sanding Discs 208, 229 Extensions 186 Ducts 22 Scale Buddy 210 Eye Socket 233 Nut Kits 132	* *		Boot Protectors 74
Runout Checker 209 Shock Indexing Shims 74 Boot 187 Indexing Tools 74 Safety Glasses 218 Brackets 188 Wire looms 74 Safety Wire 208 Bump Rubbers 184-185 Wire Retainers 74 Drill Fixture 208 Canister Mounts 183 Spindle(s) 171-172 Twister Pliers 208 Covers 184-185 Checkers 207 Sanding Discs 208, 229 Extensions 186 Ducts 22 Scale Buddy 210 Eye Socket 233 Nut Kits 132	·		Gap Tool 213
S Boot 187 Indexing Tools 74 Safety Glasses 218 Bump Rubbers 188 Wire looms 74 Safety Wire 208 Bump Rubbers 184-185 Wire Retainers 74 Drill Fixture 208 Bump Spring Cups 184 Wire Sets 74 Drill Fixture 208 Canister Mounts 183 Spindle(s) 171-172 Twister Pliers 208 Covers 184-185 Checkers 207 Sanding Discs 208, 229 Extensions 186 Ducts 22 Scale Buddy 210 Eye Socket 233 Nut Kits 132			Indexing Shims74
S Brackets 188 Wire looms 74 Safety Glasses 218 Bump Rubbers 184-185 Wire Retainers 74 Safety Wire 208 Bump Spring Cups 184 Wire Sets 74 Drill Fixture 208 Canister Mounts 183 Spindle(s) 171-172 Twister Pliers 208 Covers 184-185 Checkers 207 Sanding Discs 208, 229 Extensions 186 Ducts 22 Scale Buddy 210 Eye Socket 233 Nut Kits 132		Boot187	
Safety Glasses 218 Bump Rubbers 184-185 Wire Retainers 74 Safety Wire 208 Bump Spring Cups 184 Wire Sets 74 Drill Fixture 208 Canister Mounts 183 Spindle(s) 171-172 Twister Pliers 208 Covers 184-185 Checkers 207 Sanding Discs 208, 229 Extensions 186 Ducts 22 Scale Buddy 210 Eye Socket 233 Nut Kits 132	S		
Safety Wire 208 Bump Spring Cups 184 Wire Sets 74 Drill Fixture 208 Canister Mounts 183 Spindle(s) 171-172 Twister Pliers 208 Covers 184-185 Checkers 207 Sanding Discs 208, 229 Extensions 186 Ducts 22 Scale Buddy 210 Eye Socket 233 Nut Kits 132	_		
Drill Fixture 208 Canister Mounts 183 Spindle(s) 171-172 Twister Pliers 208 Covers 184-185 Checkers 207 Sanding Discs 208, 229 Extensions 186 Ducts 22 Scale Buddy 210 Eye Socket 233 Nut Kits 132		•	Wire Sets 74
Twister Pliers 208 Covers 184-185 Checkers 207 Sanding Discs 208, 229 Extensions 186 Ducts 22 Scale Buddy 210 Eye Socket 233 Nut Kits 132			
Sanding Discs 208, 229 Extensions 186 Ducts 22 Scale Buddy 210 Eye Socket 233 Nut Kits 132			
Scale Buddy 210 Eye Socket 233 Nut Kits 132			
= 10 000.00 = 000.00	_		
	, <u>-</u>	,	Nut Socket234



S (Cont.)	S (Cont.)	T (Cont.)
Spindles (Cont.)	Stretch Wrap231	Thread Sealant Tape220
Reamers 207	Surface Guard Tape219	Threaded Tube Ends37
Savers 172	Suspension Limiter 199	Throttle
Spoiler(s) 17	Suspension Limiter Chain 199	Bell Crank 156
Brackets 17	Suspension Set-up Tool 183	Bushings130
Hinges 17	Suspension Tubes 194-195	Cable129
Supports 17	Sway Bar	Linkage Kits128
Spools 140	Adjuster Kits182	Pedals129
Spoons, Tire229	Arms 182	Quick Release Ends 128
Sprayers 218	Bolts 182	Return Springs 128
Spring	Sweatshirts248	Return Springs 126-128
Cups181, 203	Swing Arms201	Tie Down Straps222
Ramp	Switch Panels71	Tie Down Brackets
Pre-loader	T	Tie Rods
Pre-loader Adapter (5") 187	T	Tie Rod Spacer 170
Shims/Spacers181, 186	Tabs, Chassis39	Tie Rod Stud 170
Spring Steel12	Tachometer Mount (Tel Tac)70	Tie Rod Tubes169
Drill205	Tail Light Decal Kit29	Tie Wraps
Punches205	Tailshaft Seal and Bushing239	Mounting Bases93
Shrink Sleeve12	Tank(s)	Nylon93
Stack Stands223	Air 225	Stainless Steel93
Stagger	Breather79, 143	Tool93
Gauge230	Oil Primer212	Timing Chain Cover(s)80-81
Tape226	Overfl w, Radiator59	Gaskets85
Starter(s)68	Power Steering 165	Seals80
Cover68	Remote Fill 145	Timing Pointers81
Solenoid68	Tank Heaters78	Tin Snips204
Switches/Buttons71	Tap(s)208	Tire
Steel	Tape219-220	Bead Breakers229
Angle and Flat Stock38	Gun219	Cleaner47
Balls103	Tape Measures226, 232	Covers231
End Caps40	•	Crayons
•	Taper Reamers	
Plate	Tapered Spacers	Durometer
Tubing36-37	Tear-Off Machine	Gauge246
Steering	Tear-Off Posts 148	Gauge Holder246
Arms, (Sprint Car)	Telescoping	Grinding Discs229
Box Mounts (Sprint Car) 157	Magnet 214	Groovers, Heated230
Centerlinks168	Mirror214	Log Books231
Column Brackets167	Temperature Gauge Adapters59	Log Decals226
Flange Bearing167	Temperature Switches68	Markers246
Loading Coupler166	Temperature Tees120	Needler/Perforator Tool227
Pitman Arms168	Terminal Connectors62	Prep Stands227-228
Quickener Bracket 167	Test Leads61	Sipers228
Rack Boot Cover169	Test Light63	Soap 47
Rod End Kit, Oversize 167	Tether, Drag Link 160	Softener49
Rod End Mounting Tab 167	Thermostat Housing(s)57	Spoons229
Shaft 167	Gasket85	Tape Measure226
Shaft, Collapsible 167	In-line57	Temp Gauge246
Shaft Collar167	Restrictors58	Wrap93
Tie Rod Ends169	Spacer58	Titanium
Wheel Disconnects	Throw-out Bearing Bleeder Kit115	Fastener Kits 155-163
Wheel Extensions	Transmission Coolers237	Toe Plates232
Wheel Bods 166	Threaded Insert Teel 97	Toggle Extensions
Wheel Pads	Threaded Insert Tool	Toggle Switches71
Step Drill Set	Third Link(s)	Tool Tray
Storage Cases	Brackets 191	Top Wing Trees
Storage Tote230	Thread Files208	Torque Ball Blanket155



T (Cont.)		V (Cont.)	W (Cont.)
Torque Converters		Valve	Wheelie Bar Wrenches 216
Torque Tube Belt		Core247	Wide Open Throttle Switch 127
Torsion Arms		Core Tool225	Window Dial-In Marker47
Torsion Arm Stop	161	Lash Wrenches213	Window Net(s) 153
Torsion Arm Stop Kit	161	Seals84	Installation Kits152
Torsion Bar Bushings		Spring Compressor213	Windshield16
Totes		Stem Puller225	Cleaner/Polish
Gear	235	Stems 247	Material10
Storage		Stem Caps	Mounting Kit100
Tow Hooks		Valve Cover(s)82	Support16
Towel(s)		Breathers82	Support Bar33
Holders		Gaskets82	
Track Bar Locator Brackets		Hold Down Fasteners82	Wing
Track Mats			Adjuster, Manual
		V-Belts56	Caps 158
Trailing Arm(s)		W	Cylinders 159
Brackets		Warning Lights70	Cylinder Line Kit 159
Bushings		Washers	Posts
Transfer Punches	207	Back-Up92	Tree159
Transmission		·	Wall Mount Brackets221
Blanket		Crush110 Fender99	Wipes, Hand Cleaning220
Breather Kit			Wire
Dipsticks		Flat 101	Connectors61-62
Mount		Locking101	Cutters217
Stand	211	Water Necks57	Heat Shrink63
Yokes	239	Water Neck Spacer57	Primary60
Trays		Water Pressure Warning Kit70	Loom60
Čan	221	Water Pump(s)55, 57	Pliers217
Gear Tote		Block Adapters57	Safety208
Oil Bottle	221	Cam Stop Kit55	Terminals61-62, 66
Tube Clamps		Gaskets85	Wire Tie(s)
Tube Nuts		Pulley Kits55-56	Mounting Bases93
Tubing	100, 110	Spacer Kits55	Nylon
Aluminum	38	Weather Pack Connector(s) 61	Stainless Steel93
Cutters		Pliers217	Tool93
End Caps		Terminal Tool217	
Notcher		Weight Jack	Wrecker Hook-up Kit27
Steel		Bolts180	Wrench(es)
		Jam Nuts 180	Aluminum Adjustable 216
Threaded Ends	31	Plate180	AN Fitting216
		Sleeves	Ball Joint232
U		Weld Bungs109	Lug225
U-Bolts	000	Weld-On Nuts40	Nitrous Combination 216
Leaf Spring		Wheel	Pinion Yoke234
U-Joint		Adapter243	Quick Turn207
U-Joint(s)		•	Valve Lash213
U-bolt Kits		Bearings	Wheelie Bar203
Umbrella		Bearing Grease	
Underwear		Bearing Seal	Υ
Universal Brackets	45	Bearing Spacer	Yokes239
Upper Link(s)	192-193	Covers/Fasteners240-241	Seals239
Brackets	191	Cover Holder240	Wrench234
Spacer Kits	192	Rim Screws 241	
Upper Lube		Spacers243	Z
Utility Jugs		Studs242	Zip Tie(s)
, ,		Stud Drill Bit242	Mounting Bases93
V		Stud Thread Chaser242	Nylon93
Vacuum Line	118	Wrench (Sprint)225	Stainless Steel93
		Wheelie Bar Wheels203	Tool93
		Bracket Kit42	100193

ALLSTAR PERFORMANCE **Employee R&D Team**



Bob Baldwin



Bob Martin



Brandon Zachary



Brent Abrams



Carly Truhler



Jim Ragosta



Craig Mullauer



Curt Spalding



Brian Robbins



Doug Needles (son Steve)



Nick Burch



Jason Koehler



Nick LeVeck

**ALLSTAR Employee R&D Team



Scott Wahlstrom



Jim Kaekel



Joe Petlick



Kyle Hemenway



Mike Zordan



Matt Kemp



Rich Farnsworth



Ryan Disterheft



Tim Conrad



Bryan Postelli



Tom Rutherford



CJ Milliken



Returns

To make sure that the item(s) get quickly processed, please follow these simple steps.

- Call and request an RGA (Returned Goods Authorization) number for the merchandise you wish to return. All merchandise to be returned must be accompanied by an RGA number and be in its original packaging. The product must be unused, unaltered and unchanged from its original state (unless it is a potential warranty issue). Any merchandise returned that does not meet this criteria may be subjected to an additional handling fee or refusal.
- 2. Pack the parts carefully to avoid any damage during shipping. Always use a sturdy shipping carton to ship the parts back. Print your RGA number on the outside of the shipping carton. Please do not write on, use tape, or af x shipping labels to the product package itself, because we must return it to stock and we can't sell a box that is defaced.
- 3. We need the invoice number or, better yet, a copy of the original invoice showing when the part was purchased. Please include this information with the merchandise you're returning. We're sorry, but we can not accept returns on custom-built items.

Warranty

Allstar Performance® warrants each new product to be free from defects in both workmanship and materials for a period of ninety (90) days from the date of purchase. Product in question should either be returned to the dealer from which it was purchased, or shipped directly to Allstar Performance® along with an RGA (see above), proof of purchase and a complete description of the problem. The product must be returned freight pre-paid; COD's will not be accepted. No parts will be reviewed for inspection if modi cations have been made. If, after factory inspection, the part is deemed to be defective, it will be replaced or a refund check will be issued.

Disclaimer of Warranty

ALLSTAR PERFORMANCE makes no warranties...

Allstar Performance products are designed for Off-Road use and makes no written, oral, expressed, or implied statement of warranty or guarantee on any product sold. Allstar Performance will not assume liability for personal or property damage resulting from the use or misuse of any product we manufacture or sell. Purchase and/or use of these products implies recognition and acceptance of this entire warranty and disclaimer by customer.

Printing Disclaimer...

Allstar Performance reserves the right to update, change or modify any product or policy deemed necessary without notice. Every effort has been made to avoid printing errors, in this catalog and previous versions. We disclaim any responsibility for application or speci cation errors.

Items That Require Additional Shipping Charges

Some items in this catalog are too large for ground shipment and therefore must be shipped via truck freight (pre-paid), some of these items may also include a shipping pallet surcharge. Throughout this catalog, the parts that require truck freight or a pallet for shipment will be marked with an appropriate icon.

Note: Some packages and/or shipments may be subject to the application of dimensional weight when calculating freight charges. Dimensional weight, when applied, may be signi cantly greater than the actual weight of a package and/or shipment and generally applies to products which are not very heavy, but large in volume (LxWxH).



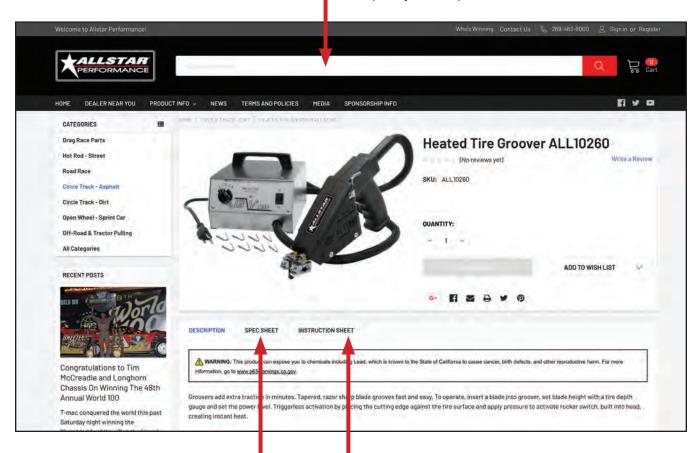
Zack VanderBeek



www.allstarperformance.com

PART NUMBER AND KEYWORD LOOKUP

Type a part number or keyword into the search field to quickly locate parts.



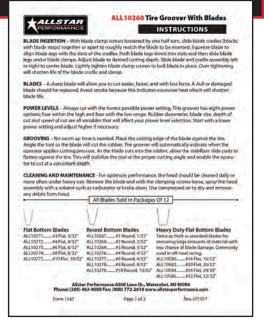
PRODUCT INFORMATION SHEETS

Opens a printable PDF with detailed information of each item.



INSTRUCTION SHEETS

Opens a printable PDF with detailed installation and operation instructions.





8300 LANE DRIVE WATERVLIET, MI 49098 269-463-8000





