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FRONT MOTOR PLATE, PROFILED, FORD 289-302, 351W, 1979-'93

Make sure your motor stays in place!



No. C4015

- This Motor Plate comes already profiled which eases installation
- Provides a solid connection between the engine and the chassis
- Improves reaction and 60-foot times
- Eliminates twisting of the chassis caused by engine torque and ensures that the power gets to the rear wheels
- · Computer designed and machined for accuracy
- Used by leading Chassis builders as a positive method of locating the engine in the chassis
- · Perfect for performing engine swaps or setting a motor back in the chassis for increased weight transfer
- Includes mounting spacers

PART # DESCRIPTION

C4015 Front Motor Plate, Profiled, Ford 289-302, 351W Engines, 1979-'93

UNDERSTANDING SUSPENSION BASICS

Getting more power from an engine is something all racers are familiar with. Getting that power to the ground, however, is a science that few racers really understand. For those of you just starting out in drag racing, we've put together a basic overview of how chassis and suspension systems are affected by sudden acceleration. The Chassis People[™] at Competition Engineering want you to understand the relationship between engine power and the chassis, suspension and driveline systems of your car. By doing so, you will be in a better position to select equipment that allows you to hook up and lower ET's!

Without the right chassis and suspension setup, all the horsepower in the world will only go up in tire smoke!

As you're trying to understand how modifications to the chassis and suspension systems improve traction, it helps to keep one thing in mind. Power produced by your engine must take a direct path to "planting" the tires and "launching" your car forward. Any power that gets absorbed by the chassis and suspension is power that can't be used to get you to the finish line as quickly as possible.

There's a basic law of physics that states "for every action there is an equal and opposite reaction." Relating this principle to a game of billiards is relatively easy. But applying it to chassis and suspension systems on a drag race car is more complex. When trying to understand how chassis and suspension setups affect traction, keep the "action/reaction" concept in mind. It will make things much easier to understand.

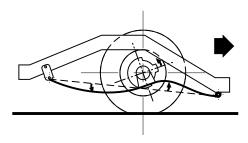
While race cars are designed for racing, street cars are designed primarily for carrying passengers safely and comfortably. From the factory, passenger cars are not equipped to handle high rpm launches from a standing start. This instant release of power places great strain <u>on stock suspension systems and usually results</u> in unwanted wheel hop, tire spin and parts breakage. Controlling this unwanted reaction is the job of a traction device, which limits the rotation of the rear axle housing and transfers forces to the track surface.

For example, the installation of traction bars is a popular way of limiting rotation of the rear axle housing. Traction bars mount directly to each side of the axle housing and extend forward like long arms or levers. When the housing begins to rotate during initial launch, the traction bars stop this action, holding the housing in place and converting some of the applied torque to a force which pushes the rear tires into the track surface. By stabilizing the axle housing, wheel hop is virtually eliminated, acceleration is smoother and parts breakage is minimized.

HOW "WHEEL HOP" OCCURS

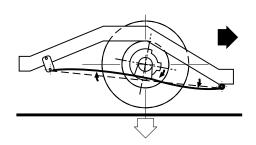
REAR AXLE HOUSING ROTATION WITHOUT TRACTION CONTROL

When horsepower is suddenly delivered to the differential, whether from a clutch or a torque converter, the pinion attempts to "climb" the ring gear. This sudden shock of torque causes the entire rear axle housing to rotate backwards in a counter-clockwise direction. This causes the springs to distort, resulting in severe driveshaft/U-joint misalignment.



SPRING REACTION UNLOADS SUSPENSION, CAUSING "WHEEL-HOP"

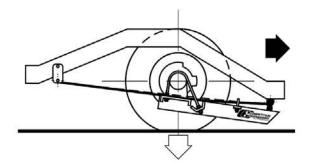
The axle housing is allowed to continue its rotation until it meets resistance from the suspension/springs, which then try to "snap" the housing back to its original position. As power continues to the differential, the housing is once again allowed to rotate back against the springs. This action/reaction of the suspension, commonly known as "wheel hop," continues much like a tug-of-war. Instead of launching your car forward, you sit there bouncing around and spinning your wheels.



UNDERSTANDING SUSPENSION BASICS

COMPETITION ENGINEERING TRACTION BAR LIMITS AXLE ROTATION

The bolt-on "Slapper Bar" is one of the most basic traction devices available. Originally pioneered by Bill "Grumpy" Jenkins in the mid-sixties, it gets its name from the way it works. One end of the Traction Bar replaces the stock spring pad and is clamped to the rear axle housing. The front end of the bar is suspended just below the spring eye. When the housing begins to rotate during launch, the bar also rotates until it contacts or "slaps" the spring. (Unlike other brands, Competition Engineering Traction Bars make contact directly below the front spring eye, preventing spring damage). When contact occurs, the Slapper Bar becomes a lever trying to push the axle housing down and planting the tires in the process.

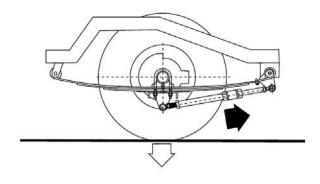


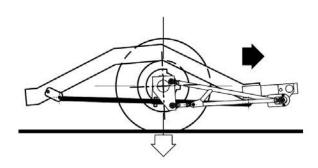
SLIDE-A-LINK

A revolutionary, patented, completely bolt-on traction device, the Slide-A-Link[™], designed for both street and strip use is track tested and competition proven to outperform conventional "Slapper" bars. A solid mounted front plate is installed inside the original front spring pocket and clamps to the leaf spring to provide a positive displacement for the torque that is transmitted from the rear axle through the telescoping bar and special durometer shock pad. These forces, along with improved instant center geometry, provide better weight transfer for increased traction. Free travel and pre-load adjustments are made on the vehicle by adjusting the jack screw at the rear of the bar.

HOW LADDER BARS WORK

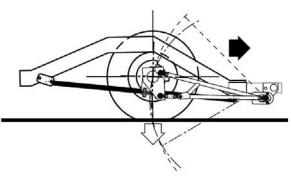
The Ladder Bar is a more sophisticated traction device because it serves as an extremely rigid, bridge-type truss that locates the rear axle housing directly to the chassis. With the axle housing held firmly in place, the torque applied to the differential is now transferred immediately through the Ladder Bars and into the chassis. By using the Ladder Bar to carry power to the chassis, the front end reacts by rising. As the front of the car travels upward, rapid weight transfer is created which "plants" the rear tires and propels the car forward.





HOUSING FLOATERS ELIMINATE SUSPENSION BIND

When using Ladder Bars with a leaf spring rear suspension, the axle housing cannot be rigidly attached to the springs. If it were, severe binding of the rear suspension would occur because the Ladder Bar and the leaf spring both travel in separate competing arcs. By allowing the housing to rotate and glide on the leaf spring, the Floating Housing Mount eliminates the bind and allows the Ladder Bars to work the way they were designed.





UNDERSTANDING SUSPENSION BASICS

Traction devices are only half the story. When used properly to transfer the torque action created in the differential into the chassis, other aspects of the car must also be enhanced. Since the chassis is the backbone of the car, the "action" of transferring power into it must not result in the "reaction" of twisting and flexing. Therefore, the chassis must be as rigid as possible. Frame Connectors are used to connect front and rear unibody subframes, effectively making them one piece. This eliminates unwanted flex in the chassis and prevents it from absorbing the power needed for acceleration. Solid Body Mounts, Solid Motor Mounts, Engine Torque Links and Solid Transmission Mounts contribute to forming a rigid structure and help eliminate unwanted twisting and power loss.

Large-diameter Tubular Control Arms, which are much stronger than stock units, also add rigidity, eliminate flex and help direct power to the ground. Finally, Roll Bars and Roll Cages help make the chassis and body solid while providing an extra measure of safety.

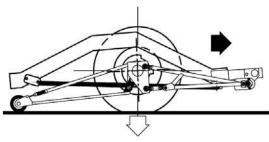
The suspension also contributes to overall performance. It serves as a flexible connection to the track, providing mechanical and hydraulic damping to control unwanted body and chassis movements. The suspension must remain flexible enough to offer a sufficient level of comfort and safety, while contributing to traction when subjected to sudden acceleration. Installation of Competition Engineering's Adjustable Drag Shocks are one of the first steps taken to help stabilize suspension movement. In race applications, the front shocks play a dual role. When the front end lifts, they extend freely to increase weight transfer. When the front end begins to lower, these same shocks provide resistance to maximize the duration of weight transfer. Complementing the action of the shocks are Front Drag Springs, specially engineered for each application to hold a great amount of stored energy for instantaneous weight transfer. Rear Coil Springs are also available for specific vehicle weights to obtain the correct ride height, and provide full suspension travel for optimum weight transfer and traction. Stabilizer Bars are used in conjunction with both Ladder Bars and 4-Links. They center the rear axle housing within the chassis. This prevents lateral movement between the body and the suspension, which helps to provide high speed stability.

We hope that our introduction to chassis, suspension and traction systems has been helpful. From our simplified explanations you should realize that horsepower, while important, is not the only factor contributing to elapsed time results. A properly tuned chassis and suspension will convert engine power into traction. Our next section will help you to determine the level of equipment needed to obtain that traction.

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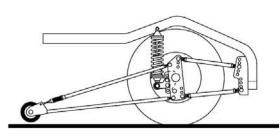
WHEEL-E-BARSTM HELP CONTROL WEIGHT TRANSFER

Although Ladder Bars and 4-Links provide lift to the front end by transferring weight to the rear, too much lift detracts from the forward motion and reduces overall performance. Installation of Wheel-E-Bars[™] helps to maintain the correct amount of lift and controls weight transfer to maximize traction.



LADDER BARS VS. 4-LINKS

4-Links offer more adjustment over Ladder Bars and can handle higher torque loads. With two bars per side, one on top and one on the bottom, you basically have an open ended Ladder Bar. You can adjust the suspension for different track conditions by manipulating the mounting positions in the frame and axle housing brackets. This gives you the option of making the intersection point, or point of "instant center," as far forward or rearward to suit your particular needs. The point of instant center is the location where the upper and lower links would intersect if imaginary lines extended from the front of the 4-Link bars. Unlike a Ladder Bar where the point of instant center is always located at the bar's front mounting point, the instant center on a 4-Link changes quickly as the car is launched



CHOOSING THE RIGHT EQUIPMENT

Selecting chassis components is something that should not be taken lightly. It's just as important as choosing the right camshaft or gear ratio. Making the right chassis setup decision wins races. Making the wrong one leaves you with a car that doesn't perform as expected and usually ends up wasting a lot of your hard earned money. Before purchasing a single chassis component, you must first make some very important decisions concerning your car and the level of competition you plan to achieve. First, determine what you want out of your car. Are you looking for better performance from your street machine; do you want a dedicated race car that will never see the street: or do you want a performance street machine that can do occasional track time? If you are going racing, become familiar with all rules and guidelines established by your sanctioning body. Determine the horsepower level you want the engine to make.

Decide if you want to use bolt-on or weld-in components. Once you have addressed all of these important issues, you will be in a better position to choose the chassis components that are correct for your car.

To help both the beginner and seasoned racer select chassis equipment, we've grouped cars in four stages beginning with street performance and mild bracket cars, and ending up with "Outlaw" Pro Street and Pro Modified type race cars. In our **Blueprint for Performance**, we've built each of the four stages around the three most important factors concerning component selection:

- 1) Intended Use
- 2) Horsepower Level
- 3) Installation Complexity

Following along stage by stage will help you select equipment that best suits your performance requirements.

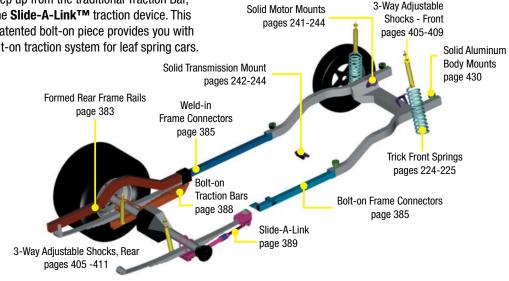
STAGE ONE

Street Performance & Mild Bracket Cars

Our first stage is our entry level stage intended for those looking to get more performance from their street machine that may see some track time occasionally as a mild bracket racer. In this stage, horsepower levels are stock or slightly modified. All of the equipment can be easily installed with simple hand tools. No welding is required. All of the bolt-on equipment included in Stage One is intended to strengthen the chassis, suspension, body and drivetrain. By making the car more rigid, power is transferred directly to the wheels for improved traction.

To control wheel hop on older cars with leaf or coil springs, Competition Engineering offers **Bolt-On Traction Bars**. These bars limit rear housing rotation, thereby eliminating wheel hop and improving rear wheel traction. As a step up from the traditional Traction Bar, we now offer the **Slide-A-Link™** traction device. This revolutionary, patented bolt-on piece provides you with the ultimate bolt-on traction system for leaf spring cars. For better handling and improved traction in rear coil spring equipped street cars, we offer **Tubular Rear Control Arms.** These rugged control arms are direct replacements for flimsy stock units, and serve to strengthen the suspension for quick launches and stable cornering.

The Mustang and GM A&G Body versions have three adjust- ment settings to suit changing track conditions. Additional components for this stage include Competition Engineering's **Solid Aluminum Body Mounts** that help eliminate chassis twist, and **Solid Motor Mounts** and **Transmission Mounts** to keep the engine from wasting torque by twisting in the chassis. For uni-body cars, **Bolt-On Subframe Connectors** create a rigid structure for direct transmission of power.



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STAGE TWO

Borderline Street Legal & Bracket Racing Cars

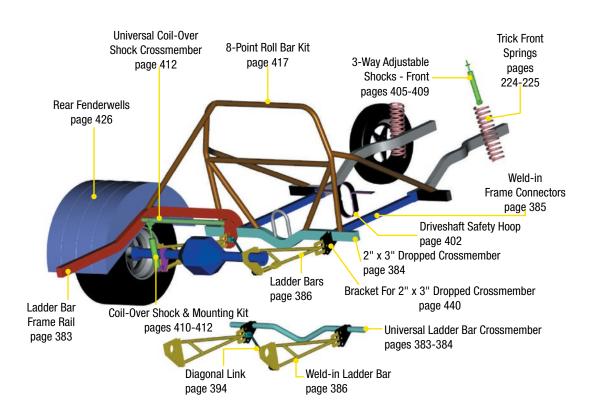
As horsepower levels start to increase, so does the need for stronger traction control. The components that make up Stage Two, along with the other stages that follow, will require skills in both welding and fabrication. Installation of this equipment will also cause street driveability to be affected. Stage Two cars may need to be trailered to the track.

An **8-point Roll Bar** and **Bolt-On Driveshaft Loop** should be among the first components added when deciding to build more horsepower and go faster. A properly installed roll bar not only offers increased protection in the event of a crash, but also adds rigidity to the chassis which results in quicker E.T.'s.

The rear suspension also needs to be reinforced in order to handle the higher torque loads produced by the engine. The installation of **Weld-In Ladder Bars** and a **Tubular Crossmember** will help control the transfer of power to the rear wheels. If you're retaining leaf springs, you'll also need a **Housing Floater** (see **page 387**) to keep the springs from working against the Ladder Bars. To provide additional suspension adjustment without going through the trouble of installing a **4-Link**, Competition Engineering offers the Ladder Link[™]. This popular traction device gives you more adjustability over standard Ladder Bars. Its 33-½" length is ideal for most applications.

More power also requires larger rear tires. To fit larger rear tires into a passenger car body, you'll need to enlarge the wheel housings and move the rear springs inboard. This can be accomplished by installing a set of our **Rear Fenderwells**, available in either steel or aluminum, and using our **Offset Spring Hangers** (see **page 413**) to relocate the leaf springs. You'll also need **Weld-In Subframe Connectors** to tie the front and rear subframes together in a uni-body car. For maximum strength on unibody vehicles, our **Formed Rear Frame Rail Kits** provide a solid base for mounting a variety of traction components.

Additional components that make Stage Two complete include computer-designed **Trick Front Springs** for maximum front end lift and weight transfer, **Rear Drag Springs** that provide full suspension travel to take advantage of that weight transfer; **3-Way Adjustable Drag Shocks** to control suspension movement, and **Front End Travel Limiters** to prevent the front end from rising too high.



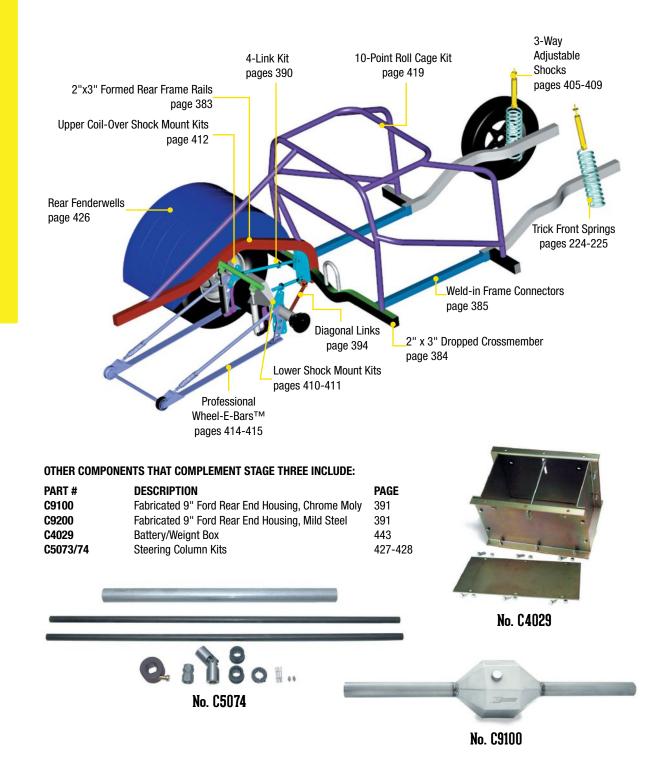


CHOOSING THE RIGHT EQUIPMENT

STAGE THREE

Pro-Street & Sportsman Class Cars

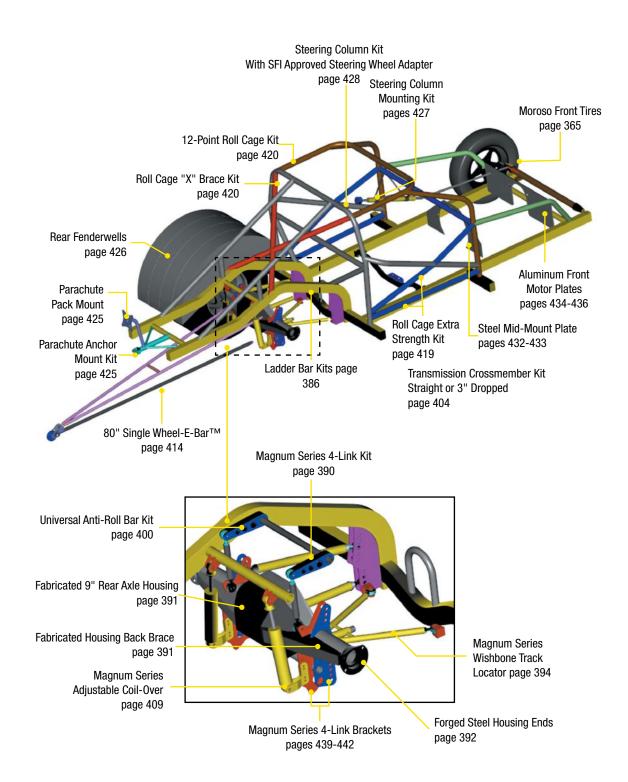
Stage Three includes all-out race cars that require fabrication skills to complete. Higher horsepower and larger tires also require that a dedicated racing suspension be installed. Installation of components included in this stage mandates that the car be "back-halved" to accept a fabricated rear frame and 4-Link rear suspension. The backbone of this stage is the 2" x 3" mandrel bent Rear Frame Rails and the 2" x 3" Dropped Crossmember. This will give you a sturdy base in which to install our 4-Link Kit and Coil-Over Shock Mounts. In addition to this setup, an Axle Locating Device is required to keep the rear housing centered in the chassis. The installation of a 10-Point Roll Cage is mandatory to support the new back half, as well as to help protect the driver at increased speeds.



CHOOSING THE RIGHT EQUIPMENT

STAGE FOUR

Pro-Street & Pro-Modified Type Race Cars We have designed this final stage for the **professional racer**. Hard core components for Stage Four include our **12-Point Roll Cage** for maximum protection and chassis rigidity and our **Magnum Series 4-Link** to handle brute force horsepower levels. Our Wishbone Rear Axle Locator improves chassis stability. To locate the engine in tube chassis cars, **Aluminum Motor Plates** and **Steel Mid-Mount Plates** are computer machined for precise fit and alignment. Fabricated Rear Axle Housings and 43" and 46" Monster Wheel Tubs are designed exclusively for Funny Car size slicks. To keep everything on a level attitude we strongly suggest our Universal 60" Wheel-E-Bars™ or 80" Single Wheel-E-Bar™. Additional components include Fabricated 9" Ford Housing, Steering Column Kit and Rack and Pinion Steering Units for the front end.





REAR FRAME KITS

Competition Engineering complete **Rear Frame Kits** with custom suspension options will save you hours of fabrication time. Each kit is individually welded on precise jigs for unmatched accuracy...getting you hooked up and winning, right out of the box!

When you choose a Competition Engineering **Rear Frame Kit** you know it's built with quality. Each and every component is manufactured with the finest American craftsmanship and materials, ensuring a perfect fit and years of dependable service.

DESIGN YOUR OWN REAR CLIP!

Widths - Frame Kits are offered in three widths; 24", 26" and 28". Welded or Unwelded - Frame Kits are available in your choice of welded or unwelded. The unwelded option is available only on the 28" Kit. This allows the chassis builder to cut to their desired width.

Suspension Designs - Four different are available; *Single Adjustable Ladder Bar*, Part **No. C2006**; *Ladder Bar* Double Adjustable Part **No. C2005**

(page 386); *Standard 4-Link and Magnum Series 4-Link* (page 390).

Best of all, our efficient manufacturing processes make these built-to-order **Rear Frame Kits** available at a great price!

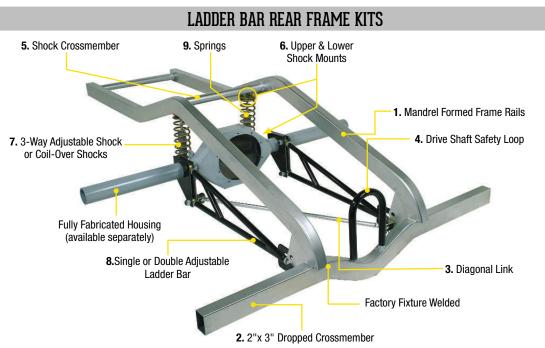
We've expanded our line of **Rear Frame Kits** to better meet the needs of our customers. Now, each Frame Kit has its own part number to make it easier to find and order exactly what you are looking for!



Complete Frame Kits Application Chart on pg. 382

Shocks Options - Available with three different shock options; *3-Way Adjustable Drag Shocks* (pages 405-411), *Magnum Series Rear Coil Over Shocks* (page 409).

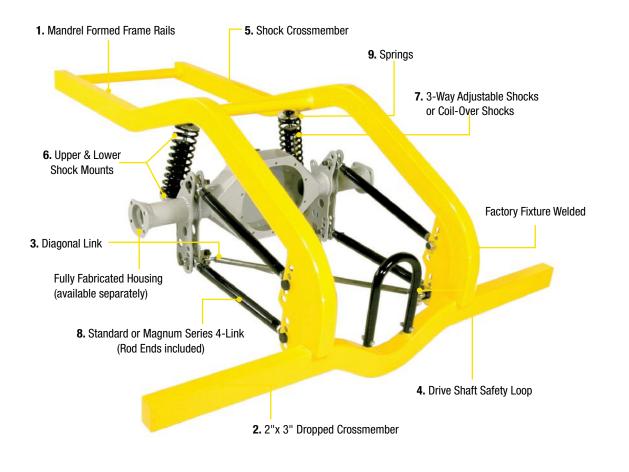
Spring Rate Options - Seven different spring rates are offered; 85, 100, 125, 150, and 200 lb., plus Progressive Rate Springs are available.



- Ladder Bar Frame Rails Specially engineered profile clears suspension and axle components, while accommodating low ride height and wide tires.
- 2" x 3" Crossmember Mandrel formed for uniform profile;
 3.5" drop center makes it adaptable to virtually any chassis design; 60" wide.
- **3.** *Diagonal Link* ¾" 0.D. DOM steel with ½" Spherical Rod Ends for easy, in-chassis adjustment.
- **4.** *Driveshaft Loop* 1-¹/₈" 0.D. mandrel formed Round Tube contains driveshaft during U-joint failure.
- 5. *Shock Crossmember* Tubular design provides highstrength with light weight.
- Upper & Lower Shock Mounts Provides 6" of ride height adjustment.

- 7. Choice of 3-Way Adjustable Shocks or Coil-Over Shocks Single, externally adjustable Coil-Over Shocks with CNC machined billet aluminum body and 1" wide top/bottom bearings or economical 3-Way Adjustable Shocks with Spring Kit.
- 8. Choice of Competition Single Adjustable or Double Adjustable Ladder Bars (see page 386)
- Springs Matched to your specific rear vehicle weight. 2.5" I.D. x 12" long, premium-grade chrome silicone steel, powder coated for durability. Progressive Ladder Bar Rate Springs available.

4 - LINK REAR FRAME KITS



EACH 4-LINK REAR FRAME KIT INCLUDES:

- 4-Link Frame Rails Specially engineered profile clears suspension and axle components while accommodating low ride height and wide tires; Rugged 2" x 3" construction makes them strong without adding unnecessary weight.
- 2"x 3" Crossmember Mandrel formed for uniform profile;
 3.5" drop center makes it adaptable virtually any chassis design; 60" wide.
- **3.** *Diagonal Link* $\frac{3}{4}$ " 0.D. DOM steel with $\frac{1}{2}$ " Spherical Rod Ends for easy, on-chassis adjustment.
- **4.** *Driveshaft Loop* 1-1/8" O.D. mandrel formed Round Tube contains driveshaft during U-joint failure.
- 5. *Shock Crossmember* Tubular design provides high strength with light weight.

 Upper & Lower Shock Mounts – Provides 6" of ride height adjustment. REAR FRAME KITS

- 7. Choice of 3-Way Adjustable Shocks or Coil-Over Shocks
 - -Single, externally adjustable Coil-Over Shocks with CNC machined billet aluminum body and 1" wide top/bottom bearings or economical 3-Way Adjustable Shocks with Spring Kit.
- 8. Choice of Standard or "Magnum" Series 4-Link Kits Rod Ends included. (see page 390)
- 9. Springs Matched to your specific rear vehicle weight.
 2.5" I.D. x 12" long, premium-grade chrome silicone steel, powder coated for durability. Progressive Rate Springs are also available..



LADDER BAR FRAME KITS							
24" WIDTH						PROGRESSIV	RATE SPRING
SPRING RATE	85 LB	100 LB	125 LB	150 LB	200 LB	1,900 LBS TO 2,900 LBS	2,901 LBS TO 3,900 LBS
12 WAY ADJ. COIL-OVER SHOCK	C0411	C0412	C0413	C0414	C0415	C0416	C0417
3 WAY ADJ. SHOCK	C0421	C0422	C0423	C0424	C0425	C0426	C0427
26" WIDTH							
12 WAY ADJ. COIL-OVER SHOCK	C0611	C0612	C0613	C0614	C0615	C0616	C0617
3 WAY ADJ. SHOCK	C0621	C0622	C0623	C0624	C0625	C0626	C0627
28" WIDTH							
12 WAY ADJ. COIL-OVER SHOCK	C0811	C0812	C0813	C0814	C0815	C0816	C0817
3 WAY ADJ. SHOCK	C0821	C0822	C0823	C0824	C0825	C0826	C0827
LADDER LINK FRAME KITS							
24" WIDTH							
12 WAY ADJ. COIL-OVER SHOCK	C2422	C2423	C2425	C2426	C2427	C2428	C2436
3 WAY ADJ. SHOCK	C2429	C2430	C2431	C2432	C2433	C2434	C2437
26" WIDTH							
12 WAY ADJ. COIL-OVER SHOCK	C2611	C2612	C2613	C2614	C2617	C2618	C2619
3 WAY ADJ. SHOCK	C2621	C2622	C2623	C2624	C2625	C2626	C2627
28" WIDTH							
12 WAY ADJ. COIL-OVER SHOCK	C2811	C2812	C2813	C2814	C2815	C2816	C2817
3 WAY ADJ. SHOCK	C2821	C2822	C2823	C2824	C2826	C2827	C2828
4-LINK FRAME KITS							
24" WIDTH							
12 WAY ADJ. COIL-OVER SHOCK	C1411	C1412	C1413	C1414	C1415	C1416	C1417
3 WAY ADJ. SHOCK	C1421	C1422	C1423	C1424	C1425	C1426	C1427
26" WIDTH							
12 WAY ADJ. COIL-OVER SHOCK	C1611	C1612	C1613	C1614	C1615	C1616	C1617
3 WAY ADJ. SHOCK	C1621	C1622	C1623	C1624	C1625	C1626	C1627
28" WIDTH	_	_	_				
12 WAY ADJ. COIL-OVER SHOCK	C1811		C1813			C1816	C1817
3 WAY ADJ. SHOCK	C1821	C1822	C1823	C1824	C1825	C1826	C1827
MAGNUM SERIES 4-LINK FRAME KITS (1/4" BRACKET WITH 5/8" HOLES)							
24" WIDTH	01401	01400	01 400	01404	01 405	01400	01407
12 WAY ADJ. COIL-OVER SHOCK	C1431	C1432	C1433	C1434	C1435	C1436	C1467
3 WAY ADJ. SHOCK	C1437	C1438	C1439	C1440	C1441	C1442	C1468
	01110	01/14	01445	01440	01 (17	01440	01400
12 WAY ADJ. COIL-OVER SHOCK	C1443		C1445	C1446	C1447	C1448	C1469
3 WAY ADJ. SHOCK	C1449	C1450	C1451	C1452	C1453	C1454	C1470
28" WIDTH	04 4	04 455	04 455	04 455	04 450	04.400	04.474
12 WAY ADJ. COIL-OVER SHOCK	C1455	C1456	C1457	C1458	C1459	C1460	C1471
3 WAY ADJ. SHOCK	C1461	C1462	C1463	C1464	C1465	C1466	C1473

FORMED REAR FRAME RAIL KITS

- Replaces the stock rear rails in subframe equipped cars
- Engineered to move the leaf springs and frame rails inboard to provide additional tire clearance
- Designed to fit stock floor contours with minor fabrication
- Requires use of a fuel cell, Rear Fenderwells and an Upper Shock Crossmember (see Available Options)
- Eliminates stock sheet metal rear frame rails
- Increases chassis strength for quicker vehicle reaction times
- Manufactured from mandrel formed 2" x 3" x .083" wall mild steel tube
- Two rails and tube sleeves

PART # DESCRIPTION

- C3031 Formed Rear Frame Rail Kits, 1967-'69 Camaro, Firebird
- C3032 Formed Rear Frame Rail Kits, 1970-'81 Camaro, Firebird
- C3034 Formed Rear Frame Rail Kits, 1962-'67 Chevy II, Exc. Wagon
- C3035 Formed Rear Frame Rail Kits, 1968-'76 Nova, Ventura II



PART #AVAILABLE OPTIONSC3002-C3011Rear FendeC3012-C3048Weld-In SuitC2046Upper ShocC2047Lower Shoc

Rear Fenderwells Weld-In Subframe Connectors Upper Shock Crossmember Lower Shock Mount

UNIVERSAL FRAME RAILS KITS

- Available for both 4-Link and Ladder Bar suspensions
- Narrows the rear chassis to accept extra-wide racing tires
- Universal design for any car Pro Street to Drag Race
- Manufactured from mandrel formed 2" x 3" x .083" rectangular steel
- Use with No. C3061 2" x 3" crossmember for a solid mounting point for our suspension components
- Two rails and hardware per kit

PART # DESCRIPTION

- C3060* 4-Link Frame Rails, Universal
- C3062* Ladder Bar Frame Rails, Universal

PART # AVAILABLE OPTIONS

- C3061 Universal Dropped Crossmember
- C3421 Magnum Series 4-Link Bracket
- C3408 Standard 4-Link Bracket
- C3411 Ladder Bar Bracket



*NOTE: Installation of this product requires stock rear floor pan be substantially modified or removed. The addition of a full roll cage is also required for proper installation.

CROSSMEMBER KIT

Ladder Bar

- Convenient kit includes components needed to install a Ladder Bar Crossmember on a Pro Street or Drag Race car
- Kit includes: 2" x 3" x 60" Dropped Crossmember, four Ladder Bar Crossmember Brackets and all hardware
- 60" length and full 3.5" drop-center profile makes this sturdy,mandrel bent Crossmember an ideal front attachment point on virtually any chassis design
- The ladder bar mounting holes are stamped on a 33" radius to allow quicker adjustments when used with Competition Engineering''s Ladder Bars

PART # DESCRIPTION C3059 Crossmember Kit - Ladder Bar



2" X 3" DROPPED CROSSMEMBER

Makes fabricating a rear frame on a Pro Street or Drag Race car easier and more professional

- Sturdy 2" x 3" x .083" steel is mandrel formed on computer-controlled equipment, providing uniform wall thickness and exact profile dimensions
- 60" length and full 3.5" drop-center profile makes this crossmember an ideal front attachment point on virtually any chassis design
- Use with Competition Engineering's Formed Rear Frame Rails Nos. C3060. C3062 or any other suitable frame rail kit

DESCRIPTION PART

Dropped Crossmember, 2" X 3" C3061



AVAILABLE OPTIONS

PART #

C3060 Universal 4-Link Frame Rails C3062 Universal Ladder Bar Frame Rails C3409 Ladder Bar Brackets

LADDER BAR CROSSMEMBER

- Designed to provide a sturdy mounting point for the front Ladder Bar rod end
- Manufactured from 1-3/4" x .134" wall mandrel formed steel tubing
- · Capable of withstanding the abuse of a racing suspension while adding strength to the chassis
- 54" wide bar serves double duty as both a locating device for the Ladder Bars as well as a rear driveshaft loop
- Kit includes ³/₁₆" stamped steel brackets with 360° thru-mounting holes for increased strength
- Mounting holes stamped on a 33" radius to allow guicker settings without added adjustments
- Includes mounting hardware
- Welding required
- PART # DESCRIPTION

C2019 Ladder Bar Crossmember



FLOOR PAN BRACE

Easy To Install Bolt-On Design Uses Existing Mounting Points Fits: Camaro 2010-'15

- Even though 2010- '15 Camaros have a stiffer chassis than earlier models, they still suffer from flexibility; which affects acceleration, handling, long term rattles and traction
- Fortify your Camaro 2010-'15 chassis with this Brace, which replaces the factory stamped, steel piece to stiffen the floor pan and drive shaft tunnel area
- Use with optional Part No. C3180, Frame Connectors for the ultimate solution to tie the front and rear subframes together and triangulate the chassis side to side
- Durable, gloss black powder-coat finish

DESCRIPTION PART

C3065 Floor Pan Brace, Bolt-on Design, 1-1/2" x 2-1/2" x .120 wall rectangular tubing





FRAME CONNECTORS



Bolt-On & Weld-In

- Eliminates bending, flexing and cracking of spot-welded sheet metal panels in unibody cars
- Ties the front and rear frames together creating a solid platform for increased performance levels
- Legal for all classes of Drag Racing
- Bolt On Frame Connectors available in black powder coat finish
- Weld-in frame connectors available in Raw Steel

APPLICATION	ATTACH. Method	PART NUMBER	STEEL TUBE DIMENSIONS	STOCK FLOOR PAN MODIFICATION REQUIRED	INSTALLATION NOTES
<u>Camaro, Fireb</u>	ird				
<u>1967-1969</u>	Weld-In	C3012	2" x 2" x .083" wall	Yes	Must be used w/ formed frame rails
1967-1969	Bolt-On	C3112	2" x 1-1⁄2" x .083" wall	Yes	
<u>1970-1981</u>	Weld-In	C3013	2" x 2" x .083" wall	Yes	Must be used w/ formed frame rails
1970-1975	Bolt-On	C3113	2" x 1-1/2" x .083" wall	Yes	
<u>1976-1981</u>	Bolt-On	C3114	2" x 1-1/2" x .083" wall	No	
<u>1982-1992</u>	Weld-In	C3046	2" x 2" x .083" wall	Yes	Without Ladder Bar Crossmember
1982-1992	Bolt-On	C3111	2" x 1-1/2" x .120" wall	No	Factory exhaust/catalytic converter can't be used
<u>1982-1992</u>	Bolt-On	C3120	2" x 1-1/2" x .083" wall	No	Fits factory exhaust/catalytic converter
1993-2002	Bolt-On	C3108	2" x 1-1⁄2" x .083" wall	No	Fits factory exhaust/catalytic converter
Camaro					
2010-2015	Bolt-On	C3180	2-1/2" x 1-1/2" x .120" wall	No	Use w/ optional No. C3065 Floor Pan Brace
<u>Chevy II/Nova</u>					
<u>1962-1967</u>	Weld-In	C3014	2" x 2" x .083" wall	Yes	Must be used w/ formed frame rails
1962-1967	Bolt-On	C3118	2" x 1-1/2" x .083" wall	No	
Nova, Omega,	Ventura, Ap	ollo			
1968-1979	Weld-In	C3016	2" x 2" x .083" wall	Yes	Must be used w/ formed frame rails
<u>1968-1979</u>	Bolt-On	C3116	2" x 1-1/2" x .083" wall	No	
Mustang					
<u>1964-1973</u>	Weld-In	C3040	2" x 2" x .083" wall	Yes	Must be used w/ formed frame rails
1964-1970	Bolt-On	C3140	2" x 1-1/2" x .083" wall	No	-
1979-1993	Weld-In	C3048	2" x 2" x .083" wall	No	Our Weld-In Subframe
<u>1979-1993</u>	Bolt-On	C3141	2" x 1-1/2" x .083" wall	No	Connectors require the
2005-2014	Bolt-On	C3142	2"x 1-1/2" x .083" wall	No	floor pan in most cars
Chrysler "B"		00047	01 01 0001 11	N.	to be channeled and the floor to be welded to the
<u>1966-1974</u>	Weld-In	<u>C3047</u>	2" x 2" x .083" wall	Yes	
<u>1966-1974</u>	Bolt-On	C3117	2" x 1-1/2" x .083" wall	No	subframe connectors this way
Duster, Demo 1970-1976	Bolt-On	C3115	2" x 1-½" x .083" wall	No	utilizes the shear strength of
Barracuda	DUIL-UII	03110	2 X 1-72 X .UOS Wall	INU	the floor pan, resisting loads
1967-1969	Bolt-On	C3115	2" x 1-1/2" x .083" wall	No	in all directions. If you don't
1970-1974	Weld-In	C3043	2" x 2" x .083" wall	Yes	- wish to cut the floor pan, you
Challenger					- can use our bolt-on subframe - connectors and weld them in
1970-1974	Weld-In	C3043	2" x 2" x .083" wall	Yes	- for added strength.

LADDER BARS & ACCESSORIES

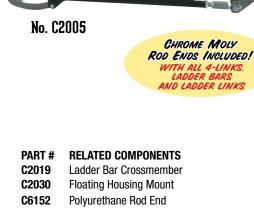
LADDER LINKTM DOUBLE ADJUSTABLE LADDER BARTM

Competition Engineering's Ladder Link [™] Double Adjustable Ladder Bar[™] is designed so that the user can adjust preload and pinion angle without removal of Part No. C2005. This is accomplished by adjusting the front rod end and/or rear rod ends of the Ladder Bar itself. Includes two unique one-piece brackets which get welded to the rear end housing, cutting down on installation time and errors.

- Comes with two Ladder Bars, NHRA Approved Safety Brackets and hardware
- Adjuster allows quick on-vehicle preload adjustments for changing track conditions
- Contains two one piece 3/16" steel mounting brackets make installation easier
- 33 1/2" overall length
- 1" dia. x .156" wall DOM steel tube construction
- Black powder coat finish
- Rod ends, Front Chrome Moly Spherical, Rear Fully Machined Solid
- Welding required

PART # DESCRIPTION

C2005 Ladder Link[™] Double Adjustable Ladder Bar



PART #	REPLACEMENT PARTS
00044	E I D. I E . I.

- C6011 Front Rod Ends
- C6156 Rear Rod Ends-Right Hand Thread
- C6157 Rear Rod Ends-Left Hand Thread

SINGLE ADJUSTABLE LADDER BAR

Competition Ladder Bar provides solid connection between rear axle housing and chassis, preventing rear suspension damage from wheel hop

- 33-1/2" overall length
- Contains two, one piece, 3/16" steel mounting brackets
- 1" dia. x .156" wall DOM steel tube construction
- Forged steel rear rod ends
- Welding required
- Rod end safety brackets installed
- · Mounting bracket gussets included
- High quality alloy spherical front rod ends
- Black powder coat finish

PART # DESCRIPTION

C2006 Competition Ladder Ba
C2006 Competition Ladder Ba

PART # AVAILABLE OPTIONS

- **C2030** Floating Housing Mount
- C6152 Polyurethane Rod End



No. C2006

PART #	REPLACEMENT PARTS
C6011	Front Rod Ends
C6156	Rear Rod Ends - Right hand thread
C6157	Rear Rod Ends - Left hand thread





*NOTE: Competition Engineering's Ladder Bars are legal for all sanctioning bodies and include the mandatory front rod end safety brace at no additional charge. Additional gusseting material is also included in the kit to allow the rear brackets to be boxed for added strength.





GOOD

LADDER BARS & ACCESSORIES

FLOATING HOUSING MOUNT

Bolt-On

- Eliminates the bind that occurs when Ladder Bars are installed on leaf spring equipped cars
- The Ladder Bars travel in one arc while the leaf springs travel in a separate, opposing arc
- Isolates the leaf springs from Ladder Bar system making it work properly without unwanted bind
- For use with 3" 0.D. Axle Tubes

PART # DESCRIPTION

C2030 Floating Housing Mount, Bolt-On

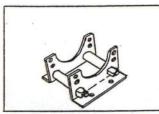


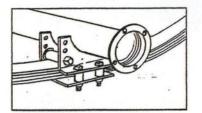


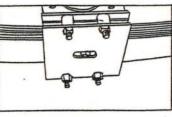
LADDER BARS

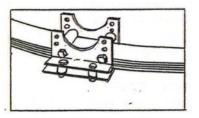
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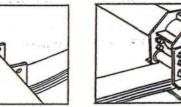
INSTALLATION IMAGES

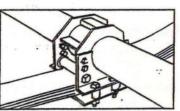


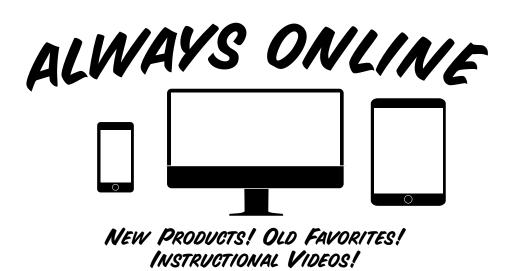












COMPETITION LEAF SPRING TRACTION BARS

Competition Engineering offers a variety of bolt-on traction devices to meet the needs of both the street enthusiast and the entry level racer. Bolt-on traction devices allow you to handle moderate levels of horsepower without having to weld and fabricate.

Unlike some other brands, our "bolt-on" components fit perfectly for a hassle-free installation. Each part is custom designed for the specific application. Instead of rushing to production, we spend a great deal of engineering time on each product, hand-fitting prototype parts on test cars to ensure proper fit and alignment.

In addition, our bolt-on products are manufactured on sophisticated computer controlled equipment to insure that all parts are made to extremely close tolerances. The result is a bolt-on traction device that fits perfectly out of the box. This eliminates the additional fabrication and struggling often required when installing so-called "bolt-on" products offered by others.

COMPETITION LEAF SPRING TRACTION BARS

Fits:1967-69 Camaro, Firebird; 1962-79 Chevy II, Nova; 1973-76 Buick Apollo; 1973-79 Olds Omega; 1971-79 Pontiac Ventura II

- Designed especially for Stock Eliminator and Bracket Race Cars with leaf springs
- Eliminates wheel hop and improves traction by directing force downward where the tire meets the pavement
- Sturdy 2.5" x 1.5" x .120" wall steel tubing handles horsepower levels up to 450 hp
- Fixture welded to ensure a perfect fit for each application
- Bar length designed so that snubber locates under spring eye for maximum traction
- Complete installation hardware included, nothing else to buy
- 1/2" J-Bolts included in kits where required, 1/2" U-Bolts supplied to replace stock hardware
- Square U-Bolt bracket on front designed to keep from rotating downward during hard braking
- Available in black powder coat or triple process chrome finishes
- Legal in all sanctioning bodies

PART # DESCRIPTION

- C2101 Competition Leaf Spring Bars, Black Powder-Coated. Fits: 1967-'69 Camaro, Firebird; 1962-'79 Chevy II, Nova; 1973-'76 Buick Apollo; 1973-'79 Olds Omega; 1971-'79 Pontiac Ventura II
- C2201 Competition Leaf Spring Bars, Chrome. Fits: 1967-'69 Camaro, Firebird; 1962-'79 Chevy II, Nova; 1973-'76 Buick Apollo; 1973-'79 Olds Omega; 1971-'79 Pontiac Ventura II
- C2103 Competition Leaf Spring Bars, Black Powder-Coated Fits: 1970-'81 Camaro, Firebird
- C2109* Competition Leaf Spring Bars, Black Powder-Coated. Fits: 1965-'73 Mustang

PART # **AVAILABLE OPTION**

C7025 Two Degree Wedge Plates

*NOTE: U-bolts instead of J-bolts





PART # REPLACEMENT PARTS

C7024 Rubber Bumpers. 2" diameter base. Two/card C7030 U-bolts, 3" Radius w/ washers & lock nuts. Two/card C7031 U-bolts, Square w/ washers & lock nuts. Two/card C7032 J-bolt Kit. Incl. 2-1/2" J-bolts w/ all necessary standard

lock nuts & washers. Two/card

BOLT-ON TRACTION DEVICES COMPETITION COIL SPRING TRACTION BARS

Effectively eliminates wheel hop and associated parts breakdown

- Designed to provide a high performance alternative to stock factory 4-link suspensions
- Rugged 2" x 2" x .120" wall steel tubing construction withstands power levels found in racing and eliminates flex found in other bars
- · Computer-controlled stamping and mandrel-formed brackets ensure a perfect fit
- Adjustable threaded link design allows for fine tuning and infinite adjustability
- Includes all hardware and brackets necessary to complete the installation
- · Engineered specifically for each application

PART # DESCRIPTION

C2111 Competition Coil Spring Traction Bars, Black Powder-Coated Fits: 1968-'77 GM Intermediate: Chevelle, GTO, Cutlass, 442, Skylark, Gran Sport, 1970 Tempest, LeMans, etc.,

AVAILABLE OPTION PART

C7025 **Two Degree Wedge Plates**

- **REPLACEMENT PART** PART #
- Rubber Bumpers. 2" diameter base. Two/card C7024





BOLT-ON TRACTION DEVICES



SLIDE-A-LINK TM

- Patented (No. 6,386, 565) design for both street and strip' outperforms conventional "Slapper" bars
- Solid mounted front plate installed inside original front spring pocket and clamps to the leaf spring
- Provides a positive displacement for the torque from the rear axle through telescoping bar and special durometer shock pad
- Includes replacement lower axle mount pads, 1/2" U-bolts, aluminum front spring eye bushings, hardware and instructions
- Offers the adjustability of a 4-link, allowing you to tune for better 60-foot time
- Unlike rigid bars, adjustable link makes on-car pinion angle and preload changes quick and easy

PART #

C2090

C2094

C2097

DESCRIPTION

Pickup Truck

- Mounts to factory locations with no welding required
- Special durometer urethane bushing stores energy for more consistent E.T.'s
- · Sold in pairs

PART # DESCRIPTION

- C2093 Slide-A-Link™. *Fits:* 1967-'71 Chrysler B-Body
- C2096 Slide-A-Link™. Fits: 1970-'81 Camaro, Firebird C2100 Slide-A-Link[™] Fits: 1967-'69 Camaro, Firebird, 1968-'79 Nova Slide-A-Link™ C2099 Fits: 1962-'67 Chevy II w/ monoleaf rear springs C2091 Slide-A-Link[™]. *Fits:* 1964-'76 Dodge Duster, Demon, Scamp & Valiant

SLIDE-A-LINK™ WRENCHES

- Two wrenches of correct size to fit Competition Engineering Slide-A-Link[™] adjustment nuts
- Can fit under vehicle for easy adjustments in staging lanes
- Manufactured from billet aluminum with large grip handle
- Black anodized for corrosion resistance

PART # DESCRIPTION

Slide-A-Link[™] Wrenches C2199



SLIDE-A-LINK TM REPLACEMENT BUSHING

For Use With Slide-A-Link™ Traction Devices

- Sturdy Polyurethane
- Two per package

PART # DESCRIPTION C9700 Bushing, Replacement for Slide-A-Link™



Slide-A-Link™ Fits: 1982-'00 Cheverolet S-10, GMC Sonoma

Slide-A-Link™. Fits: 1982-'00 Chevrolet S10/ S15 Lowered

Slide-A-Link™. *Fits:* 1964-'83 AMC, 1965-73

Ford Mustang, 1968-'74 Javelin

RACTION DEVICES

4-LINKS



STANDARD SERIES 4-LINK KIT

Offers enhanced adjustability over a ladder bar suspension for increased performance

By locating the bars with the various mounting holes in the brackets, you can create an instant center that is correct for your application.

Kit Includes:

- 17-1/4" long, 1" dia. x .156" direct threaded links
- Adjusting nuts for quick tuning
- $\mathfrak{Y}_{16}{}^{\shortparallel}$ thick mounting brackets stamped from cold rolled steel
- Includes 4 left and 4 right hand chrome moly spherical rod ends
- ¾" Grade 8, Fasteners and Jam Nuts Included
- Includes complete hardware and instructions
- Welding required
- For 3" Axle Tubes
- · Sold in pairs

PART # DESCRIPTION C2017 Standard Series 4-Link Kit

62017	Stanuaru Series 4-Link Ki
PART #	AVAILABLE OPTIONS
C3408	4-Link Chassis Bracket
C2052	Diagonal Link

CHROME MOLY ROD ENDS INCLUDED! WITH ALL 4-LINKS. LADDER BARS AND LADDER LINKS



Designed for ultra-high horsepowered race cars

Includes ¹/₄" thick housing & frame brackets (most competitors kits have ³/₁₆" brackets) with ⁵/₈" mounting holes on a 21" radius, with mounting holes for Wheel-E-BarsTM, sway bar and shock mounting as well as 1-¹/₄" holes for additional tube gusseting. We use 1-¹/₄" 0.D. x .095" wall top tube and a 1-³/₈" 0.D. x .095" wall bottom tube to handle the shock loads without flexing.

Kit Includes:

- All hardware and mounting instructions to ensure an effortless installation
- ¼" thick Axle Bracket w/ integral shock mounting holes saves fabrication time by eliminating separate shock brackets
- Heavy Duty chrome moly steel link tubes and threaded tube inserts for added strength
- 21" mounting radius
- · Computer machined threaded tube ends
- 1-1/4" holes provided in brackets for additional gusseting
- For 3" Axle Tubes
- Includes 4 left & 4 right-hand chrome moly spherical rod ends
- Welding required
- Sold in pairs

PART #	DESCRIPTION
C2028	Magnum Series 4-Link Kit
PART #	AVAILABLE OPTIONS
C3421	Magnum Series Front Bracket
C2031	Magnum Series Diagonal Link
C2024	Magnum Series Wishbone

ULTRA MAGNUM 4-LINK KIT

Design offers additional adjustment over standard or traditional style 4-Link Kits for ultra-high horsepower race cars

This innovative Ultra-Magnum 4-Link Suspension Kit provides increased adjustability by incorporating a system of multi-hole brackets that weld to the chassis and bolt-on chassis brackets. Substantial gains in chassis tuning can be obtained with this Ultra Magnum 4-Link Kit.

Kit Includes:

- $\frac{3}{4}$ " x $\frac{1}{2}$ " Chrome Moly rod ends
- 4130 Chrome Moly tubes (.095" wall thickness)
- 1/2" NAS quality, flare head bolts & nuts
- Housing brackets with integral anti-roll bar mounts (1/4" plate)
- For 3" Axle Tubes
- Sold in pairs



PART #DESCRIPTIONC2029Ultra Magnum 4-Link Kit

NN17-2

REAR AXLE COMPONENTS

FABRICATED REAR AXLE HOUSINGS

- Triangulated design offers increased strength over three piece stock housings
- CAD designed and CNC manufactured in-house
- Offered in 4130 Chrome Moly or Mild Steel
- Exterior welds ground smooth to eliminate stress risers
- 1/4" face plate for added strength
- Face plates accepts 3/8" press-in studs
- Includes drain plug and filler plug
- Carrier Stud Kit No. C9006 available separately
- PART # DESCRIPTION
- C9100 Full bodied car with cut-to length 3" dia. axle tubes, Chrome Moly, 60.75" overall length (Mild Steel tubes)
- C9200 Full bodied car with cut-to length 3" dia. axle tubes, Mild Steel, 60.75" overall length

DRAGSTER REAR AXLE HOUSINGS

- Stronger .125" thick sheet metal shell is more accurately produced than any other rear end housings on the market
- Designed with overlapping joints that provide two weld seams to greatly improve strength compared to butt-welded housing shells
- Housing comes in standard 26.00" flange to flange width
- Withstands advanced E.T. applications: internal bulkheads stiffen the shell to the face plates preventing movement and adding strength around the housing mounting brackets
- ³/₈" thick face plate is CNC machined after the housing is welded to ensure proper axle alignment to center section
- Includes a -6 AN drain plug, $\frac{1}{6}$ " NPT fitting for a vent, and an aluminum o-ring filler cap
- All housings have machined symmetrical housing ends
- Carrier Stud Kit No. C9006 available separately

PART # DESCRIPTION

- C9004 Dragster Housing, Drag, Mild Steel
- PART # **REPLACEMENT PARTS**
- C9085 Rear End Cap, Black Anodized with Logo

9" FORD AXLE HOUSING BRACES

Fits: 9" Ford Heavy-Duty Housings and Competition Engineering Fabricated Housings

9" Ford rear axles are very popular in drag racing because of their light weight and the ability to change gears easily. The only disadvantage to this design is the tendency to flex and bow under

hard acceleration. As the pinion rotates, it tries to climb the ring gear. This force tends to flex the rear housing out of shape. To combat this flex. Competition Engineering has designed the 9" Ford Axle Housing Brace. This two piece brace welds directly to the rear housing, triangulating the main housing with the axle tubes to eliminate any flex. By eliminating the flex, vou increase the amount of power applied to the tires and improve your ET's as well.

C9205

- Eliminates housing flex
- Two piece design makes it easier to install
- CAD designed. CNC manufactured
- · Contoured to fit for easier welding
- Made from 1/8" material
- Welding required

PART # DESCRIPTION

- C3405 C9105
 - Competition Engineering Fabricated Housing Brace, Mild Steel
- 9" Ford Axle Housing Brace, Mild Steel Competition Engineering Fabricated Housing Brace, Chrome Moly



No. C9100

No. C9200

[Mild Steel]

[Chrome Moly]



Front View





REAR AXLE SPRING PERCHES

When installing a spring perch in a leaf spring car or moving the leaf springs inboard, these Moroso Axle Spring Perches are a necessity.

- Precision stamped for easy weld-on installation
- Fits Ford 9", Dana 60 and other 3" diameter axle housings
- Two per package
- PART # DESCRIPTION
- 85090 Rear Axle Spring Perches





F



Whether narrowing a rear axle housing for bigger tires or just building a new housing for your race or street car, you will need housing ends to complete the project. You could re-use the old housing ends but most of the time they are either too rusty or damaged fror removal process.

Axle Housing Ends feature:

- Extra thick flange
- For 3" Axle Tubes
- Sold in pairs
- Welding required
- Forged
- Fully CNC machined

PART # DESCRIPTION

C9505	Axle Housing Ends, Big Ford w/ .515 dia. bolt holes, Nominal 3.15" Bearing Bore
C9507	Axle Housing Ends, Ford 9" large 3.150" dia. bearing,
	%" -24 Threaded, Spaced 3.557" W x 2.750"
C9510	Axle Housing Ends, Dana 60 Mopar $8-\frac{3}{4}$ ", $\frac{3}{8}$ " -24 Threaded,
	Nominal 2.875" Bearing Bore

NOTE: For use with aftermarket axles and bearings.





REAR AXLE COMPONENTS

REAR END FILL CAP KIT

- Comes with steel weld bung and O-ring
- Manufactured from 6061-T6 Aluminum, with contoured grip
- Universal kit can be used on rear end housings and steel tanks to replenish fluids

PART # DESCRIPTION

Rear End Fill Cap Kit, Black Anodized, 1-3/8" -12UNF Threads, 2.6" OD C9085



No. C9085



AXLE BEARING CONVERSION KIT

Fits: Dana 60 and Chrysler 8-3/4"

- · Converts original tapered roller axle bearings to precision ball bearings
- Improves reliability and eliminates the stock load adjuster
- Includes retaining ring and gasket

One per package

PART # DESCRIPTION

C8008 Axle Bearing Conversion Kit





REAR AXL

CARRIER STUD KIT FOR REAR AXLE HOUSINGS

- Designed for our Rear Axle Housings (pg. 391), similar sheet metal housings, or stock-style Ford 9" housings
- Heat treated, Grade 8 steel studs provide solid mounting points for the center section differential
- Manufactured with splined ends, the press-in studs are pulled through from inside the housing
- Includes nuts and copper sealing washers—far superior than steel to prevent seepage and leakage
- · Packaged in sets of 10 studs, nuts, and washers

REAR AXLE HOUSING VENT

- · Reduces internal housing pressure while preventing dirt from entering housing
- Superior quality vent features 1/8" NPT Nickel Plated Steel threads and sintered bronze element for years of dependable service
- Protected low-profile element is recessed, preventing it from being knocked out like stock plastic designs
- · Can be used as a replacement for stock vents or adapted to any rear axle housing; ideal for use on narrowed or fabricated housings



PART # C9006

DESCRIPTION Carrier Stud Kit



No. C3406

DESCRIPTION PART # C3406 **Rear Axle Housing Vent**

2 DEGREE WEDGE PLATES

- Used to adjust pinion angle or change traction bar angle on leaf spring equipped cars and trucks
- Allows pinion angle change in 2° increments
- Made from 6063-T5 aluminum, they won't crack like cast zinc
- Interlocking ribs allow plates to be stacked without sliding and eliminate unwanted pinion angle change
- Two per package

DESCRIPTION° PART # C7025 2º Wedge Plates



No. C7025

Rear End Fill Cap on

Moroso page 361



WISHBONE REAR AXLE HOUSING LOCATORS

Eliminates sway in Ladder Bar and 4-Link suspension systems

- · Positively locates rear axle housing for super straight launches without binding
- Offered in two different styles: Un-welded (No. C2035) or Magnum Series Chrome Moly (No. C2024)
- Un-welded version manufactured from 1" 0.D. x .156" wall DOM steel tubing with 3/4" forged solid steel rod ends
- Magnum Series version has overall mounting width of 25" and an overall length of 31-7/16" making it perfect for most Sportsman and Pro Street applications
- Designed with the pro chassis builder in mind, Magnum Series Kit coordinates with our **No. C2028** Magnum Series 4-Link
- Magnum Series features chrome moly tubing, precision machined 4130 tube inserts, 5/8" bolt mounting brackets and a centerless ground sliding link with machined wrench flats to ensure a precise fit
- Magnum Kit also includes a high strength ³/₄" spherical rod end for the front pivot and high mis-alignment rod ends for the side pivots. The sliding link is black oxide plated to eliminate corrosion and binding.
- Universal design offers you the ability to tailor the overall width and length for your specific application
- Kits include all hardware and all bracketry to complete installation
- Welding required for all kits

PART # DESCRIPTION

C2024 Wishbone Rear Axle Housing Locator Kit, Unwelded, Magnum Series, Chrome Moly, 5/8" hole (use No. C3423 for 3/4" mounting)

 $\textbf{C2035} \qquad \mbox{Wishbone Rear Axle Housing Locator Kit, Unwelded, Universal, $$\%$'' hole}$

DIAGONAL LINKS

Eliminates side-to-side housing movement

- Superior to the Panhard Bar for eliminating sway in Ladder Bar and 4-Link suspensions
- Are available in 4 different versions
 - -Bolt-On Diagonal Link, Part **No. C2045** is constructed from ¾" x .156" wall, 36.5" overall length, mild steel tubing with 1/2" hole mounting brackets
 - -Bolt-On Diagonal Link, Part **No. C2052** is constructed from 3/4" x .156" wall, 36.5" overall length, mild steel tubing with 3/4 " hole mounting brackets
 - -Weld-On Diagonal Link, Part **No. C2031** is constructed from 1" x .065" wall 36" overall length, chrome-moly tubing with weld-in tube adapters and 5/8" hole mounting brackets
 - -Weld-On Diagonal Link, Part **No. C2053** is constructed from 1" x .065" wall 36" overall length, chrome-moly tubing with weld-in tube adapters and 1/2" hole hole mounting brackets
- · Length can be shortened to accommodate a narrow chassis
- Left and right hand rod ends allow for on-car adjustments
- · Kits include all rod ends and mounting hardware

PART # DESCRIPTION

- C2031 Diagonal link, for 5% " rod ends, weld-on
- C2052 Diagonal link, for 3/4" rod ends, bolt-on
- $\textbf{C2053} \qquad \text{Diagonal link, for $1\!/2"$ rod ends, weld-on. Works with current style $\textbf{C2005 \& C2006}$}$

PART # REPLACEMENT PARTS

- C3422 5%" Clevis Bracket for No. C2031
- C3423 ¾" Clevis Bracket for No. C2052
- C3431 1/2" Clevis Bracket for No. C2045, No. C2053

PANHARD BAR KIT

- Eliminates side-to-side housing movement of the rear axle housing within chassis
- Keeps your tires from rubbing the wheel openings, making sure you get down the track in a straight line
- Perfect for street driven vehicles
- Includes gusseted mounting brackets and spherical rod ends
- 30" tube length can be trimmed to fit
- Hardware and instructions included to ensure a trouble-free installation
- Welding required



DESCRIPTION

Panhard Bar Kit

4-Link

Ladder Bar

AVAILABLE OPTIONS

PART #

C2037

PART #

C2017

C2006



ADJUSTABLE PANHARD BAR

Strength and adjustability far superior to factory-installed, steel bars

Fits: Mustang, 2005 - 2014

- · Eliminates housing movement within the chassis on Drag and Road Race cars
- · Spherical rod ends on both sides allow for adjusting the alignment of the rear end
- Chrome Moly rod ends provide less deflection than stock rubber bushings
- · Constructed from chrome moly for light weight, strength and stability during hard acceleration and cornering
- Black powder coat finish for long-lasting looks

PART # DESCRIPTION

C2138 Panhard Bar, Adjustable, Spherical Rod Ends on both sides



PANHARD BAR, STREET/STRIP

Fits: Mustang, 2005 - 2014

- Bolt-in Panhard Bar perfect for Street/Strip vehicles
- · Constructed from tubular steel for light weight and strength
- Polyurethane ends provide less deflection than stock rubber bushings PART #
- Black powder coat finish for long-lasting looks





PANHARD BAR FRAME BRACE

Fits: Mustang, 2005 - 2014

- Much stiffer than stock stamped piece
- Constructed of 1.25" dia. steel tubing for strength
- Black powder coat finish for long-lasting looks



LOWER CONTROL ARMS

For Drag/Road Racing Fits: Mustang, 2005 - 2014

- Constructed from 4130 (.120" wall) chrome moly tubing
- Adjustability for pre-load, squaring chassis and wheel base
- Eliminates the flex of the factory control arms
- ³/₄" Chrome moly rod ends on both ends to increase strength and adjustability
- Comes with high grade 12.9 hardware
- · Helps reduce wheel hop, improve traction, cornering and E.T. times
- Durable, glossy, black powder-coated finish
- Instructions included

PART # DESCRIPTION

Lower Control Arms, Drag/Road Racing, Adjustable C8010

LOWER CONTROL ARMS

For Street or Racing

Fits: Mustang, 2005 - 2014

- Constructed from 4130 (.120" wall) chrome moly tubing
- Eliminates the flex of the factory control arms
- ³/₄" Chrome moly rod ends on one end
- · Retains stock rear offset bushings
- Greased fittings in rear to eliminate squeaks
- Adjustability for pre-load, squaring chassis and wheel base
- · Can be adjusted on the car
- Helps reduce wheel hop, improve traction, cornering and E.T. times
- Durable, glossy, black powder-coated finish
- Instructions included

PART # DESCRIPTION

C8009 Lower Control Arms, Street/Racing, Adjustable

LOWER CONTROL ARMS. REAR

Fits: 1978-'88 G Body GM Intermediates incl. Cutlass, El Camino, Grand National, Grand Prix, Malibu, Monte Carlo, Regal

- Mounting brackets for additional strength and easy install
- Brackets included are for mounting OEM sway bar and most aftermarket sway bars
- Direct bolt-on replacement for stock units
- Controls wheel hop and improves handling
- Improves 60 foot times
- 3-Way adjustable for changing track conditions
- Computer designed and CNC stamped ³/₁₆" thick axle brackets
- High durometer polyurethane bushings with grease fittings for guiet operation
- Finished in black powder-coat
- Sway bar brackets are zinc plated for durability
- Includes all mounting hardware
- Legal for Stock Eliminator Racing

• Welding required

PART # DESCRIPTION

C8003 Lower Control Arms, Rear











REAR AXLE





UPPER CONTROL ARM MOUNTING PLATE

For Drag/Road Racing Fits: Mustang, 2005-'14

- Mounting Plate Bolts in place of factory upper control arm mounting plate
- Plates are constructed from 1/4" thick steel, so does not flex like factory mounting plate
- Has two upper control arm mounting positions on each plate for instant center adjustment and pinion angle adjustment

COMPETITION ENGINEERING PRODUCT DEVELOPED AT:

• Durable, glossy, black powder-coated finish

PART # DESCRIPTION

C8016 Upper Control Arm Mounting Plate

No. C8016





THE DRAG STRIP



AND ON THE ROAD COURSE



UPPER CONTROL ARM. NON-ADJUSTABLE

For Street Use

Fits: Mustang, 2005-2014

- Constructed from 4130 .120" wall chrome moly tubing
- Polyurethane bushings on both ends
- Grease fittings to eliminate squeaks
- Much stronger than stock components to eliminate flex
- Helps reduce wheel hop, improve traction and E.T. times
- Durable glossy black powder coated finish
- Instructions included

PART #	DESCRIPTION

C8019 Upper Control Arm



No. C8019

UPPER CONTROL ARM BUSHING KIT

Fits: Mustang, 2005-2014

- 88 Durometer Polyurethane bushing and steel sleeves for single upper control arm
- Improves attachment of the upper control arm to the rear end
- Less energy loss by reduced distortion compared to factory soft rubber bushing
- Use with Competition Engineering Upper Upper Control Arm Kit, Street/ Strip, Non-Adjustable No. C8019

PART # DESCRIPTION

C8017 Upper Control Arm Bushing Kit



No. C8017

TORQUE BOX REINFORCEMENT PLATES, LOWER

Fits: Mustang, 1979-2004

- · Designed to tie lower torque boxes together for increased strength and durability
- Kit includes two stamped steel lower torque box reinforcement plates
- Welding required

PART # DESCRIPTION

C8015 Torque Box Reinforcement Plates, Lower





REAR AXLE

REAR UPPER CONTROL ARM SPHERICAL BEARING-BUSHING KIT

Fits: Mustang, 1979-2004

- Constructed from billet aluminum
- Fits Ford 8.8 axle housing
- Eliminates flex and binding, improves handling
- Provides positive location of rear axle housing

PART # DESCRIPTION

C3168 Arm Bearing-Bushing Kit, Spherical, Rear Upper Control





ADJUSTABLE PINION SNUBBER

Fits: Mustang, 1979-2004

- Controls wheel hop in mildly modified 1979-'04 Mustangs and similar Fox bodied cars
- Replaces stock pinion snubber, can be adapted to earlier models without factory snubber
- Easily adjustable in 1/4" increments for different driving situations
- · Zinc and yellow chromate plated for extended durability

PART # DESCRIPTION

C2112 Adjustable Pinion Snubber



MUSTANG LOWER CONTROL ARMS

Fits: Mustang 1979-04, Drag Race/Road Race

- Reduced weight with increased strength
- Adjustable length for squaring axle to chassis
- Spherical rod ends for precise axle control while eliminating suspension bind
- Perfect for drag racing or road racing
- Rear end brackets allow 3-way adjustment for improved performance
- Bolt in installation, includes all hardware



	No. C8007		
PART #	DESCRIPTION		
C8007	Mustang Lower Control Arms		

"MAGNUM SERIES" ANTI-ROLL BAR

Universal Application



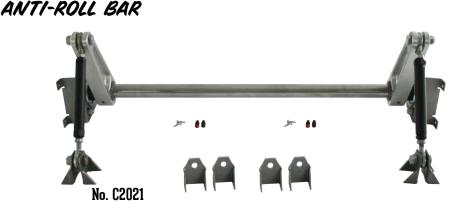
Fits: Tube Frame, Purpose Built and Modified Chassis Drag Race Cars

- Includes a formed, heavy gauge frame mounts, enabling you to install the torsion tube through the frame rails for increased strength
- Billet aluminum arms incorporate special splines to prevent arms from slipping on torsion tube
- Can be adapted to fit any type of race or street application
- · Makes it possible to preload the chassis, elimination body roll during hard launches
- Allows the Drag Race car to drive straighter off the starting line, helping to improve 60-foot times
- Features ball bearing pivot point, which makes for smoother functioning and the unit can be disassembled for maintenance
- *Kit includes:* 1-4130 Chrome Moly torsion tube, 2-Adjustable splined billet aluminum arms, 2-Mounting brackets, 2-Adjustable links, 4-Rod Ends, 4-Weld in threaded adjusters, 2-Bearings flange mounted & hardware
- Welding required

PART # DESCRIPTION

C2027 "Magnum Series" Anti-Roll Bars, Universal Application, Rebuildable

MUSTANG ANTI-ROLL BAR



Fits: Mustang, 1979-2004, Drag Race

- Includes a tubular style mount enabling you to install the torsion tube through the frame rails for increased strength
- Can be adapted to fit any type of race or street application
- Makes it possible to preload the chassis, eliminating body roll during hard launches
- Allows the car to drive straighter off the starting line, helping to improve 60-foot times
- Kit includes: 4130 Chrome Moly torsion tube, 6061-T6 Billet Aluminum arms, threaded adjuster links, mounting tabs and hardware
- Welding required

PART # DESCRIPTION

C2021 "Magnum Series" Anti-Roll Bars, Ford Mustang, Spherical Bearings - Rebuildable

 application ranging from throttle linkages to suspension arms Includes one rod end and one jam nut Available in a number of sizes and in both right or left hand threads All-steel bodies are available in either carbon steel or chrome moly Chrome Moly is highly recommend for use exclusively in our 4-Link and Ladder Bar Suspension Kits; Polyurethane Rod Ends for street applications using Ladder Bars 				No. C6009	
PART #	MATERIAL DESCRIPTION	THREAD	SHANK & Hole	STATIC RADIAL Load capacity	
C6003	Low Carbon Steel	1/4" Right Hand	1⁄4" x 1⁄4"	2,225 lbs.	_
C6004	Low Carbon Steel	%" Right Hand	3∕8" X 3∕8"	5,100 lbs.	
C6007	Low Carbon Steel	1/2" Right Hand	1⁄2" x 1⁄2"	8,386 lbs.	
C6009	Low Carbon Steel	%" Right Hand	5⁄8" x 5⁄8"	9,813 lbs.	
C6010	Low Carbon Steel	%" Left Hand	5⁄8" x 5⁄8"	9,813 lbs.	
C6011	Low Carbon Steel	3/4" Right Hand	3⁄4" x 3⁄4"	14,290 lbs.	
C6012	Low Carbon Steel	3/4" Left Hand	3⁄4" x 3⁄4"	14,290 lbs.	
C6130	Chrome Moly Steel	3/4" Right Hand	3⁄4" x 3⁄4"	28,090 lbs.	
C6131	Chrome Moly Steel	3/4" Left Hand	3⁄4" x 3⁄4"	28,090 lbs.	
C6160	Extra-Heavy-Duty Chrome Moly	3/4" Right Hand	3⁄4" x 5⁄8"	40,590 lbs.	OF MORE
C6161	Extra-Heavy-Duty Chrome Moly	3/4" Left Hand	3⁄4" x 5⁄8"	40,590 lbs.	SEE MO
C6150*	Forged Steel	3/4" Right Hand Solid	3⁄4" x 3⁄4"	26,000 lbs.	Clevis Brackets
C6151*	Forged Steel	3/4" Left Hand Solid	3⁄4" x 3⁄4"	26,000 lbs.	on page 437
C6152	Polyurethane Bushing	3/4" Poly	3⁄4" x 3⁄4"	18,500 lbs.	15
C6156*	Forged Steel	3/4" Right Hand	¾" x ½"	18,500 lbs.	
C6157*	Forged Steel	3/4" Left Hand	¾" x ½"	18,500 lbs.	

ROD ENDS

No. C6011

SOD ENDS

*Part Nos. C6150, C6151, C6156 and C6157 are not recommended for the front point of 3-Link, 4-Link or Ladder Bar suspensio

"MAGNUM SERIES" CHROME MOLY ROD ENDS

The Best Choice for Ladder Bar and 4-Link Applications

A complete assortment of high quality rod ends to meet your specific

- Self-lubricating, self-sealing Rod Ends have increased thickness for greater tensile strength
- Perfect for demanding Motorsports applications
- When loaded, creates metal to metal contact for unsurpassed strength yet when unloaded, the Rilsan[®] AZM30 injected liner will not rattle or squeak like standard two or three piece rod ends
- Jam nut included

ROD ENDS

PART #	DESCRIPTION	THREAD	SHANK & HOLE	LOAD CAPACITY	
C6014	Chrome Moly Rod Ends	%" R/H	3⁄8" X 3⁄8"	9,500 lbs.	– No. C6014
C6017	Chrome Moly Rod Ends	¾" L/H	3∕8" X 3∕8"	9,500 lbs.	0
C6019	Chrome Moly Rod Ends	½" R/H	1/2" X 1/2"	12,696 lbs.	
C6020	Chrome Moly Rod Ends	½" L/H	1/2" X 1/2"	12,696 lbs.	
C6021	Chrome Moly Rod Ends	%" R/H	5%" x 5%"	14,480 lbs.	
C6132	Chrome Moly Rod Ends	5⁄8" L/H	5⁄8" x 5⁄8"	14,480 lbs.	
C6133	Chrome Moly Rod Ends	¾" R/H	3⁄4" x 1⁄2"	23,256 lbs.	
C6153	Chrome Moly Rod Ends	3⁄4" L/H	3⁄4" x 1⁄2"	23,256 lbs.	No. C6019 No. C6154
C6154	Chrome Moly Rod Ends	¾" R/H	3⁄4" x 5⁄8"	23,256 lbs.	
C6155	Chrome Moly Rod Ends	3⁄4" L/H	3⁄4" x 5⁄8"	23,256 lbs.	No. C6021 No. C6162
C6162	Chrome Moly Rod Ends	¾" R/H	3⁄4" x 3⁄4"	23,192 lbs.	
C6163	Chrome Moly Rod Ends	¾" L/H	3⁄4" x 3⁄4"	23,192 lbs.	

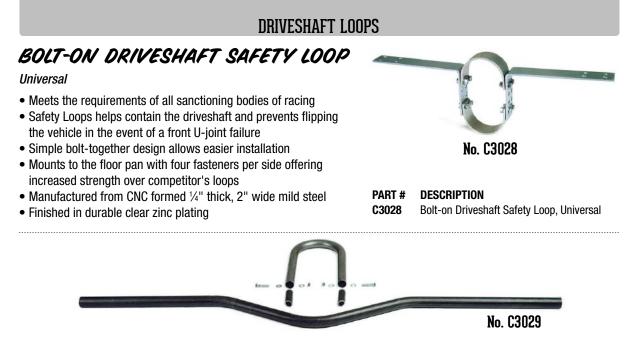


IS THERE A MAINTENANCE PROCEDURE FOR ROD ENDS?

Yes. Before each race, rod ends should be examined for excessive play by moving the bar back and forth and noting any excessive ball movement. Visually inspect the rod ends for any signs of wear, cracks or metal filings. Replace any rod end that exhibits any one of these characteristics.

SHOULD ROD ENDS BE CLEANED PERIODICALLY?

Yes. Routine rod end maintenance should include cleaning and re-oiling. This can be accomplished by removing the rod ends, cleaning them with a solvent (for example, mineral spirits), and allowing them to air dry. Once dry, lubricate the rod ends with good quality 30-weight motor oil. For High Heat Applications, use Synthetic Grease.



TUBULAR DRIVESHAFT LOOP KIT

- · Offers a lightweight, weld-in alternative to the bolt-on driveshaft safety loop
- Can be used in two locations on your vehicle to contain both the front and rear of the driveshaft—highly recommended in vehicles with fabricated sheet metal interiors
- Tubing is mandrel formed from 1.25" O.D. x .083" wall mild steel tubing that is 54" long with a 4" drop center profile
- Kit features a bolt-on loop for easier driveshaft access in cars with removable transmission tunnels
- Removable loop for easy driveshaft removal
- Welding required

PART #DESCRIPTIONC3029Driveshaft Loop Kit, Tubular

DRIVESHAFT LOOP KIT

Fits: 1997-'04 Ford Lightning & F-150 Trucks

- · Bolt-on design allows easy installation with no modification
- Removable loop for easy driveshaft removal
- Meets the requirements of all sanctioning bodies of racing
- Fits 2-wheel drive trucks w/ steel or aluminum driveshafts
- · Helps contain the driveshaft in the event of a U-joint failure
- Made from 1.25" O.D. x .083" wall DOM mild steel tubing
- Finished in durable gloss black powder coating

PART #DESCRIPTIONC3090Driveshaft Loop Kit, includes all hardware

22

DRIVESHAFT LOOPS

Camaro LS, LT, SS, ZL1 2010-'14

- · Bolt-on design allows easy installation with no modifications required
- Removable loop for easy driveshaft removal
- Meets the requirements of all racing sanctioning bodies
- Will help contain the driveshaft in the event of a front U-joint failure, keeping it from digging into the ground and possibly overturning the vehicle
- Manufactured from heavy-gauge fabricated steel
- Durable gloss black powder finish
- All hardware included

PART # DESCRIPTION

C3174 Driveshaft Loop, Standard Transmission

C3175 Driveshaft Loop, Automatic Transmission



No. C3175

DRIVESHAFT LOOPS

DRIVESHAFT LOOPS

Fits: Mustang 2005-'14

- Bolt-on design allows easy installation, driveshaft removal unnecessary
- For large diameter aftermarket and O.E.M. driveshafts
- Meets the requirements of all sanctioning bodies of racing
- Includes quality hardware for loop halves
- · Manufactured from mild steel with a long-lasting black powdercoat finish

PART # DESCRIPTION

C3160 Driveshaft Loop, Bolt-on, Fits: Mustang 2005-'14



DRIVESHAFT LOOP

Fits: Chrysler LX, Automatic Transmission Only, 2005-'17

- For Chrysler chassis cars-Challenger, Charger, Magnum and 300C
- · Bolt-on design allows easy installation with no modifications required
- Removable loop for easy driveshaft removal
- · Meets the requirements of all sanctioning bodies of racing
- Will help contain the driveshaft in the event of a front U-joint failure, keeping it from digging into the ground and possibly overturning the vehicle
- Manufactured from 1.25" O.D. x .083" wall DOM mild steel tubing
- Finished in durable gloss black powder coating
- All hardware included

PART # DESCRIPTION

C3161 Driveshaft Loop. Fits: Chrysler LX, Automatic Transmission Only



No. C3161

DRIVESHAFT LOOP

Fits: Dodge Challenger SRT8^{®,} 2009-'11, Standard Transmission

- Bolt-on design allows easy installation with no modifications required
- Removable loop for easy driveshaft removal
- · Meets the requirements of all racing sanctioning bodies
- Will help contain the driveshaft in the event of a front U-joint failure, keeping it from digging into the ground and possibly overturning the vehicle
- Manufactured from heavy-gauge fabricated steel
- Durable, gloss black powder finish
- All hardware included

PART # DESCRIPTION

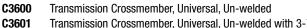
C3162 Driveshaft Loop



TRANSMISSION CROSSMEMBERS

- · Allows quick and easy transmission installation and removal
- Includes 42" x 1-5/8" x .134 wall EWT tube, four mounting tabs (flat) and four mounting tabs (concave) with all hardware

PART # DESCRIPTION



Transmission Crossmember, Universal, Un-welded with 3-1/2" offset



TRANSMISSION CROSSMEMBER BUSHINGS

Fits: Mustangs, 1979 - 1993

- . The solid aluminum bushings act as a chassis stiffening device, helping to increase E.T. consistency
- They replace rubber bushings in factory crossmember
- · No modifications or welding required

PART # DESCRIPTION

C3610 Transmission Crossmember Bushings



No. C3610





SHOCKS AND COMPONENTS

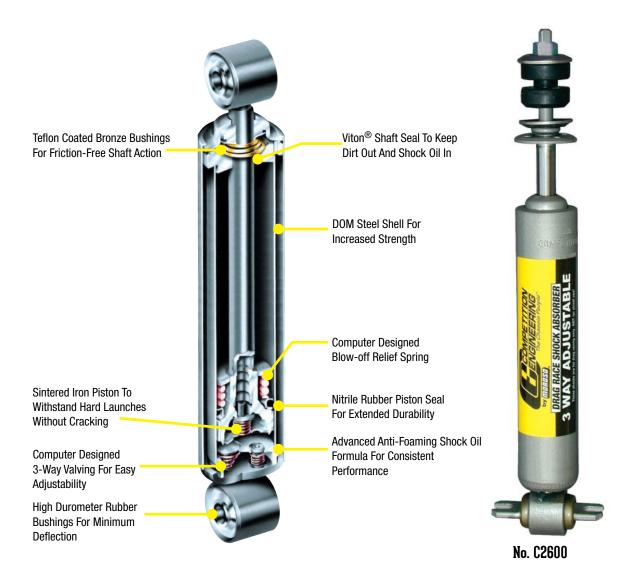
Competition Engineering's 3-Way **Adjustable Drag Shocks** are designed to allow the racer to dial-in the race car to meet changing track conditions. Shock valving plays a very important role in the way your car will perform both during initial launch and throughout the quarter mile.

The principle behind our shock absorber design is to allow the front end of the race car to rise rapidly upon initial launch, creating greater weight transfer and better traction to the rear tires. As the car travels down the track, the front end will gradually descend to its ride height without unloading the rear tires which is a major cause of wheel spin. Our rear shocks work in conjunction with our front shocks making the transition from initial launch to top end charge as smooth as possible.

Competition Engineering's **Rear Drag Shocks** can be adjusted for changing track conditions by simple compressing and turning the shock. For slick tracks, set to the 50/50 adjustment; on good tracks, set to the 70/30 for better weight transfer.

Competition Engineering's **Front Drag Shocks** are adjustable in three ratios: 90/10, 80/20 and 60/40. These ratios reflect the percentage of force required to extend and compress the shock absorber. You can quickly change the valve setting by simply compressing the shock fully and rotating the shaft until the indexing notch mates with the desired setting on the body. **It's as simple as twist and click.**

Our **Rear Drag Shocks** are also adjustable in three ratios: 70/30, 60/40 and 50/50. These ratios also represent the percentage of force required to compress and extend the shock unit. Only this time, the first number is compression and the second extension. These shocks also adjust by compressing them fully and rotating to the desired setting on the body.



NOTE: These shocks are designed for DRAG RACE use only! Not for street use.



SHOCK APPLICATION CHART

MAKE & MODEL	YEAR	FRONT	REAR	MAKE & MODEL	YEAR	FRONT	REAR
		SHOCKS	SHOCKS			SHOCKS	SHOCKS
AMERICAN MOTORS				FORD			
Ambassador,				Mustang II / Pinto	1978-74	C2639	
Classic,	1978-70	C2640	C2700	Ranchero	1979-72	C2610	C2700
Matador, Rebel	1969-62		C2700		1971-60	C2640	C2740
American, Rambler	1969-64		C2700	Ranger	2005-99	C2647	
AMX	1980-78	C2640			1998-90	C2646	
AMX, Javelin	1974-70	C2640	C2700		1989-83	C2645	
	1969-68		C2700	Thunderbird	1988-87	C2806*	
Concord, Gremlin,					1979-67	C2610	C2700
Hornet, Spirit	1983-70	C2640		MERCURY			
Eagle	1988-80	C2640	C2700	Capri	1986-79	C2806*	C2750
CHRYSLER/DODGE				Comet	1977-71	C2630	
Challenger	1974-70	C2620	C2730	-	1969-60	C2640	C2740
Charger, Coronet	1978-73	C2620	02130	Cougar	1982-80	C2806*	C2750
onargor, obronot	1972-65	C2620	C2730	oougui	1979-74	C2610	C2700
Cordoba	1976-75		C2730	-	1973-71	C2640	C2740
Dakota	1992-87	C2600		-	1970-67	C2630	C2740
Dart, Demon, Swinger	1976-64	C2620	C2735	Full Size	1986-65	C2610	C2700
Dodge Truck, Ram 50	1992-79	C2600		Montego	1976-72	C2610	C2700
Full Size	1978-74	02000	C2730		1971-68	C2640	C2740
	1964-57		C2730	GENERAL MOTORS		102010	02110
Lancer, Monaco	1978-62	C2620	C2730	BUICK			
	1962-61		C2730	Apollo	1980-74	C2600	C2720
Magnum XE	1979-77	C2620	C2730	without H.D. Suspension		C2600	C2720
PLYMOUTH	1.0.0.1.	102020	02.00	with H.D. Suspension	1973	C2600	
	1074 70	C2620	C2730	-	1972-68	C2600	00700
Barracuda	1974-70	C2620 C2620	C2730 C2735	Contury	1001 70	00000	C2720
Belvedere, Fury, Savoy	1969-64 1970-62	C2620	C2735	Century Full Size	1981-73 1984-71	C2600 C2610	C2720
Belvedere, Satellite	1970-62	62020	C2730		1984-71	C2610	C2700
Delveuere, Saleille	1974-73	C2620	C2730	Full Size Wagon	1966	62010	C2700
Valiant, Duster, Sport Scamp	1972-05	C2620	C2730	Regal	1987-73	C2600	C2700
GTX	1970-67	C2620	C2730	Riviera	1978-71	C2600	C2720
Road Runner	1975-68	C2620	C2730	Skyhawk	1980-75	C2600	02720
	1975-00	02020	02130	Skylark, Special	1979-68	C2600	00700
FORD	1	1	1-	- Skylaik, Special			C2720
Elite, Fairlane, LTD II, Torino	1979-72 1971-65	C2610 C2640	C2700 C2740		1967-64	C2610	C2720
				CHEVROLET	r		
Falcon	1970-66	C2640	C2700	S-10 Blazer 2WD, S-10 Pickup	2004-82	C2600	C2720
Full Size	1986-65	C2610	C2700	Caballero, El Camino	1987-68	C2600	C2720
	1959-57	C2610	C2740		1967-64	C2610	C2720
Granada	1982-81	C2806*	C2750	Camaro	2002-93		C2700
	1980-75	C2640			1992-82		C2700
Maverick	1977-70	C2630	1	1	1981-70	C2610	C2710
Mustang, Fairmont	2004-79	C2806 *	C2750	1	1969-67	C2600	C2700
U , T	1973-71	C2640	C2740	Chevelle, Malibu	1983-68	C2600	C2720
	1970-65	C2630	C2740	,	1967-64	C2610	C2720
		-	1	Chevette	1987-76	- 1	C2700

*90/10 Drag Strut - Not Adjustable



HAVE YOU BEEN EXPERIENCING BAD WHEEL HOP WITH YOUR LEAF SPRING OR COIL OVER STREET/STRIP VEHICLE?

While there are many factors in determining why your car may be experiencing excessive wheel hop, we have found that weak springs and old, worn out shocks play a key role. Check your

springs and shocks at least once a year for excessive wear. Worn out springs and bad shocks do not supply enough dampening to counter act the effects of spring wind up or weight transfer upon initial launch to effectively plant your tires. In turn they will cause wheel hop.



SHOCK APPLICATION				·			1
Make & Model	Year	Front Shocks	Rear Shocks	Make & Model	Year	Front Shocks	Rear Shocks
CHEVROLET (CON'T)				PONTIAC			
Chevy II, Nova	1979-74	C2600		Astre	1977-75	C2600	
without H.D. Suspension	1973	C2600		Bonneville	1986-82	C2600	C2700
with H.D. Suspension	1973	C2600	C2720	Firebird	2002-93		C2700
with Monoleaf Rear Springs	1972-68	C2600					C2700
with Multileaf Rear Springs	1972-68	C2600	C2720			C2610	C2710
	1967-62	C2605	C2705			C2600	C2700
Corvette	1982-63	C2610	C2700	Full Size	1986-63	C2610	C2720
	1962-53			Grand Am	1981-68	C2600	C2700
Full Size	1986-65	C2610	C2720	Grand Prix	1987-69	C2600	C2720
	1957-55	C2610			1968-62	C2610	C2700
Monte Carlo	1988-70	C2600	C2720	GTO	1973-67	C2600	C2720
Monza	1980-75	C2600		LeMans, Tempest-1970	1981-67	C2600	C2720
Truck, Full Size	2007-88	C2616		Sunbird	1992-76	C2600	
	1987-73	C2615					
Vega	1977-72	C2600					
OLDSMOBILE				Ventura II	1977-71	C2600	C2720
Cutlass, F85	1988-68	C2600	C2700	with H.D. Suspension	1973		C2720
without H.D. Suspension	1967-64		C2720	with Multileaf Rear Springs	1972-71		C2720
with H.D. Suspension	1967-64		C2700	ISUZU			
Full Size	1986-71	C2610	C2720	Impulse	1989-83		C2700
Full Size Wagon	1992-77	C2610		ΤΟΥΟΤΑ			
	1990-65	C2610	C2720	Corolla	1983-77		C2700
Omega	1979-73	C2600	C2720	Corona Mark II	1976-72	C2600	C2700
Starfire	1980-75	C2600		Corona	1978-74		C2700
Toronado	1978-71		C2720	1	1973-65	C2600	
				1	1964-61		C2720
				Celica	1977-73		C2700

*90/10 Drag Strut - Not Adjustable



HOW TO ADJUST COMPETITION ENGINEERING DRAG RACING SHOCKS

PLEASE NOTE: Before installation Competition Engineering Shocks need to have their shock ratio adjustment set.

The Shock Ratio represents the percentage of force required to compress the shock compared to the force required to extend it.

BEFORE INSTALLATION FOR THE FIRST TIME OR BEFORE ADJUSTMENT THE FOLLOWING PROCEDURE SHOULD BE FOLLOWED:

- 1. Upon removal of the shock from its packaging, it is important to "purge" the shock of any air that may be trapped inside during shipment. Skipping this step can make the shock feel as if it is not functioning properly. To purge the shock, simply hold it so that it points up and down and completely cycle it 12-15 times.
- 2. To begin making adjustment changes once the shock has been purged, you must compress the shock *completely*. On the inside of the shock, at the bottom of the adjuster is a small pawl. This pawl must make contact with the bottom of the shock body or it will not turn, and in doing so not change the settings of the shock. Keep in mind that you must have the shock pointed straight up while making adjustments to avoid aerating it.
- 3. With the shock still compressed and in the upright position, begin turning the shaft in the *clockwise* direction. This is where you will notice a series of clicks. Pay attention to these clicks and you will notice that one is more pronounced that the others. This is the key to properly setting the shock adjustment. This louder, more pronounced click is the beginning of the settings and should be considered the "R" or regular setting. The following series of softer clicks will be the "F" or firm setting, and finally the "XF" or extra firm setting. When turning the shaft to make adjustments, remember that you can only go clockwise. If you feel like you have missed the setting you were looking for do not worry, just keep turning the shaft until you hear the loudest click and you will be back to the default setting and can begin making shock adjustments.

As an example:

Adjustment Chart - Shock

If you wanted to find the XF setting, you would go through all the steps mentioned and while listening for the clicks, you would hear a loud click and then two softer clicks.

This would be similar for the F setting, the loudest click and then one soft click.

Something else to keep in mind when making adjustments:

Trying to gauge the setting of the shock by compressing it in your hand and feeling the difference in Compression is not advised. Though you can compress the shock, you will not be able to simulate the weight of a vehicle or the speed at which it can cycle the shock. If you continually try to check adjustment by hand, it can cause the shock to aerate and feel inconsistent.

The only true way to verify adjustment of the settings is to record the vehicle at the track or to test the piece on a shock dynamometer

Ratio	SETTINGS	FRONT SHOCKS	REAR SHOCKS
	R	60/40	50/50
	F	80/20	40/60
	XF	90/10	30/70



DRAG SHOCK SPECIFICATIONS

FRONT SHOCKS SPECIFICATIONS CHART

PART NUMBER	EXTENDED LENGTH	COLLAPSED LENGTH	DIAMETER	UPPER MOUNT	LOWER MOUNT
C2600 C2610 C2616 C2647	14.10" 15.34" 17.31" 20.7"	9.00" 9.62" 12.56" 15.9"	1.63" 1.63" 2.0" 2.0"		203
C2605 C2640	16.50" 14.34"	11.00" 9.24"	1.63" 1.63"	ļ	g g
C2620 C2639 C2645 C2646	16.84" 13.86" 17.22" 16.96"	10.37" 10.56" 12.22" 12.21"	1.63" 1.53" 2.0" 2.0"	ļ	[[]]
C2630	15.02"	9.80"	1.63"	203	
C2615	14.73"	9.63"	2.0"		

REAR SHOCKS SPECIFICATIONS CHART

Part Number	Extended Length	Collapsed Length	Diameter	Upper Mount	Lower Mount
C2700 C2705	21.69" 19.50"	12.84" 12.35"	1.63" 1.63"	Î	
C2710	22.43"	13.21"	1.63"		Ĵ
C2720	22.87"	13.65"	1.63"] ¤⊏[]¤
C2730 C2755	23.62" 16.41"	14.15" 10.44"	1.63" 1.63"		
C2735	24.50"	14.50"	1.63"		
C2740	20.16"	11.81"	1.63"	Ê	Ţ
C2750	21.65"	13.29"	1.63"	Ê	[[]]





SHOCK

MAGNUM SERIES REAR COIL-OVER SHOCK

"MAGNUM SERIES" REAR COIL-OVER SHOCK ABSORBER

Competition Engineering's Rear Coil-Over Shocks are a part of our Magnum Series, a line of professional-grade products engineered for maximum performance and durability. They feature 12 settings, allowing you to tune the suspension from soft to firm with a simple turn of the knob.

- All-aluminum billet housing is CNC machined with a black anodized body
- Spring seats are adjustable for preload and accept 2-1/2" I.D. springs

instant weight transfer to the rear tires. Plus, the design provides

increased resistance when the front end descends, preventing the

Gas charging reacts faster, eliminates foaming and won't fade

Computer designed valving for consistent performance under

• Micro-polished 1/3" dia. hard-chrome shaft reduces friction for

Fits: 1979-'93 Mustang, 1987-'88 Thunderbird,

1979-'86 Capri, 1980-82 Cougar,

rear tires from unloading and maximizing traction.

· Bolt-In replacement for easy installation

like hydraulic designs

faster reaction

One per package

PART #

C2806

severe racing conditions

DESCRIPTION

90/10 Drag Struts

1978-'83 Fairmont

- 5/8" hardened chrome piston rod provides superior strength
- Advanced sealing reduces drag for faster reaction
- Includes two 1" wide spherical mounting bearings with locking snap rings
- 17" extended height; 13-3/4" to 14-5/8" recommended ride height; 11-3/4" compressed height
- One per package
- · Springs not included

PART # DESCRIPTION

C2770 "Magnum Series" Rear Coil-Over Shock Absorber





No. C2770



Low Pressure Gas Charging Eliminates Foaming And Increases Performance

Dyno Proven Computer Designed

Low Speed Fluid Control Valve

Valving For Accurate And

Consistent Control

Sintered Iron Piston With High Speed Polymer Piston Ring

Rebound Stop

Advanced Formula Shock Oil For Consistent Damping

SHOCKS AND COMPONENTS

COIL-OVER SHOCK KIT

Adjustable

- Kit includes: 3-Way Adjustable Shocks, Upper Mounts, Adjustable Lower Mounts, Threaded Sleeve, Spring Cap, Seat and Hardware
- Universal design allows installation on a variety of chassis
- 3-Way Adjustable shocks provide controlled squat at the rear for improved weight transfer and traction
- Lower shock mounts have 6" of adjustment in one-half inch increments to suit ride height requirements
- Lower shock mounts are finished with zinc and yellow chromate plating and the threaded sleeve, spring cap and seat are anodized for corrosion resistance
- Fits housings with 3" 0.D. axle tubes
- Springs not included
- Adjustable spring seat with locking set screw allow the spring rate to be finely tuned
- Use with Competition Engineering Rear Coil-Over Springs depending on specific rear-end weight,
- accepts 2.5" I.D. Spring • Sold in pairs

Coil-Over Shock Kit, Adjustable

• Sold in pairs PART # DESCRIPTION

C2765

See MORE

age 413

UNIVERSAL LOWER SHOCK MOUNTS

- Created for relocating non coil-over shocks when the rear frame rails have been moved inboard
- Manufactured from .25" mild steel
- Fits housings with 3" 0.D. axle tubes
- 1/2" bolt hole
- Four per package
- Accepts "eye" shock mount
- Welding required
- Fits all axle tube diameters
- PART # DESCRIPTION
- C3170 Universal Lower Shock Mounts



No. C3170



GREG ZOEMULDER WITH COMPETITION ENGINEERING SHOCKS



SXOOHS



REAR COIL-OVER SHOCK KIT

- · Universal design allows installation on a variety of chassis
- Complete kit includes 3-Way Adjustable Shocks, Upper Mounts and Adjustable Lower Mounts
- 3-Way Adjustable Shocks provide controlled squat at the rear for improved weight transfer and traction
- Lower Shock Mounts have 6" of adjustment in 1/2" increments to suit ride height requirements
- Lower Spring Perches and Shock Mounts are finished with a zinc and yellow chromate plating for corrosion resistance
- Fits housings with 3" 0.D. axle tubes
- Use with Competition Engineering Rear Coil-Over Springs depending on specific rear-end weight, accepts 2.5" I.D. Spring
- Sold in pairs; replacement shocks sold separately

PART # DESCRIPTION

C2051 Rear Coil-Over Shock Kit

PART # REPLACEMENT PARTS

C2755 Replacement Shock Absorber, each

C3420 Replacement Shock Mounts

NOTE: Coil Springs not included





SHOCKS

LOWER COIL-OVER SHOCK MOUNT KIT

- Designed to be used either by itself or in conjunction with our Upper Coil-Over Shock Mount Kit
- Provides a solid, adjustable mounting point for racing coil-over shocks
- Fits housings with 3" 0.D. axle tubes
- Allows 6" of height adjustment in 1/2" increments
- 1/4" thick housing brackets, 3/16" thick shock brackets
- · Fits most popular coil-over shocks
- Includes Grade 8 hardware and spacers for mounting two shocks
- Welding required

PART # DESCRIPTION

C2047 Lower Coil-Over Shock Mount Kit

PART # REPLACEMENT PARTS

- C3417 Coil-Over Shock Bracket, Right
- C3419 Coil-Over Shock Bracket, Left
- C3414 Coil-Over Housing Bracket



No. C2047

COIL-OVER SHOCK ADJUSTING TOOL

- Makes adjusting coil-over shocks much easier than the commonly used hammer and screwdriver method
- Works with Moroso, Avo, Hal, Koni, Bilstein, Carrera, Monroe and most other coil-over shocks with adjusting nuts up to 3-1/4" diameter
- · Manufactured of cast steel with finger indents for sure grip operation

PART # DESCRIPTION

62030 Coil-Over Shock Adjusting Tool



REAR SHOCK MOUNTING

REAR COIL-OVER MOUNT KIT

Fits: 1979-'04 Mustang, Without Shocks & Springs

- Designed specifically to improve traction and handling
- · Upper and lower shock mounts to fit stock rear locations
- · Bolt-in design with no welding or fabricating needed
- · Includes all hardware and spacers

PART # DESCRIPTION

C2056 Rear Coil-Over Mount Kit



No. C2056

No. C3019

REAR SHOCK CROSSMEMBER

Fits: 1967-'69 Camaro, Firebird

- Required with No. C2032 Offset Spring Hanger installation
- Ties rear subframe together for increased strength
- · Relocates shocks inboard of frame
- Provides solid mounting point for rear shocks

• Welding required

PART # DESCRIPTION C3019 **Rear Shock Crossmember**

NOTE: Crossmember may be shortened 1" to fit 1968-72 Nova, 1971-72 Ventura and 1970-81 Camaro, Firebird.

UPPER COIL-OVER SHOCK MOUNT KIT

- Works in conjunction with our Lower Coil-Over ShockMount Kit No. C2047 to provide a solid mounting point
- Designed to mount between the rear frame rails on any Drag Race, Pro Street or Street Rod application
- Lightweight, tubular design makes it perfect for mounting shocks when "back-halving" a vehicle
- Includes one 40" long x 1.625" dia. mounting tube, 1/4" thick mounting brackets, 4 shock mount tabs, 4 shock spacers for older style coil-over shocks and all mounting hardware
- · Fits most popular coil-over shocks
- Welding required

PART # DESCRIPTION

C2046 Upper Coil-Over Shock Mount Kit



No. C2046

REAR COIL-OVER SHOCK MOUNTING & SPRINGS

REAR COIL-OVER SPRINGS

- Each spring is computer designed for specific rear end weights to establish the correct ride height and to allow the full range of suspension travel
- Maximizing the full potential of the springs based on vehicle weight provides optimum weight transfer, rear axle control and traction
- Manufactured on precise CNC equipment for superior accuracy and uniform spring rate from one spring to another
- Premium grade chrome silicon steel extends durability and maintains correct spring rate and ride height after repeated hard launches
- Powder coating provides an attractive finish and helps extend spring life
- Spring dimensions: 2.5" I.D. x 12" long
- Sold in pairs

REAR COIL-OVER SPRINGS APPLICATION CHART



No. C2550

PART NUMBER	SPRING RATE LBS./INCH	TOTAL WEIGHT ON REAR WHEELS
C2550	85	Under - 1050 lbs.
C2555	100	1050 - 1150 lbs.
C2560	125	1150 - 1250 lbs.
C2565	150	1250 - 1450 lbs.
C2570	200	1450 - 1800 lbs.

PROGRESSIVE WOUND REAR SPRINGS. 12", 100-200 LBS.

An excellent choice for multiple applications

- For vehicles of unspecified weight (under 3,400 lbs. total)
- Progressive design reduces rate of compression, making it less likely for vehicle to "drive up" on the tire during violent wheel stands as the vehicle pitch rotates the weight to the rear wheels, this compresses the spring making it more conducive to lifting the front end
- Progressive springs compensate for added rear weight in Street Rods and Pro-street Cars using a back seat
- · Sold in pairs
- PART # DESCRIPTION
- C2575 Progressive Wound Rear Springs, 12", 100-200 Lb.

OFFSET SPRING HANGERS

Fits: 1967-'69 Camaro, Firebird; 1962-'67 Chevy II; 1968-'74 Nova; 1971-'72 Ventura

- Created for Super Stock classes, designed to relocate the rear of the leaf springs inboard 4" for additional tire clearance
- An additional 2-1/2" of tire clearance can be had by relocating the front of the leaf springs inboard and modifying both the axle mounting pads and the inner fenderwell
- Allows you to accomodate a 13"-14" racing slick
- OEM gas tank needs to be narrowed 2", or use a fuel cell

PART # DESCRIPTION

C2032 Offset Spring Hangers, Two per package



No. C2575

NOTE: Some welding required.



WHEEL-E-BARS[™] KITS



UNIVERSAL 80" SINGLE WHEEL-E-BARTM KIT

Competition Engineering has designed a single wheel Wheel-E-Bar[™] kit that is perfect for both the professional and amateur chassis builder. The lower tube and wheel pocket are fixture welded in house for perfect alignment while still allowing the builder to trim it to any desired length. The 1" 0.D. x .065" wall chrome moly tube is strong yet lightweight, while the two hi-misalignment rod ends allow the bar to adjust to any rear axle housing without the need for a tubing bender. Each kit comes with all the necessary hardware and a detailed set of instructions.

- Extra Long Bar Improves Chassis Reaction Times
- Designed to Fit Any Application
- Includes All Necessary Hardware

PART # DESCRIPTION

C2148 Universal 80" Single Wheel-E-Bar™ Kit

- Strong, Lightweight Chrome Moly Construction
- Hard Plastic Wheel with Steel Bearings for Long Life
 Welding Remained
- Welding Required
- PART # REPLACEMENT PART
- C7060 Replacement Wheel

UNIVERSAL 60" WHEEL-E-BARTM KITS

These Universal Wheel-E-Bar[™] Kits allow the professional chassis builder to fabricate bars to fit a specific vehicle. Each kit is available in mild steel with a choice of sprung or unsprung versions. The 60" long tubes can be cut to the desired length to suit individual needs. As an added feature, each kit includes the necessary material to install an upper crossbrace for increased strength. Wheel-E-Bars[™] are designed to mount to existing 4-Link or Weld-On Housing Brackets.

- Longer bar improves chassis reaction times
- Mild steel tubing
- Designed for 28" housing mounting width
- · Hard plastic wheels with steel bearings for long life
- Material included for x-brace installation
- Welding required
- Housing Brackets sold separately No. C7048

PART # DESCRIPTION

- C2140 Universal 60" Wheel-E-Bar™ Kit, Unsprung, Seamless Steel Tubes C2145 Universal 60" Wheel-E-Bar™ Kit,
- Sprung, Seamless Steel Tubes
 PART # AVAILABLE OPTIONS
- **C7048** Axle Housing Mounting Bracket, qty.1

PART # REPLACEMENT PARTS

- **C7060** Replacement Wheel
- C7051 Replacement Spring
- **90430** Wheel-E-Bar™ Quick Relase Pins



No. C2145

REPLACE	MENT PARTS FOR DISCONTINUED WHEEL-E-BARS™	
PART #	DESCRIPTION	FITS DISCONTINUED WHEEL-E-BAR™
C7051	Wheel-E-Bar™ Professional Springs. One per package	C2015, C2038
C7052	Wheel-E-Bar™ Professional Spring Adjusting Mechanism. One per package	C2015, C2038, C2039, C2155
C7058	Wheel-E-Bar™ Replacement Wheel. Natural rubber w/ ball bearing center, ½" hole. One per package	C2015, C2038, C2039
C7060	Wheel-E-Bar™ Replacement Wheel. Synthetic rubber w/ ball bearing center, %" hole. One per package	C2042, C2130, C2140, C2150, C2155
C7066	Strut, Lower. Polished and Buffed Aluminum. One per package	C2015, C2045
90430	Wheel-E-Bar™ Quick Release Pin. Two per package	C2015, C2038, C2039



PROFESSIONAL WHEEL-E-BARS™

Wheelstands may look spectacular but they can actually hurt performance. Although some front end lift is beneficial to weight transfer, excessive lift can hurt. When a car wheelstands upon initial launch, it uses up power that could propel the vehicle forward. This results in slower ET's. As tire technology and horsepower levels progressed over the years, racers experimented with different ways to combat the wheelstanding problem. Most of the original designs consisted of merely bars or leaf springs that were welded directly to the rear end housing, hoping that they would prevent the front of the car from rising too high. One of the major problems with these early designs is that they caused the rear tires to unload resulting in a loss of traction.

Competition Engineering recognized this problem long ago and developed a series of Wheel-E-Bars[™] designed to limit and control big wheelstands without unloading the rear tires. We accomplish this by utilizing an axle housing mounted bracket that allows the Wheel-E-Bar[™] to react instantaneously with rear housing movement. As the rear housing rotates, the natural rubber wheels come in contact with the track. The shock of this contact is absorbed by both the lower aluminum struts and the coil spring upper struts which keep the tires from unloading. As the housing continues to rotate more and the front end begins to lift, the coil springs on the upper struts start to compress. The more that the springs are compressed, the more force they exert against the housing rotation, eventually overcoming the rising force of the front end and gently pushing it back down. This converts the rotational energy into forward motion, resulting in quicker ET's.



Designed to withstand the abuse of drag racing, the Competition Engineering Professional Wheel-E-Bar[™] Series is the choice of more racers than any other design when quality and premium materials count.

Each bar features lower spring adjusters made from 7075-T6 aluminum to allow for ease in preload adjustment. The lower struts are made from high strength 6061-T6 aluminum, enabling them to handle the forces applied to them without fatiguing. Each kit includes all the required fasteners as well as quick release pins to allow access to the rear end housing for jacking. 44" overall length, $22^{-11}/_{16}$ " center to center mounting bracket distance. • Fits 3" Axle Tube

PART #	DESCRIPTION
C2016	Professional Wheel-E-Bars [™] , Chrome plated with natural finish aluminum components
C2036	Professional Wheel-E-Bars [™] , Chrome plated with black anodized aluminum components
C2039	Professional Wheel-E-Bars [™] , Chrome plated with blue anodized aluminum components
C2040	Professional Wheel-E-Bars [™] , Chrome plated with red anodized aluminum components
PART #	REPLACEMENT PARTS
C7046	Conversion Kit, Bolt-on. Converts weld-in Wheel-E-Bars [™] to bolt-on style
C7047	Conversion Kit, Weld-In. Converts bolt-on Wheel-E-Bars [™] to weld-in style
C7048	Axle Mounting Bracket, quantity One
C7051	Replacement Springs
C7052	Professional. Spring Adjusting Mechanism. One per package
C7058	Replacement Wheel. Natural rubber w/ ball bearing center, ½" hole
C7060	Replacement Wheel. Synthetic rubber w/ ball bearing center, %" hole
C7066	Replacement Lower Strut, Aluminum with natural finish
90430	Quick Release Pins. Two per package



BOLT-ON WHEEL-E-BARS™

Competition Engineering has designed a bolt-on version of our famous Wheel-E-Bars[™] specifically for street enthusiasts. Utilizing similar components as our Professional Wheel-E-Bars[™] we were able to adapt them for street use by replacing the weld-in mounting brackets with bolt-on brackets.

BOLT-ON CHROME ROUND TUBE WHEEL-E-BAR™

- Bolt-On design, no welding required
- Round tube design, for 3" Axle Tubes
- Triple process, show quality, chrome plated finish
- Available in sprung and unsprung versions
- 44" overall length
- 18-%" center to center mounting bracket distance
- Includes all hardware and mounting instructions
- Synthetic Rubber Wheels

PART # DESCRIPTION

C2043 Bolt-On Chrome Round Tube Wheel-E-Bar™, Sprung

PART # AVAILABLE OPTIONS

C7058 Natural Rubber Replacement Wheel

PART # REPLACEMENT PARTS

- C7051 Professional Springs. One per package
- C7052 Professional Spring Adjusting Mechanism. One per package
- **C7060** Replacement Wheel. Synthetic rubber w/ ball bearing center, ³/₈" hole

INSTALLATION ON REAR AXLE HOUSING

With car on level surface, locate Bolt-on Wheel-E-Bar[™] under the car with the brackets up against the housing and prop up the Wheel-E-Bar[™] wheels to a height of about 6" off the ground for street use (3-1/2" for strip use). In this position, fasten the Housing Saddle Brackets over the rear end housing and attach to Rear Housing Brackets using the hardware provided. If the Rear Housing Brackets are too big for your particular housing so that they cannot be bolted securely, The Housing Bracket Saddle can be welded to the housing and the Rear Housing Bracket bolted to it, thereby allowing the Wheel-E-Bar[™] to be removed.

STATE AND LOCAL ORDINANCES

May prohibit the Bolt-on Wheel-E-Bars[™] from extending beyond the rear bumper. If this situation exists and you wish to shorten the Wheel-E-Bars[™], the upper and lower struts can each be shortened and re-drilled. Care must be taken to insure that the Bolt-on Wheel-E-Bars[™] will clear driveways, etc., without being severely loaded. If the bars are to be used for street use, it is recommended that they be loosely bolted to the housing while backing out of and pulling into a driveway (for example) until the bars "adjust" to the required height. Once this height is determined, the bars can be secured to the housing.

CAN I USE A BOLT-ON STYLE WHEEL-E-BAR™ FOR RACING?

Although our Bolt-On Wheel-E-Bars[™] are intended for a Pro Street look, they contain many of the same components used in our Weld-On Wheel-E-Bars[™] for racing. In fact, the only difference is the bracketry which in its bolt-on configuration is not strong enough to control the vehicle in a wheelstand. By removing the clamp bracket and welding the axle bracket directly to the housing, you have a Wheel-E-Bar[™] suitable for both street and strip use.



No. C2043

8-POINT ROLL BARS

Competition Engineering offers a variety of Roll Bars and Roll Cages to meet the different requirements of most racers. Countless hours were spent developing and perfecting these kits to offer the utmost in strength and fit without adding unnecessary weight. All tubing used in our kits exceeds the requirements of racing sanctioning bodies and is mandrel formed on computer controlled equipment for uniform wall thickness. Every Competition Engineering Kit has been designed to fit the specific application with only minor modifications necessary for installation.

- Manufactured from 1-¾" 0.D. x .134" wall mild steel or 1-¾" 0.D. x .083" wall aircraft-quality AMS-T-6736 chrome moly tubing
- Increases chassis strength
- · Provides added safety
- Mandrel formed, model-specific main hoop
- NHRA and IHRA approved
- Tube ends notched for better fit and easier installation
- Strut Kits include two rear struts, two front door bars, main hoop crossbrace, two diagonal hoop supports, six weld joint gussets and eight 6" x 6" x 1%" thick steel mounting plates
- · Complete instructions are included to ensure a hassle-free installation
- Welding required

TWO PART NUMBERS are required to get a complete 8-Point Roll Bar Kit!

You must order both A) the appropriate 8-Point Main Hoop Kit and B) Strut Kit No. C3000 for Mild Steel OR Strut Kit No. C3100 for Chrome Moly (unless otherwise noted)*

8-POINT ROLL BARS APPLICATION CHART A) MAIN HOOP

PART #		APPLICATION
MILD STEEL	CHROME MOLY	
AMC		
C3039	C3151	1970-'83 Hornet, Concord, Sprint
CHRYSLE	R/DODGE	
C3129	C3159	1970-'74 Barracuda, Challenger
C3123	C3158	1970-'76 Duster, Demon, Sport, Scamp, 1968-'69 Dart, Barracuda, Valiant
C3128	C3157	1968-'74 Roadrunner, GTX, R/T, Satellite, Super Bee, Coronet, Belvedere
C3135*	C3150*	2008 - '15 Challenger, Custom Fit
FORD		
C3025	C3154	1979-'93 Capri, Mustang
C3124	C3152	1968-'72 Fairlane, Torino, Montego
C3039	C3151	1967-'73 Mustang, 1971-'77 Maverick 1977-'81 Fairmont
C3126	C3153	1974-'78 Mustang II 1971-'80 Pinto, Bobcat
C3125	C3155	1994-'04 Mustang Hardtop
C3132*	C3156*	2005 - '14 Mustang, Custom Fit
GENERAL	MOTORS	
C3021	C3138	1967-'69 Camaro, Firebird
C3121	C3145	1970-'81 Camaro, Firebird
C3130	C3147	1982-'92 Camaro, Firebird
C3131	C3148	1993-'02 Camaro, Firebird



8-Point Roll Bar (Actual product may vary from image shown)

B) STRUT KITS

PART # DESCRIPTION C3000 8-Point Strut Kit, Mild Steel C3100 8-Point Strut Kit, Chrome Moly PART # ADDITIONAL OPTIONS C3181 Roll Cage X-Brace Kit, Mild Steel C3191 Roll Cage X-Brace Kit, Chrome Moly

) MAIN HOOP

PART #		APPLICATION
MILD STEEL	CHROME MOLY	
GENERAL	MOTORS, ca	ontinued
C3124	C3152	1964-'72 Chevelle, GTO, Tempest, Cutlass, Skylark, LeMans
C3127	C3139	1955-'57 Chevrolet
C3023	C3137	1966-'67 Chevy II, Sedan/Wagon
C3122	C3149	1978-'87 Malibu, Monte Carlo, Grand Prix, Regal, Grand National, Cutlass, 442
C3024	C3136	1962-'65 Nova
C3022	C3144	1968-'79 Nova, Apollo, Omega, Ventura
C3026	C3146	1971-'77 Vega 1975-'80 Monza, Astro, Skyhawk, Starfire
SPORT C	OMPACT	
HONDA		
C9402	C9412	1992-'00 Honda Civic Coupe, Hatchback
C9401	C9410	1988-'91 Honda CRX
MAZDA		
C9408	C9418	1979-'85 Mazda RX-7
MITSUBIS	SHI	
C9405	C9415	1990-'94 Mitsubishi Eclipse
TRUCKS ((See footnote	below for appropriate Strut Kit)
C3134**	C3133**	1982-'00 GM S-10, S-15

*NOTE: These part numbers ONLY come complete, Strut Kit included.

**NOTE: Strut Kits for Trucks include 2" x 3" box tubing to connect rocker panel to the frame. Order No. C3001 Mild Steel or No. C3101 Chrome Moly

ROLL BARS & COMPONENTS

ROLL BAR BOLT-IN CONVERSION KIT

Fits: Any Uni-Body Race Vehicle, Domestic or Import, using an 8-Point Roll Bar

- Universal application allows installation of 8-Point Roll bar (mild steel or chrome moly) to meet sanctioning body rules without welding base plates to the floor
- 6" x 6" x $\frac{1}{8}$ " steel plates get positioned under the floor and are used with the existing roll bar plates to "sandwich" the floor pan
- Includes 3/8"-16 x 1" Grade 8 bolts and Nylock nuts for mounting
- Requires drilling floor pan and forming mounting plates to match under-floor contours

PART # DESCRIPTION

C3020 Roll Bar Bolt-In Conversion Kit

FORMED REAR STRUTS

8-Point Roll Bar

- Designed to allow roll bar installation in most vehicles without permanently removing or modifying the rear seat
- Manufactured from 1-¾" 0.D. x .134" wall mild steel or 1-¾" 0.D. x .083" wall aircraft-quality AMS T-6736 chrome moly tubing with 50° bend
- NHRA and IHRA approved
- Welding and fabrication required
- Two per kit



PART #DESCRIPTIONC3185Formed Rear Struts, Mild SteelC3195Formed Rear Struts, Chrome Moly

- 10-POINT CONVERSION KITS
- Eliminates the hassle of replacing your existing bar with a new cage
- · Designed to convert a legal 8-point roll bar into a legal 10-point roll cage
- Kit includes top hoop and two forward downstruts that tie into your existing 8-point roll bar
- Manufactured from 1-⁵/₈" 0.D. x .134" wall mild steel or 1-⁵/₈" 0.D. x .083" wall aircraft-quality AMS T-6736 chrome moly tubing
- · Mandrel formed on computer controlled equipment
- Meets NHRA requirements for cars running 10.99 or quicker
- Custom fit applications
- Welding required



No. C3325

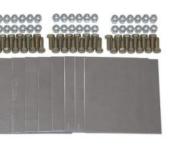
(Actual product may vary from image shown)

10-POINT CONVERSION KIT APPLICATION CHART

MILD Steel Part #	CHROME Moly Part #	DESCRIPTION
FORD		
C3325	C3345	10-Point Conversion Kit, 1979-'93 Mustang, Capri
C3328	C3348	10-Point Conversion Kit, 1994-'04 Mustang
GENERAL MO	DTORS	
C3320	C3340	10-Point Conversion Kit, 1967-'69 Camaro, Firebird
C3323	C3343	10-Point Conversion Kit, 1970-'81 Camaro, Firebird
C3324	C3344	10-Point Conversion Kit, 1968-'72 GTO Chevelle, Cutlass, LeMans, Tempest
C3321	C3341	10-Point Conversion Kit, 1968-'79 Nova, Ventura, Omega, Apollo
C3322	C3342	10-Point Conversion Kit, 1962-'67 Nova, Chevy II



ROLL BARS





10-POINT ROLL CAGES

- Bridges the gap between an 8-Point Roll Bar and a 12-Point Roll Cage
- Meets NHRA & IHRA equirements for cars running 10.99 or quicker with modified firewalls and/or floorboards
- · Provides increased driver protection in rollover
- · Increases chassis rigidity for better reaction times
- Main Hoop Kit consists of one mandrel formed main hoop, one top hoop, two front downstruts, one main hoop crossbrace and two diagonal hoop supports designed specifically for your application
- Strut Kit consists of two door bars, two rear struts, ten 6" x 6" x 1%" steel mounting pads and twelve weld joint gussets
- Manufactured from 1 ⁵/₈" 0.D. x .134" wall mild steel or 1 ⁵/₈" 0.D. x .083" wall aircraft-quality AMS-T-6736 chrome moly tubing
- All bends mandrel formed on CNC equipment
- Tube ends notched for better fit and easier installation
- · Complete instructions included to ensure a hassle-free installation
- Welding required

Two Part Numbers are required to get a complete 10-Point Roll Bar Kit! You must order both A) the appropriate 10-Point Main Hoop Kit and
B) Strut Kit No. C3310 for Mild Steel OR Strut Kit No. C3250 for Chrome Moly (unless otherwise noted)

10-POINT ROLL CAGES APPLICATION CHART

PART #		APPLICATION
MILD STEEL	CHROME MOLY	
CHRYSLE	R/DODGE	
00007	00007	1968-'69 Barracuda,
C3227	C3287	1970-'76 Duster
C3235*	C3285*	2008 - '15 Challenger, Custom Fit
FORD		
C3225	C3275	1979-'93 Capri, Mustang
C3229	C3279	1994-'04 Mustang
C3240*	C3270*	2005 -'14 Mustang, Custom Fit

*NOTE: These part numbers ONLY come complete, Strut Kit included.



10-Point Roll Cage (Actual product may vary from image shown)

BI STRUT KITS

PART #	DESCRIPTION
C3310	10-Point Strut Kit, Mild Steel
C3250	10-Point Strut Kit, Chrome Moly
PART #	ADDITIONAL OPTIONS
C3181	Roll Cage X-Brace Kit, Mild Steel
C3191	Roll Cage X-Brace Kit, Chrome Moly
C3184	Roll Cage Upgrade Kit
C3194	Roll Cage Upgrade Kit, Chrome Moly

A) MAIN HOOP

PART #		APPLICATION
MILD STEEL	CHROME MOLY	
GENERA	L MOTORS	
C3220	C3260	1967-'69 Camaro, Firebird
C3222	C3262	1970-'81 Camaro, Firebird
C3226	C3266	1982-'92 Camaro, Firebird
C3231	C3267	1993-'02 Camaro, Firebird
C3223	C3263	1968-'72 Chevelle, GTO, Tempest,
63223	03203	Cutlass, Skylark, LeMans
C3221	C3261	1966-'67 Chevy II, Nova
C3224	C3264	1968-'79 Nova, Apollo, Ventura, Omega
		1978-'87 Malibu, Monte Carlo,
C3233	C3265	Grand Prix, Regal, Grand National,
		Cutlass, 442
TRUCKS		
C3234	C3268	1982-'00 GM S-10, S-15

ROLL CAGE UPGRADE KIT

- Designed to upgrade your existing roll cage to meet NHRA requirements when the firewall, floor pan, or rocker panels have been modified or replaced with aluminum panels
- Manufactured from 1-⁵/₂" 0.D. x .134" wall mild steel or 1-⁵/₂" 0.D. x .083" wall aircraft-quality AMS-T-6736 chrome moly tubing
- Comes complete with one dash bar, two door diagonals, two rocker bars and six gussets
- Welding and fabrication required

PART #DESCRIPTIONC3184Roll Cage Upgrade KitC3194Roll Cage Upgrade Kit, Chrome Moly



No. C3184

12-POINT ROLL CAGES

12-POINT ROLL CAGES

- Designed to provide the utmost in chassis strength and superior 360° driver protection with proper installation
- Design ties the front frame to the roll cage making it one solid unit, eliminating chassis flex and decreasing vehicle reaction time
- Hoop Kit includes one main hoop, one top hoop, two front downstruts, one main hoop crossbrace and two forward struts
- Strut Kit consists of two door struts, two rear struts, two diagonal hoop supports, one rear X-brace, ten 6" x 6" x 1/8" steel mounting pads and twelve weld joint gussets
- Manufactured from 1 ½" 0.D. x .134" wall mild steel or 1 ½" 0.D. x .083" wall aircraft-guality AMS-T-6736 chrome moly tubing
- Pre-notched tube ends provide for a better installation
- Meets NHRA and IHRA requirements
- All tubes mandrel formed in-house on CNC equipment
- Complete instructions are included to ensure a hassle-free installation
- Welding required

Two Part Numbers are required to get a complete 12-Point Roll Bar Kit!

You must order both A) the appropriate 12-Point Main Hoop Kit and B) Strut Kit No. C3300 for Mild Steel OR Strut Kit No. C3350 for Chrome Moly (unless otherwise noted)*

12-POINT ROLL BARS APPLICATION CHART A) MAIN HOOP

PART #		APPLICATION		
MILD STEEL	CHROME MOLY			
CHRYSLE	R/DODGE			
C3309	C3361	1968-'69 Barracuda		
03303	00001	1970-'76 Duster		
C3308*	C3373*	2008 -'15 Challenger, Custom Fit		
FORD				
C3303	C3370	1979-'93 Mustang, Capri		
GENERAL MOTORS				
C3305	C3380	1967-'69 Camaro, Firebird		
C3307	C3381	1970-'81 Camaro, Firebird		
C3302	C3382	1982-'92 Camaro, Firebird		



12-Point Roll Cage (Actual product may vary from image shown)

B] Strut Kits

- PART # DESCRIPTION
- C3300 12-Point Strut Kit, Mild Steel
- C3350 12-Point Strut Kit, Chrome Moly
- PART # **ADDITIONAL OPTIONS**
- C3184 Roll Cage Upgrade Kit
- C3194 Roll Cage Upgrade Kit, Chrome Moly

A) MAIN HOOP

PART #		APPLICATION		
MILD STEEL	CHROME MOLY			
GENERAL MOTORS, continued				
C3311	C3383	1968-72 Chevelle, GTO, Tempest,		
03311	00000	Cutlass, Skylark, LeMans		
		1978-'87 Malibu, Monte Carlo,		
C3312	C3371	Grand Prix, Regal, Grand National,		
		Cutlass, 442		
C3306	C3384	1975-'80 Monza		
		1971-'77 Vega, Starfire, Skyhawk		
C3313	C3385	1968-'79 Nova, Apollo, Omega,		
03313		Ventura		
TRUCKS				
C3314	C3372	1982-'00 GM S-10, S-15		

*NOTE: These part numbers ONLY come complete, Strut Kit included.

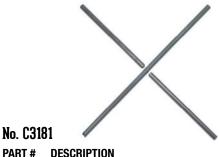
ROLL BARS, CAGES & CHASSIS ACCESSORIES

ROLL CAGE X-BRACE KIT

Available In Mild Steel or Chrome Molv Finish

- Designed to increase the strength of your chassis by eliminating side to side twist and uneven suspension loading
- Use in conjunction with the rear struts found in our Roll Bar and Roll Cage Kits to create a solid racing chassis
- Kit includes one 60" long tube and two 30" long tubes; manufactured from 1-5/10. 0. 0. x .134" wall mild steel or 1-5/10. 0. D. x .083" wall aircraft-quality AMS T-6736 chrome moly tubing

Welding required



PART # C3181 Roll Cage X-Brace Kit, Mild Steel C3191

Roll Cage X-Brace Kit, Chrome Moly

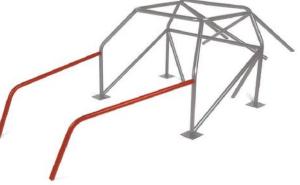


FRONT DOWN STRUT UPGRADE KIT

- Tie the front frame to the roll cage making it one solid unit, eliminating chassis flex and decreasing vehicle reaction time
- Front Down Struts have the same specifications as the Front Struts that are included in Competition Engineering 12-Point Roll Cage Kits
- Combine with Competition Engineering **Nos. C3181** or **C3191** to convert 10-Point Roll Cages to 12-Point Roll Cages
- Pre-notched tube ends provide for better installation
- Meets NHRA and IHRA requirements
- All tubes mandrel formed in-house on CNC equipment
- Welding required
- · Sold as a pair

PART # DESCRIPTION

C3186Front Down Strut Kit, Mild SteelC3196Front Down Strut Kit, Chrome Moly





FUNNY CAR CAGE KITS

Note: Funny Car Cage Kit is the tubing highlighted in red on the image

- Available in 1-1/2" 0.D. x .134" wall mild steel or 1-3/4" 0.D. x .083" wall aircraft-quality AMS-T-6736 chrome moly tubing
- Upgrades 10 point or more point cage kit to have Funny Car cage protection
- Kits contain 10 pieces of pre-bent 1-5%" 0.D. x .134" wall or 1-34" 0.D. x .083" wall tubing and 2 pieces of 1" 0.D. x .118" wall mild steel or 1" 0.D. x .058" wall chrome moly head/helmet guards
- Tubing is left long and un-notched so kit can be custom fitted to the application
- Meets NHRA and IHRA requirements
- All tubes mandrel formed in-house on CNC equipment
- All Welding required

PART # DESCRIPTION

- C3187 Funny Car Cage Kit, Mild Steel
- C3197 Funny Car Cage Kit, Chrome Moly



SEAT BACK BRACES

- Designed to meet different sanctioning body rules on bracing non-FIA rated seats
- Non-FIA seats can be attached to the brace's 3" x 6" plate, 18 square inches
- On FIA approved seats this brace can be used as an additional support
- Adjustable back and forth with a locking collar
- No welding is required for installation
- Available for 3 different diameters of roll bar tubing

PART # DESCRIPTION

C4905	Seat Back Brace, Adjustable for 1 3/4" Dia. Tubing
C4906	Seat Back Brace, Adjustable for 1 5/8" Dia. Tubing
C4907	Seat Back Brace, Adjustable for 1 ½" Dia. Tubing





OFFSET ROLL BAR PADDING

- Our popular Roll Bar Padding is now packaged in single 3-foot lengths for improved convenience and pricing
- 3" 0.D. padding is extruded from high-density foam for maximum safety and protection
- Inside diameter of 1-5%" is offset by 7/16" to position extra cushioning towards the driver where it's needed the most
 Available in black, red, blue and orange

PART # DESCRIPTION

- 80939 Offset Roll Bar Padding, Black
- 80940 Offset Roll Bar Padding, Blue
- 80941 Offset Roll Bar Padding, Red
- 80942 Offset Roll Bar Padding, Orange



ROLL BAR PADDING. SFI 45.1 APPROVED

Meets the requirements of NHRA, IHRA, SCCA and other organizations

- SFI 45.1 Specified approved padding, approval marked on padding
- Comes in 36" lengths; 7/8" thickness fits 1-5/8"-2" bar diameter
- Padding backed with pressure-sensitive adhesive and can be cut to size to make installation easy
- Padding exceeds SFI 45.1 rating for dripping or melting in a fire, and is selfextinguishing
- SFI 45.1 approved Roll Bar Padding is more dense than traditional padding, and is designed to absorb the impact energy

PART # DESCRIPTION

80944 Roll Bar Padding, SFI 45.1 Approved, Black

ROLL BAR GUSSETS

These lightweight, stamped plate gussets provide additional strength to welded tube joints

- Available in mild steel or chrome moly
- Measures 1-1/4" x 2-1/4"
- 25 per package
- Welding required

PART # DESCRIPTION

C3172 Roll Bar Gussets, ¼" Mild Steel C3173 Roll Bar Gussets, 4130 Chrome Moly



No. C3172



No. C3173

SWING OUT DOOR BAR KITS

For 6, 8, 10 or 12 Point

- Meets NHRA Sanctioning rule for OEM full body cars 7.50 E.T. and slower
- No. C3182 is manufactured for 1-3/4" steel tubing and No. C3183 is manufactured for 1-5/8" steel tubing
- One kit does one door bar
- Includes release pin and hinge bracket
- Welding required

PART # DESCRIPTION

 C3182
 8-Point Swing Out Door Bar Kit, 1-¾" tube

 C3183
 10 & 12-Point Swing Out Door Bar Kit, 1-%" tube



No. C3182



UNIVERSAL DOOR WINDOW FRAME KIT

- Use on drag racing vehicles running a plastic/lexan type window
- Will complete two doors



• Can be used on rear windows

PART # DESCRIPTION

- **C4901** Windshield Install Kit, ¹/₄" Thick
- C4902 Windshield Install Kit, 3/6" Thick



No. C4901



THROTTLE LINKAGE ROD KIT

- Universal for vehicles with carburetors
- Kit includes a 23" aluminum rod, two spherical rod ends, throttle return spring tab and hardware
- Aluminum linkage rod is easy to install, bendable to simplify alignment issues and the length is easily adjusted by turning the rod ends in or out
- The rod ends will help to overcome misalignment problems
- This linkage is the preferred linkage for Oval Track claimer racing
- Will not be affected by dirt as some cable linkages can be

PART #DESCRIPTIONC3465Throttle Linkage Rod Kit

DOOR HINGE KIT

- · For Race vehicles with fiberglass doors
- Longer hinge pins on bottom mounts facilitates quick removal and installation of doors
- Kit includes two door hinges and mounts (enough for 1 car)
- Lightweight design
- Welding required

PART # DESCRIPTION C4930 Door Hinge Kit

PART # AVAILABLE OPTIONS C3461 Accelerator Pedal Kit





DOOR HANDLE LINKAGE KIT

- Kit includes two lightweight door handles with enough tubing, nuts, bolts and rod ends for two doors
- · Easy to install in any door

PART # DESCRIPTION

C4935 Door Handle Linkage Kit



DOOR LIMITER STRAP

- Kit is complete with (2) Door Limiter Straps and all hardware necessary to complete one car
- Installation instructions included

PART # DESCRIPTION

C4931	Door Limi	iter Strap
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No. C4935



RADIATOR MOUNTING KIT

- Radiator Mount for Scirocco style radiators
- For race cars with tube front ends
- Facilitates quick removal and installation of radiator
- Includes radiator mounting bracket, frame mount and hardware
- Welding required

PART # DESCRIPTION

C4925 Radiator Mounting Kit





ACCELERATOR PEDAL KIT

- Steel Accelerator Pedal with Steel Mounting Brackets and Hardware to mount where desired
- Installation instructions included

PART # C3461	DESCRIPTION Accelerator Pedal Kit		
PART #	AVAILABLE OPTION		
C3465	Throttle Linkage Rod Kit		



PARACHUTE ANCHOR MOUNT

- For attaching parachute anchor strap to chassis
- Accepted by NHRA and IHRA
- Manufactured from 1-5%" dia. DOM tubing
- Includes mount and support tubes, anchor strap bracket and aluminum bushing
- For use with Competition Engineering's Parachute Pack Mount No. C3451
- Welding and fabrication required

PART # DESCRIPTION

C3450 Parachute Anchor Mount





PARACHUTE PACK MOUNT

Mounts Parachute Pack to Parachute Anchor Mount

- Includes pack mounting plate, mounting tube, weld bung and quick release pin
- Quick release mount for removal when working on car
- Manufactured from mild steel for extra strength
- For use with Competition Engineering's No. C3450 or similar kits
- Welding and fabrication required

PART # DESCRIPTION

C3451 Parachute Pack Mount



PARACHUTE RELEASE CABLE KIT • Kit consists of 18' of Teflon lined Felsted cable

- KIT CONSISTS OF 18" OF LETION LINED FEISTED CADIE
- Mounting Bracket and Rod End on one end of the cable

Full handle PART # DESCRIPTION

C3452 Parachute Release Cable Kit

No. C3452

PARACHUTE RELEASE CABLE CLAMP

- Complies with NHRA General Regulations requiring the cable clamp to be attached within 12" of the parachute pack edge
- Works with Competition Engineering Parachute Mount Nos. C3451, C3452 and can be used with other mounts
- Manufactured from 1/8" thick aluminum bracket with steel clamp and mounting hardware

PART # DESCRIPTION C3453 Parachute Release Cable Clamp



FUEL TANK SUMP KITS

Ensure positive fuel flow to your engine to help win the race

- Factory gas tank pickups located in the front of tanks allow fuel pumps to ingest air during acceleration causing a momentary loss of fuel pressure
- Installed in the lowest portion of the rear of the fuel tank, to guarantee consistent fuel pressure under the hardest acceleration
- Designed to fit stock steel fuel tanks
- Manufactured from 18-gauge cold rolled steel for easy welding with two pre-welded 3%" or 1/2" NPT bungs to ensure adequate fuel flow
- I.D. 7-3/8" wide x 11" long x 3" tall
- Installation instructions include a template for baffling the tank, fittings not included
- Welding required

PART # DESCRIPTION

- C4040 Fuel Tank Sump Kit, Two ¾" NPT weld bungs
- C4041 Fuel Tank Sump Kit, Two ½" NPT weld bungs



- .050" aluminum door is hinged to frame, providing quick and easy access to fuel cells, dry sump tanks or any other component
- Comes with natural finish so customer can anodize or paint to match car color
- Door held securely closed with self-ejecting, flush-head Dzus fastener
- Includes all mounting hardware
- 6" x 6" door, 8-1/8" x 8-1/8" overall

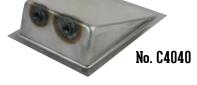
PART # DESCRIPTION

85700 Access Door

ALUMINUM & STEEL REAR FENDERWELLS

- 24-gauge steel or .032" aluminum
- Pittsburgh locking seam for easy assembly
- Different widths to accommodate a variety of tire sizes
- Available in six diameters
- Bead rolled reinforcing ribs for strength
- Two Fenderwell/Wheel Tubs per Kit

DESCRIPTION	PART #	
DIMENSIONS	STEEL	ALUMINUM
LENGTH X HEIGHT X WIDTH		
30" (L) x 15" (H) x 23.25" (W)	C2998	C2999
36" (L) x 18" (H) x 23.25" (W)	C3006	C3007
38" (L) x 19" (H) x 23.25" (W)	C3008	C3009
40" (L) x 20" (H) x 23.25" (W)	C3010	C3011
43" (L) x 21.5" (H) x 23.25" (W)	C3002	C3004
46" (L) x 23" (H) x 23.25" (W)	N/A	C3005





Moroso Aluminum Fuel Line on pg. 268





No. 85700

111:114



REAR FIREWALL KIT. CUSTOM FIT FOR 2005-'10 MUSTANG

Makes it easy to install a firewall between the passenger compartment and trunk mounted fuel cell and/or battery

No. C4990

Fits: 2005-'10 Mustang

- Pre-cut and bent, only a small amount of trimming may be necessary
- Constructed out of .032" thick aluminum, which meets NMRA and other sanction bodies requirements
- Can be used with or without the factory rear seat

PART # DESCRIPTION

C4990 Rear Firewall Kit, 2005-'10 Mustang





SHEET METAL

STEERING COMPONENTS & ACCESSORIES

STEERING COLUMN KITS. UNIVERSAL DESIGN

Two versions available; Drag Race Only which has a strong yet light weight ¾" x .058" wall chrome moly shaft and the NEW Circle Track, Road Race and Street version that has a ¾" x .156" wall mild steel shaft which is stronger and heavier for the rigors of Circle Track, Road Racing and the Street.

- Can be used in new car construction or used to replace a heavy bulky OEM steering column
- Kit contains a stop collar to prevent the steering shaft from entering the driver's compartment in the event of an impact.
- Inner shaft rides in two flanged polymer bushings that mount to the column tube
- Features unique grease fittings to keep the bushings lubricated
- Includes "SFI" Approved Quick Release Steering Wheel Hub and Shaft to Hub Adapter
- Also includes a precision needle bearing U-joint and complete installation instructions
- Welding and Fabrication required

PART # DESCRIPTION

- C5073 Steering Column Kit, Circle Track, Road Race, Street
- C5074 Steering Column Kit, Drag Race Only

PART # AVAILABLE OPTIONS

- C5076 Steering Column Mount Kit
- C9609 Steering Shaft Support Rod End

STEERING COLUMN MOUNTING KIT

- Mounts Steering Column Kit Nos. C5073 or No. C5074 into tube chassis vehicle
- Compact design allows column to be mounted rigidly to the chassis while keeping weight to a minimum
- Includes two split clamps that secure 1-1/2" O.D. steering tube firmly in place and two lengths of tubing to mount column to chassis
- Split clamp mounting system makes it easy for the column tube to be removed or repositioned without cutting or re-welding
- \bullet Can be adapted to other steering column kits that use a 1-1/2" dia. column tube
- Kit includes complete installation instructions
- Welding & fabrication required

PART # DESCRIPTION

C5076 Steering Column Mounting Kit

STEERING SHAFT SUPPORT ROD END

- Rod end serves as both bearing and support for steering shaft
- Inside diameter of .757" is specially sized to allow steering shaft to pass through and rotate with a precise fit
- ¾"-16 right hand threaded shank mounts to steering support bracket
- Includes two jam nuts for securing rod end in place
- Static radial load capacity of 11,518 lbs.
- One per package

PART # DESCRIPTION

C9609 Steering Shaft Support Rod End



No. C9609



Q. 1 801.

No. C5074

No. C5076

STEERING COMPONENTS & ACCESSORIES

FIVE HOLE STEERING WHEEL ADAPTER

- Allows racers to continue to use Moroso's Quick Release Steering Wheel Hub No. 80160 or similar aftermarket hubs with 3 hole bolt pattern when converting to steering wheels with a 5 hole bolt pattern
- Billet aluminum adapter includes all mounting hardware (steering wheel to adapter and adapter to hub)



No. C5078

SFI APPROVED QUICK RELEASE STEERING WHEEL HUB AND ADAPTER

Fits: $\frac{3}{4}$ " 0.D. steering shafts and steering wheels with a 3 hole, $1-\frac{3}{4}$ " diameter bolt pattern.

- Meets NHRA, IHRA and other sanctioning body criteria for meeting SFI (Safety Foundation Inc.) requirement #42.1 concerning steering wheel attachment and release
- Hub is manufactured from lightweight billet aluminum with anodized finish
- 5/16" -18 thread bolt holes

DESCRIPTION

Five Hole Steering Wheel Adapter

PART #

C5078

- Spring loaded quick release pin is integral with the hub and features a large diameter engagement surface for use with bulky racing gloves
- Includes steering shaft adapter manufactured from 1018 steel for extra strength and ease of welding

PART # DESCRIPTION

80160 SFI Approved Quick Release Steering Wheel Hub and Adapter. *Fits:* ³/₄" 0.D. steering shafts and steering wheels with a 3 hole, 1-³/₄" diameter bolt pattern





POWER STEERING TANKS

POWER STEERING TANKS

Fits: Universal Panel Mount

- Fabricated of aluminum for strength can be polished, chromed, powder coated or left as-is for a race look
- Built in bracket allows convenient mounting on a panel
- -6 AN inlet and -10AN outlet with an internal baffle
- Includes a heavy duty vented screw on cap

PART # DESCRIPTION

- 63506 Power Steering Tank, Universal Panel Mount, Inlet left side
- 63507 Power Steering Tank, Universal Panel Mount, Inlet right side



Power Steering Tanks on Moroso pg. 190



No. 63506

No. 63507



FRONT SUSPENSION COMPONENTS

Competition Engineering has the components to make your front suspension work properly. Poor front suspension tuning can affect the way your race car reacts. OEM-style front suspension components can saddle your race car with excess weight. All Competition Engineering front suspension components are designed to be both lightweight and strong to provide you with the utmost in reliability and quicker ET's.



FRONT END TRAVEL LIMITER

Cable Style

- Designed to fit both A-arm and strut front suspensions
- 7-position adjuster for fast, between round changes
- Adjuster enables you to fine tune front-end separation, improving 60 foot times as well as vehicle reaction time
- Kit includes weld-on mounting tabs, cable assemblies, mounting hardware and detailed instructions
- · Limits front suspension separation on launch
- Welding required

PART # DESCRIPTION C2025 Front End Travel Limited

FRONT END TRAVEL LIMITER

Bolt-On

- Designed for race cars with factory upper A-arm suspensions
- Installs easily by removing the factory upper snubber and threading the adjuster bolt through the stock hole
- Threaded design allows you to quickly dial-in the right amount of front end lift without wasting power on high wheelstands
- Replaces rubber snubber in factory control arms
- Bolt-On, no welding requires
- Increases weight transfer

PART # DESCRIPTION C2026 Front End Travel Limiter

PART # REPLACEMENT PART C7024 Rubber Bumpers. 2" diameter base. Two/card



MUSTANG BUMPSTEER ADJUSTER KITS

- Corrects "Bumpsteer" that occurs when the Mustang's front end is lowered or raised from stock
- Fully adjustable kit replaces non-adjustable stock components with precision, aircraft-guality
- components that bolt into place with common hand tools Does not require the front spindles to be modified or drilled out
- Can also be used for easy, on-car toe adjustments
- Includes 6061-T6 billet aluminum adjuster tubes with anodized finish to resist corrosion, 5/8" rod ends and an assortment of adjustment shims

DESCRIPTION PART

- Bumpsteer Adjuster Kit, Mustang '79-'93 C2408
- C2409 Bumpsteer Adjuster Kit, Mustang '94-'04



STEERING COMPONENT

SOLID REPLACEMENT BUSHINGS

Competition Engineering offers solid aluminum replacement bushings for stock factory bushings that improve chassis/suspension control. By swapping solid bushings for the stock pieces, you increase vehicle reaction in both acceleration and cornering, as well as improve overall feel. Ride quality will be sacrificed due to the elimination of the factory bushing deflection.

SOLID ALUMINUM BODY MOUNTS

Fits: 1967-'81 Camaro, Firebird, 1968-'79 Nova; 1971-'77 Ventura, Apollo, Omega

- · Replacement for the factory subframe bushings
- · Eliminates deflection and twisting commonly found on GM unibody equipped vehicles
- CNC machined from 6061-T6 aluminum for a perfect fit and black anodized to eliminate corrosion
- · Complete set of six for one car with complete instructions

PART # DESCRIPTION

C3027 Body Mounts, Solid Aluminum

GM A&G BODY REAR CONTROL ARM BUSHINGS

Fits: 1982-'02 Camaro, Firebird; 1964-'88 Chevelle, Malibu; 1964-'77 Skylark, Gran Sport; 1964-'77 LeMans, GTO, Tempest;1966-'77 Cutlass 442; 1966-'70 Pontiac full-size; 1964-'70 Olds full-size

- · Eliminates the twist and play found in the factory rear control arms
- CNC machined from 6061-T6 aluminum and black anodized for corrosion resistance
- Designed to replace the stock bushings on the lower control arms only
- Four to a package

PART # DESCRIPTION

C3165 Arm Bushings, GM A&G Body Rear Control



No. C3027

ALUMINUM SPRING EYE BUSHINGS

Fits: 1967-'81 Camaro, 1968-'79 Nova

- Solid Aluminum Bushings replace stock bushings and provide positive housing positioning, eliminating wheel-hop and excessive pinion angle
- · Eliminates the deflection of stock bushings
- Packaged in pairs

PART # DESCRIPTION

UPPER A-ARM BUSHINGS

Fits: 1965-'70 Chevrolet Full Size, 1967-'69 Camaro, Firebird; 1968-'79 Nova; 1963-'82 Corvette; 1964-'72 Chevelle, Tempest, LeMans, GT0; 1973-'74 Omega, Apollo, Skylark; 1971-'74 Ventura; 1971-'72 Monte Carlo; 1965-'72 F-85, Cutlass, 442

The stock upper control arm bushings found on most cars have a rubber bushing material that is bonded to the inner sleeve and the outer housing. Bonding the rubber bushings makes them resistant to rotation and suppresses front end lift and hinders weight transfer.

Competition Engineering's **Upper A-Arm Bushings** are a non-bonded design, which lets the bushing material rotate. This allows the A-Arm to pivot freely on the cross shaft, resulting in rapid front end lift and increased weight transfer. The superior polyurethane material comprising our Bushings doesn't flex or break down like stock conventional rubber bushings with exposure to oils, chemicals and ozone.

- Quicker front end rise produces quicker ETs
- Superior polyurethane bushing material is better performing and last longer
- PART # DESCRIPTION C3166 Upper A-Arm Bushings

PART # AVAILAB





No. C2022



No. C3166

ENGINE MOUNTING

MID-MOUNT PLATE REPLACEMENT MOUNTING KIT

- · Recommended when more than one mounting kit is required
- \bullet Manufactured from $1\!\!\!/\!\!\!/s"$ mild steel with four triangular gussets
- Includes mounting hardware
- Welding required

PART # DESCRIPTION

C4032 Mid-Mount Plate Replacement Mounting Kit



SHIM KITS, FLYWHEEL

- Replacement flywheel shims for Moroso and other mid-mount motor plates
- Can be used anytime that the spacing of the torque converter to the transmission pump needs adjustment
- Manufactured from .090" Steel
- 3 per pack

PART #	DESCRIPTION
C4047	Shim Kit. Fits: GM LS Series
C4048	Shim Kit. <i>Fits: Chevy V-8, 2 piece seal &</i>
	90 Deg. V-6
C4049	Shim Kit. <i>Fits: Ford 289-302</i>
C4050	Shim Kit. <i>Fits:</i> Ford 351M, 400, 429, 460
C4051	Shim Kit. Fits: Mopar 426 or others with an
	8 bolt aftermarket crankshaft
C4052	Shim Kit. <i>Fits: Mopar 273-440 with a</i>
	6 bolt crankshaft



ENGINE LIMITER KIT

- Mounts diagonally between the engine block and the frame rail preventing the forward and rearward movement of the engine/ transmission assembly during launch and braking conditions
- Without this kit, the movement of the engine within the chassis would cause the front and rear motor plates to flex and eventually crack
- The use of two kits positioned on either side of the engine is highly recommend for high horsepower race cars
- Includes a ³/₄" dia. DOM steel tube, two chassis tabs, a ¹/₂" high misalignment rod end, an engine mounting tube and complete instructions
- · Improves reaction times
- Fabrication & welding required **PART # DESCRIPTION**

C4034 Engine Limiter Kit

ENGINE TORQUE LINK, MUSTANG

- The benefits of a solid motor mount for racing with the comfortable ride of a stock motor mount for street use
- Removable Torque Link is installed with supplied pins and clips, limiting engine movement for racing use
- Torque Link can then be removed for street use
- Includes two zinc plated brackets, all hardware and complete installation instructions
- PART # DESCRIPTION
- C4010 Engine Torque Link. Fits: Mustang 1979-'95 5.0L



No. C4034



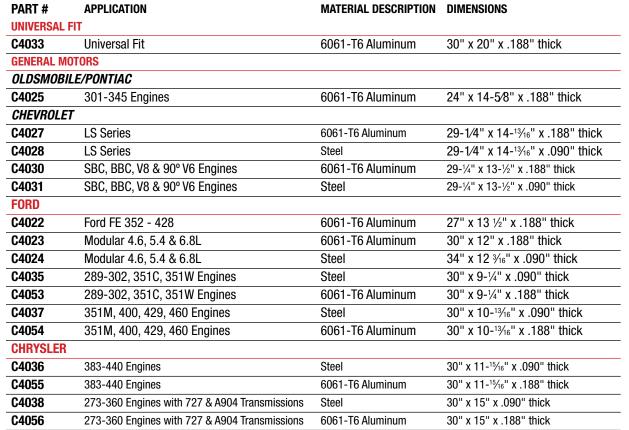
MID MOUNT PLATES

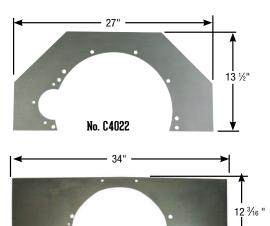
MID MOUNT PLATES

Available In Steel and Aluminum

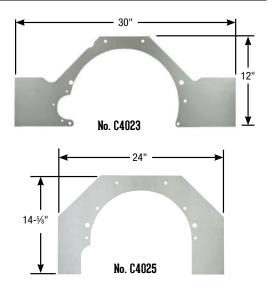
- · Provides a solid connection between the transmission and the chassis
- · Eliminates torsional chassis stress, block twisting and broken transmission cases
- Steel versions include flywheel shims to ensure accurate torque converter to front pump engagement, (except **No. C4024**)
- Allows easier transmission swaps and aids clutch operation
- Universal frame mounts included
- Designed on CAD equipment for a precise fit and easy installation
- CNC laser cut to eliminate warpage from metal stamping
- Universal Frame Mounts Included, welding required

MID MOUNT PLATES APPLICATION CHART





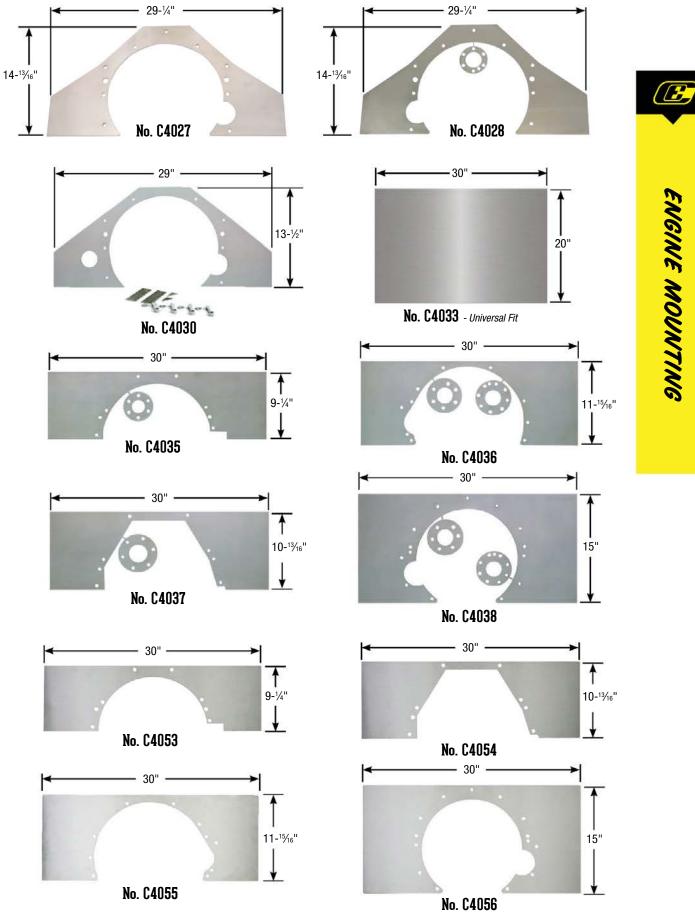
No. C4024







MID MOUNT PLATES



FRONT MOTOR PLATES

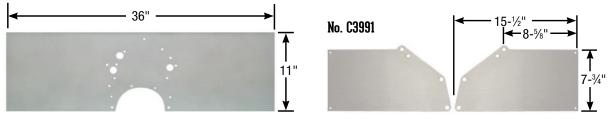
Make sure your motor stays in place!

- Provides a solid connection between the engine and the chassis
- Improves reaction and 60-foot times
- Eliminates twisting of the chassis caused by engine torque and ensures that the power gets to the rear wheels
- Computer designed and machined for accuracy
- Used by leading chassis builders as a positive method of locating the engine in the chassis
- Perfect for performing engine swaps or setting motor back in chassis for increased weight transfer

FRONT MOTOR PLATES APPLICATION CHART

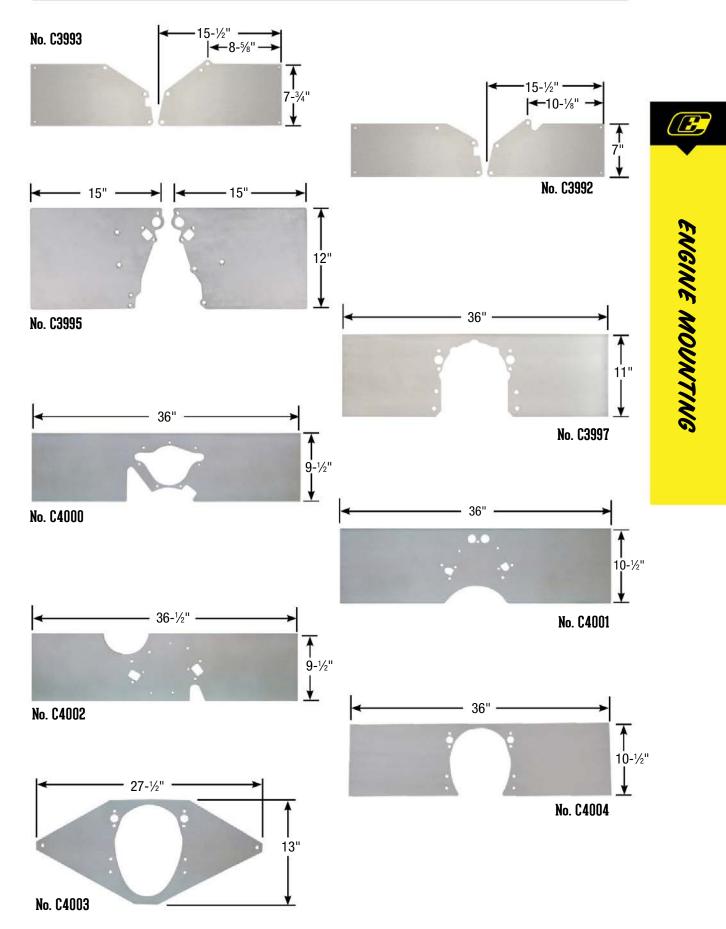
PART #	APPLICATION	MATERIAL DESCRIPTION	DIMENSIONS
UNIVERS	AL FIT		
C4014	Universal Fit	6061-T6 Aluminum	36" x 12" x .25" thick
GENERAL	MOTORS		
SMALL B	LOCK CHEVROLET		
C3995	LS Series, 2-piece	6061-T6 Aluminum	15" x 12" x .25" thick
C4003	SBC and 90°, V6 2 Piece Seal Engines, Pre- trimmed	6061-T6 Aluminum	27-1/2" x 13" x .25" thick
C4004	SBC and 90°, V6 2 Piece Seal Engines	6061-T6 Aluminum	36" x 10-1/2" x .25" thick
C4006	SBC and 90°, V6 Piece Seal Engines, 2-piece	6061-T6 Aluminum	10-1/2" x 8-1/2" x .25" thick
BIG BLOO	CK CHEVROLET		
C3997*	Gen. V & Gen. VI Engines	6061-T6 Aluminum	36" x 11" x .25" thick
C4005	BBC, 1-piece	6061-T6 Aluminum	36" x 10-15/16" x .25" thick
C4007	BBC, 2-piece	6061-T6 Aluminum	9" x 8-1/4" x .25" thick
FORD			
C3990	351C Engines	6061-T6 Aluminum	36" x 11" x .25" thick
C3991	2 & 3-Valve Modular, 4.6L Engines, 2-piece	6061-T6 Aluminum	15-1/2" x 7-3/4" x .25" thick
C3992	4-Valve Modular, V8, 4.6L Engines, 2-piece	6061-T6 Aluminum	15-1/2" x 7-3/4" x .25" thick
C3993	4-Valve Modular, V8, 5.4L Engines, 2-piece	6061-T6 Aluminum	15-1/2" x 7-3/4" x .25" thick
C4001	289-302, 351W Engines, 1970-93	6061-T6 Aluminum	36" x 10-½" x .25" thick
C4002	429-460 Engines	6061-T6 Aluminum	36-1/2" x 9-1/2" x .25" thick
C4011	Ford, FE 352-428	6061-T6 Aluminum	See diagram on pg. 436 x .25" thic
C4015	Ford, 289-302, 351W Engines, 1979-93	6061-T6 Aluminum	See diagram on pg. 436 x .25" thic
CHRYSLE	R		
C4000	318-360 Engines	6061-T6 Aluminum	36" x 9-1⁄2" x .25" thick
C4008	383-440, 426 Hemi Engines, 2-piece	6061-T6 Aluminum	11-¾" x 13-¾" x .25" thick
C4009	383-440, 426 Hemi Engines	6061-T6 Aluminum	36" x 10" x .25" thick
C4012	5.7 / 6.1/6.4 Engines	6061-T6 Aluminum	See diagram on pg. 436 x .25" thic
PONTIAC	•		- · · ·
C4013	V-8	6061-T6 Aluminum	See diagram on pg. 436 x .25" thic

* NOTE: Chevrolet Gen. V & Gen VI will need modifications.

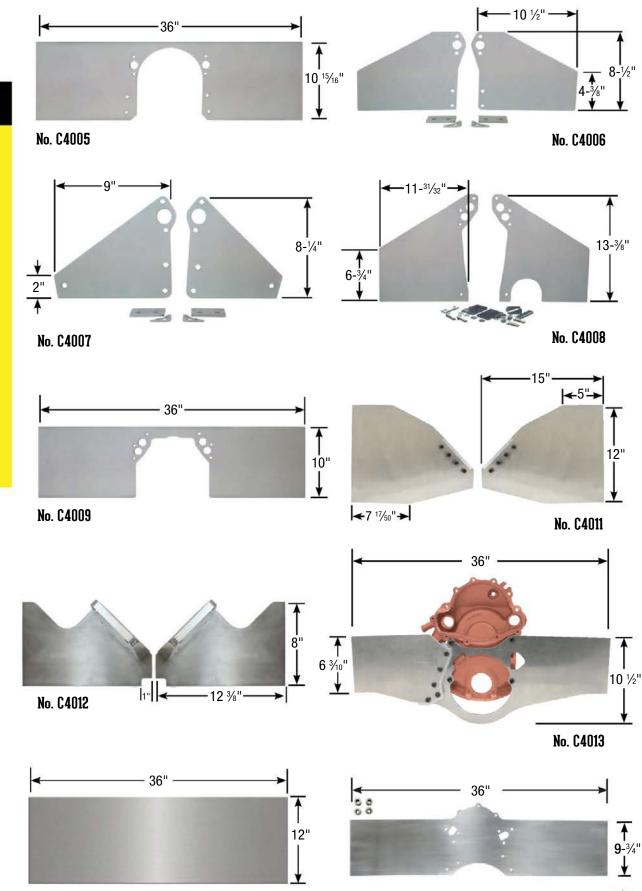


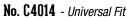
No. C3990

FRONT MOTOR PLATES



FRONT MOTOR PLATES





B

ENGINE MOUNTING

No. C4015 📖

TABS & BRACKETS

Competition Engineering offers several different types of brackets and tabs to help make it easier for you to mount and install accessories to your chassis. We also offer mounting brackets for our Ladder Bars and 4-Links that enable you to replace bent and damaged brackets or when updating your rear end housing.

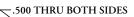
REPLACEMENT CLEVIS BRACKETS

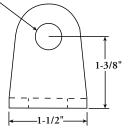
- Replaces Clevis Brackets found in No. C2031, C2045, C2052 & C2053 Diagonal Links
- Also allows No. C2024 Magnum Series Wishbone Locator or other locating devices to be converted to 3/4" mounting as needed
- Stamped from 3/16" mild steel
- $\frac{1}{2}$ " rod end mounting holes
- Inside dimension 1.160"
- One per package

DESCRIPTION PART

C3422	Replacement	Clevis	Bracket,	5⁄8"
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- C3423 Replacement Clevis Bracket, 3/4"
- C3431 Replacement Clevis Bracket, 1/2"











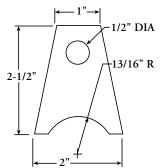
No. C3423

UNIVERSAL LARGE CHASSIS BRACKETS

- ¹³/₁₆" radius accepts 1-⁵%" tube
- 1/2" mounting hole
- Stamped from 1/8" cold rolled steel
- Four per package

PART # DESCRIPTION

C3424 Universal Large Chassis Bracket





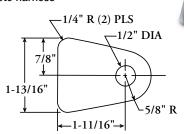
No. C3424

SEAT BELT HARNESS TABS

- · Provides a professional and simple way of installing a 5-Point Safety Harness
- Rugged 1/4"-thick steel mounting tabs can be welded to roll bars, seat anchors or other locations to provide secure attachment points
- Includes 1/2" center holes for attaching harness
- Five tabs per package; enough to install a complete harness
- Welding required

PART # DESCRIPTION

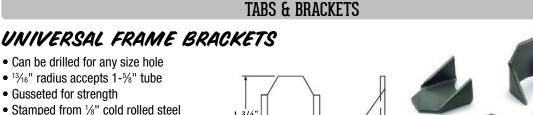
C3425 Seat Belt Harness Tabs





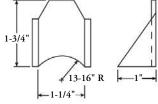
No. C3425







PART # DESCRIPTION C3428 **Universal Frame Brackets**





No. C3428

UNIVERSAL BELLCRANK TABS

- · Provides convenient mount for linkages
- · Gusseted for strength
- Stamped from 1/8" cold rolled steel
- ³/₄" mounting hole
- Four per package
- PART # DESCRIPTION
- C3430 Universal Bellcrank Tabs

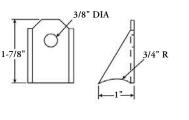


1-3/4

- ¹³/₁₆" radius accepts 1-⁵/₈" tube
- · Gusseted for strength
- ³/₈" mounting hole
- Stamped from 1/8" hot rolled steel
- Two per package

PART # DESCRIPTION

C3432 Universal Gusseted Chassis Tabs



3/8" DIA

13/16" R

-1-1/4"->



No. C3430

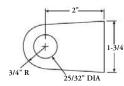
No.C3432

HEAVY-DUTY FLAT CHASSIS BRACKETS

- · Great for mounting suspension components
- Stamped from 3/16" cold rolled steel
- ³/₄" mounting hole
- · Available with straight or radiused bottom
- Four per package

PART # DESCRIPTION

C3434 Heavy-Duty Flat Chassis Brackets, Straight





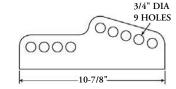
No. C3434

UNIVERSAL 4-LINK CHASSIS BRACKETS

- Replaces chassis brackets found in No. C2017 4-Link Kit
- Stamped from 3/16" cold rolled steel
- ³/₄" rod end mounting holes
- Two per package; four Brackets required per car

PART # DESCRIPTION

C3410 Universal 4-Link Chassis Brackets









TABS & BRACKETS

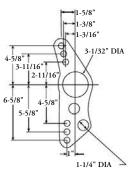
TABS & BRACKETS

4-LINK REAR END BRACKETS

- Replaces chassis brackets found in No. C2017 4-Link Kit
- Stamped from 1/4" cold rolled steel
- 3" dia axle mounting hole
- ¾" rod end mounting holes
- Two per package; four Brackets required per car

PART # DESCRIPTION

C3412 4-Link Rear End Brackets





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TABS & BRACKET

MAGNUM SERIES 4-LINK BRACKET

- Radiused bracket replaces the universal, square-end brackets found in our Magnum Series 4-Link to mate perfectly with our 4-Link Frame Rails
- · Radiused profile simplifies welding and saves hours of fabrication time
- Rugged 1/4"-thick steel construction eliminates bending in ultra high horsepower cars
- Entire profile is stamped from hot rolled steel in one operation to eliminate distortion and to ensure exact dimensions
- Nine mounting holes provide a wide range of chassis adjustments; accepts 5%" hole, 34" shank rod ends
- · One per package; four brackets required per car

PART # DESCRIPTION

C3421 Heavy-Duty Flat Chassis Brackets, Straight

4-LINK CHASSIS BRACKET

- Bracket radius is shaped to provide an exact fit when welding to our 4-Link Formed Frame Rails
- Entire profile, including the nine rod end mounting holes, is stamped from 3/16" hot rolled steel in one operation to eliminate distortion and to ensure exact dimensions
- ¾" rod end mounting holes
- Can also be used as replacements for the chassis brackets found in our 4-Link Rear Frame Kits
- One per package; four brackets required per car

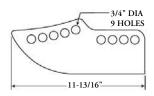
PART # DESCRIPTION

C3408 4-Link Chassis Bracket



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No. C3408



MAGNUM SERIES 4-LINK BRACKET

Without Integral Shock Mounting Holes

- Designed for use on 3" dia. Axle Tubes
- Radiused profile simplifies welding and saves hours of fabrication time
- \bullet %" dia. rod end holes
- Rugged 1/4"-thick steel construction eliminates bending in ultra high horsepower cars
- Entire profile is stamped from hot rolled steel in one operation to eliminate distortion and to ensure exact dimensions
- One per package; four brackets required per car
- Use with two Competition Engineering Magnum Series 4-Link Brackets No. C3427

PART # DESCRIPTION

C3429 Magnum Series 4-Link Bracket



No. C3429



11-13/16"

5/8" DIA

9 HOLES

0000

TABS & BRACKETS

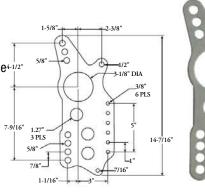
"MAGNUM SERIES" 4-LINK BRACKET

With Integral Shock Mounting Holes

- Designed for 3" diameter Axle Tubes
- Radiused profile simplifies welding and saves hours of fabrication time^{4-1/2}"
- Rugged ¹/₄" thick steel construction eliminates bending in ultra high horsepower cars
- 5/8" dia. rod end holes
- Mounting holes for Wheel-E-Bars™, Sway Bar and Shock Mounting
- Entire profile is stamped from hot rolled steel in one operation to eliminate distortion and to ensure exact dimensions
- One per package; four brackets required per car
- Use with two Competition Engineering Magnum Series 4-Link Brackets No. C3429

DESCRIPTION PART

C3427 "Magnum Series" 4-Link Bracket



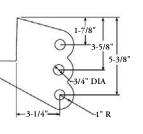


LADDER BAR 2" X 3" CROSSMEMBER BRACKET

- Pre-notched to simplify welding and provide a neat installation
- Stamped from 3/16" mild steel
- Three ³/₄" mounting holes in a 33.5" radius for chassis adjustments
- One per package; four Brackets required per car

PART # DESCRIPTION

Ladder Bar 2" X 3" Crossmember Bracket C3409





No. C3409

SHOCK MOUNTING BRACKET

For Use With Housing Back Brace

- Designed to work with Housing Brace Nos. C3405, C9105, C9205 and other 2" tall back braces
- Stamped from 1/4" steel
- Eight 3/8" dia. mounting holes, spaced 1" apart
- Welding required
- One per package, two brackets required per car
- Designed for use with Shock Bracket Nos. C3417 and C3419

PART # DESCRIPTION

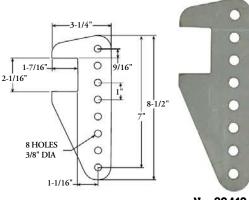
C3413 Shock Mounting Bracket

LADDER BAR CHASSIS BRACKET

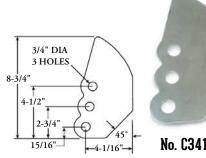
- · Bracket is radiused to mate perfectly with our Ladder Bar Frame Rails to simplify welding
- Provides a front mounting location for Ladder Bars with ³/₄" rod ends
- Entire profile, including the three rod end mounting holes, is stamped from 3/16" hot rolled steel in one operation to eliminate distortion and to 8-3/4' ensure exact dimensions
- · Can also be used as replacement for the brackets found in our Ladder Bar Rear Frame Kits
- One per package; four brackets required per car

PART # DESCRIPTION

C3411 Ladder Bar Chassis Bracket









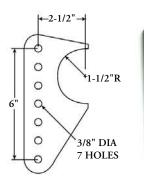
No. C3411

COIL-OVER HOUSING BRACKET

- Replaces weld-in axle brackets found in Nos. C2047 & C2051 Lower Coil-Over Shock Mount Kit
- $1-\frac{1}{2}$ " radius accepts 3" dia axle tube
- ¾" shock bracket mounting holes
- Stamped from 1/4" hot rolled steel
- One per package; two brackets required per car
- PART # DESCRIPTION
- C3414 Coil-Over Housing Bracket

PART # AVAILABLE OPTIONS

- C3417 Lower Coil-Over Shock Mounting Bracket, Right
- C3419 Lower Coil-Over Shock Mounting Bracket, Left







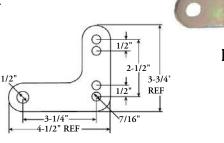
No. C3414

LOWER COIL-OVER SHOCK MOUNTING BRACKETS

- Replacement bracket, also used in Nos. C2047 & C2051 Lower Coil-Over Shock Mount Kit
- Stamped from 3/16" cold rolled steel
- 3/8" bracket mounting holes
- 1/2" shock mounting hole
- One per package; two of each bracket required per car

PART # DESCRIPTION

- C3417 Lower Coil-Over Shock Mounting Bracket, Right
- C3419 Lower Coil-Over Shock Mounting Bracket, Left





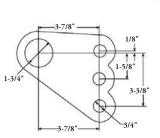
TABS & BRACKETS

LADDER BAR CROSSMEMBER BRACKETS

- Replaces brackets found in No. C2019 Ladder Bar Crossmember
- Stamped from $\frac{3}{16}$ " hot rolled steel
- $1-\frac{25}{32}$ " bar mounting hole
- ²⁵/₃₂" rod end mounting holes
- Two per package; four brackets required per car

PART # DESCRIPTION

C3418 Ladder Bar Crossmember Brackets







WELDING TABS AND BRACKETS

Before welding any tabs and brackets permanently, tack weld them in place first to check the final alignment. It's much easier to realign a tab or bracket with a temporary tack weld.

TABS & BRACKETS

"MAGNUM SERIES" LADDER BAR HOUSING BRACKET KIT

Universal

- Innovative, four-piece housing bracket design allows for easy axle upgrades
- Creates a 360° housing bracket that can be tack welded in half the time of
- older systems no more safety straps and individual plates! Kit allows you to adjust preload and pinion angle without bind
- · Complete with two large, formed 180° housing brackets; two small, formed 180° housing brackets and four gussets
- · Can be used as a replacement

DESCRIPTION PART

"Magnum Series" Ladder Bar Housing Bracket Kit C7212



No. C7212

U-BEND UNIVERSAL MOUNT

- This kit can be used in different applications; battery mount, shifter mount, drive shaft loop, etc.
- · Comes complete with weld tube for mounting and safety pins to make removing it a snap

PART # DESCRIPTION

C3030	U-Bend	Universal	Mount
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TOW HOOK, UNIVERSAL

- Steel, zinc plated
- 3/16" Universal with 2" opening
- · Bolt-on or weld-on
- · Can be used for trailer tie-down points

PART # DESCRIPTION C3440 Tow Hook, Universal



ALIGNMENT & LEVEL TOOL

PROFESSIONAL ANGLE FINDER & LEVEL

- · Handy, easy-to-read gauge face
- Perfect for setting pinion angle or determining level
- Accurate to ½ of 1°
- Angle and grade chart on back of gauge
- Made from ABS plastic with convenient grooved base to sit flat

PART # DESCRIPTION

C5020 Professional Angle Finder & Level





ELECTRICAL COMPONENTS

SEALED BATTERY BOX

- Ideal for relocating a battery to the rear of any race, street or show vehicle with or without a rear firewall
- Holds a Series 21, 24, 26, 34, 42, 54, 55, 56, 61, 62, 63, 85, 86, 96R batteries with either top-post or side-post terminals
- Outside Dimensions: 13-1/8" W, 11-1/8" D, 11-1/8" T
- Fully approved for racing by NHRA, IHRA and SCCA
- Includes grommets and all mounting hardware
- \bullet Does not include battery cable; use with Moroso Battery Cable Kit $\ensuremath{\text{No.}}$ 74055, below

PART # DESCRIPTION

74051 Sealed Battery Box, Black





- High-grade 2 gauge copper cable provides unrestricted current flow
- Rugged PVC insulation resists most car fuels, oils and under hood cleaners
- Available with and without battery terminals
- Ideal for relocating a battery to the rear for improved weight transfer

PART # DESCRIPTION

- 74005 Battery Cable Kit, 20' with 4 terminals
- **74055** Battery Cable Kit, 20' with 4 terminals, 8' with top-post terminals and 6" 12 gauge leads with butt connectors*, rubber-lined clamps, grommets and shrink sleeving. Use with Sealed Battery Box No. 74050. **Terminated at both ends. Cut in two to desired length.*





BATTERY/WEIGHT BOX

- Bolts together for easy installation
- Bottom flange for secure attachment
- Holes provided for battery cables
- Constructed from 1/8" thick mild steel
- Includes 3/8" hold down rod and grommets
- Fits "Series 24" batteries
- Meets sanctioning body requirements for weight box and battery containment in cars with rear firewall
- Inside dimensions: 12-3/8" long x 9-3/4" wide x 10" high
- Weighs approximately 28 pounds

PART #DESCRIPTIONC4029*Battery/Weight Box



No. C4029

***NOTE:** Check your rule book for specific mounting requirements

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For a list and descriptions of replacement parts for discontinued Wheel-E-Bars™, please refer to page 399

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