Maximum Motorsports Inc.®

Better by Design

1979-2004 MUSTANG PERFORMANCE PARTS

The Leader in Mustang Performance Suspensions

Catalog
Volume 11

A Few of Our "Company Cars" in Action

This Book Will Change Your Life!

You wouldn't be reading this if your life weren't lacking something: cornering grip, steering response, braking power, launching bite, lowering...or maybe all of the above? Maximum Motorsports is here to help.

Our staff of Mustang enthusiasts and veteran racers understands your needs. We race, test, and drive Mustangs everyday. We design and manufacture parts only for 1979 and newer Mustangs. Whether you dream of challenging our race-winning American Iron car or just hitting the off-ramps harder, we're here for you! We'll recommend a build-up program that improves performance in stages, as your budget allows. Then we'll help you install the parts correctly with photo-illustrated directions and free tech support, by phone or email.

The American-made Maximum Motorsports products and packages depicted herein will convert any 1979-2004 Mustang into a world-class performance car—without sacrificing either streetability or dependability. These parts and the tuning tips found at www.maximummotorsports.com will make both your Mustang and its driver faster and smoother.

Since 1992, our team has been exceeding customer expectations for innovative design, manufacturing quality, fit, performance, and delivery time. (Most orders ship within 24 hours!) We've even changed some lives for the better.

Achieve your maximum potential with Maximum Motorsports, the leader in Mustang performance suspensions.

Contents

Improving your Mustang the MM Way

Deciding how to go about modifying your Mustang can be very confusing. The aftermarket performance industry provides countless choices. You can make just a handful of simple changes to your Mustang, or you can radically alter it; the range of choices in between those two extremes is nearly infinite.

Maximum Motorsports is here to help you make the right choices--the ones that are best for your goals and your budget. Whether it's just one part or one of our Grip Boxes, we want to help you set up your Mustang correctly!

How to do it

Decide on a realistic goal. Start by answering some basic questions: What are you going to use the car for? Will it be a daily driver, a dual-purpose car, or a dedicated racer? Choosing your goal carefully will save you time and money.

Work toward your goal in logical steps, whether you take many small steps or a few large ones. We recommend modifying your Mustang in this general order:

1. Chassis bracing
2. Rear suspension
3. Front suspension
4. Fine-tuning with swaybars, wheels, brakes, steering components, a roll bar, etc.

We recommend finishing maintenance and repair tasks before starting on performance modifications. For some items, it may make sense to replace a worn component with a performance part instead of another stock replacement part.

Choosing a Path

We suggest that you first read the descriptions of our various Grip Boxes, and then use one of them as a guide for your modifications. It's quite normal for us to customize one of our standard Grip Boxes to best suit your needs. If you have questions, please email or call our Technical Staff. We want to make sure you get the job done right the first time!

The Grip Boxes

"Grip in a Box" is much more than our advertising slogan. For going on two decades now, Maximum Motorsports has engineered complete suspension systems for high-performance street vehicles, road racers, and drag strip machines. We call these engineered systems "Grip Boxes." Each of them is designed to improve your Mustang's performance by increasing your tires' grip on the pavement.

Our Technical Associates may make product substitutions to put together a special Grip Box to suit you and your specific situation. This gives you a performance advantage with a Grip Box that was customized just for you. All parts in our Grip Boxes are also available separately.

2005 - current Mustang Parts

We got' em! They're just not listed in this guide, which is dedicated to consumer education performance parts for the 1979-2004 Mustangs. Parts for 2005 and newer Mustangs are currently on our web site (www.maximummotorsports.com). We have a special section just for 2005+ Mustang parts, and update it whenever a new part becomes available for the S197 or S550 chassis. Springs, dampers, brakes, and more are listed on our web site. Keep checking back for our latest offerings!

The First MM Shop Car, aka "The Black Car"

The Black Car was one of our first R&D vehicles. It's a 1987 LX that has been affiliated with MM since 1992. Early in its life, the car was a daily driver that was also autocrossed on weekends. In stock form, it didn't take long until the floor pan began to develop cracks, and the upper control arm mounts ripped out. The car needed repairs and improvements for it to safely stay on the road.

Of course, we're never content with leaving things alone, and we weren't about to be satisfied with simply making repairs. Over the next several years, the car was fitted with many different sets of springs, many different types of struts and shocks, different urethane bushings in different places, and so on. This was all in an ongoing search for the ultimate combination of ride quality and handling. The car continued its life as a daily driver, and became a competitive weekend autocrosser.

We continued to push the envelope of performance as we developed many different prototype parts. After being thoroughly tested on the Black Car, many of those parts turned into MM products that are still available today. In the rear suspension we tried a three-link, a four-link, and a torque-arm. When the dust settled, we found the car handled the best with a torque-arm. With the rear suspension dialed in, we then concentrated on the front of the car. We built a prototype K-member and experimented with different suspension and steering geometries.

By August 2000, we had perfected our front K-member geometry, and entered the Black Car in the West Coast Suspension Shoot-Out at Buttonwillow Raceway. To our delight, our smog-legal shop car turned the fastest lap time of the weekend: quicker than the best of the race-equipped Mustangs by over two seconds.

In 2001, NASA's American Iron series was beginning to gain steam. Our first entry in this exciting new road race series found our 3200-lb., full-interior street car sitting on pole position. While it was readily apparent the other Mustangs had a power-to-weight advantage, the Black Car had the edge in cornering speed. After swapping positions and waging a close-fought battle throughout the race, our Shop Car regained the lead a couple of laps from the end of the race, and held it to the checkered flag.

The Black Car has survived far more than most cars do in a lifetime: daily commuting, autocrossing, street testing, track testing (up to 250 track miles per day in 107-degree heat), wheel-to-wheel road racing, being stolen (with prototype MM parts on board), being recovered after a high-speed police chase, and an interior fire during a race (we still managed to win that one). Today, after an adventurous 260,000 miles, our first Shop Car awaits its next assignment.

Magazine project cars

Maximum Motorsports has been involved with quite a number of different project cars for magazines. Some of the projects were quite simple, and involved little more than us sending a single part to a magazine for them to install and test. Sometimes a magazine would extensively modify a car themselves. And a handful of cars received the full treatment by our engineers and technicians in the MM R&D Shop.

One of our favorite cars is the *5.0 Mustang and Super Fords* 1996 GT Open Track Project Car, equipped with our Maximum Grip Box, optional MM race-valved struts and shocks; a pair of Kirkey road race seats, Konig Villain wheels, and Nitto 555RII tires. This white-striped car has been featured many times in *5.0 Mustang*, where writer and ace driver Tom Wilson chronicled the car's build-up, its suspension set-up for track use and abuse, and his subsequent adventures on the racetrack.

The car hit the road in 2002 with Tom's entry in the grueling inaugural Open Track Challenge, the epic event in which competitors raced on seven different West Coast tracks in just seven days. Later that same year Tom drove the car at the Baer Brakes track day at Buttonwillow Raceway, where he turned the fastest lap time of the day. In March 2003, Tom took the car to the NASA season opener at California Speedway. He piloted the 248-rwhp, 3600-lb., air-conditioned, street-legal car to a best time of 2:00 around the combined oval and infield road circuit. Not too shabby, considering that Saturday's American Iron Extreme winner (John Lindsey in the high-powered and MM-equipped #22) turned 1:50s. The *5.0 Mustang* white-striped project car was built to excel on the track, and is by no means a trailer queen. Tom drives the car to and from track events.

Another magazine project car was *Popular Hot Rodding* magazine's Project Mustang GT. *PHR* editor Cameron Evans asked MM to turn the magazine's brand-new Mustang into an open-track terror. The MM crew built this car to perform on the street, strip, and road course. In the March 2003 issue of *PHR*, Evans had this to say, **"The Maximum Motorsports suspension system that we bolted up…is the single most significant improvement to a car that I've ever felt in six years on this magazine and another ten years of working with this type of equipment. It's that good."** The eye-popping yellow 2002 GT was fitted with MM's Maximum Grip Box, along with the optional MM race-valved struts and shocks.

Starting with the January 2009 issue of *Muscle Mustangs & Fast Fords,* Matt King detailed the buildup of his SN95 Mustang for NASA's Camaro-Mustang Challenge series. The five-part series of articles followed along with Matt as he equipped his car with MM suspension, set the car up, and then took it onto the racetrack.

Definition of Applications

When it says…	*It really means…*
(nothing) or "Mustang"	All flavors of 1979-04 Mustang, 1in-cluding Cobra, HT, and Convertible
"GT"	GT only, Hardtop or Convertible
"Cobra"	Cobra only, Hardtop or Convertible
"HT"	Hardtop, won't fit on a convertible
"Convertible"	Convertible, won't fit on a hardtop
"IRS"	Independent Rear Suspension

We can make substitutions and/or additions to custom-tailor any boxes or packages to suit your needs.

The first thing we usually hear from the owner of a newly acquired Mustang is that they want to lower their new ride. While throwing a set of lowering springs in might seem to be the answer, much more than that is required to lower a Mustang properly.

A quality set of springs is the first step. Since any lowering spring will also have a higher spring rate than the stock springs, a matched set of struts and shocks is needed to maintain good ride quality and enhance performance. Old spring isolators should always be replaced when installing new springs to ensure proper ride height. Finally, any lowered Mustang will require a set of our caster/camber plates to get the alignment back within specification.

SBX-3

The Starter Box fulfills all those requirements, and more. Not only will your Mustang have an enhanced appearance from the lowered stance, you'll experience a significant improvement in handling, with reduced brake dive and body roll. The ride quality will be firm, as a performance car should feel, but not overly harsh. This Grip Box is an excellent foundation for future modifications, and is at the heart of the MM Road & Track Box.

The typical Starter Box includes:

- MM Caster/Camber Plates
- MM Road & Track Springs
- Bilstein HD Series Struts
- Bilstein HD Series Shocks
- Urethane spring isolators
- MM Pinion Snubber (solid axle Mustangs)

Shop Online!

Application	Part No.	Price/box
1987-89 Mustang 5.0L	**SBX-1**	$1,158.20
1990-93 Mustang 5.0L	**SBX-2**	$1,158.20
1994-04 Mustang (solid axle)	**SBX-3**	$1,177.60
1999-04 Cobra (IRS)	**SBX-4**	$1,211.55

Notes

- Chrome Caster/Camber Plates are available for an additional $50.
- Not all of the parts listed above for the Starter Box apply to every Mustang model. Please see the MM web site, or call the MM Tech Line for clarification or assistance.
- While no Starter Box is listed for pre-1987 cars, 1979-86 Mustangs can be fitted with a Starter Box if you upgrade to 1987-04 spindles and rear lower shock mounts.
- See the MM web site for technical information regarding swapping spindles.
- The Starter Box may be customized to suit your desires. Contact our Tech Associates for help putting together your Starter Box.

The Sport Box

Our popular Sport Box is a stand-alone Grip Box that provides a marked improvement in performance at a bargain price. The Sport Box is intended for someone who wants *one* complete Grip Box that provides a *moderate* improvement in handling for a street-driven Mustang. It's not for someone who will eventually add more parts, or enter a driving event. If you're headed in that direction, we recommend either the Starter Box, as it provides a great foundation for extensive future modifications, or the Road & Track Box.

The typical Sport Box includes:

- MM Caster/Camber Plates
- H&R Sport springs
- Koni STR.T struts
- Koni STR.T shocks
- Urethane spring isolators
- MM Pinion Snubber
- MM Standard Subframe Connectors
- MM Strut Tower Brace
- MM 4-point K-member Brace
- MM Panhard Bar
- Urethane steering rack bushings
- Front swaybar bushings
- Front swaybar end-links

Notes

- Chrome Caster/Camber Plates are available for an additional $50.
- Powder-coated subframe connectors are available for $30.
- Not all of parts listed above for the Sport Box apply to every Mustang model. Please see the MM web site, or call the MM Tech Line for clarification or assistance.
- While no Sport Box is listed for pre-1987 cars, 1979-86 Mustangs can be fitted with a Sport Box if you upgrade to 1987-04 spindles and rear lower shock mounts.
- See the MM web site for technical information regarding swapping spindles.
- The Sport Box can be customized to suit your desires. Contact our Tech Associates for help putting yours together.

Application	Part No.	Price/box
1987-89 Mustang 5.0L HT	**SB-1**	$1,647.43
1987-89 Mustang 5.0L convertible	**SB-1C**	$1,666.63
1990-93 Mustang 5.0L HT	**SB-2**	$1,647.43
1990-93 Mustang 5.0L convertible	**SB-2C**	$1,666.63
1994-95 Mustang HT	**SB-4**	$1,658.04
1994-95 Mustang convertible	**SB-4C**	$1,915.97
1996-97 Mustang GT HT	**SB-5.1**	$1,658.04
1996-97 Mustang GT convertible	**SB-5.1C**	$1,820.93
1996-97 Cobra HT	**SB-6.1**	$1,667.64
1996-97 Cobra convertible	**SB-6.1C**	$1,830.53
1998 Mustang GT HT	**SB-5**	$1,658.04
1998 Mustang GT convertible	**SB-5C**	$1,820.93
1998 Cobra HT	**SB-6**	$1,667.64
1998 Cobra convertible	**SB-6C**	$1,830.53
1999-04 Mustang GT HT	**SB-7**	$1,662.84
1999-04 Mustang GT convertible	**SB-7C**	$1,825.73
1999-01 Cobra HT	**SB-8**	$1,563.54
1999-01 Cobra convertible	**SB-8C**	$1,483.80
2003-04 Cobra HT	**SB-9**	$1,599.20
2003-04 Cobra convertible	**SB-9C**	$1,519.83

The Road & Track Box

Our most popular Grip Box! The Road & Track Box is the ultimate version of the stock-based suspension. It's great for a daily-driven Mustang, as well as the occasional open track event. This is the Grip Box to choose when you've made the decision to keep the stock-style suspension design and you'll end your modifications short of the Maximum Grip Box. Many people begin with the Starter Box, add a Chassis Brace Package, and continue to modify their Mustang piece by piece until it's eventually outfitted with the Road & Track Box. If you decide to increase your Mustang's grip level beyond the Road & Track Box, the two best next steps are to add the MM Torque-arm and convert to coil-overs.

RTB-3.1

Application	Part No.	Price/box
1987-89 Mustang 5.0L HT	**RTB-1**	$2,448.45
1987-89 Mustang 5.0L convertible	**RTB-1C**	$2,467.65
1990-93 Mustang 5.0L HT	**RTB-2**	$2,448.45
1990-93 Mustang 5.0L convertible	**RTB-2C**	$2,467.65
1994-95 Mustang GT HT	**RTB-3**	$2,537.37
1994-95 Mustang GT convertible	**RTB-3C**	$2,442.33
1994-95 Cobra HT	**RTB-3.1**	$2,537.37
1994-95 Cobra convertible	**RTB-3.1C**	$2,442.33
1996-97 Mustang GT HT	**RTB-4.1**	$2,542.72
1996-97 Mustang GT convertible	**RTB-4.1C**	$2,447.68
1996-97 Cobra HT	**RTB-5.1**	$2,552.32
1996-97 Cobra convertible	**RTB-5.1C**	$2,457.28
1998 Mustang GT HT	**RTB-4**	$2,542.72
1998 Mustang GT convertible	**RTB-4C**	$2,447.68
1998 Cobra HT	**RTB-5**	$2,552.32
1998 Cobra convertible	**RTB-5C**	$2,457.28
1999-01 Mustang GT HT	**RTB-6**	$2,557.12
1999-01 Mustang GT convertible	**RTB-6C**	$2,462.08
1999-01 Cobra HT	**RTB-7**	$2,024.35
1999-01 Cobra convertible	**RTB-7C**	$1,903.26
2002-04 Mustang GT HT	**RTB-8**	$2,557.12
2002-04 Mustang GT convertible	**RTB-8C**	$2,462.08
2003-04 Cobra HT	**RTB-9**	$2,033.95
2003-04 Cobra convertible	**RTB-9C**	$1,912.86

The typical Road & Track Box includes:

- MM Caster/Camber Plates
- MM Road & Track springs
- Bilstein HD series struts
- Bilstein HD series shocks
- Urethane spring isolators
- MM pinion snubber
- MM XL Series Full-length Subframe Connectors
- MM Strut Tower Brace
- MM 4-point K-member Brace
- MM Panhard Bar
- Front swaybar bushings
- Front swaybar end-links
- Front control arm bushings (urethane)
- MM Rear Lower Control Arms
- MM Solid Steering Shaft
- MM Solid Steering Rack Bushings

When ordering, please specify power or manual steering rack, along with front swaybar diameter.

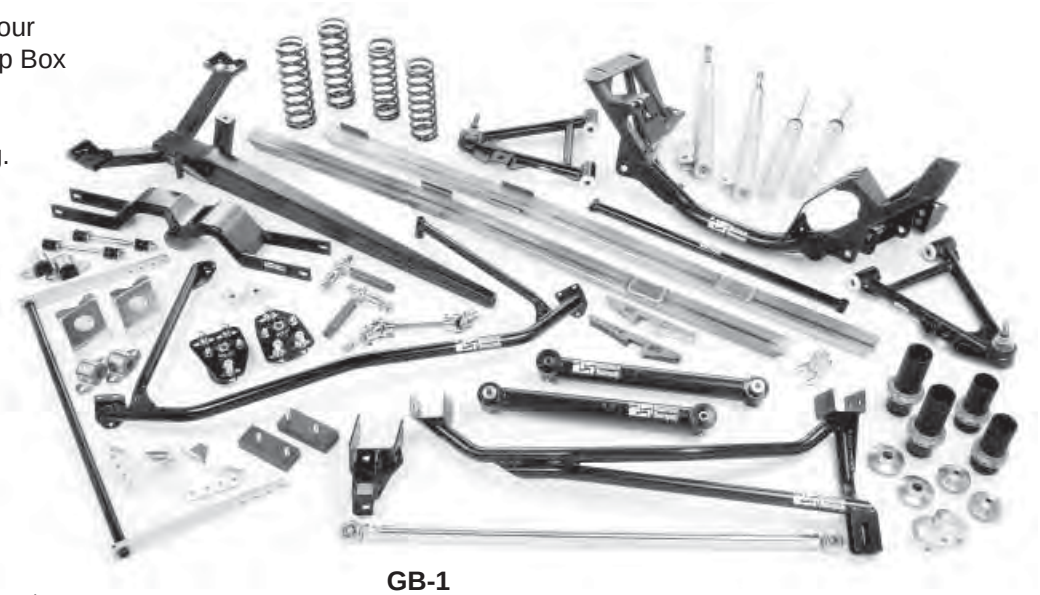
Notes

- Chrome Caster/Camber Plates are available for an additional $50.
- Not all of the parts listed above for the Road & Track Box apply to every Mustang model. Please see the MM web site, or call MM for clarification or assistance.
- While no Road & Track Box is listed for pre-1987 cars, 1979-86 Mustangs can be fitted with a Road & Track Box if you upgrade to 1987-04 spindles and rear lower shock mounts.
- See the MM web site for technical information regarding swapping spindles.
- The Road & Track Box may be customized to suit your purposes. Contact our Tech Associates for help putting together yours.

Motor Trend confirmed the impressive handling ability of this suspension package when they tested it for *5.0 Mustang* magazine (results published in the December 1998 issue of *5.0 Mustang*). A high-mileage 1990 LX outfitted with the Road & Track Box tied for the 3rd-fastest slalom speed ever recorded by *Motor Trend*. To this day, the 72.5-mph slalom speed achieved in that test is still near the top of the all-time slalom speed list. Read all about it on the Maximum Motorsports web site.

The Maximum Grip Box

This is the ultimate handling package for your Mustang! Our top-of-the-line Maximum Grip Box features a quantum leap forward in technology, and is the ideal choice when you desire the best for your Mustang. Offering a tremendous boost in overall grip and straight-line traction, it provides the awesome handling characteristics and increased stability that inspire driver confidence. We originally developed this package for street-driven Mustangs, but with only a few minor part substitutions, it's the exact package used on many winning racecars.



GB-1

This all-encompassing package stiffens the chassis, upgrades both front and rear suspensions, and provides adjustability to tune your Mustang's handling characteristics to suit your own personal tastes. The Maximum Grip Box will turn your Mustang into a world-class performance car with its mix of carefully designed parts. Our ability to make unlimited product substitutions enables us to mix and match individual parts to suit your exact situation and driving style. Call and speak to one of our Tech Associates today!

Application	Part No.	Price/box
1987-89 Mustang 5.0L HT	**GB-1**	$4,701.74
1990-93 Mustang 5.0L HT	**GB-2**	$4,701.74
1994-95 Mustang	**GB-3**	$4,756.06
1996-97 Mustang GT	**GB-4.1**	$4,756.06
1996-97 Cobra	**GB-5.1**	$4,993.53
1998 Mustang GT	**GB-4**	$4,756.06
1998 Cobra	**GB-5**	$4,993.53
1999-04 Mustang GT	**GB-6**	$4,770.31
1999-01 Cobra	**GB-10**	$4,631.45
2003-04 Cobra	**GB-11**	$4,061.56

*The typical Maximum Grip Box includes (*solid axle / IRS):

- MM K-member, with 2-point brace
- MM Front Control Arms
- MM Torque-arm / IRS: Differential Mounts and Tie-rod Ends
- MM Panhard Bar / IRS: Subframe Bushings
- MM XL Series Full-length Subframe Connectors
- MM Coil-over Conversion Kits, Front and Rear
- Coil-over springs
- MM Caster/Camber Plates
- MM Rear Lower Control Arms / IRS: Delrin Rear Control Arm Bushings
- Bilstein HD series struts
- Bilstein HD series shocks
- MM Adjustable Rear Swaybar / IRS: Rear Swaybar Bushings and Adjustable End-links
- MM Aluminum Steering Rack Bushings
- MM Solid Steering Shaft
- MM Bumpsteer Adjusting Outer Tie-rod Ends
- MM Strut Tower Brace
- MM Front Swaybar Relocation Kit
- Front swaybar bushings
- Front swaybar end-links

Customized just for you!

Please contact us before ordering to finalize everything in your Maximum Grip Box. First, we need to know if your Mustang has power or manual steering, and the front swaybar size. Then, an MM Tech Associate will assist you in selecting spring rates, front control arm and bushing type, rear swaybar size, IRS differential mount type, etc., to best suit you and your Mustang. Our Tech Associates can also assist you with other customizations to the basic Maximum Grip Box, such as choosing struts and shocks to match higher spring rates, deciding between our different rear lower control arms, and determining if the MM Heavy-Duty Torque-arm is needed, etc.

Notes

- Chrome Caster/Camber Plates are available for an additional $50.
- An MM Oil Filter Relocation Kit is *required* for applications that have an OEM oil cooler (all 4V Cobra and some 2V GT engines).
- Not all the parts listed above for the Maximum Grip Box apply to every Mustang model. Please see the MM web site, or call the MM Tech Associates for clarification or assistance.
- While no Maximum Grip Box is listed for pre-1987 cars, 1979-86 Mustangs can be fitted with a Maximum Grip Box if you upgrade to 1987-04 spindles and an 8.8" rear axle housing.
- See the MM web site for technical information regarding swapping spindles.

This Grip Box was designed with a minimalist approach to modifications, and is intended for the occasional drag racer on a budget. It will improve launch consistency and increase durability with just the right combination of parts.

Our ability to make unlimited product substitutions lets us mix and match individual parts to suit your exact situation and driving style. Call and speak to one of our Tech Associates today! All parts are also available separately.

Application	Part No.	Price/box
1987-89 Mustang 5.0L HT	**DB-1**	$1,840.77
1987-89 Mustang 5.0L convertible	**DB-2**	$1,840.77
1990-93 Mustang 5.0L HT	**DB-3**	$1,840.77
1990-93 Mustang 5.0L convertible	**DB-4**	$1,840.77
1994-95 Mustang HT	**DB-5**	$1,859.97
1996-98 Mustang HT	**DB-6**	$1,859.97
1999-04 Mustang GT HT	**DB-7**	$1,869.57

The typical Street & Strip Box includes:

- MM Extreme-Duty Rear Lower Control Arms, with adjustable ride height
- MM XL Series Full-length Subframe Connectors
- MM Caster/Camber Plates
- Tokico D-Spec struts and shocks
- Eibach drag launch springs, set of four, with airbag
- Rear Upper Control Arms, stock-style

Notes

- Chrome Caster/Camber Plates are available for an additional $50.
- Powder-coated subframe connectors are available for an additional $30.
- MM Drag Race series control arms for Mustangs with up to 1,000 RWP are available at no additional charge.
- Not all of the parts listed above for the Street & Strip Box apply to every Mustang model. Please see the MM web site or contact an MM Tech Associate by phone or email for clarification or assistance.
- While no Street & Strip Box is listed for pre-1987 cars, 1979-86 Mustangs can be fitted with a Street & Strip Box if you upgrade to 1987-04 spindles and rear lower shock mounts.
- See the MM web site for technical information regarding swapping spindles.

Got Big Power?

When your Mustang exceeds the 600 rwhp rating of the MM Extreme-Duty RLCAs, you need our new MM Drag Race Adjustable Rear Lower Control Arms. Call us and we'll customize your Launch Box by including the Drag Race series RLCAs at no extra charge.

The table below details the differences between the Extreme-Duty RLCAs and the Drag Race RLCAs.

Extreme-Duty Rear Lower Control Arms	Drag Race Adjustable Rear Lower Control Arms
Curved shape	Straight shape
Rated for up to 600 ft-lb engine torque	Rated for up to 1,000 ft-lb engine torque
Allows both raising and lowered ride height	Allows only raising ride height
No hardware included	Includes attachment hardware

MMRLCA-34.1

For more information, please visit the MM web site.

LB-3

The typical Launch Box includes these parts:

- MM 6-point Drag Race Roll Bar with swing-out door bars
- MM Extreme-Duty Rear Lower Control Arms, with adjustable ride height.
- MM Heavy-Duty Torque-Arm
- MM Panhard Bar
- MM XL Series Full-length Subframe Connectors
- MM Caster/Camber Plates
- MM Adjustable Rear Swaybar
- MM Coil-over Conversion Kit, Front
- Pair of front coil-over springs
- Tokico D-Spec struts and shocks
- Pair of conventional rear springs

This Grip Box was specifically designed to deliver the weight transfer, bite, and repeatability that competitive drag racers demand. It maintains a street-friendly Mustang that is capable of consistent 1.5-second 60-ft times.

Soft springs and adjustable Tokico D-Spec struts and shocks help transfer weight. The MM Panhard Bar and Torque-arm deliver a dramatic increase in traction and reduce tire spin. An MM drag race roll bar that meets NHRA and NMRA requirements stiffens the chassis and provides safety, while retaining easy accessibility for street driving. The result is a street-friendly Mustang capable of competitive drag racing.

Our ability to make unlimited product substitutions lets us mix and match individual parts to suit your exact situation and driving style. Call and speak to one of our Tech Associates today! All parts are also available separately.

Application	Part No.	Price/box
1987-89 Mustang 5.0L HT	**LB-1**	$3,732.78
1987-89 Mustang 5.0L convertible	**LB-2**	$3,742.28
1990-93 Mustang 5.0L HT	**LB-3**	$3,732.78
1990-93 Mustang 5.0L convertible	**LB-4**	$3,742.28
1994-95 Mustang HT	**LB-5**	$3,761.28
1996-98 Mustang HT	**LB-6**	$3,761.28
1999-04 Mustang GT HT	**LB-7**	$3,775.53

Notes

- Chrome Caster/Camber Plates are available for an additional $50.
- Powder-coated subframe connectors are available for an additional $30.
- MM Drag Race series control arms for Mustangs with up to 1,000 RWP are available at no additional charge.
- The Launch Box may be customized to suit your purposes. Contact our Tech Associates by phone or email for help putting together yours.
- Not all of the parts listed above for the Launch Box apply to every Mustang model. Please see the MM web site, or contact an MM Tech Associate by phone or email for clarification or assistance.
- While no Launch Box is listed for pre-1987 cars, 1979-86 Mustangs can be fitted with a Launch Box if you upgrade to 1987-04 spindles and an 8.8” rear axle housing.
- See the MM web site for technical information regarding swapping spindles.

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Curved shape	Straight shape
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Allows both raising and lowered ride height	Allows only raising ride height
No hardware included	Includes attachment hardware

Extreme-Duty Rear Lower Control Arm

Drag Race Adjustable Rear Lower Control Arm

For more information, please visit the MM web site.

Chassis Brace Packages

Your Mustang needs a good foundation for it to provide excellent handling, traction, and ride quality. That foundation comes from a stiff chassis. The stiffer the chassis, the better the handling and ride quality. If you want high-performance handling, you can't make a Mustang chassis too stiff!

The path to that goal requires parts that are properly designed to do the job, and not all such parts are created equal. Compare the details in the chassis braces designed by MM's engineers. You'll see the differences, and what sets MM parts above all the rest.

Each Chassis Brace Package includes:

- MM Strut Tower Brace
- MM 4-point K-member Brace
- MM Subframe Connectors: Your choice of the best-in-class XL Series Full-length Subframe Connectors or our Standard connectors
- Strut tower braces and K-member braces are powder-coated black.
- Subframe connectors are available in bare steel or black powder-coat finish.

Notes

- K-member braces may require that the cooler lines of an automatic transmission be relocated slightly.
- Long-tube headers may interfere with the MM 4-point K-member brace. Substitute our 2-point brace (MMKB2-2).

MMCBP-7

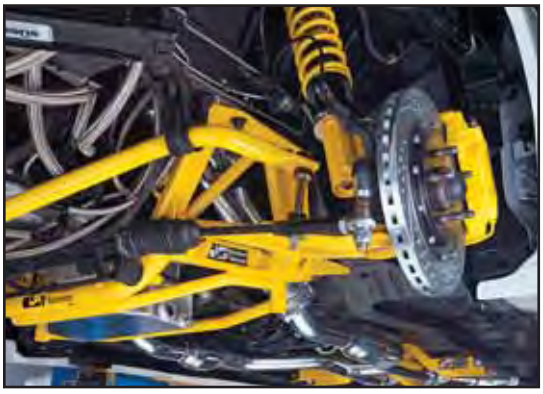
Table Part 1

Application	MM Subframe Connectors	Subframe Finish	Part No.	Price/kit
1979-85 HT, Carbureted	Standard length	bare steel	**MMCBP-1**	$333.62
		powdercoated	**MMCBP-2**	$362.72
	Full length	bare steel	**MMCBP-3**	$382.12
		powdercoated	**MMCBP-4**	$411.22
1986-93 HT, Fuel Injected	Standard length	bare steel	**MMCBP-5**	$323.92
		powdercoated	**MMCBP-6**	$353.02
	Full length	bare steel	**MMCBP-7**	$372.42
		powdercoated	**MMCBP-8**	$401.52
1983-85 Convertible, Carbureted	Standard length	bare steel	**MMCBP-9**	$353.02
		powdercoated	**MMCBP-10**	$382.12
	Full length	bare steel	**MMCBP-11**	$401.52
		powdercoated	**MMCBP-12**	$430.62
1986-93 Convertible, Fuel Injected	Standard length	bare steel	**MMCBP-13**	$343.32
		powdercoated	**MMCBP-14**	$372.42
	Full length	bare steel	**MMCBP-15**	$391.82
		powdercoated	**MMCBP-16**	$420.92
1994-95 HT	Standard length	bare steel	**MMCBP-25**	$333.62
		powdercoated	**MMCBP-26**	$362.72
	Full length	bare steel	**MMCBP-27**	$382.12
		powdercoated	**MMCBP-28**	$411.22
1994-95 Convertible	Standard length	bare steel	**MMCBP-55**	$237.59
		powdercoated	**MMCBP-56**	$266.69
	Full length	bare steel	**MMCBP-57**	$286.09
		powdercoated	**MMCBP-58**	$315.19
1996-97 GT HT	Standard length	bare steel	**MMCBP-29**	$333.62
		powdercoated	**MMCBP-30**	$362.72
	Full length	bare steel	**MMCBP-31**	$382.12
		powdercoated	**MMCBP-32**	$411.22

Application	MM Subframe Connectors	Subframe Finish	Part No.	Price/kit
1996-97 Cobra HT	Full length	bare steel	**MMCBP-35**	$391.82
		powdercoated	**MMCBP-36**	$420.92
1998-03 GT, HT	Standard length	bare steel	**MMCBP-41**	$333.62
		powdercoated	**MMCBP-42**	$362.72
	Full length	bare steel	**MMCBP-43**	$382.12
		powdercoated	**MMCBP-44**	$411.22
1998 Cobra HT	Full length	bare steel	**MMCBP-45**	$391.82
		powdercoated	**MMCBP-46**	$420.92
1999-01 Cobra HT	Standard length	bare steel	**MMCBP-37**	$343.32
		powdercoated	**MMCBP-38**	$372.42
	Full length	bare steel	**MMCBP-39**	$391.82
		powdercoated	**MMCBP-40**	$420.92
1999-01 Cobra Convertible	Standard length	bare steel	**MMCBP-91**	$247.29
		powdercoated	**MMCBP-92**	$276.39
	Full length	bare steel	**MMCBP-93**	$295.79
		powdercoated	**MMCBP-94**	$324.89
2001 Bullitt	Standard length	bare steel	**MMCBP-79**	$343.32
		powdercoated	**MMCBP-80**	$372.42
	Full length	bare steel	**MMCBP-81**	$391.82
		powdercoated	**MMCBP-82**	$420.92
2003-04 Mach 1	Standard length	bare steel	**MMCBP-83**	$188.15
		powdercoated	**MMCBP-84**	$217.25
	Full length	bare steel	**MMCBP-85**	$236.65
		powdercoated	**MMCBP-86**	$265.75
2003-04 Cobra HT	Standard length	bare steel	**MMCBP-47**	$353.02
		powdercoated	**MMCBP-48**	$382.12
	Full length	bare steel	**MMCBP-49**	$401.52
		powdercoated	**MMCBP-50**	$430.62
2003-04 Cobra Convertible	Standard length	bare steel	**MMCBP-51**	$256.99
		powdercoated	**MMCBP-52**	$286.09
	Full length	bare steel	**MMCBP-53**	$305.49
		powdercoated	**MMCBP-54**	$334.59

Table Part 2

Angel Acosta in his 2003 Cobra



MMCBP-45

Torque-arm Suspension Systems

TASS-1

This is the ultimate rear suspension for your solid axle-equipped Mustang. It improves traction *and* handling over the factory 4-link design, and is a key part of our Maximum Grip Box.

Each Torque-arm Suspension System includes:

- MM Torque-arm: Choice of Standard or Heavy-Duty
- MM Panhard Bar
- Rear Lower Control Arms: Choice of our standard or adjustable ride height version; choice of Heavy-Duty or Extreme-Duty series

When ordering, please specify whether your subframe connectors are made of rectangular tubing or round tubing.

MM Standard Torque-arm Packages 1

Application	Includes Heavy-Duty Control Arms		Part No.	Price/kit
1979-98 with 8.8" solid axle	*No arms*	*n/a*	**MMTASS-1**	$808.95
	Non-adjustable	MMRLCA-1	**MMTASS-2**	$1,051.40
	Adjustable	MMRLCA-2	**MMTASS-3**	$1,177.50
1999-04 with 8.8" solid axle	*No arms*	*n/a*	**MMTASS-7**	$813.80
	Non-adjustable	MMRLCA-5	**MMTASS-8**	$1,065.95
	Adjustable	MMRLCA-6	**MMTASS-9**	$1,192.05

MM Standard Torque-arm Packages 2

Application	Includes Extreme-Duty Control Arms		Part No.	Price/kit
1979-98 with 8.8" solid axle	Non-adjustable	MMRLCA-30	**MMTASS-10**	$1,129.00
	Adjustable	MMRLCA-32	**MMTASS-11**	$1,255.10
1999-04 with 8.8" solid axle	Non-adjustable	MMRLCA-31	**MMTASS-12**	$1,143.55
	Adjustable	MMRLCA-33	**MMTASS-13**	$1,269.65

MMRLCA-33

MM Heavy-Duty Torque-arm Packages

Application	Includes Extreme-Duty Control Arms		Part No.	Price/kit
1979-98 with 8.8" solid axle	*No arms*	*n/a*	**MMTASS-1H**	$1,002.95
	Non-adjustable	MMRLCA-30	**MMTASS-10H**	$1,323.00
	Adjustable	MMRLCA-32	**MMTASS-11H**	$1,449.10
1999-04 with 8.8" solid axle	*No arms*	*n/a*	**MMTASS-7H**	$1,007.80
	Non-adjustable	MMRLCA-31	**MMTASS-12H**	$1,327.85
	Adjustable	MMRLCA-33	**MMTASS-13H**	$1,453.95

Notes

- Subframe connectors are necessary for installation of the MM Torque-arm.
- Got Big Power? You need MM Drag Race adjustable rear lower control arms. Contact an MM Tech Associate by phone or email to customize a Heavy-Duty Torque-arm package for your high-powered Mustang.

Rear Grip Packages

The MM Rear Grip Package greatly improves traction and handling. The MM Panhard Bar provides precise lateral location of the rear axle, for greatly improved stability and traction during cornering. The MM Rear Lower Control Arms remove the deflection allowed by the stock arms and rubber bushings, improving traction and reducing the tendency for wheel hop. While this is a stepping stone to the Torque-arm Suspension System, the MM Rear Grip Package on its own will make significant improvements to traction and handling.

MMRG-3

Application	MM Control Arms	Part No.	Price/kit
1979-98	Non-adjustable, Heavy-Duty	**MMRG-1**	$615.87
	Non-adjustable, Extreme-Duty	**MMRG-7**	$693.47
	Adjustable, Heavy-Duty	**MMRG-3**	$741.97
	Adjustable, Extreme-Duty	**MMRG-8**	$819.57
1999-04 with solid axle	Non-adjustable, Heavy-Duty	**MMRG-5**	$630.42
	Non-adjustable, Extreme-Duty	**MMRG-11**	$708.02
	Adjustable, Heavy-Duty	**MMRG-6**	$756.52
	Adjustable, Extreme-Duty	**MMRG-12**	$834.12

Each Rear Grip Package includes:

- MM Panhard Bar
- Rear Lower Control Arms, choice of our standard or adjustable ride height version; in either the Heavy-Duty or Extreme-Duty series

Note

For best performance, only install with upper control arms fitted with rubber bushings. Don't use urethane or spherical rod-ends.

K-member Packages

For the most dramatic improvement in front-end grip possible, nothing beats a Maximum Motorsports K-member package! The MM K-member was designed to optimize suspension geometry and reduce weight while being durable enough to last for the life of your Mustang. All of the components necessary to install our tubular K-member (except struts) are included in this money-saving package.

The typical MM K-member Package includes:

- MM K-member, with 2-point brace
- Lightweight tubular MM Front Control Arms
- MM Front Coil-over Conversion Kit
- Coil-over springs
- MM Aluminum Steering Rack Bushings
- MM Caster/Camber Plates
- MM Bumpsteer Adjustable Tie-rod Ends
- MM Front Swaybar Relocation Kit
- Urethane front swaybar bushings
- Shortened front swaybar end-links
- Swaybar relocation kit (when applicable)

For Tech Info on the individual products listed above, see the appropriate product pages in this guide, or visit the MM web site.

High-performance struts are *required* and sold separately.

We recommend the following parts to accompany installation of a K-member package:

- MM Solid Steering Shaft
- MM Strut Tower Brace
- MM Front Swaybar Reinforcements (Fox chassis only)

Notes

- Chrome Caster/Camber Plates are available for an additional $50.
- Powder-coated subframe connectors are available for an additional $30.
- MM K-members for Fox Mustangs are based on the 1987-93 V8 track width. Expect an increase in overall track width (each tire will move outboard 0.44") on 1979-86 Mustangs and 1987-93 4-cyl Mustangs.
- MM K-Members designed for engine swaps and Hellion turbo systems may be substituted into any package.
- An MM Oil Filter Relocation Kit is *required* for applications with an OEM oil cooler (all 4V Cobra and some 2V GT engines).
- An MM Tech Associate will help you determine your spring rates when you place your order.
- While no MM K-member Package is listed for pre-1987 cars, 1979-86 Mustangs can be fitted with one if you upgrade to 1987-04 spindles.
- K-member packages are customizable.

MMKMP-41

86 Mustangs and 1987-93 4-cyl. Mustangs

- MM K-members designed for engine swaps and Hellion turbo systems may be substituted into any package.
- An MM Oil Filter Relocation Kit is *required* for applications with an OEM oil cooler (all 4V Cobra and some 2V GT engines).
- Spring rates will be determined with the help of an MM Tech Associate when you place your order.
- While no K-member package is listed for pre-1987 cars, 1979-86 Mustangs can be fitted with an MM K-member Package if upgraded to 1987-04 spindles.
- K-member packages may be customized.

Application	Control Arm Choice	Bushing Choice	Coil-Over Kit Fits	Part No.	Price/pkg.
1979-86	see notes				call
1987-89	Reverse-offset (stock wheelbase)	Urethane	MM or Bilstein	**MMKMP-41**	$1,748.72
			Koni or Tokico	**MMKMP-42**	$1,748.72
		Delrin	MM or Bilstein	**MMKMP-43**	$1,844.72
			Koni or Tokico	**MMKMP-44**	$1,844.72
	Non-offset (3/4" longer wheelbase)	Urethane	MM or Bilstein	**MMKMP-1**	$1,748.72
			Koni or Tokico	**MMKMP-2**	$1,748.72
		Delrin	MM or Bilstein	**MMKMP-3**	$1,844.72
			Koni or Tokico	**MMKMP-4**	$1,844.72
	Forward-offset (1.5" longer wheelbase)	Urethane	MM or Bilstein	**MMKMP-5**	$1,804.35
			Koni or Tokico	**MMKMP-6**	$1,804.35
		Delrin	MM or Bilstein	**MMKMP-7**	$1,900.35
			Koni or Tokico	**MMKMP-8**	$1,900.35
1990-93	Reverse-offset (stock wheelbase)	Urethane	MM or Bilstein	**MMKMP-45**	$1,748.72
			Koni or Tokico	**MMKMP-46**	$1,748.72
		Delrin	MM or Bilstein	**MMKMP-47**	$1,844.72
			Koni or Tokico	**MMKMP-48**	$1,844.72
	Non-offset (3/4" longer wheelbase)	Urethane	MM or Bilstein	**MMKMP-9**	$1,748.72
			Koni or Tokico	**MMKMP-10**	$1,748.72
		Delrin	MM or Bilstein	**MMKMP-11**	$1,844.72
			Koni or Tokico	**MMKMP-12**	$1,844.72
	Forward-offset (1.5" longer wheelbase)	Urethane	MM or Bilstein	**MMKMP-13**	$1,804.35
			Koni or Tokico	**MMKMP-14**	$1,804.35
		Delrin	MM or Bilstein	**MMKMP-15**	$1,900.35
			Koni or Tokico	**MMKMP-16**	$1,900.35
1994-95	Non-offset (3/4" longer wheelbase)	Urethane	MM or Bilstein	**MMKMP-17**	$1,746.01
			Koni or Tokico	**MMKMP-18**	$1,746.01
		Delrin	MM or Bilstein	**MMKMP-19**	$1,842.01
			Koni or Tokico	**MMKMP-20**	$1,842.01
	Forward-offset (1.5" longer wheelbase)	Urethane	MM or Bilstein	**MMKMP-21**	$1,801.64
			Koni or Tokico	**MMKMP-22**	$1,801.64
		Delrin	MM or Bilstein	**MMKMP-23**	$1,897.64
			Koni or Tokico	**MMKMP-24**	$1,897.64
1996-2004	Non-offset (3/4" longer wheelbase)	Urethane	MM or Bilstein	**MMKMP-25**	$1,746.01
			Koni or Tokico	**MMKMP-26**	$1,746.01
		Delrin	MM or Bilstein	**MMKMP-27**	$1,842.01
			Koni or Tokico	**MMKMP-28**	$1,842.01
	Forward-offset (1.5" longer wheelbase)	Urethane	MM or Bilstein	**MMKMP-29**	$1,801.64
			Koni or Tokico	**MMKMP-30**	$1,801.64
		Delrin	MM or Bilstein	**MMKMP-31**	$1,897.64
			Koni or Tokico	**MMKMP-32**	$1,897.64

Coil-Over Packages

A coil-over conversion is an integral part of improving the Mustang's handling ability to reach a world-class level. Coil-overs not only push the handling envelope far beyond what the conventional suspension could ever do, they also offer a significant improvement in ride quality. Coil-overs provide a true win-win.

MM Coil-over Conversion Kits deliver better handling, more bump travel, easier adjustment, and longer life than similar-appearing designs. MM's Engineering Team created our coil-over conversions to fit MM high-performance monotube, Bilstein, and Koni struts and shocks precisely. Each threaded-sleeve assembly fits snugly, preventing it from rattling and wearing prematurely. All critical aluminum components are hard-anodized for longevity and ease of use.

This coil-over package is included in our Maximum Grip Box, and has everything necessary to convert the stock Mustang suspension to coil-overs.

The typical MM Coil-Over Package includes:

- MM Front Coil-over Conversion Kit
- MM Rear Coil-over Conversion Kit
- MM Caster/Camber Plates
- Front struts
- Rear shocks
- Pair of front 2.5" coil-over springs
- Pair of rear 2.25" coil-over springs

Struts and Shocks

Our standard MM Coil-over Packages are available with your choice of struts and shocks from these available dampers:

- Bilstein Heavy Duty
- MM Sport
- MM Race2
- MM Race3
- Koni Single Adjustable
- Koni Double Adjustable

Each series of dampers matches a particular range of spring rates, meaning the struts and shocks will properly control springs with rates within that particular range.

Springs

Each MM Coil-over Package is available with your choice of spring rates. Please specify your choice of springs when placing your order. If you would like assistance with choosing the best spring rates for your Mustang, please consult with an MM Tech Associate when placing your order. See the MM web site FAQs & Tech Tips section for tables of dampers with matching spring rates, or consult with an MM Tech Associate for assistance with choosing spring rates for your Mustang.

Application	Struts & Shocks	Part No.	Price/kit
1979-86	see notes		call
1987-89	Bilstein HD	**COP-50HD**	$1,675.90
	MM Sport	**COP-50S1**	$1,743.10
	MM Race2	**COP-50M2**	$1,823.74
	MM Race3	**COP-50M3**	$1,862.14
	Koni SA	**COP-50SA**	$1,788.47
	Koni DA	**COP-50DA**	$2,504.36
1990-93	Bilstein HD	**COP-51HD**	$1,675.90
	MM Sport	**COP-51S1**	$1,743.10
	MM Race2	**COP-51M2**	$1,823.74
	MM Race3	**COP-51M3**	$1,862.14
	Koni SA	**COP-51SA**	$1,788.47
	Koni DA	**COP-51DA**	$2,504.36
1994-04 with solid axle	Bilstein HD	**COP-52HD**	$1,675.90
	MM Sport	**COP-52S1**	$1,743.10
	MM Race2	**COP-52M2**	$1,823.74
	MM Race3	**COP-52M3**	$1,862.14
	Koni SA	**COP-52SA**	$1,769.27
	Koni DA	**COP-52DA**	$2,504.36
1999-04 with Cobra IRS	Bilstein HD	**COP-53HD**	$1,666.30
	MM Sport	**COP-53S1**	$1,733.50
	MM Race2	**COP-53M2**	$1,804.54
	MM Race3	**COP-53M3**	$1,842.94
	Koni SA	**COP-53SA**	$1,810.42
	Koni DA/SA	**COP-53DA**	$2,136.82

When you place your order, an MM Tech Associate will assist in choosing spring rates specifically suited to your Mustang and driving situation.

Notes

- Chrome Caster/Camber Plates are available for an additional $50.
- If your car does *not* already have an MM Panhard Bar, order one MMSM-2 Lower Shock Mount in addition to the MM Coil-over Package.
- While no MM Coil-over Package is listed for pre-1987 cars, 1979-86 Mustangs can be fitted with one if you upgrade to 1987-04 spindles and rear lower shock mounts.

Front Grip Packages

MMFGP-1

The MM Front Grip Package includes all of the parts needed to upgrade the stock front suspension for improved grip and sharper steering response. Need to replace worn-out stock components? Does your Mustang's front-end feel loose or sloppy? That's a perfect opportunity to install MM's Front Grip Package for an upgrade that will improve handling while replacing those worn parts.

When ordering, specify power or manual steering rack, front swaybar diameter, and if the car has hydrobushings. (Visit the MM web site for how to identify hydrobushings.)

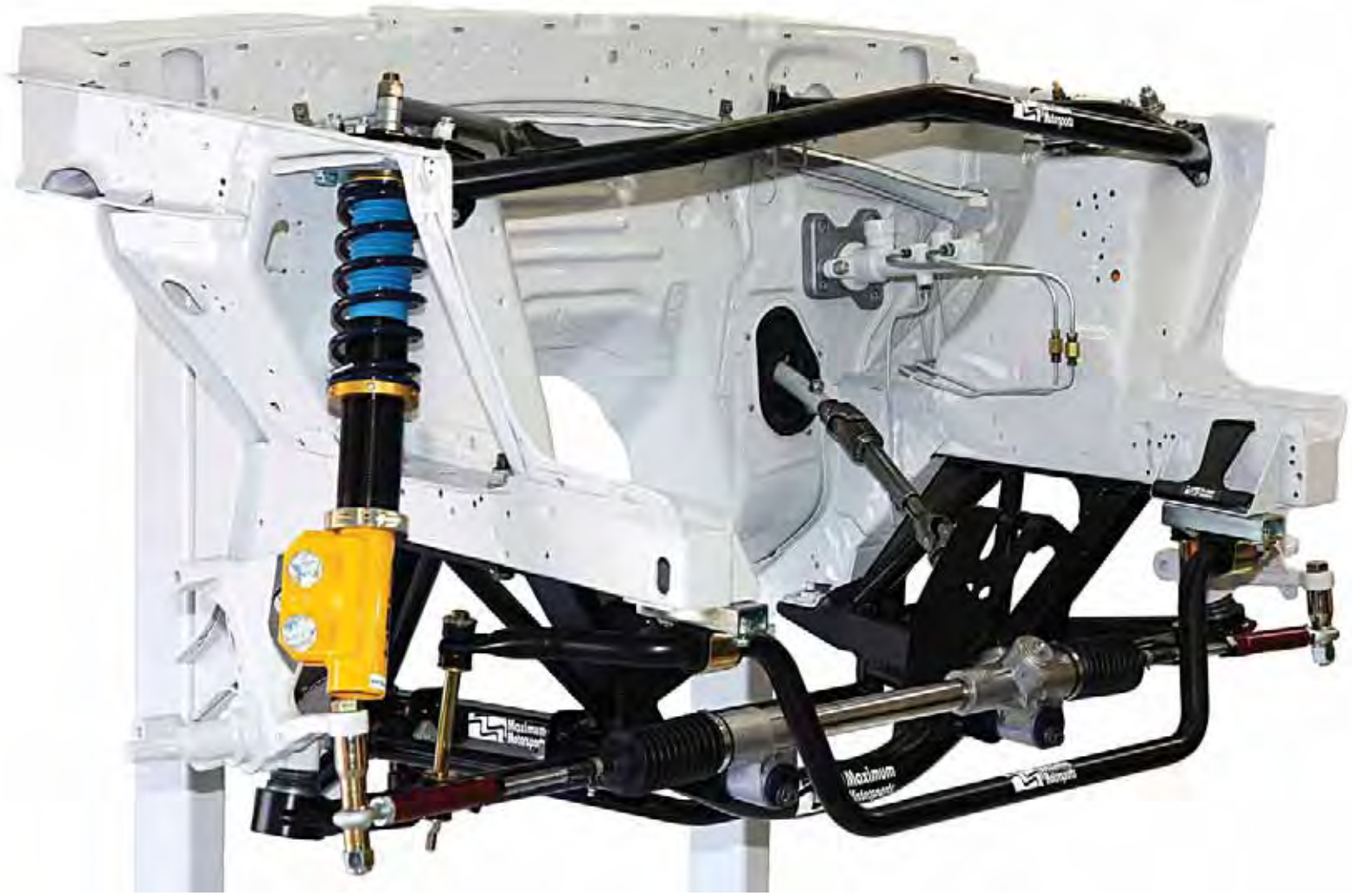
Each Front Grip Package includes:

- MM Caster/Camber Plates
- MM Solid Steering Rack Bushings
- MM Solid Steering Shaft
- Urethane front control arm bushings
- Front swaybar bushings
- Front swaybar end-links

Application	Part No.	Price
1979-93 Mustang 5.0L	FGP-1	$531.13
1994-04 Mustang	FGP-2	$591.87

Notes

- Chrome Caster/Camber Plates are available for an additional $50.



A picture's worth a thousand words

MM parts installed on this model: K-member package, Sports Series struts, manual brake conversion kit, front swaybar, caster/camber plates, coil-over kit, adjustable bumpsteer kit, front control arms, swaybar relocation kit, steering shaft, proportioning valve eliminator, Flaming River manual steering rack, adjustable steering rack bushings, master cylinder installation kit, swaybar end-link kit, universal swaybar bushings.

Clutch Cable Packages

This kit has everything needed to install a new, high-quality Ford clutch cable that will outlast and outperform any aftermarket cable. No aftermarket cables match, or even come close, to the quality and construction of the Ford-manufactured cables. The MM Firewall Adjuster and MM Aluminum Quadrant provide easy clutch adjustment from within the engine compartment.

This package includes:

- Ford Clutch Cable, modified by MM to be universal
- MM Firewall Adjuster
- MM Clutch Quadrant

1982-04 Mustang **MMCP-51** $139.40

MMCP-51

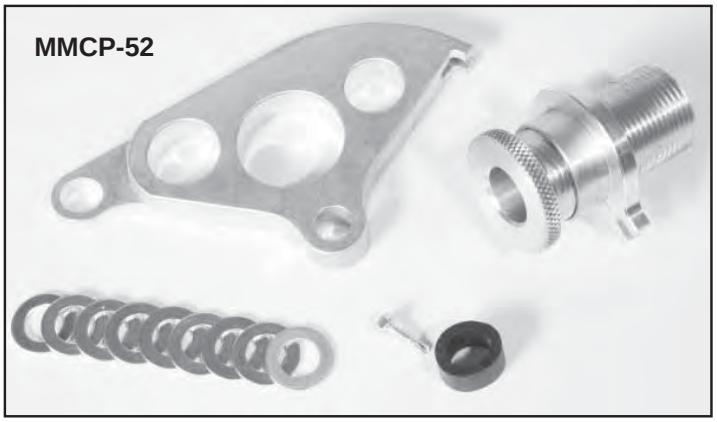
If your stock clutch cable is not in need of replacement, this package omits the MM Universal Cable.

This package includes:

- MM Firewall Adjuster
- MM Clutch Quadrant

1982-04 Mustang **MMCP-52** $71.93

MMCP-52



Brake Hose Packages

PTFE-lined, braided stainless steel hoses improve performance and safety for cars that are open-tracked. Maximum Motorsports was the first to offer direct replacement stainless steel brake hoses for Mustangs over 20 years ago. These brake hoses are a direct fit and do not require modification to the chassis. These DOT-approved hoses come complete with new fluid bolts, crush washers, and copyrighted MM instructions.

MMBK9R

Application	Description	Part No.	Price/pkg.
1987-93 5.0L Mustang	3-Hose Car Set	**MMBK1P**	$121.50
1994-95 Mustang GT & Cobra	5-Hose Car Set	**MMBK5P**	$222.16
1999-04 Cobra (IRS)	4-Hose Car Set	**MMBK6P**	$204.15

Brake Upgrade Package

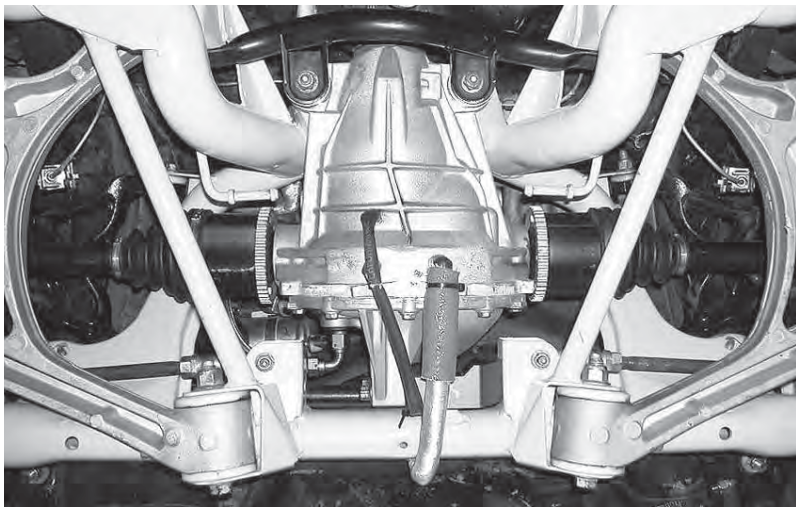
Reduces stopping distances by 12-15 percent! This upgrade package includes Hawk brake pads (HB-263 HPS), MM High-Performance Rear Shoes, MM Stainless Steel Caliper Sleeves, and MM Stainless Steel Brake Hoses (3-hose kit). The complete MM Brake Upgrade Package produced an average stopping distance of 114 ft from 60 mph, with the shortest distance at 98 ft *(Mustang Monthly*, Sept. 1993). For more information, also see the article in *Super Ford*, July 1994.

1987-93 Mustang **BP-1** $276.25

IRS Rear Grip Boxes

These IRS Rear Grip Boxes deliver on the unfulfilled promises of the stock IRS. Our upgrades to the IRS provide the best performance in both street and track situations. The superior ride quality of a street-oriented IRS can be had along with the cornering ability of a designed-for-racing IRS, as proven by our race-winning American Iron racecar. Nowhere else will you find the remedy for the severe wheel hop and inconsistent handling of the stock IRS while maintaining street-friendly ride quality! Transform your Cobra into a true high-performance automobile, with world-class handling and traction.

The first key ingredient to upgrading your Mustang's IRS is to replace the rubber in the stock IRS system with bushings designed by MM. These carefully engineered replacements are made of urethane, Delrin, or aluminum, with the most suitable material specified for each location in the suspension. Next, tune your alignment with the specifications we learned while winning road races with our IRS-equipped American Iron racecar.



These IRS Rear Grip Boxes include:

- Delrin Lower Control Arm Bushings
- Delrin Upper Control Arm Bushings
- IRS Subframe Bushings
- IRS Adjustable Outer Tie-rod End Kit
- Differential Mounts: Choice of aluminum with pinion angle adjustability or urethane.
- Rear swaybar bushings
- Adjustable rear swaybar end-links

MMRG-21

MMRG-22

Application	Description	Part No.	Price/kit
1999-04 Cobra IRS	IRS Rear Grip Box with urethane differential mounting bushings	**MMRG-21**	$813.45
	IRS Rear Grip Box with aluminum differential mounts*	**MMRG-22**	$1,093.46

*****Aluminum differential mounts will transmit gear noise, but offer superior durability and performance!

Notes

- All items available separately. See the MM web site.
- While no IRS Rear Grip Box is listed for pre-1999 cars, 1979-98 Mustangs can be fitted with an IRS Rear Grip Box if a 1999-04 Cobra IRS is installed.

What's the difference between the MMRG-21 Street Grip Box and the MMRG-21.5 Super Street/Competition Grip Box?

- The MMRG-21.5 package includes the MM complete adjustable tie-rod kit (provides bumpsteer adjustment), while the MMRG-21 has the outer tie-rod end kit to adjust bumpsteer.
- The MMRG-21.5 adds low-profile subframe mounting bolts to improve clearance for wide tires.
- The MMRG-21.5 adds 14mm mounting hardware. This replaces the stock 12mm hardware at the forward subframe mount, which allows undesirable movement.

MM Subframe Connectors

Improve your vehicle's performance by increasing chassis stiffness with Maximum Motorsports subframe connectors! These steel tube reinforcements weld to the bottom of the car, and connect the front and rear subframes. This strengthens the flexible floorpan and greatly increases the rigidity of the Mustang's unibody chassis.

MM Subframe Connectors help put more power to the ground by reducing chassis flex. When you hit the throttle, engine torque instantly goes to the rear end rather than dissipating and getting lost through the unibody flexing. This is especially noticeable during drag race launches.

Our weld-on subframe connectors improve handling and ride quality by reducing chassis flex. This helps to keep the forces caused by road irregularities in the suspension, rather than being absorbed by unibody flexion. This results in a car that will be much more damped and controlled over rough roads, eliminating the shaking and shuddering that's characteristic of stock Mustangs.

Stiffer Chassis = better handling, better launching, better ride quality. It's a triple win!

Don't let claims of easy installation lure you into buying bolt-on subframe connectors. There is simply not enough structure in the Mustang's unibody to allow the bolts to be tightened properly. The ideal way to distribute loads across the unibody and prevent chassis flex is to weld subframe connectors to the bottom of the car's front and rear subframes.

- We seal the tubing by welding on end caps to prevent moisture from getting inside the connector and rusting them from the inside out.
- Our connectors are shaped to hug the floor pan of your Mustang for maximum ground clearance.
- They include seat braces that attach to two of the four front seat mounting bolts. This prevents the chronic tearing of the sheet metal floorpan at the rearward seat mounts.

MM Standard Subframe Connectors

MM standard subframe connectors are made of 1" x 2" rectangular tubing with .120" wall thickness. This material size makes them over 40% stiffer than other well-known brands. Rectangular tubing is superior to round tubing because it provides more weld area, providing better attachment to the chassis and increased ground clearance.

Standard Subframe Connectors

Application	Finish	Part No.	Price/set
1979-93 Mustang	Bare	**MMSF-1B**	$94.97
	Black	**MMSF-1PC**	$124.97
1994-04 Mustang	Bare	**MMSF-3B**	$94.97
	Black	**MMSF-3PC**	$124.97

Shop Online!

MM Subframe Reinforcements

We designed these reinforcements to allow the installation of our Torque-arms on cars that already had Kenny Brown subframe connectors. Installation more than doubles the strength of KB connectors, allowing the installation of a Torque-arm. Welding required.

MMSFA-1 $49.95

MM Full-length Subframe Connectors

The XL Series Full-length Subframe Connectors are now available exclusively from MM. We improved on MM's original Full-length Subframe Connector design with these extra-long, extra-strong subframe connectors.

MMFL-5

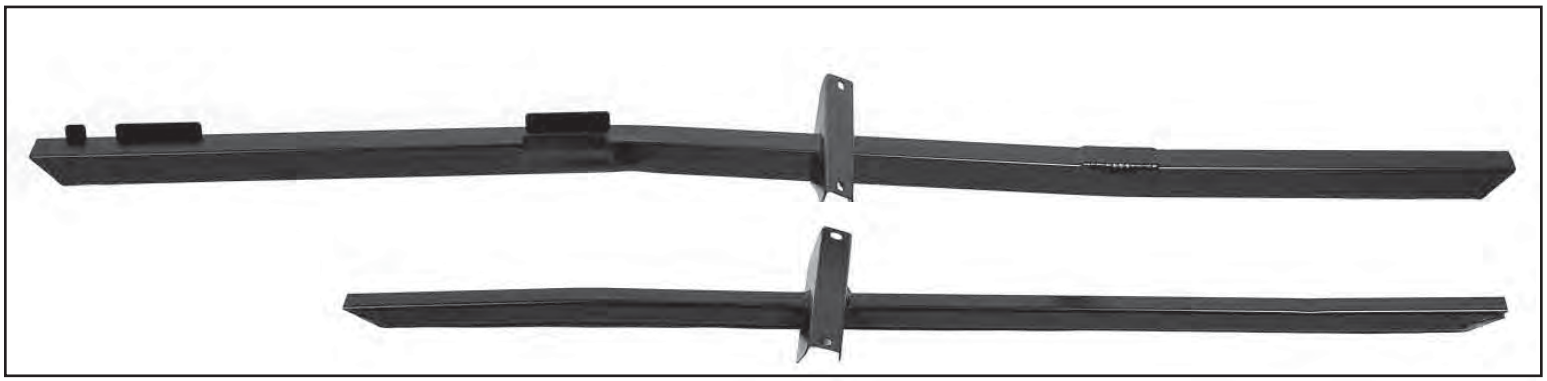
- Maximum Motorsports created the first "full-length" subframe connectors over 15 years ago. This is yet another MM product that others have copied. Beware the imitators—MM's are still the best available. We've now improved on our original design by increasing the length and height of the connector tube. The resulting XL Series connector is much stiffer than any other subframe connector.
- The MM Full-length Connectors stiffen the chassis far more than our standard connectors. The taller tubing of the XL Series creates a connector that is 95% stiffer than the standard subframe connector. The XL connector tubing is 53% stiffer than our previous full-length subframe connectors. Beware of connectors from companies who lack the engineering expertise to design their own products. Some have copied our previous design. The XL Series connectors are 53% stiffer than those copies.
- The increased length, method of attachment, and stiffer tubing of the XL Series connector means there is no need for jacking rails. Because of the strength of our tubing; you can lift the car by placing a jack anywhere along the length of the connector tube!
- The XL Series Full-length Subframe Connectors extend from the rear lower control arm attachment point on the rear subframe all the way up to the firewall. This provides substantially more weld area between the connector and the chassis than other connectors. At 65", the extra length, the increased number of attachment points, and extra height of the tubing make this the stiffest subframe connector available.
- The XL Series Full-length Subframe Connectors are made of 1.5" x 2" x .083" wall thickness rectangular tubing. The thinner wall tubing is used to lessen the weight, while the taller dimension significantly increases stiffness over other subframe connectors.
- We carefully designed the XL Series connectors not to hang any lower than the lowest part of the car–the exhaust system. The XL Series are no closer to the ground than the stock mufflers, and match the minimum ground clearance of the OEM Ford connectors on the late-model SN95 convertibles.
- One-piece seat braces provide easy installation.
- Available with a durable black powder-coated finish or as uncoated bare steel.

Application	Finish	Part No.	Price/set
1979-04 Mustang (all models)	Bare	**MMFL-5B**	$144.97
	Black	**MMFL-5PC**	$174.97

Notes

1996-98 Cobras require a modification to the chassis brackets for the transmission crossmember, which does not interfere with transmission removal. For details, see the installation instructions on the MM web site.

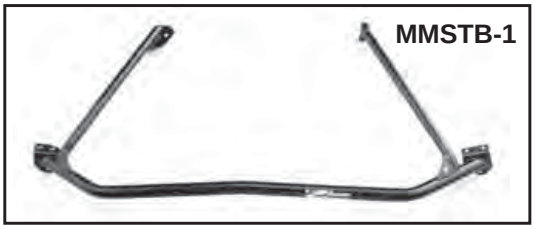
MM Full-length Subframe Connector compared to another brand

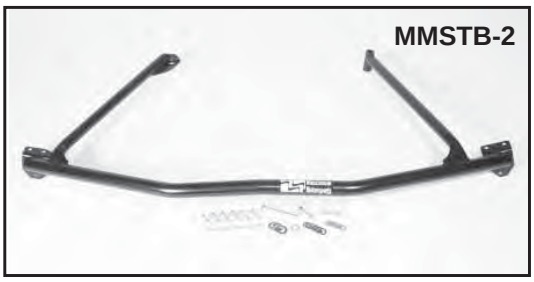


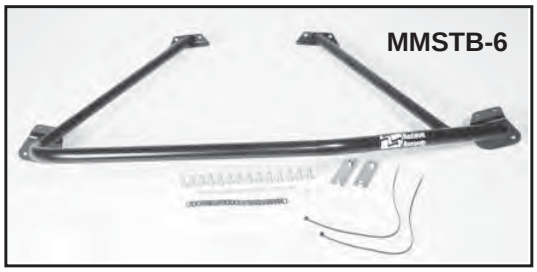
MM Full-length Subframe Connectors are taller, wider, and longer than other well-known brands. This is what makes them so much stronger and why they do a far better job of stiffening your Mustang's chassis.

MM Strut Tower Braces

An MM Strut Tower Brace will make your car's handling more stable and predictable by stiffening the front portion of the chassis. Our unique strut tower brace design provides a load path between the two individual strut towers, and also between each strut tower and the firewall. This keeps the strut towers from moving relative to each other. Flexing of the strut towers, both fore/aft and side-to-side, causes unpredictable handling because the flexing causes alignment changes. An MM Strut Tower Brace will prevent the alignment from changing during hard braking and cornering. An additional benefit of increased chassis rigidity from the strut tower brace is a reduction in firewall and dashboard vibration, metal fatigue, and noise. Ford finally recognized the benefits and began installing strut tower braces beginning with the 1994 models.

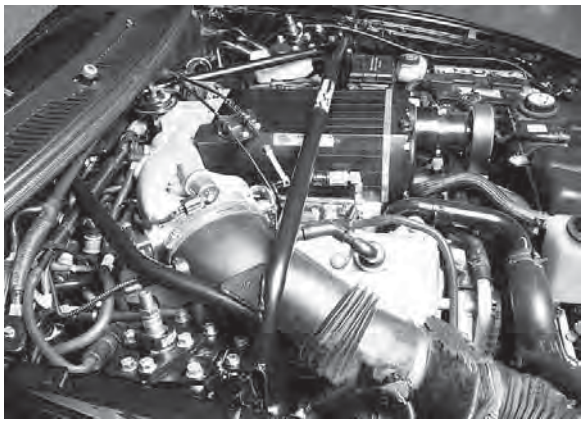






Unique Features of Maximum Motorsports Strut Tower Braces

- Our main tubes are made of rigid 1-1/4" diameter DOM tubing (except the MMSTB-8). This tubing is twice as stiff as the generally used 1" tubing, and DOM tubing is 30% stiffer than the more commonly used ERW, seamed tubing.
- The firewall mounting point for the rear support tubes is the pinchweld that runs the width of the firewall. The pinchweld on the firewall was formed by folding together three pieces of metal (the upper firewall, the lower firewall, and the floor of the cowl), and then welding them together. This provides an extremely stiff mounting point for our Strut Tower Braces.
- Nearly all other strut tower braces attach to the center of the firewall, its weakest and most flexible portion. Attaching there adds little stiffness, and leads to cracking and tearing of the firewall.
- For Mustangs with 5.0L engines, our Strut Tower Brace allows the use of all popular EFI manifolds, because no part of the brace passes over the top of the intake manifold.
- MM Strut Tower Braces are designed to allow the use of MM Caster/Camber Plates.
- MM Strut Tower Braces are attached with high-quality, Grade 5 hardware.
- All MM Strut Tower Braces have a durable black powder-coat finish.
- *Does not clear aftermarket ignition distributors* because they are too tall; requires the OEM Ford distributor.
- *Does not fit 351-based engines* because the distributor position is raised.



MMSTB-8 installed

Application	Part No.	Price/ea.
1979-85 Mustang V8 (carbureted)	**MMSTB-2**	$159.97
1986-93 Mustang V8 (fuel injected)	**MMSTB-1**	$149.97
1994-95 Mustang V8& Cobra	**MMSTB-3**	$149.97
1996-97 Cobra Also fits 94-97 V6	**MMSTB-4.1**	$159.97
1996-97 Mustang GT	**MMSTB-5.1**	$149.97
1998 Cobra	**MMSTB-4**	$159.97
1998-04 Mustang GT	**MMSTB-5**	$149.97
1999-2001 Cobra Also fits 2001 Bullitt	**MMSTB-6**	$159.97
2003-04 Cobra	**MMSTB-7**	$169.97
2003-04 Cobra with Kenne-Bell or Whipple supercharger	**MMSTB-8**	$179.97

MMSTB-5

MMSTB-8

MMSTB-7

MM K-member Braces

Front of Car

MMKB4-1 shown on stock K-member, bottom view

The Mustang's K-member is the mounting point for the front control arms, the steering rack, and the engine. It's a critical structural member because it carries the loads into the chassis from the front suspension, while also supporting the engine's weight.

While the heavy stock K-member is a rather stout item, it still flexes from the suspension forces directed into it from the front control arms. During hard cornering, the forces from the control arms cause the K-member to deflect, which changes the front alignment and results in erratic handling.

The MM 4-Point K-member brace eliminates K-member flexing by bracing across the K-member, from one side of it to the other, as well as connecting to the rearmost chassis mounting points of the K-member. The position of the MM brace provides a direct load path into the chassis for the cornering loads from the control arms. This bracing is done at the rear of the K-member (the area prone to the most deflection).

In 1994 Ford made a 2-point K-member brace standard equipment on the 5.0L Mustang. All V-8 Mustangs continued to come fitted with OEM 2-point braces through 2004. It seems that Ford agrees with us; the Mustang needs a K-member brace!

MMKB4-4

MMKB2-1

MMKB2-2

4-point K-member braces

- The front of the MM brace mounts to the bottom of the K-member. The rearward points of the brace mount at the K-member-to-chassis mounting points.
- The MM K-member Brace's design includes a structural steel web. This splits the suspension loads. Part of the load goes into the unibody at the rearward K-member-to-chassis mounting points, and part goes straight across the K-member to the opposite side.
- The mounting bolts for the brace attach through a structural tube. Unlike commonly used flat tabs, the suspension loads pass into the MM brace without deflecting the mounts.

MMKB4-1

Notes

- 4-point braces will not clear long-tube headers. MMKB2-2 will clear most long-tube headers.
- On 1979-93 Mustangs, the 4-point K-member Braces (MMKB4-1 and MMKB4-2) may have slight interference with automatic transmission cooler lines, requiring slight relocation.

2-Point K-member Braces

- MMKB2-2 will clear most long-tube headers.
- On 1979-93 Mustangs, the 2-point braces (MMKB2-1 and MMKB2-2) may have slight interference with automatic transmission cooler lines, requiring slight relocation.

4-Point K-Member Braces

Application	Part No.	Price/ea.
1979-82 5.0L HT (*Requires slight modification to chassis at mounting hole*)	**MMKB4-1**	$89.00
1983-93 Mustang V8 HT	**MMKB4-1**	$89.00
1983-93 Mustang V8 Convertible	**MMKB4-2**	$109.00
1994-95 Mustang V8	**MMKB4-3**	$99.00
1996-04 Mustang V8 HT	**MMKB4-4**	$99.00

2-Point K-Member Braces

Application	Part No.	Price/ea.
1979-82 Mustang with Manual Trans. *(Requires slight modification to chassis at mounting hole)*	**MMKB2-1**	$49.00
1983-93 Mustang with Manual Trans.	**MMKB2-1**	$49.00
1979-93 Mustang HT with Auto Trans.	**MMKB2-2**	$44.00
MMKM-1 & MMKM-1.1 K-members only	**MMKB2-3**	$49.00
MMKM-2 & MMKM-2.1 K-members only, for modular engines fitted with Canton road race oil pan	**MMKB2-7**	$49.00

MM Rear Lower Control Arms

Improve your Mustang's traction and handling with Maximum Motorsports Rear Lower Control Arms. Whether your goal is to improve your Mustang's launch or its cornering ability, we have control arms to fit all 1979-2004 Mustangs (except IRS): 4-cylinder, V6, V8; with 7.5", 8.8", and 9" axle housings.

Good Research Is the Basis of Good Engineering

Instead of simply making control arms the same way as everyone else, MM's designs are the result of extensive analysis of what actually occurs when the rear suspension moves over bumps and during body roll. We then designed control arm bushings that create optimum conditions for improved traction and handling.

All the forces that accelerate the car, in addition to the braking loads, pass through the rear lower control arms. In stock form, the excessive deflection the original rubber bushings allow prevent the rear axle from maintaining its correct position under the chassis. The deflection lets the axle shift forward, backward, and sideways under the car, leading to poor traction and handling. The rubber bushings allow axle wind-up, which leads to wheel hop, which is why Ford installed the horizontal quad-shocks.

Most aftermarket rear control arms use either hard 2-piece urethane bushings or some form of solid bushing that permits only a pivoting motion. These types of bushings don't allow the angularity needed for the Mustang rear suspension to move freely. The resulting suspension bind causes the rear tires to break loose easily. Suspension bind not only causes poor handling and traction, but also damages the torque-boxes. Torque-box reinforcement is rarely necessary with MM's well-designed set of rear lower control arms.

Better by Design

The key to better axle control is in the bushing design. A good bushing design provides precise location of the axle while also allowing the suspension to move as needed. MM has achieved the twin goals of great handling and great traction with each of our different series of RLCAs.

Choices

MM offers five different RLCA series, some with the adjustable spring perch option for optimizing rear ride height. Most Fox and SN95s are best served by one of these:

Sport Series—Good
Heavy-Duty—Better
Extreme Duty—Best

Each of the above RLCAs share the same excellent construction, with a stout, 2" round steel main tube for strength and stiffness and thick swaybar mounting brackets with reinforcing bends. The brackets help avoid the distortion and cracking you'll see on inferior RLCAs.

For more specialized purposes, we have these series:

Big Power Drag Race Series—Same quality construction as those above but without the curve for a much higher power rating

Road Race Series—Lightweight aluminum with spherical rod-ends to allow length adjustment

Adjustable Ride Height

The Sport, Heavy-Duty, and Extreme-Duty RLCAs are available with our adjustable ride height feature or the standard non-adjustable version. The Big Power Drag Race control arms are only available with ride height adjustment.

NEW! MM Rear Lower Control Arms: Sport

MMRLCA-102/-106

Non-adjustable		
Application	**Part No.**	**Price/kit**
1979-98 Mustang	**MMRLCA-101**	$189.97
1999-04 Mustang GT	**MMRLCA-105**	$189.97

Adjustable Height		
Application	**Part No.**	**Price/kit**
1979-98 Mustang	**MMRLCA-102**	$289.97
1999-04 Mustang GT	**MMRLCA-106**	$289.97

This brand-new series has the same excellent quality that MM is known for, yet at a budget-minded price.

How did you lower the price without affecting the quality?

We reduced the number of features. We swapped out the expensive spherical bearings at the axle end of our Heavy-Duty series in favor of our less-expensive 3-piece urethane bushing design. Otherwise, the Sport Series RLCAs are *identical* to the Heavy-Duty Series.

The Sport Series improves the performance of street-driven Mustangs. These RLCAs have our special 3-piece urethane bushings at both ends. The hard center section reduces fore/aft deflection, while the softer outer sections allow the angular motion necessary to minimize bind and the resulting torque-box damage. You'll experience better traction and handling.

Note: The Sport Series RLCAs are most suitable for Mustangs with up to 400 rwhp, but more power will reduce the bushings' lifespan. For instance, with 400 rwhp in a street application, the bushings will last many years, but with 800 rwhp, slicks, and high-speed launches at the strip they'll last you (maybe) a whole weekend.

MM Rear Lower Control Arms: Heavy-Duty

Our most popular control arms, the Heavy-Duty Series mproves performance a step beyond the Sport Series. These arms have the same specially designed 3-piece urethane bushings at the chassis end, with a hard center section to reduce fore and aft deflection. Their softer outer sections allow the angular motion necessary to prevent bind and torque-box damage.

At the axle end, a high-quality, PTFE-lined spherical bearing precisely locates the rear axle. Spherical bearings allow freedom of motion for both rotation and angularity, which is what allows full articulation of the rear suspension. Spherical bearings permit zero fore/aft deflection and less resistance to angularity than the 3-piece bushings. This unique combination is ideal for street-driven cars because it won't appreciably increase noise transmission.

Notes

- Heavy-Duty Series control arms are most suitable for Mustangs with up to 400 rwhp. More than that will reduce the bushings' lifespan. With 400 rwhp on the street, the bushings will last many years, but try it out with 800 rwhp, slicks, and high-speed launches at the strip and you're looking at a weekend, tops.

Adjustable Height		
Application	**Part No.**	**Price/set**
1979-98 Mustang	**MMRLCA-2**	$379.95
1999-04 GT	**MMRLCA-6**	$389.95

Non-adjustable		
Application	**Part No.**	**Price/set**
1979-98 Mustang	**MMRLCA-1**	$249.95
1999-04 GT	**MMRLCA-5**	$259.95

MM Rear Lower Control Arms: Extreme-Duty

MM's Extreme-Duty Control Arms are expressly for drag racing and road racing, but they can still be used on the street. The adjustable-height version is suitable for Mustangs with up to 600 rwhp. The standard nonadjustable version can handle up to 1,000 ft-lb of engine torque. These arms are the next step when your Mustang's pwer level and/or use is outside the design envelop of the Heavy-Duty Series. There are large PTFE-lined spherical bearings at both ends of these control arms that completely eliminate any fore/aft deflection, yet allow the articulation required both for good handling and minimal effect on the torque-boxes. Eliminating deflection also prevents axle wind-up, which lets the car react more quickly to throttle input. *These are the only control arms on the market with spherical bearings at both ends that don't require a coil-over conversion kit.* By designing urethane spacer bushings for the chassis-side spherical bearing, MM's Engineering Team solved the problem of keeping the control arm upright and aligned with the chassis when the springs are in their stock location.

What's the potential for increased NVH with spherical bearings at each end of the control arms?

The Extreme-Duty Series control arms transmit only slightly more noise and vibration than a stock control arm. This minor change is usually only noticeable in a car that has stock, quiet mufflers.

Notes

- The adjustable-height Extreme-Duty Series arms are suitable for Mustangs with up to 600 rwhp. The standard non-adjustable Extreme-Duty arms are made for Mustangs with up to 1,000 ft-lb of engine torque.

Non-adjustable		
Application	**Part No.**	**Price/set**
1979-98 Mustang	**MMRLCA-30**	$329.95
1999-04 GT	**MMRLCA-31**	$339.95

Adjustable Height		
Application	**Part No.**	**Price/set**
1979-98 Mustang	**MMRLCA-32**	$459.95
1999-04 GT	**MMRLCA-33**	$469.95

MM Rear Lower Control Arms: Big Power Drag Race Series

Drag race control arms are for Mustangs with big power that are drag raced. Even so, these are still suitable for street driving. Despite the adjustable height feature, these arms are suitable for Mustangs with up to 1,000 ft-lb of engine torque, because the arm itself is not curved. They're the best choice when your Mustang's power level is outside the design envelop of the Extreme-Duty Series.

There are large PTFE-lined spherical bearings at both ends of these control arms that completely eliminate any fore/aft deflection, yet allow the articulation required for street driving and the least effect on the torque-boxes.

Eliminating deflection also eliminates axle windup and lets the car react to throttle input more quickly. These control arms have spherical bearings at both ends, yet don't require a coil-over conversion kit. MM's Engineering Team solved the problem of keeping the control arm upright and aligned with the chassis (when the springs stay in the stock location) by designing urethane spacer bushings for the spherical bearings.

Unlike our curved adjustable control arms, the adjustment of these straight arms only goes up. No lowering of the perch below the stock design height is possible.

Application	Part No.	Price/set
1979-98 Mustang	**MMRLCA-34.1**	$459.95
1999-04 GT	**MMRLCA-35.1**	$469.95

What's the potential for increased NVH with spherical bearings at each end of the control arms?

The Drag Race Series control arms transmit only slightly more noise and vibration than a stock control arm.

Notes

- The adjustable-height Extreme-Duty Series arms are suitable for Mustangs with up to 1,000 ft-lb of engine torque. Another way of stating it: They're up for launching a Mustang weighing up to 3,800 lbs and with a 60-ft time as quick as 1.20 seconds.

MMRCA-34.1

MM Rear Lower Control Arms: Road Racing

Road race control arms are for Mustangs driven in competitive road racing and autocrossing. However, they're still suitable for street driving. Requires rear coil-over conversion and a rear swaybar that doesn't attach to the control arms. Not for drag racing.

MM Road Racing Control Arms are very lightweight: just 2.5 lb each. The adjustable length feature allows squaring the axle to the chassis. Spherical rod-ends assure precise axle control while allowing the rear suspension to articulate freely, as it should. Hard-anodized black finish.

Application	Part No.	Price/set
1979-98 Mustang	**MMRLCA-50**	$199.97
1999-04 Mustang w/solid axle	**MMRLCA-51**	$199.97

What's the potential for increased NVH with spherical bearings at each end of the control arms?

The Road Race Series control arms transmit only slightly more noise and vibration than a stock control arm.

Notes

- Requires a rear coil-over conversion.
- No provision for a stock-style rear swaybar. Use the MM Adjustable Rear Swaybar.
- Preset to the stock length and ready to install, unlike other control arm brands.

Sport Series

MMRLCA-101/-105

MMRLCA-102/-106

Heavy-Duty Series

MMRLCA-1

MMRLCA-2

Extreme-Duty Series

MMRLCA-30

MMRLCA-32

MM Rear Lower Control Arms: Thunderbird

Why do I need MM Rear Lower Control Arms?

MM arms let you install aftermarket lowering and performance springs. Thunderbird springs are no longer available, but these control arms let you install readily available Mustang springs.

Stock Thunderbird RLCAs are fitted with very large, soft, rubber bushings, which lets the axle skew and changing the rear tires' toe. Toe changes cause instability as the rear of the car steers itself in unpredictable directions. Deflection of the rubber bushings allows axle wind-up during acceleration, which causes wheel hop.

MM engineers designed our RLCAs to minimize fore/aft movement of the axle while retaining the suspension's ability to articulate properly. This improves traction and handling performance without unnecessarily compromising handling or ride quality. MM bushing design also lowers the potential for torque-box damage because the MM bushing design allows the rear suspension to articulate properly. Torque-box damage is usually caused by poor bushing design, not high power levels.

Better by design

Designed for Mustang springs! The adjustable-height feature of these control arms was designed for aftermarket springs intended for 1979-2004 solid axle-equipped Mustangs.

Aftermarket lowering and performance springs are no longer made for 1983-88 Thunderbirds. These RLCAs allow readily available aftermarket Mustang rear springs to be fitted to your Thunderbird. That gives you several choices of springs, as you can use any rear spring listed for a solid axle-equipped 1979-2004 Mustang. MM has H&R Springs available. Contact us for pricing of rear pairs.

Stress on the chassis torque-boxes is greatly reduced because the MM bushing design allows proper articulation of the rear suspension. The unique MM 3-piece bushing and spherical bearing design of the Heavy-Duty series provides the articulation required for proper handling and reduces the deflection that can cause wheel hop.

Large spherical bearings at both ends of the Extreme-Duty series control arm completely eliminate unwanted deflection, while allowing full articulation of the suspension.

Heavy-Duty

MMRLCA-41

Extreme-Duty

MMRCLA-40

Application	Part No.	Price/set
1983-88 Thunderbird, Heavy-Duty	**MMRLCA-41**	$389.95
1983-88 Thunderbird, Extreme Duty	**MMRLCA-40**	$469.95

Other benefits

- Wheel hop is eliminated or greatly reduced once deflection is fixed; the quad shocks are often unnecessary.
- Reducer inserts in the spherical bearings are sized to fit the stock metric 12mm bolts.
- Strong and stiff 2"-diameter round steel tube construction
- Adjustable-height spring perch fits both stock-style springs and 2.5" coil-over-style spring.
- Durable black powder-coated finish
- Aluminum jack-bolts are hard-anodized.
- Grease fitting to easily lubricate jack-bolt threads

How do I benefit from the adjustable ride-height feature?

- You can use readily available Mustang springs.
- You can set rear ride height for the appearance you want.
- Lets you change the instant center location to tune the anti-squat percentage for optimum traction.
- Easy adjustment; no need to jack the car off the ground as with coil-overs.

Choose the Extreme-Duty arms if your Thunderbird...

- Has over 400 rwhp.
- Has less than 400 rwhp, but is launched hard from a standing start, meaning a drag race-style start from a dead stop, whether on the street or at the strip.

Important Notes

NOT intended for Thunderbird springs. If you install Thunderbird springs, either stock or aftermarket, with these control arms, the rear ride height will be raised slightly, even when the adjuster is at its lowest position.

****For track use only--not for street use.*

You can fine-tune spring rates in 25 lb/in increments by using this control arm along with standard coil-over springs and the MM 2.5" rear spring adapter. (Part #MMCA-1)

MM Panhard Bars

Dramatically improve your Mustang's handling by eliminating the unstable and unpredictable behavior caused by rear-steer. Installing a Maximum Motorsports Panhard Bar halts the unwanted axle movement that causes the rear of the car to steer itself. This easy-to-bolt-on part is mandatory for a Mustang to achieve truly great handling!

The Root of the Problem

Solid-axle-equipped Mustangs were manufactured with a four-link rear suspension design that requires the rear upper control arms to do two jobs. One job is to locate the axle laterally. Unfortunately, compromises in the design of the Mustang four-link prevent the rear axle from being precisely located. The forces encountered when driving your Mustang will cause the axle to shift from side to side by up to 2 inches. This unwanted movement of the rear axle causes a rear-steer effect.

Rear-steer means that the rear of the car is steering itself, without any steering input from the driver. This rear-steer behavior makes the car unstable and requires the driver's corrective action. While that four-link design might be suitable for a commuter car, it can't provide the handling charateristics expected of a high-performance vehicle.

The Solution

The MM Panhard Bar adds an aluminum rod as a lateral suspension link between the rear axle and the chassis. This simple design precisely controls the side-to-side location of the axle to eliminate rear steer. The unstable and unpredictable feeling typically associated with the Mustang four-link suspension is gone, making your car safer and easier to drive!

Why a Panhard Bar, and not a Watts Link?

There are two good methods of controlling the side-to-side location of a rear axle: a Panhard Bar and a Watts Link. MM's Engineering Team chose the Panhard Bar because it allows a much lower roll center than a typical Watts Link design. A lower roll center reduces the tendency for the inside rear tire to lift and unload during cornering. As a welcome bonus, a Panhard Bar is far less complex, less expensive, lighter, and allows for the use of standard tail pipes!

Upper Control Arm Bushings

It's very important to have rubber upper control arm bushings when choosing to stay with the stock 4-link design, rather than change to a Torque-arm suspension. This is one application where having the compliance of a rubber bushing provides a benefit. Retaining the rubber upper control arm bushings is a necessary compromise to achieve good handling.

How it Works: The complex interactions of a 4-link plus a Panhard bar

As the suspension moves, the rigid Panhard Bar causes the rear axle to move through a different, and better, path than the stock four-link design. This requires the upper arms to physically change length as the suspension moves. Obviously, the metal control arm cannot change length. But its effective length, the distance between the control arm's two pivot points, can change because of the inherent compliance of a rubber bushing. If the ability of the upper control arms to change their effective length is hindered by a noncompliant bushing material, the suspension will bind up and not move freely. The resulting restriction in the ability of the rear suspension to freely articulate will cause poor handling; the car will have a tendency to oversteer, and it may do so in a sudden and unpredictable manner.

Unique features of the Maximum Motorsports Panhard Bar

- MM's Panhard rod is the longest possible at 38" between pivot points. This minimizes the amount of the rear axle's lateral movement due to the arc of the rod's travel. The longer the rod, the larger the radius of the arc. The larger the radius, the smaller the sideways movement during bump and droop travel.

- A single slot on the MM chassis mount allows for vertical height adjustment to keep the Panhard rod level at different vehicle ride heights. A level rod minimizes lateral motion over the range of suspension travel.

- Large 3/4" rod-ends are mounted in double shear at both ends.

- The unique design and quality materials of the MM axle and chassis mounts ensure they're strong enough not to break and stiff enough not to flex, even when cornering loads exceed well over 1g.

- The boxed axle bracket encloses the rod-end for a rigid, non-flexing mount.

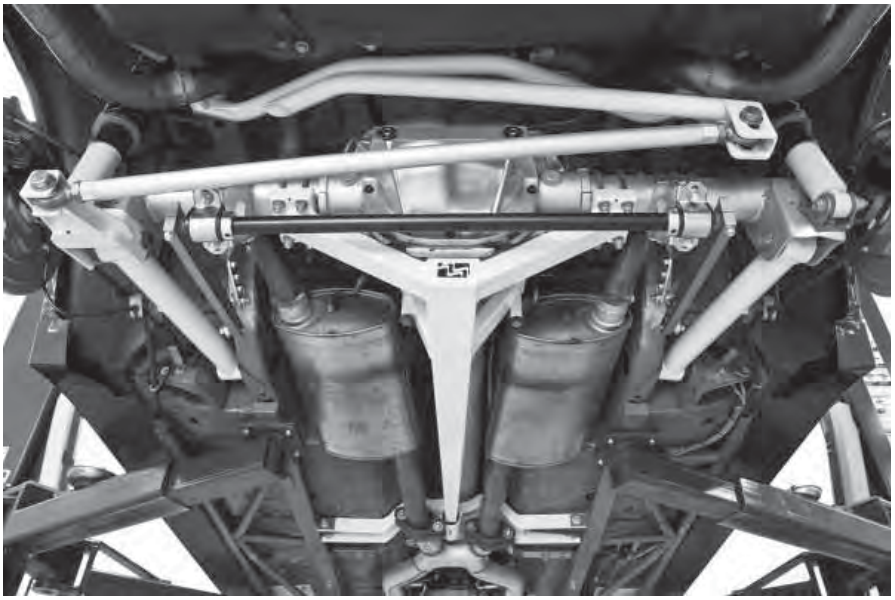
- The MM chassis bracket mounts to the rear frame rails of the car, not the flimsy trunk floor or spare tire well.

- MM's exclusive frame inserts fit inside the rear frame rails. These provide a structurally sound attachment point for the Panhard Bar's chassis mount.

- The Panhard rod is mounted as low as possible to lower the rear roll center height (which is essentially at the same height as the rod). A low roll center reduces the tendency for the inside rear tire to lift and unload during cornering. The roll center height of the MM Panhard Bar is considerably lower than what can be achieved with a Watts Link.

- The Panhard rod itself is a lightweight aluminum tube made of 6061 T6 alloy. This tube is a custom extrusion made exclusively for Maximum Motorsports. It is available in either the natural extruded finish or polished.

- A properly installed MM Panhard Bar is compatible with most aftermarket aluminum differential covers. However, because the clearance is small, we recommend using the aluminum cover listed in this book for the S197 (2005-14) Mustang. Those covers have a lower profile, providing more clearance to the MM Panhard Bar, while maintaining fluid capacity.



MM Panhard Bar, shown installed along with other Maximum Motorsports parts.

- To improve the handling of your Mustang even more, after installing an MM Panhard Bar also install the MM Torque-arm. Once your Mustang has a Torque-arm, the troublesome rear upper control arms can be removed. The MM Torque-arm eliminates the last source of binding in the rear suspension and improves handling, traction, and ride quality.

Tailpipe Clearance

The MM Panhard Bar was designed to clear the stock tailpipes. Some aftermarket tailpipes follow the factory routing, and therefore fit well with the Panhard Bar. Among those are the 2.25" and 2.5" offerings from Flowmaster, Dynomax, and Latemodel Restoration Supply. Tailpipes from Borla, Magnaflow, Mac, and Bassani do not follow the stock tailpipe routing and interfere with the MM Panhard Bar. The interference occurs because those manufacturers route the tailpipe too close to the back side of the axle tube, rather than route it close to the front of the fuel tank, as is the stock tailpipe routing.

Application	Rod Choice	Part No.	Price/kit
1979-98 Mustang	Natural Aluminum	**MMPBA**	$384.97
	Polished Aluminum	**MMPBA2**	$404.97
1999-04 Mustang (not IRS Cobra)	Natural Aluminum	**MMPB99A**	$389.97
	Polished Aluminum	**MMPB99A2**	$409.97

MM Torque-arms

How do I get more traction?

Install a Maximum Motorsports Torque-arm. It's the key to maximizing rear grip for a solid axle-equipped Mustang.

What will the MM Torque-arm do for me?

- Increase straight-line traction
- Provide more rear grip during cornering
- Improve corner-exit acceleration
- Provide superb control and predictability
- Increase wet weather traction
- Improve ride quality

Shop Online!

U.S. Patent # 6,543,797

What is a Torque-arm?

A long suspension arm that attaches between the rear axle housing and the chassis.

Is a Torque-arm okay for street driving, or is it just for drag racing or road racing?

The MM Torque-arm is great for all three situations. Increased rear grip helps in every type of driving. Would you ever complain about having too much traction?

What's wrong with the stock Mustang rear suspension?

All 1979-2004 solid-axle Mustangs have the same 4-link rear suspension first designed for the 1978 Ford Fairmont. It has significant limitations in performance applications.

The Mustang upper control arms perform two jobs at once. They control the side-to-side position of the axle housing, while also preventing the axle housing from rotating during acceleration and braking. The stock Mustang upper arm design fails to perform either job well, causing binding of the rear suspension and leading to 1) poor handling/traction problems and 2) upper Torque-box damage.

How does the MM Torque-arm improve traction and handling?

The complete MM Torque-arm Suspension System replaces the troublesome upper control arms with the MM Torque-arm and Panhard Bar. This separates the two functions once performed by the upper arms. The Torque-arm controls axle housing rotation during acceleration and braking, and the Panhard Bar determines the side-to-side position of the axle housing. With each part dedicated to a specific job, each can perform its function without compromise.

The MM Torque-arm plants the rear tires much better during acceleration than the stock four-link design, and the Panhard bar locates the axle much more precisely. Your Mustang will have greatly improved acceleration out of corners, along with improved handling, stability, and predictability.

Which Torque-arm is right for me?

There are two versions of the MM Torque-arm: Standard-Duty and Heavy-Duty. Both provide the same improvements for your Mustang, but which you use depends on your engine's torque output, gear ratio, and how you drive it.

How are the Torque-arms rated?

We determined the limits of each torque-arm by destructively testing them. Each torque-arm was then rated for the most difficult scenario possible: a high-revving-sidestep-and-dump-the-clutch launch, with no clutch slippage, on sticky drag tires that grip the pavement instead of burning rubber. That's the type of launch that will send the front tires skyward. If you don't mount up sticky drag tires and drive your Mustang like that, then the maximum rear wheel torque ratings listed may be disregarded for your situation.

Do I need the Heavy-Duty Torque-arm?

To determine which Torque-arm is best for your Mustang, gather some basic information about your car and then follow the simple instructions on the MM web site. You'll need to know the specific transmission in your Mustang, the rear gear ratio, and an estimate of the rear wheel torque.

The most important deciding factor is the transmission first gear ratio. To make this easy for you, the MM web site lists the transmissions commonly used in Mustangs, along with the corresponding first gear ratio. Use the first gear ratio and the rear axle gear ratio to look up the maximum rear wheel torque capacity in the charts on the MM web site. That will guide you to which MM torque-arm is most suitable for your Mustang.

What if my car exceeds the engine torque rating?

The MM Heavy-Duty Torque-arm has been used without problems on cars with over 1,000 ft-lb of engine torque. Even though that torque level far exceeds our conservatively set maximum rear wheel torque ratings, those cars don't have problems because they can never put that much torque to the ground in first gear. If they try, the tires simply go up in smoke. The Torque–arm has a lower load placed on it once the transmission is shifted into the higher gears because there's less multiplication of engine torque. In the higher gears, the full amount of engine torque can be applied to the tires without spinning them and without overloading the Torque-arm.

MM Torque-arms

Subframe Connectors

Your Mustang must have suitable (welded-in) subframe connectors installed before installing an MM Torque-arm. The MM Torque-arm's front crossmember attaches to the subframe connectors. Maximum Motorsports Full-length Subframe Connectors are suggested, but not mandatory. If your Mustang has non-MM subframe connectors, see the MM web site for a chart listing the required tube dimensions to provide the necessary strength for mounting the MM Torque-arm.

Panhard Bar

An MM Torque-arm installation requires that a suitable Panhard Bar be installed first. The geometry of the Maximum Motorsports Panhard Bar complements the MM Torque-arm. If another company's Panhard Bar or Watts Link is installed, the roll center may not be at the optimum height to work well with the MM Torque-arm.

If you intend to use a lateral locating device other than the MM Panhard Bar, please contact an MM Tech Associate by email or phone to confirm its suitability.

Spring Rates

To take full advantage of the improved rear grip provided by the MM Torque-arm Suspension System, the rear spring rate should be increased from what is typical with a 4-link suspension. This will help optimize your Mustang's handling balance.

Rear Lower Control Arms

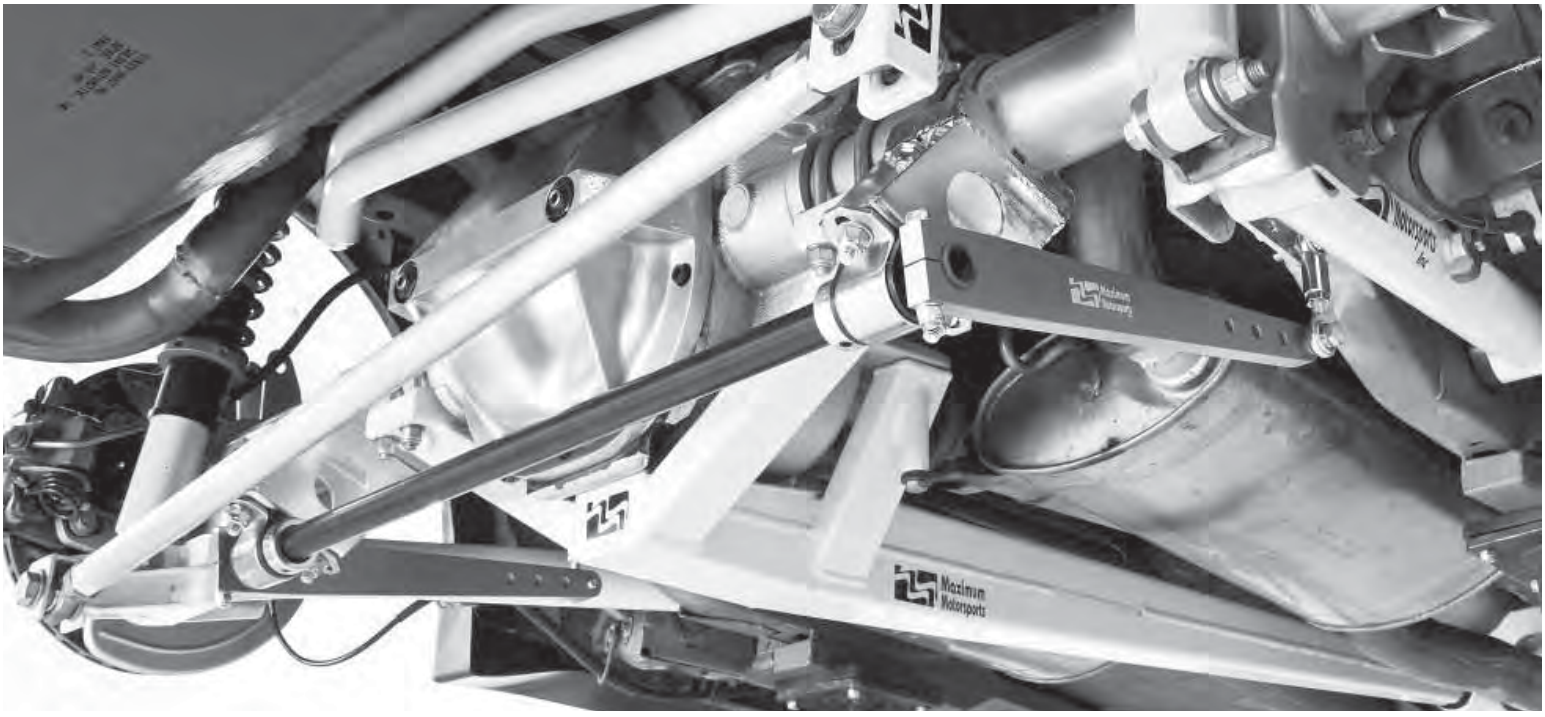
For the best performance from the MM Torque-arm Suspension System, also install bind-free MM Rear Lower Control Arms.

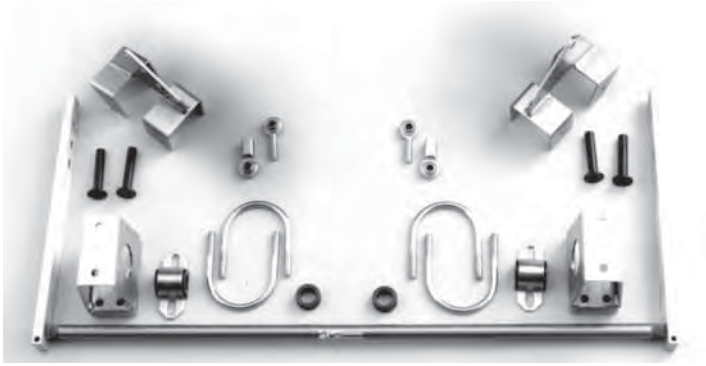
Exhaust

The MM Standard-Duty Torque-arm clears most stock H-pipes and many aftermarket H-pipes and X-pipes. If any exhaust clearance problems occur, they usually require only minor exhaust alterations. The MM Heavy-Duty Torque-arm does require specific modifications to the exhaust system. Any competent muffler shop can easily perform these simple changes. See the MM Torque-arm installation instructions on the MM web site for more details about exhaust modifications.

Application	TA Type	Your Subframe Connector Type	Part No.	Price/kit
1979-98 & 1999-04 GT Mustang	Standard	Rectangular tube*	**MMTA-1**	$449.00
		Round tube	**MMTA-2**	$449.00
1979-98 & 1999-04 GT Mustang	Std. with Racing Crossmember	Rectangular tube*	**MMTA-5**	$449.00
		Round tube	**MMTA-6**	$449.00
1979-98 & 1999-04 GT Mustang	Heavy Duty	Rectangular tube*	**MMTA-3**	$649.00
		Round tube	**MMTA-4**	$649.00

For 8.8" axle only. *If you have Kenny Brown subs you must use our reinforcements.





Neutral balance lives on a knife-edge between understeer and oversteer. Having the ability to fine-tune the handling balance of your Mustang is critical to achieving the best possible performance. Maximum Motorsports' revolutionary Adjustable Rear Swaybar provides the fine-tuning necessary to take your car to the limit!

The MM Rear Swaybar is more effective than the stock swaybar because of how it attaches to the axle and chassis. The stock swaybar mounts to the lower control arms, but acts through the control arm bushings and so it's less effective. The MM Adjustable Rear Swaybar mounts to the axle and acts directly on the chassis through end-links made of spherical rod-ends. You can make adjustments in swaybar rate by simply changing the position of the end-links on the arm of the swaybar. Moving the end-links toward the bar effectively shortens the swaybar arm, therefore increasing the wheel rate. Wheel rate refers to the rate of roll stiffness of the swaybar as measured at the wheel.

A note of caution: One of the factors influencing total wheel rate is suspension bind. The total wheel rate is the sum of the swaybar's wheel rate, the wheel rate of the springs, *and* the wheel rate of any suspension bind. Potential binding of other companies' aftermarket control arms is something to take into consideration when trying to tune your Mustang's handling characteristics.

Road racers sometimes adjust their car's balance several times during a race weekend. Changing track conditions, deteriorating tire grip, and even different drivers, will all require that changes be made to the rear roll stiffness to balance the car.

Drag racers use the largest of these rear swaybars to reduce squat of the rear passenger-side corner of the car. This ensures that both tires are receiving equal weight transfer and traction. Unlike similar "anti-roll bars" sold by the other guys, the broad range of adjustment offered by the Maximum Motorsports Rear Swaybar leaves the car drivable on the street.

Street-driven cars benefit from the MM Rear Swaybar because it will reduce the excessive body roll that comes with the use of comfortable, soft springs. The adjustability of the MM Rear Swaybar reduces the oversteer that causes unpredictable traction loss in wet weather. It's also a very handy tuning tool for dual-purpose cars that frequent the drag strip and/or the road coarse.

Choosing a swaybar

Maximum Motorsports offers 7 different adjustable rear swaybars. Our Swaybar Comparison Chart shows the relative stiffness of each MM swaybar and how they compare to various stock rear swaybars. The choice of which swaybar to use depends on how you want to shift the handling balance of your car.

1. Evaluate your car's handling balance and discern whether it tends to understeer (the front end pushes) or oversteer (the rear end is loose).
2. Decide in which direction you want to shift the car's handling balance.
3. On the Swaybar Comparison Chart, locate the swaybar that's currently on your Mustang or the most similar one to it.
4. Choose the MM swaybar that will shift the handling balance in the direction you want.

In general, understeer will be reduced by a stiffer rear swaybar. Oversteer will be reduced with a softer rear swaybar. Whenever a car is in the final stages of fine-tuning the handling balance, experimentation and testing will be required to achieve the optimum handling balance. Each of the MM Adjustable Rear Swaybars has four different adjustment positions. The difference from one position to the next is about 25 lb/in of wheel rate. This is just enough of a change to be noticeable to a driver pushing the car near its limit. Each of the MM swaybars overlaps the next stiffer and softer swaybars. This provides a large and continuous range of adjustment.

Bolt-in vs. Weld-in Kits

We offer two basic types of kits: bolt-in or weld-in. The chassis mount brackets of the bolt-in kits are attached to holes that must be drilled into the rear subframe of the car, near the stock rear spring location. On 1996-04 cars the access to drill the holes is restricted by a change in the rear unibody structure—it may require the use of a right-angle drill motor and short drill bits. Even on the pre-1996 cars, installation is much quicker with the weld-in kits than the bolt-in kits because of the time it takes to drill the holes. The weld-in kits have slightly different brackets that are lighter and have a nicer installed appearance. The rest of the two kits are identical.

MM Adjustable Rear Swaybar

Why is the MM Rear Swaybar better than a stock-design swaybar?

Because it attaches to the axle and chassis. The OEM design mounts the swaybar to the lower control arms. That design's very cheap to manufacture, but it has some drawbacks. The main one is that it reduces the effectiveness of the sway-bar by acting on the chassis through the control arm bush-ings. The MM Adjustable Rear Swaybar mounts to the axle and then acts directly on the chassis through end-links with spherical rod-ends.

The stock swaybar design adds an element of unpredict-able binding to the rear suspension because its attachment to the rear lower control arms also constrains the articulation of the rear suspension. The MM swaybar functions solely as a swaybar, so it doesn't adversely affect rear suspension articulatation.

How is the MM swaybar adjusted?

You can adjust swaybar rate simply by changing the position of the end-links on the swaybar arm. Moving the end-links towards the torsion bar effectively shortens the swaybar lever arm, therefore increasing the wheel rate of the swaybar. Wheel rate refers to the rate of roll stiffness of the swaybar, as measured at the wheel.

Drag racers usually refer to the rear swaybar as an **anti-roll bar.** Don't be confused, because there are two commonly used names for the same part. In addition, there is obvi-ously more than one way to design a swaybar, yet still make it relatively effective. Drag racers use the largest MM rear swaybar (anti-roll bar) to reduce squat of the rear passenger side corner of the car.

This ensures that both tires are receiving equal weight trans-fer and traction. Unlike similar anti-roll bars sold by the other guys, the broad range of adjustment offered by the Maximum Motorsports Rear Swaybar leaves the car drivable on the street.

1979-93 Mustang **MMFSB-2** $187.77

MM Front Swaybar NEW!

MMFSB-2

Improve front grip on your 1979-93 Mustang with our new MM Front Swaybar!

Through extensive on-track testing, we've found that the greatly increased wheel rates afforded by a conversion to coil-overs reduces body roll to the point that the stock front swaybar is too stiff and the balance of the car shifts to understeer. A reduction in the front swaybar rate will increase front-end grip, improving the handling balance of the car. The higher the front coil-over spring rates, the more noticeable the improvement in front grip with the softer MM Front Swaybar.

We developed this part on our winning American Iron race car. It's considerably softer than the stock 5.0 Mustang swaybar and works great with the MM Adjustable Rear Swaybars and coil-overs.

Lightweight tubular design. 1.125" x 0.25" wall. Powder-coated black. Mounts in the same manner as a stock swaybar. Re-quires 1-1/8" (1.125") swaybar pivot bushings. High-perfor-mance end-links recommended.

Eibach and H&R Swaybars

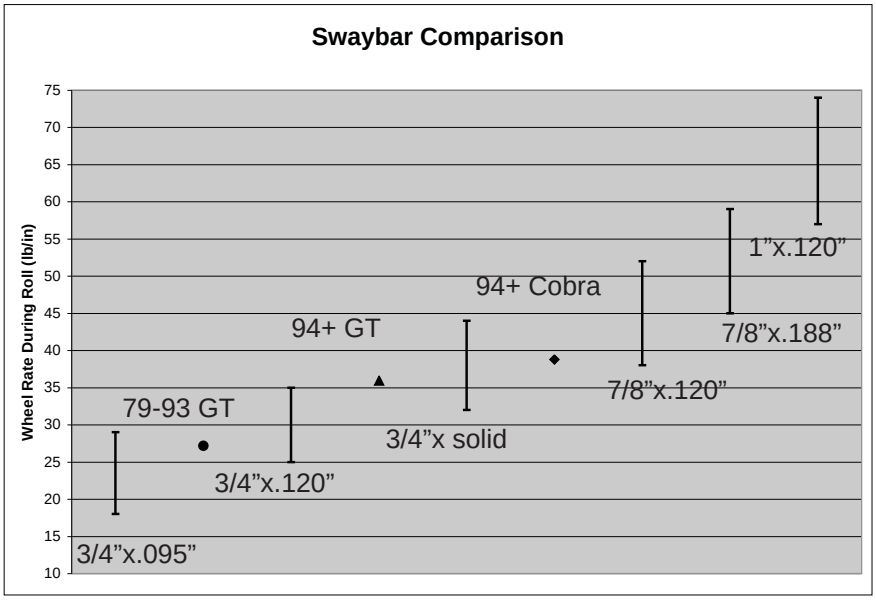
35115.320

Eibach and H&R Swaybars

Maximum Motorsports proudly offers Eibach and H&R front and rear sway bars for a wide variety of Mustangs, along with complete sway bar kits. Please see our web site for more product info and tech notes.

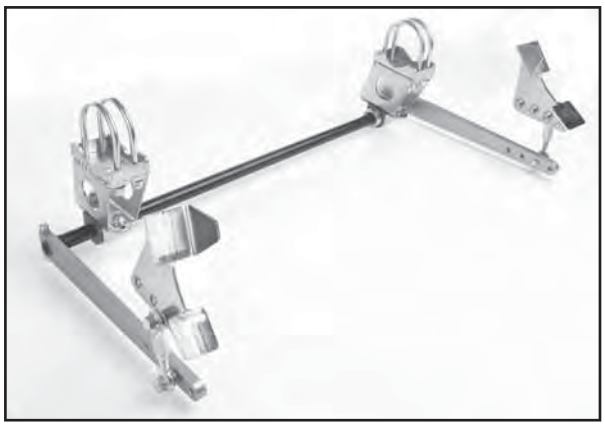
Shop Online!

MM Adjustable Rear Swaybar



Maximum Motorsports offers multiple rear swaybar sizes so you'll have a swaybar rate to suit your needs.

The top table depicts usage of each MM swaybar. The bottom table indicates softest to stiffest swaybar. **Each MM swaybar also features four adjustment positions** (not indicated).



Adjustable Rear Swaybars
1979-04 Mustang with 8.8" solid axle

Bar Size	Kit Type	Part No.	Price/kit	Effect
3/4" x .095" wall	bolt-in kit	**MMRSB-1**	$369.97	*softest*
	weld-in kit	**MMRSB-1.1**	$365.97	
3/4" x .120" wall	bolt-in kit	**MMRSB-2**	$369.97	
	weld-in kit	**MMRSB-2.1**	$365.97	
3/4" solid	bolt-in kit	**MMRSB-3**	$369.97	
	weld-in kit	**MMRSB-3.1**	$365.97	*to*
7/8" x .120" wall	bolt-in kit	**MMRSB-4**	$379.97	
	weld-in kit	**MMRSB-4.1**	$375.97	
7/8" x .188" wall	bolt-in kit	**MMRSB-5**	$379.97	
	weld-in kit	**MMRSB-5.1**	$375.97	
1" x .120" wall	bolt-in kit	**MMRSB-7.1**	$385.97	
	weld-in kit	**MMRSB-7.1**	$385.97	*stiffest*

The torsion bars in these swaybar kits are also available separately.

MM Adjustable Drag Race Anti-Roll Bar

1-1/4" x .250" Wall Tubular Drag Race

Designed for the serious street/strip racer, this anti-roll bar (swaybar) is less stiff than other race-only units. MM's anti-roll bar helps traction by limiting body roll during launch. Installs and adjusts just like the MM swaybars listed above.

Drag Race Adjustable Anti-Roll Bar
1979-04 Mustang with 8.8" solid axle

Bar Size	Kit Type	Part No.	Price/kit
1-1/4" x .250" wall	bolt-in kit	**MMRSB-6**	$459.97
	weld-in kit	**MMRSB-6.1**	$455.97

Note: Does not fit Ford 9" rear axle housing.

MM Adjustable Rear Swaybar Conversion Kits

Bar Size Conversion Kits

To install a swaybar of a different rate than your current swaybar:

- From the chart in this section, determine which swaybar you want.
- If the diameter is the same as your current swaybar, order the bar from the table to the right.
- If the bar diameter is different than your current swaybar, order the bar from the table to the right and also order the appropriate conversion kit from the listings below.

Each conversion kit includes the parts required to change from one swaybar diameter to another. Incudes a pair of aluminum arms and a urethane bushing kit. These conversion kits do not include the torsion bar, which you can choose from the table to the right.

Torsion Bars for MM Rear Swaybar Kits

Bar Size	Part No.	Price
3/4” dia. x .095” wall	**SB-005**	$110.25
3/4” dia. x .120” wall	**SB-004**	$110.25
3/4” dia. solid	**SB-003**	$110.25
7/8” dia. x .120” wall	**SB-007**	$115.25
7/8” dia. x .188” wall	**SB-008**	$115.25
1” dia. x .120” wall	**SB-011**	$119.25

To install a 3/4” MM swaybar on a car previously fitted with a 7/8” or 1” swaybar:
MMRSB-92 $99.97

To install a 7/8” MM swaybar on a car previously fitted with a 3/4” or 1” swaybar:
MMRSB-91 $104.97

To install a 1” MM swaybar on a car previously fitted with a 3/4” or 7/8” swaybar:
MMRSB-90 $110.97

MM Pinion Snubber

Ideal for lowered cars, the MM Pinion Snubber is shorter than the stock pinion snubber, and is a progressive-rate design. On contact it provides a much softer impact than the stock pinion snubber.

1986-04 8.8” solid axle-equipped Mustang **MMPS** $9.95

We include one MMPS pinion snubber with all H&R and MM spring sets.

The MMPS also makes a great replacement for the factory hard rubber bumpstops on the frame rails of 1979-93 Mustangs. Two are required per car for this application.

MM Weld-in Spring Adapter

This adapter allows fitting a standard 2.5”-diameter coil-over spring in place of the standard rear spring. Welds to the chassis in the center of the stock upper spring perch. Includes urethane upper spring isolators for 2.5”-diameter springs.

- Requires a rear lower control arm with an adjustable height spring perch. See the RLCA section of this guide or visit the MM web site.
- Retains the ability to return to stock-diameter springs.
- Installation requires welding.
- Springs not included. Contact an MM Tech Associate for help choosing a spring appropriate for your Mustang.
- For track use only; NOT recommended for street use.

Q: Why use a 2.5” coil-over spring in the stock location, on the rear control arm?
A: In some situations it’s advantageous to install a rear spring with a much higher rate than is available in a Mustang-specific spring design. Coil-over springs are available in a wide range of rates and lengths, allowing more precise tuning of the car’s handling balance.

1979-98 Mustang & 1999-04 GT
MMCA-1 $29.00

MM Rear Upper Control Arm Bushing Tool

This tool from MM makes it much easier to change the stock rear upper control arm bushings at the differential (Part E4SZ-5A bushings). The bushings are a press fit in the differential housing, and are difficult to access. They’re especially difficult to change if you’re trying to do so without removing the rear axle assembly from your car. MM’s unique tool makes this tough job much easier and faster.

Works with 7.5” and 8.8” Mustang rear axle

MMT-1 $29.95

MM Racing Rear Upper Shock Mount

MMSM-1

The MM Racing Upper Shock Mount securely locates the top of the rear shock with a spherical bearing. This eliminates the vertical deflection allowed by the stock rubber mounting bushings. The freedom of movement allowed by the spherical bearings eliminates side loading on the shock shaft. This lets the shock perform at its peak. Our mount performs the same task as a rod-end on the end of the shock, but doesn’t reduce precious bump travel by trying to fit a rod-end under the shock tower. The MM Upper Shock Mount can be used with or without a coil-over system. Because there’s increased noise transmitted into the passenger compartment and installation of this shock mount isn’t reversible easily, *this item is recommended only for dedicated racecars.*

Application	Shock	Part No.	Price/set
1979-04 Mustang with solid axle	MM Sport, MM Race, Bilstein HD	**MMSM-1**	$199.00
	Koni 30 series	**MMSM-3**	$229.00
	Koni Sport SA, Koni Sport DA	**MMSM-5**	$199.00
1979-04 Mustang with Cobra IRS	MM Sport, MM Race, Bilstein HD, OEM Cobra Bilstein	**MMSM-7**	$199.00
	Koni Sport SA (Single Adjustable)	**MMSM-5**	$199.00

Ford did it to the Cobra in 1999. Maximum Motorsports did it to our 1992 roadrace Mustang in 2005. Switching the Cobra to an Independent Rear Suspension (IRS) was Ford's attempt at improving the handling of their premier model. Reviews were mixed. While the ride quality improved, whether or not the handling improved was debatable. When compared to the solid axle upgrades available from the aftermarket, the handling of the IRS seemed to fall short. Throw in the dismay of drag race devotees, and the IRS' popularity was not an overwhelming success.

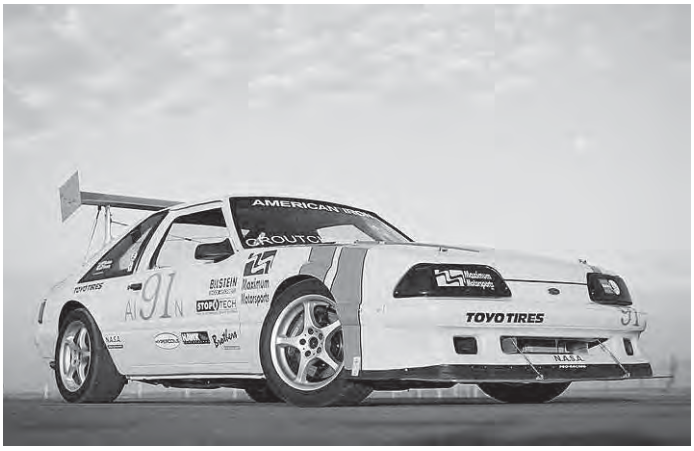
But comparing a well-sorted Torque-arm suspension system to a stock IRS is the epitome of comparing apples to oranges. The stock IRS fares much better when compared to the stock four-link rear suspension. So, to be fair, one should compare the well-proven handling capabilities of a Torque-arm system to an optimized IRS system. From the introduction of the IRS Cobra in 1999 until 2004, a well-engineered, complete IRS system had yet to be developed.

Then the Maximum Motorsports Engineering Team focused on the IRS. Actually, we created our first upgrade for the IRS in 2002. Since then we have continued to develop one part after another for the IRS. By the end of 2004 we had developed all of the parts needed to create a complete Maximum Grip Box for IRS-equipped Mustangs. This bundle of parts provides the upgrades needed to make the IRS really come alive. With the new Maximum Grip Box addressing the most significant compromises of the stock IRS, it finally became fair to compare a Mustang equipped with a solid axle, Torque-arm, and Panhard bar, to a Mustang with an MM-equipped IRS.

And that's exactly what we did. Our American Iron road race car was well sorted out with its solid axle, MM Torque-arm, and MM Panhard bar. It was a proven combination, and had set track records and won races. In the spring of 2005 we swapped the rear suspension out for an MM-equipped IRS and went racing.

Our very first time at the track with the IRS was a test day. We tried different combinations of springs and alignment settings. We learned what helped the car go fast, and what hurt its performance. By the end of that first test day we were well under the American Iron track record. We entered the next American Iron race we could. During the first morning's warm-up session we shattered the AI track record by nearly 3 seconds. We qualified on the pole, led the entire race, and during that race lowered the official AI track record by over 1 full second. Contrary to widely held opinions, the IRS works. Quite well. See the section "A Conversation with MM's Test Driver" on the MM web site.

Our 1992 American Iron racecar is essentially outfitted with a Maximum Grip Box for an IRS-equipped car. Other than the spring rates, shock valving, and the aluminum differential mounts, it has exactly the same parts on it as we would



put onto any IRS-equipped Mustang intended for street duty. The final key in turning the stock IRS into a highly competitive system came through our test program. We experimented with different alignment settings, bumpsteer curves, and spring rates. We discovered what does *not* work. And we can now tell our customers what *does* work. *You can finally experience the full performance potential of the IRS.* Enjoy!

IRS Bushings

IRS-equipped Mustangs typically suffer from wheel hop, as well as unpredictable and sloppy handling. Wheel hop is caused by the undamped wind-up and spring-back allowed by the rubber bushings used throughout the stock IRS. Replacing the rubber with stiffer materials virtually eliminates the deflection that's the biggest contributor to wheel hop.

Replacing the rubber also greatly improves the handling. The compliance of rubber allows changes in the suspension geometry during cornering, which in turn causes the rear end of the car to steer itself; that usually gives the driver an unnerving feeling! Installing stiffer bushings keeps the geometry precisely located, making the car much more consistent and predictable.

MM has designed replacements for *all* of the stock rubber bushings in the IRS. Each MM bushing is made of the material that is most appropriate for its location. The MM Engineering Team made choices between urethane, Delrin, and aluminum, based on the bushing's location, the level of installation difficulty, and the desired improvement in the car's performance. Material options are available for bushings in locations that have the greatest effect on NVH.

The final key to a great-handling IRS is to correct the rear bumpsteer. MM has fully adjustable rear bumpsteer kits and even a good gauge to measure it.

IRS Subframe Bushings

Improve handling and reduce wheel hop with MM's urethane IRS subframe bushings. Replacing the stock rubber mounting bushings with urethane virtually eliminates movement of the IRS subframe relative to the chassis.

You'll notice a big improvement in your car's stability and predictability by switching to urethane subframe bushings. Many drivers have reported that the improvement is as dramatic as installing a Panhard Bar on a solid axle-equipped car. Unlike aluminum subframe bushings, the urethane still provides very good noise isolation.

Why do the urethane bushings improve handling and reduce wheel hop? The entire Mustang IRS system is mounted to a subframe. The subframe is bolted to the unibody with four bolts that pass through four rubber bushings. The rubber bushings distort from suspension loads. That distortion of the bushings causes instability in the rear suspension tracking, changes in alignment settings, and eventually wheel hop during hard acceleration.

Not all IRS subframe bushings are created equal! Other companies sell their own urethane or aluminum bushings. Unless their urethane is the MM-brand bushing, they're simply using a urethane bushing that was originally designed for a different application. Their urethane bushing *sort of* fits, and they consider that to be good enough. That was not good enough for us. We designed a urethane bushing specifically for this application. It fits properly and is easier to install than urethane from "those other guys." See the MM web site for technical information about why we don't offer aluminum subframe bushings.

1999-2004 Cobra IRS	**MMIRSU-1**	$49.95
1979-98 Mustang with IRS	**MMIRSU-2**	$49.95

IRS Subframe Bushing Removal Tool

We designed this tool to make your life easier. And frankly, it made our lives easier, too. This tool makes a much faster job of removing the stock rubber IRS rear differential bushing from its mounting bracket. You'll finish the job faster, endure less frustration, and get back to driving your Cobra sooner.

MMT-6 $22.18 ea.

IRS Subframe Mounting Hardware

Nearly all 1999-04 Cobras came from the factory with the IRS subframe attached to the chassis with 12mm bolts. This causes problems because the two forward bolts are mounted in 14mm holes, in both the chassis and the subframe bushing. While the large amount of slop caused by the undersized bolt allowed for easier installation on the assembly line, it causes problems for car owners. The subframe can shift position, relative to the chassis. This will cause clunking and popping noises, and the movement of the subframe position changes the rear alignment, affecting how the car handles. MM stocks the correct 14mm hardware. We source it from Ford to ensure OEM quality.

1999-04 Cobra IRS
14mm bolts/14mm nuts
MMF-4 $15.97

Low-Profile IRS Subframe bolts

With some of the larger tire and wheel combinations, the tire's sidewall can contact the head of the rearward IRS subframe-mounting bolt. These low-profile bolts increase clearance for larger tires. At .350" tall, this bolt head and washer are 30% shorter than the .500" height of the factory bolt head. Even if some slight contact with the tire's sidewall does occur, the nicely rounded head of this bolt will not damage the sidewall as readily as the sharp-cornered factory bolt does.

Tech: These MM bolts are the same strength as the factory bolts: Metric grade 10.9, which has a tensile strength of 145,000 psi.

1999-2004 Cobra IRS
MMF-1 $9.95

1979-2004
MMF-6 $28.97

IRS Delrin Control Arm Bushings

Improve handling and reduce wheel hop of the Cobra IRS with the Maximum Motorsports IRS Delrin Control Arm Bushing Kits. Eliminating the deflection allowed by the stock rubber control arm bushings, these Delrin bushings precisely locate the rear control arms. This maintains rear wheel alignment in a way that's impossible with either the compliant stock rubber bushings or urethane bushings. While rubber and urethane provide adequate suspension control, as well as noise and vibration reduction for regular street use, they cannot accurately position the control arms well enough to achieve maximum performance from the suspension.

A major complaint of IRS owners is wheel hop. The undamped compression of the rubber bushings in the rear suspension is its primary cause. That undamped movement is amplified by repeated loss of traction. Wheel hop occurs because the rear tires continually oscillate between losing and regaining traction. The extremely soft stock bushings contribute greatly to this oscillation because the rubber compresses easily and then springs back, over and over again. To reduce wheel hop, you must eliminate the compliance of soft bushings.

1999-04 Cobra IRS

Rear *Lower* Control Arm Delrin Bushing Kit
MMIRSB-1 $349.00

Rear *Upper* Control Arm Delrin Bushing Kit
MMIRSB-2 $199.00

Rear IRS Grip Mini-Box
Includes both upper *and* lower control arm Delrin bushings (MMIRSB-1 and MMIRSB-2)
MMRG-20 $498.68

These are *complete* installation kits. There are many features that set our Delrin bushing kits above the others.

- Tooling to remove the original bushings is included in the MM kits. This makes removal of the upper and lower control arm bushings an easy job, taking only a few minutes for each bushing. These Delrin bushings are *much* easier to install than urethane bushings.
- The MM kits include tools to flatten the subframe tabs before reinstalling the control arms with the new Delrin bushings. The mounting tabs always become distorted on the assembly line when the control arms are installed. Tab straightening is a critical step that ensures that the control arms pivot freely, without binding.
- The shims are installed under the shoulder of the bushing to simplify installation of the assembly into the subframe, retaining the Delrin bushings in the proper position.
- The Delrin bushing shoulders are chamfered for ease of installation and to reduce the sliding-friction contact area with the subframe tabs.
- The crush sleeves that support the Delrin bushings in the lower control arms are made of thick-walled aluminum, and are hard anodized to reduce wear. The crush sleeves for the smaller upper control arm bushings are zinc-plated steel.
- This kit is so complete we even include gloves to keep the super-sticky PTFE-based lubricating grease off your hands!

This is the **camber gauge** we use when aligning our racecars. With accuracy better than 1/8 degree, it easily matches the performance of much more expensive gauges. The range of camber adjustment is from 7 degrees positive to 7 degrees negative.

MMT-3 $59.95

IRS Aluminum Differential Bushings

Differential Mounting Bushings

Prevent damage from wheel hop by installing stiffer differential mounting bushings. MM offers two types of differential bushings: urethane and aluminum. The urethane bushings are much stiffer than the original rubber, yet are still compliant enough to dampen NVH (Noise, Vibration, and Harshness). The aluminum bushings allow no deflection at all, and therefore are more effective at preventing wheel hop damage. They're designed to make adjustment of the pinion angle possible. Properly setting the pinion angle helps keep driveline vibrations to a minimum.

Unlike many others who offer only the front differential bushings, Maximum Motorsports actually took the time and effort to analyze the IRS system. The MM Engineering Team realized that *all* of the differential bushings must be replaced as a set. The complete set includes the two front bushings and the essential single rear bushing. If only the front bushings are replaced, and the original rubber rear bushing is left in place, a mismatch will be created in the stiffness of the bushing materials. The more rigid front bushings will deflect less, while the remaining rubber rear bushing will still deflect as much as ever. This in turn will increase the stress on the aluminum front mounting ears of the differential housing, leading to fatigue and stress cracking of the aluminum differential housing. Damage from wheel hop will still be prevalent because the rubber rear bushing will deflect and allow the differential to flop around.

Note: Only install IRS differential bushings as complete sets. Don't install only the front bushings without the rear bushing. Damage to the aluminum differential housing may occur.

Aluminum Differential Bushing Kit

- The MM Aluminum Differential Bushing Kit replaces all three stock rubber bushings.
- The MM Aluminum Bushings allow over 4° of pinion angle adjustment. This means that the pinion angle can be accurately adjusted to minimize driveline vibrations.
- The unique MM Front Differential Bushings comprise specially machined spherical washer sets. This allows compensation for the changed angle of the differential housing. Without this feature, the stress on the differential mounting ears and the IRS subframe would increase.
- Also unique to the MM kit is the rear bushing. Overlooked by others, this bushing contributes just as much to reducing damage from wheel hop as the front differential bushings.
- The change in NVH is minimal, consisting of a slight increase in the noise level coming from the ring gear.
- Clears bearing preload cap bolts on the FRPP differential cover.

Aluminum Differential Bushings: Adjustable pinion angle, 3-bushing set

1999-04 Cobra IRS **MMIRSB-40.2** $249.95

IRS Urethane Differential Bushing Kit

- The MM Urethane Differential Bushing Kit replaces all three of the stock rubber bushings.
- The change in NVH is virtually undetectable.
- The MM three-bushing kit includes the MMT-5 tool to easily remove the stock rubber rear mount from its bracket.

Urethane Differential Bushing kit includes all 3 urethane bushing sets and the MMT-5 bushing removal tool.

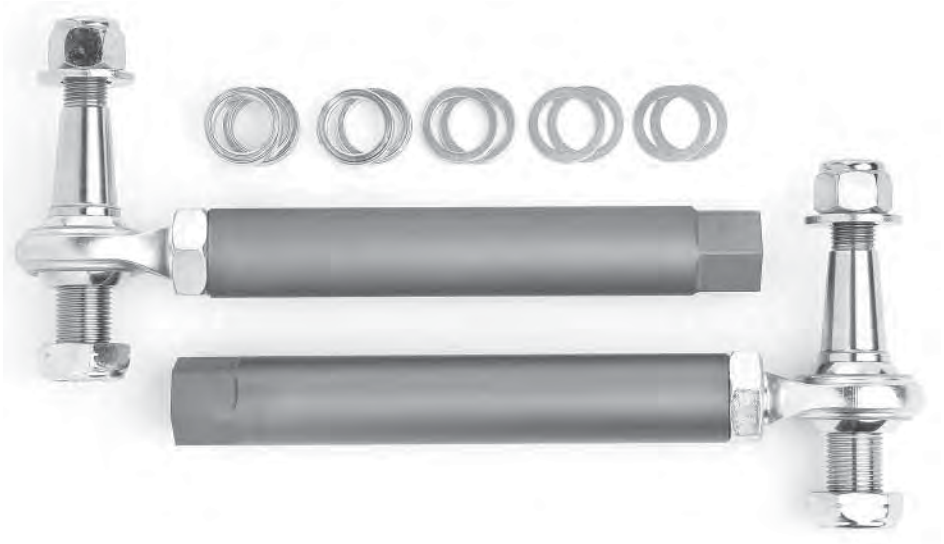
1999-04 Cobra IRS **MMIRSB-45** $63.80

Bushing Removal Tool

This tool easily removes the stock rubber IRS rear differential bushing from its mounting bracket.

MMT-5 $18.95

IRS Bumpsteer Kits



Improve the handling of your Cobra IRS by fine-tuning its bumpsteer. Just as with the Mustang front suspension, making changes to enhance the performance of the Cobra IRS will often require tuning the alignment. Besides the common adjustments to camber and toe, the Cobra IRS benefits greatly from fine-tuning the bumpsteer characteristics.

Bumpsteer is when the toe angle of a wheel changes as the suspension moves up and down, such as when driving over bumps or with body roll during cornering. If the toe angle changes more than a very small amount, it will steer the car without any input from the driver.

Mustangs equipped with IRS are more sensitive to rear bumpsteer than to front bumpsteer. Just small changes in the toe setting of the rear suspension can cause instability and asymmetrical handling characteristics. We've found significant variations in the bumpsteer curves measured on different stock IRS-equipped Mustangs. Differences in the bumpsteer characteristics exist not just from one vehicle to another, but also on ***the same car***, from driver side to passenger side.

Ford designed the independent rear suspension to function as a complete system. The static bumpsteer curve was selected to work in conjunction with the large number of compliant rubber bushings in the stock suspension. When those rubber bushings are upgraded to a less compliant material for improved performance, the dynamic bumpsteer curve will no longer be what Ford had intended. This will affect the handling balance of the car, which is why MM recommends measuring and adjusting the rear bumpsteer as an integral part of your performance modifications.

Maximum Motorsports offers two IRS Bumpsteer Kits: an Adjustable Outer Tie-Rod End Kit (MMIRSTR-1) and a Complete Tie-Rod Kit (MMIRSTR-2). Both include tapered studs that attach to the IRS spindles (no drilling required), PTFE-lined rod-ends, and an assortment of spacers to adjust the height of the rod-ends on the tapered studs. The Adjustable Outer Tie-Rod End Kit (MMIRSTR-1) also includes aluminum adapter sleeves to connect the spherical rod-ends to the original tie-rods. The Complete Tie-Rod Kit (MMIRSTR-2) includes larger-diameter aluminum tie-rods to completely replace each original tie-rod and spherical rod-ends to replace the original inboard joints.

The original tie-rods are a weak link in the IRS system. An IRS-equipped Mustang with only moderate performance upgrades can easily attain loads high enough to deform a stock rear tie-rod. When a rear tie-rod deforms, the rear toe setting changes, causing significant handling and traction problems. A drag race-style launch can even result in a complete failure of the stock IRS tie-rods.

The Complete Tie-Rod Kit (MMIRSTR-2) is more robust than the stock unit, making it more capable of withstanding the rigors of drag racing and open track use. The Complete Tie-Rod Kit also allows adjustment of the the *inner* tie-rod pivot height for a much wider range of bumpsteer adjustment.

Note: Measuring bumpsteer *requires* a Bumpsteer Gauge. MM designed and manufactures an accurate and affordable bumpsteer gauge. It comes with complete, copyrighted instructions on how to measure and adjust bumpsteer. Get a discount when ordering the MM Bumpsteer Gauge along with the MMIRSTR-1, MMIRSTR-2, or MMIRSTR-3 kits!

IRS Adjustable Outer Tie Rod End Kit

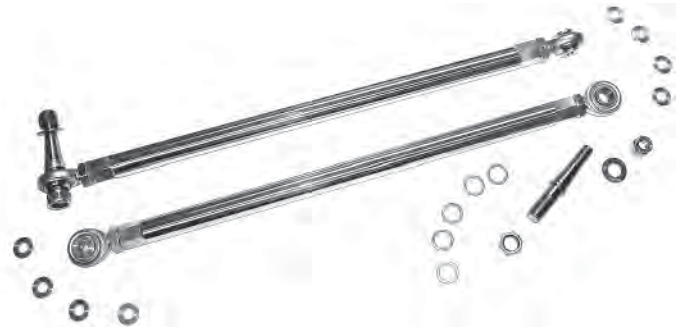
Includes the basic components needed to adjust bumpsteer.

1999-04 Cobra IRS	**MMIRSTR-1**	$149.95

IRS Complete Tie-Rod Kit

Replaces the entire tie-rod with a more robust unit. Also offers adjustment of the *inner* tie-rod pivot for a wider range of adjustment possibilities.

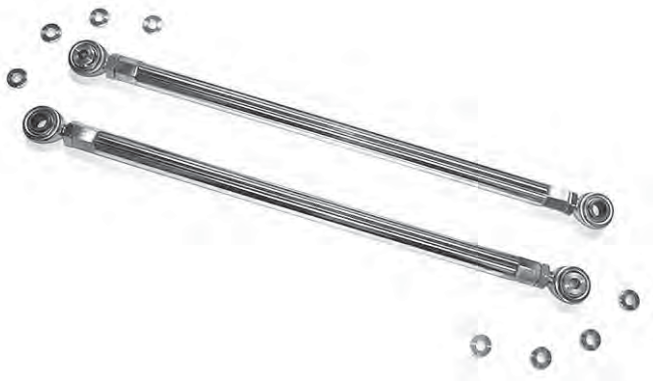
1999-04 Cobra IRS **MMIRSTR-2** $249.00



IRS Conversion Kit

For an IRS already fitted with an MM IRS Adjustable Outer Tie-Rod End Kit (MMIRSTR-1), this conversion kit includes everything needed to upgrade to MMIRSTR-2 specifications.

MMIRSTR-3 $139.00



MM Bumpsteer Gauge

When you want to extract the very most performance from your car, don't settle for a generic bumpsteer fix. A finely tuned car, or any vehicle with modified suspension geometry, must be individually checked for bumpsteer. In order to measure bumpsteer on your car you need this professional gauge from Maximum Motorsports. Whether you're a do-it-yourself hobbyist or a specialized chassis shop, this tool will be an invaluable addition to your collection. Includes complete copyrighted instructions for measuring bumpsteer. This gauge can be used to measure bumpsteer on the rear of IRS-equipped cars as well as measure front bumpsteer on all 1979-2014 Mustangs. **Note:** Correcting bumpsteer on a Mustang requires an adjustable tie-rod end kit.

Fits Ford Mustang 4-lug and 5-lug applications. The MM Bumpsteer Gauge includes a precision dial indicator for accurate measurements.

Note: Assembly required.

MMT-4 $119.95

2003-04 Cobra IRS Bumpsteer

For the 2003 Cobra, the mounting of the inner tie-rod end on the subframe was lowered from its previous position. This change altered the bumpsteer characteristics, and was intended to reduce the understeer of the nose-heavy 2003-04 Cobras. While providing an improvement, the change still doesn't produce an ideal bumpsteer curve for high-performance applications. The bumpsteer of the 2003-04 Cobras becomes even less desirable as the compliance of the OEM suspension is reduced.

MM recommends replicating the bumpsteer curve of the 2003-04 Cobra only for cars that retain all of the original factory rubber control arm bushings. The MM IRS Bumpsteer Kits include installation instructions for duplicating the geometry of the 2003 Cobra. Ideally, the toe change should be minimized using a bumpsteer gauge. After testing the car with this baseline set-up, the handling balance can be fine-tuned by making slight changes to the rear bumpsteer curve. While MM can recommend rear alignment settings, only *your* continued testing will confirm what works best for *your* car and *your* driving style.

IRS Cross-Axis Joints

The IRS cross-axis joints are the pivots that attach the upper and lower rear control arms to the aluminum spindles. Each Cobra IRS has four cross-axis joints. The original IRS cross-axis joints wear rapidly in high-performance applications. If your Cobra has upgraded brake pads, sticky tires, or is used in open tracking, it's especially likely to suffer accelerated wear of the cross-axis joints.

Stock replacements for these joints are only available by purchasing a complete rear spindle assembly from a Ford dealer. But Maximum Motorsports offers a spherical bearing upgrade for less than one quarter the price of the OEM replacements!

The Maximum Motorsports cross-axis joint replacement kit is the industry standard. We know this because the MM kit is the one others copy! The MM Engineering Team designed an easy-to-use kit that doesn't require modification to the IRS spindle, along with the removal and installation tool that made it possible for DIY installation. The MM-designed part and tool is what those other guys copied.

The PTFE-lined spherical bearings are custom-made to MM's design in the USA. The complete 4-joint kit includes the MM-designed tool to remove the OEM joint and install the new spherical bearing, as well as a nice set of snap-ring pliers.

Note: Ford recalled the IRS spindles on 1999 Cobras because of problems with the cross-axis joints. The MM kit does not fit the original 1999 IRS spindles that were recalled, only the replacement spindles and the post-1999 spindles. See the MM web site for information about how to distinguish between the two different IRS spindles.

1999-04 Cobra IRS	MMIRSB-3	$379.00

IRS Rear Swaybar Endlink Set

The MM endlinks allow adjustment to eliminate the swaybar preload that occurs when one of the endlinks is not exactly the correct length for a particular installation. The swaybar twists and becomes preloaded if the endlink length is off by even a very small amount. The preload will alter the car's corner weights, which in turn causes asymmetrical handling characteristics.

Directly replaces the stock end-links. Includes all necessary hardware. One kit outfits one IRS swaybar.

1999-04 Cobra IRS	**MMRSB-94**	$69.95

2013 CMC champion Aaron McSpadden

Heavy-Duty IRS Crossmember

Improve the performance of earlier Cobra IRS units with this crossmember. Ford developed a heavy-duty crossmember to reduce movement of the differential pinion nose during acceleration and braking. The crossmember became standard OEM equipment, and was installed on all 2003-04 Cobras. Not only does it reduce pinion movement, it helps stiffen the entire IRS subframe assembly. Unlike the standard Ford unit, the MM version has a durable black powder-coated finish.

1999-04 Cobra **M-5030-F** $119.95

Ford Racing IRS differential cover, modified by MM

High-strength FRPP differential cover for the Cobra IRS, modified by Maximum Motorsports to provide clearance for use with the MM aluminum differential mounts.

- This FRPP cover is an excellent upgrade for the Cobra IRS, offering greatly increased strength over the stock cover.
- Has clearance to allow installing the MM aluminum differential mounts. The pinion-adjustment ability of the MM aluminum mounts lowers the differential cover relative to the IRS subframe cradle, which would cause the FRPP cover to interfere with the cradle unless the cover is machined to provide clearance.
- Includes load bolts to support the bearing caps.
- Offers the convenience of ports for draining, filling, and sensors.
- Includes provision for oil cooler lines.
- Unlike some aftermarket covers, includes OEM-quality internal oil baffle at the vent.

Benefits

- Much thicker than the stock cover, for increased strength. Stock covers are a well-known weakness of the Cobra IRS. This cover provides increased strength without the need for an additional brace.
- Reduces the possibility of cover breakage or oil leaks.
- Modified by MM to install along with MM aluminum differential mounts that allow adjusting pinion angle.
- May be installed with stock rubber mounts and direct replacement urethane mounts.
- Load bolts provide additional support for the differential bearing main caps.
- Separate ports for draining, filling, and checking the level make servicing much easier.
- Includes provisions for oil cooler inlet and outlet.
- Easily drilled and tapped for a temperature sensor.
- Machined groove on mounting surface captures silicone sealant to form a better seal.

Features

- Direct-replacement FRPP design fits like an OE part should.
- Thick, high-strength aluminum casting provides far greater strength than the breakage-prone stock cover.
- Precision-machined recesses for clearance to IRS cradle when installed along with MM aluminum differential mounts.
- Load bolts
- 10 attachment bolts and washers
- Machined groove on sealing surface

1999-04 **MM-4033-G3** $299.97

IRS Spring Isolators

This kit is for the rear only of IRS-equipped cars. Recommended whenever you change your rear springs, as the stock isolators are rubber and deteriorate quickly, which alters the rear ride height. Includes upper and lower isolators. Made of tough, long-lasting urethane. Designed by MM and manufactured in the USA, these are far superior to the spring isolators available elsewhere.

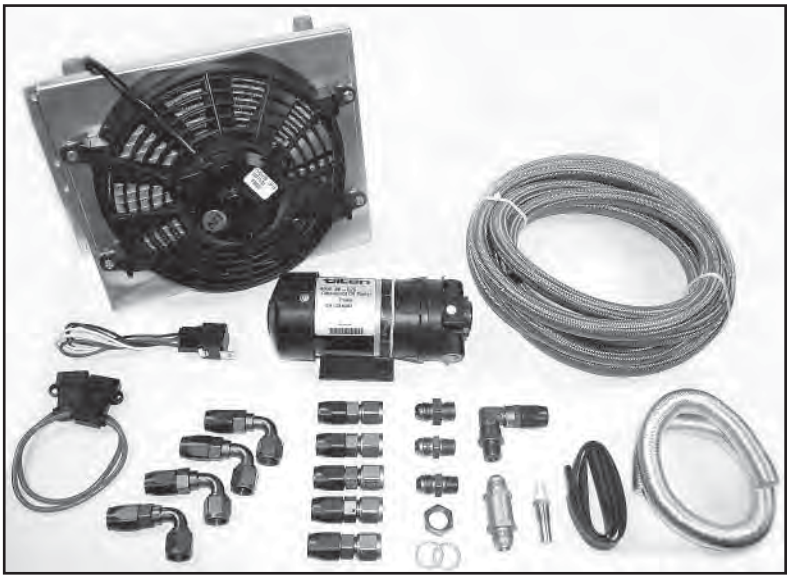
1999-04 Cobra **U-3 (IRS)** $29.95

Differential Oil Cooling System

Keep the differential oil temperature down and avoid burning up the stock Ford Traction-Lok differential in your 1999-2004 Cobra with MM's IRS Differential Oil Cooler.

Ford states the maximum permissible temperature of the differential gear oil is 230°F. Without an oil cooler, the gear oil temperature will soar far above that during track use.

The IRS center section is subjected to much more heat than a solid axle differential. The additional heat comes from several factors: the exhaust is routed directly underneath the IRS differential, the reduced fluid capacity of the IRS center section, and the absence of large steel axle tubes to act as heat sinks. The Cobra IRS has gained a reputation for burning up the Traction-Lok differential during spirited driving and open-track events. MM's Differential Oil Cooler kit will reduce the gear oil temperature, helping you avoid costly limited slip failures.



The MM IRS differential oil cooling system includes:

- Premium-quality oil-to-air heat exchanger. The core has 20 rows, and is 11" wide by 8" tall by 2" thick.
- Gear-oil pump with Viton diaphragm rated to 400°F.
- Electric fan pre-mounted to the cooler.
- 194°F thermo-switch to actuate the pump.
- 15' of –8 PTFE-lined stainless steel braided hose.
- AN hose fittings.
- Extra AN fittings (straight and 90°) to aid in unusual installation situations.
- Fits with aftermarket differential cover brace
- Check valve
- Rubber isolation mounts for the heat exchanger and the pump
- Complete installation instructions, with photos

Fits 1999-04 Cobra IRS-equipped vehicles.

OC-10 $1,397.00

Note: Requires some fabrication for installation.

Tool Package for OC-10 Installation

There's no need to spend time searching for the proper taps and drill bits with this tool package. Includes the thread taps required to install the OC-10 IRS Differential Oil Cooler and the correct matching drill bits for those taps. Thread taps included are 1/4-18 NPT and 3/8-18 NPT; drill bits included are 7/16", 9/16" reduced shank, and 3/4" reduced shank.

MMT-7 $74.97

Shop Online!

Torsen High-Performance Differential

The Torsen is the ultimate performance differential for street, autocross, and road course driving. Its unique torque-sensing ability keeps the maximum possible engine power going to the ground during changing traction conditions.

The Torsen functions as an open differential as long as the amount of traction at each rear tire remains equal. When a tire begins to lose traction, the Torsen instantly senses the change and shifts to the opposite, high-traction tire the excess torque that couldn't be delivered to the ground.

The Torque Bias Ratio (TBR) is the maximum ratio of torque that the Torsen can send to the tire with more available traction, compared to the tire with less available traction. The 4:1 TBR of the Torsen T2R means that this differential is capable of delivering up to four times as much torque to the tire with better traction than is delivered to the tire with the least available traction. By comparison, the Torsen T2 can deliver about 2.5 times as much torque to the tire with more traction, compared to the tire with less traction.

What TBR do I need for my car?

This mostly depends on how high the cornering forces are. When the cornering forces are very high (cornering at a high g), a higher TBR is required to avoid inside wheel spin. On a car that doesn't corner as hard, a lower TBR differential can be used. When in doubt, a higher TBR differential will work in all applications. For an explanation of why this is so, see the differential tech page on the MM web site.

Fitment

All of the Torsen differentials listed in the table to the right fit the Mustang Cobra IRS.

- All 1986-2004 V8 Mustangs with solid axle 8.8" differentials were equipped with 28-spline axles.
- All 1999 Mustang Cobras were equipped with 8.8" differentials with 28-spline axles.
- All 2000-04 Mustang Cobras were equipped with 8.8" differentials with 31-spline axles.
- All 2005-14 V8 Mustangs were equipped with 8.8" differentials with 31-spline axles.
- Use of a 31-spline differential in a 1986-2004 Mustang requires the installation of 31-spline axles.

TOR-88T231

During braking there's little or no torque being conveyed to the differential, so there's little or no torque difference between the two rear tires. Therefore, the Torsen differential will not support any appreciable torque "wind-up" between the two rear tires during braking. For that reason the Torsen differential does not interfere with the functioning of anti-lock brake systems.

The clutch plates of the Mustang's stock Traction-Lok differential wear out, requiring periodic replacement to maintain its functionality. This wear causes axle endplay on a solid axle car, which in turn increases brake pad kickback. Axle endplay doesn't increase over time with a Torsen differential because it has no clutch plates to wear out. This makes the Torsen differential ideal for use with fixed-mount brake calipers.

While it's well suited for street use, autocrossing, and road racing, the Torsen differential is not recommended for drag strip use.

The Torsen differential fits Mustang 8.8" rear-ends, both solid axle and IRS, and are available in 28-spline and 31-spline versions.

Description	Part No.	Price
T2R high bias 4:1 TBR **28 spline**	**TOR-F88ZT28HBI**	$667.00
T2R high bias 4:1 TBR **31 spline**	**TOR-F88ZT31HBI**	
T2 low bias Standard 2.5:1 TBR **28 spline**	**TOR-88T2/28**	$547.95
T2 low bias Standard 2.5:1 TBR **31 spline**	**TOR-88T2/31**	

Complete Oil Cooler Kit

A must-have for any high-power engine, this system keeps engine oil temperatures in check at the track and on the street. At the heart of this kit is a 25-row aluminum liquid-to-air heat exchanger. Its all-aluminum plate construction makes this one of the best coolers available, greatly outperforming "tube and fin"-style units. PTFE-lined stainless steel braided hoses with -10AN fittings, aluminum mounting brackets, and vibration-insulating standoffs round out this complete package.

Designed for use on *non*-AC-equipped, 5.0L Mustangs, this kit uses the same cooler that has performed flawlessly on our own racecar. The oil temperature has stayed below 230°F at the track, even when the ambient temperature was over 105°F! Installation of this kit requires the relocation of the battery to the trunk, because oil lines are routed around the radiator core support on the driver side. Use OC-1 with a thermostat to avoid over-cooling your oil on the street, and faster oil warm-up on the track. Use OC-2 with no thermostat for road racing applications when it's acceptable to have longer warm-up times.

Note: A short oil filter, such as the Motorcraft part number FL-300, is usually required when installing the sandwich plate of this cooler.

Application	Thermostat	Part No.	Price/kit
1979-95 5.0L Mustang	Yes	**OC-1**	$599.95
	No	**OC-2**	$579.95

Oil Filter Relocation Kit

Designed specifically for 1996-2004 Mustangs with modular engines, Maximum Motorsports' Oil Filter Relocation Kit moves the oil filter from the original location on the engine block to behind the driver-side front bumper.

This top-quality kit features beautifully finished billet aluminum mounts and high-quality hose and fittings. Relocating the oil filter eliminates oil dripping from the hard-to-reach stock filter onto the steering rack and K-member during oil changes. The new filter location behind the front bumper—in front of the fender liner—is easily accessible from underneath the car. The filter is vertically oriented to eliminate oil drain-back, and reduces the mess during filter changes. This filter kit converts from the small 4.6 modular filter to the commonly available large-capacity Ford small block-style oil filter (FL1-A and FL-1HP).

A filter relocation kit is *required* when installing a Maximum Motorsports K-member on a modular engine car equipped with a factory oil cooler (all 4.6 Cobra 4V engines except the Mach 1).

This complete kit includes a billet aluminum engine adapter, billet aluminum remote filter mount, -10 hose ends, hose, oil filter, all necessary mounting hardware, and detailed instructions.

The standard version includes high-pressure textile braided hose, aluminum push-lock –10 hose ends, and a FL-1A Ford oil filter. The severe-duty version includes stainless-steel braided PTFE-lined hose, aluminum swivel seal –10 AN hose ends, and a FL1-HP Ford Racing oil filter.

Application	Description	Part No.	Price/kit
1996-98 Mustang with Modular Engine	Standard-Duty	**OC-3**	$239.97
	Severe-Duty	**OC-4**	$299.97
1999-04 Mustang with Modular Engine (*except 2003-04 Cobra*)	Standard-Duty	**OC-8**	$249.97
	Severe-Duty	**OC-9**	$319.97
2003-04 Cobra modular engine	Severe-Duty	**OC-7**	$329.97

MM Caster/Camber Plates

MMCC9093

The MM Caster/Camber Plates meet and exceed all of these requirements for a well-designed upper strut mount. A spherical bearing allows full, unrestrained articulation of the strut without inducing bending loads on the shaft. The alignment can be adjusted over a much wider range, easily accommodating both street and track alignment settings. The stiffness of the steel caster/camber plate with spherical bearing system maintains the static and dynamic alignment settings. It also allows adjustment of the strut shaft height, relative to the strut tower, to regain bump travel if the car has been lowered. Regaining lost suspension travel will improve both performance and ride comfort.

Whether your Mustang is driven on the street, or pushed to the limit on a racetrack, a proper alignment is essential. A good front-end alignment provides greater stability, better steering response, increased front grip, and longer tire life. There are no drawbacks to having the proper alignment! The Maximum Motorsports Caster/Camber Plates are engineered to provide the widest range of alignment settings possible. This ensures that a proper alignment can be achieved for any type of driving.

Lowered Mustangs

When you lower a Mustang, it loses available suspension travel and may bottom-out frequently. The lower ride height will also result in excessive negative camber, which often causes uneven tire wear. The MM Caster/Camber Plates have the alignment-adjustment capability to correct excessive negative camber caused by lowering. The MM C/C Plates will also allow regaining lost suspension travel, improving both performance and ride comfort.

Application	Main Plate Finish	Part No.	Price/kit
1979-89 Mustang	Black Powdercoat	**MMCC7989**	$209.97
	Chrome	**MMCC7989-C**	$259.97
1983-88 Thunderbird	Black Powdercoat	**MMCC8388***	$209.97
	Chrome	**MMCC8388-C***	$279.97
1984-92 Lincoln Mark VII	Black Powdercoat	**MMCC8388**	$209.97
	Chrome	**MMCC8388-C**	$279.97
1990-93 Mustang	Black Powdercoat	**MMCC9093**	$209.97
	Chrome	**MMCC9093-C**	$259.97
1994-04 Mustang	Black Powdercoat	**MMCC9994**	$209.97
	Chrome	**MMCC9994-C**	$259.97
2003-04 Cobra with OEM Bilstein struts	Black Powdercoat	**MMCC0304**	$209.97
	Chrome	**MMCC0304-C**	$259.97
2003-04 Cobra with non-Bilstein struts	Black Powdercoat	**MMCC9994**	$209.97
	Chrome	**MMCC9994-C**	$259.97

*Not compatible with the electronic shock's adjusting motor.

The marks of a well-designed upper strut mount:

- It allows the range of motion required for the suspension to move through any bumps and turns encountered.
- It can regain the suspension travel lost at a lower ride height.
- Its adjustability allows alignment of the front-end to the desired settings, and then maintain those settings under all conditions, both street and track.

The original factory strut mount doesn't do well in meeting any of these requirements. It uses rubber to retain the strut and doesn't allow free articulation. Its adjustment range is inadequate to achieve acceptable alignment on a lowered Mustang, let alone one destined for the track. Plus, it's incapable of maintaining an alignment when dynamically loaded. The original mount is also incapable of regaining any suspension travel on a lowered vehicle.

Special Application Caster/Camber Plates

- 2003-04 Cobras with original struts
- Any 1994-04 Mustang with OEM 2003-04 Cobra struts

Ford equipped the 2003-04 Cobras with Bilstein struts. The OEM dustcovers fitted to those struts are not compatible with our standard C/C Plates (MMCC9994). The MMCC0304 kit includes suitable dustcovers.

While originally intended for 2003-04 Cobras, these C/C Plates will fit *any* 1994-04 Mustang using Bilstein, MM Sport, or MM Race series front struts.

There are only two differences between these C/C Plates and our MMCC9994 C/C Plates: The inclusion of dust boots and the omission of our urethane bumpstops. The bumpstops are omitted because Bilstein and MM struts have internal bumpstops.

Maximum Motorsports Caster/Camber plates are unique.

- They're double-adjustable, with separate, independent adjusting slots to change caster and camber.
- The all-steel construction is thinner than aluminum and allows for more bump travel and hood clearance.
- They have double the range of stock camber adjustment.
- Caster adjustment isn't limited by the design of the plate, but rather the physical limitations of the strut tower.
- A spherical bearing accommodates the required motion without binding, unlike a urethane bushing that binds and puts a bending load on the top of the strut shaft, which can break the strut top.
- The spherical bearing also provides a non-deflecting strut mount. Without deflection, steering response improves, enhancing performance.
- Progressive-rate urethane bumpstops soften the impact when the suspension bottoms out.
- Retains the use of the factory dust cover in non-coil-over applications.
- Finished with durable powder-coating or triple-plated chrome, for great looks and long-lasting protection.
- The plates are spaced above the strut tower to allow the greatest increase in suspension travel possible for lowered cars.
- Suitable for use with coil-over conversion kits.
- The use of high-alloy steel and top-quality spherical bearings allows us to offer a limited lifetime warranty.

MMCC9994

Patented '4-Bolt' C/C Plates for 1994-2004 cars!

Our *patented* '4-bolt' configuration uses 4 bolts to evenly spread the load into the car's strut tower. With this design, there's little chance of strut tower damage or plate bending from hard impacts. It also offers the most bump travel possible. How did this unique design come about? The MM Engineering Team designed the new 4-bolt C/C plates by thinking outside of the box—the triangular box that everyone else was stuck in.

The stock upper strut mount configuration of 1994-04 Mustangs places the strut shaft outside the triangle formed by the three original mounting bolts. A 3-bolt main plate will overload the rear bolt and may bend the strut tower. Our 4-bolt mounting to the strut tower places the strut shaft inside the square formed by the four mounting bolts. This evenly distributes the suspension loads into the strut tower.

Our latest patented 4-bolt design is the toughest ever! All MM Caster/Camber Plates now have a **limited lifetime warranty** against spherical bearing failure and plate failure. That's right—if you wear it out or break it while driving, we'll replace that component for free. This warranty applies to the original retail purchaser of all genuine MM Caster/Camber Plates purchased after January 2003. Please visit the MM web site for complete warranty details.

Alignment, Tire Wear, and Performance

Lowering a Mustang causes the camber to become more negative. Too much negative camber wears the inside edges of the tires. Even cars never driven aggressively need the correct alignment in order to get the most life from the tires. The MM Caster/Camber Plates provide the adjustment range needed to set the camber to stock specifications, regardless of ride height. They also provide a means of adjusting caster—something that wasn't originally designed to be adjustable on the Mustang. Being able to adjust caster provides a powerful way to improve performance.

Maintaining alignment settings during hard cornering is impossible with stock strut mounts because they deflect, allowing camber to fluctuate. This changes the toe setting, which creates steering input *not* coming from the driver.

High-performance handling requires alignment settings different from the factory specifications. During cornering, body roll causes a reduction of negative camber. That pulls up the inside edge of the front outside tire, reducing the effective size of the tire's footprint. Adjusting the static camber setting toward more negative will counter this effect and maximize the size of the tire footprint on the ground (i.e., increase traction).

Due to the Mustang's steering geometry, simply steering the car will cause the camber of the outside front tire to become less negative. This effect can be countered by increasing caster. Adjusting in enough positive caster will cause the camber of the outside front tire to become more negative while cornering, increasing the tire's footprint.

More information about alignment can be found in the MM installation instructions for C/C Plates, as well as on the MM web site.

Maximum Motorsports was awarded US Patent number 6,485,223 for the innovative features of this design.

Ball Joint Dust Boot

Use these urethane boots to replace damaged rubber boots on your ball joints. Replacing damaged or missing boots will keep the grease in and water and dirt out, prolonging the life of your ball joints. NOTE: Use U-4 for all MMFCAs.

1979-93 Mustang	**U-1**	$4.97
1994-04 Mustang	**U-4**	$4.97

Dust Boots for Outer Tie-Rods

Use these urethane boots to replace damaged rubber boots on your outer tie-rod ends. Replacing damaged or missing boots will keep the grease in and water and dirt out, prolonging the life of your outer tie-rod ends.

1979-04 Mustang	**19-1712-BL**	$4.98

Urethane Front Stock Control Arm Bushings

Application	Outer Bushing Shells Included?	Part No.	Price/set
1979-82 Mustang	No	**6-206-BL**	$39.95
1983-93 Mustang	No	**6-205-BL**	$39.95
	Yes	**6-209-BL**	$59.95
1984-86 SVO	No	**6-208-BL**	$49.95
1994-95 Mustang	No	**6-207-BL**	$44.37
	Yes	**4-3144**	$69.95
1996-01 GT* with standard bushings	No	**6-207-BL**	$44.37
	Yes	**4-3144**	$69.95
1996-01 GT* with Hydro-bushings	No	**6-217-BL**	$49.95
	Yes	**4-3144**	$69.95
2002-04 GT (Hydro-bushings)	No	**6-217-BL**	$49.95
	Yes	**4-3144**	$69.95
1996-04 Cobra (Hydro-bushings)	No	**6-217-BL**	$49.95
	Yes	**4-3144**	$69.95

Urethane front control arm bushings pivot freely and are nonbinding. In the front they maintain proper camber and caster alignment and give quicker turn-in response.

6-205-BL

4-3144

* You must check your bushings to determine if they are standard bushings or Hydro bushings. To determine the type of bushings in your front control arms, use a screwdriver to pry on the metal flange of the rearward bushing of the front control arm. If the metal flange is rigid and is one piece with the pressed-in metal shell, you have standard bushings. If the metal flange is movable and independent from the pressed-in metal shell, you have Hydro bushings.

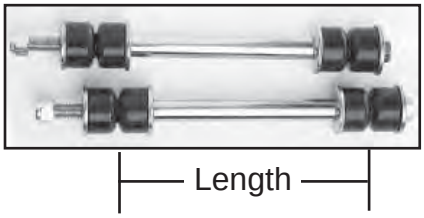
A Word On Urethane Bushings... Ford built your Mustang with a lot of rubber bushings. This provides a nice ride, but it's not always ideal for performance handling. Not only are they soft, but rubber deteriorates quickly, leaving you with a spongy ride and premature failure. Unlike rubber, urethane is unaffected by oil and grease, and it lasts longer. When used in the correct application, urethane bushings will eliminate the imprecise handling caused by the deflection of rubber bushings. Whether your Mustang is an all-out racecar or a daily driver, with urethane in the right places, you'll feel the improved handling. **Does Urethane Squeak?** No. Squeaking is caused by high-frequency vibrations that can be heard rather than felt. It's usually caused by lack of lubrication, poor installation, or urethane that's too hard for the application. **No Graphite Bushings.** Graphite used on the surface of urethane bushings serves as a lubricant to reduce friction between the pivoting areas. Some companies add graphite to their urethane during the casting process. Only the graphite on the surface of the bushing will perform, and then only if it's a machined surface. Graphite alone will not provide enough lubrication--it must be used with grease to be effective. Neither Prothane nor MM Urethane Bushings include graphite or any other fillers, as they can detract from the chemical bond of the urethane molecules and result in a weaker part.

Urethane Front Swaybar Bushing Sets

Fits stock Ford bracket

Urethane Front Swaybar Bushing Sets					
		Stock Replacement Bushings		Universal, for MM Relocation Brackets	
Most Common Usage	**Bar Size**	**Part No.**	**Price/set**	**Part No.**	**Price/set**
1979 4Cyl	1"	**6-1122-BL**	$14.95	**19-1134-BL**	$17.95
1979 GT	27mm (1-1/16")	**6-1135-BL**		**19-1135-BL**	
1980-93 4Cyl w/base suspension	15/16"	**6-1121-BL**		**19-1133-BL**	
1980-82 GT	1"	**6-1122-BL**		**19-1134-BL**	
1983-84 GT	1-1/8"	**6-1124-BL**		**19-1136-BL**	
1984-86 SVO	1-1/4"	**6-1125-BL**		**19-1137-BL**	
1979-84 with TRX package	1-1/8"	**6-1124-BL**		**19-1136-BL**	
1985-86 4cyl w/HD suspension	1-1/8"	**6-1124-BL**		**19-1136-BL**	
1985-93 GT,	1-5/16" (33mm)	**6-1126-BL**		**19*-1138-BL**	
1993 Cobra	1-1/8"	**6-1124-BL**		**19-1136-BL**	
1993 Cobra R	1-5/16" (33mm)	**6-1126-BL**		**19*-1138-BL**	
1994-95 Cobra	25mm	**6-1134-BL**		**19-1141-BL**	
1994-98 GT	30mm	**6-1137-BL**		**19-1146-BL**	
1996-98 Cobra	29mm	**6-1136-BL**		**19-1145-BL**	
1994-99 V6	27mm (1-1/16")	**6-1135-BL**		**19-1135-BL**	
1999 GT	28mm	**6-1135-BL**		**19-1144-BL**	
2000-04 GT	27mm (1-1/16")	**6-1135-BL**		**19-1135-BL**	
1999-01 Cobra	28mm	**6-1155-BL**		**19-1144-BL**	
2000-04 V6	1"	**6-1122-BL**		**19-1134-BL**	
2000 Cobra R	28mm	**6-1155-BL**		**19-1144-BL**	
2001 Bullitt	28mm	**6-1155-BL**		**19-1144-BL**	
2003-04 Cobra	29mm	**6-1136-BL**		**19-1145-BL**	
2003-04 Mach 1	27mm (1-1/16")	**6-1135-BL**		**19-1135-BL**	
Some aftermarket swaybars	1-3/8"	**6-1133-BL**		**9-5168G**	$19.95

Urethane Front Swaybar End-link Sets



Application		Over-All Length	Part #	Price/set
1979-93 Mustang	Stock, or lowered up to 1.5”	6-1/8”	19-417-BL	$22.77
1979-93 Mustang	Lowered more than 1.5”, *or* MM K-member	5-3/8”	19-413-BL	
1994-04 Mustang	Stock, or lowered up to 1.5”	5”	19-416-BL	
1994-04 Mustang	Lowered more than 1.5”, *or* MM K-member	4-1/4”	19-408-BL	
1983-88 T-bird	Stock, or lowered up to 1.5”	4-3/4”	19-412-BL	

MM Front Swaybar Bracket Reinforcements

On 1979-93 Mustangs, the front swaybar is mounted to a bracket that is spot-welded to the chassis. The stress of competition use can break these spot-welds. MM developed this kit to reinforce the mount and prevent it from tearing off of the chassis. Weld-in installation.

1979-93 Mustang **MMFSB-60** $14.95

MM Front Control Arms

Maximum Motorsports' Tubular Front Control Arms are lighter and stronger than the stock front control arms. They offer improved steering response and better alignment control. These tubular FCAs also allow for a tighter turning radius when using larger-than-stock front wheels and tires. Unlike cheap imitations, MM Front Control Arms feature OEM-quality "low-friction" ball joints that will likely last the lifetime of your Mustang. Maximum Motorsports' Tubular FCAs set the standard for quality and performance!

We offer specific control arms for the 1979-1993 and 1994-2004 Mustangs. A variety of MM Tubular FCA configurations are available. Some can be used with the stock Ford K-member, while others require the Maximum Motorsports Tubular K-member. ***Note: Installation always requires front coil-overs.***

1979-1993 Mustangs

Three different versions of the MM Tubular Front Control Arms are available for the 1979-93 Fox Mustang. In addition, the MM Tubular FCAs intended for the 1994-04 SN95 Mustang may also be used on a Fox Mustang. The SN95 control arms will push each front wheel 0.9" further outboard per side than the wheel location set by the MM Fox Mustang tubular front control arms (fender modifications may be required). The MM SN95 front control arms have an additional sway-bar endlink mounting hole, located for use with a Fox front swaybar.

Reverse-Offset

- With MM Tubular K-member: Retains the stock wheelbase.
- Not for use with the stock Ford K-member.

Non-Offset

- With MM Tubular K-member: Moves front wheels forward by 3/4".
- With stock Ford K-member: Retains the stock wheelbase.

Forward-Offset

- With MM Tubular K-member: Moves front wheels forward by 1.5".
- With stock Ford K-member: Moves front wheels forward by 3/4".

1994-2004 Mustangs

Two different versions of the MM Tubular FCAs are currently available for 1994-04 Mustangs. These control arms can also be used on 1979-93 Mustangs to push the front wheels outboard 0.9" per side (fender modifications may be required).

Non-Offset

- With MM Tubular K-member: Moves front wheels forward by 3/4".
- With stock Ford K-member: Retains the stock wheelbase.

Forward-Offset

- With MM Tubular K-member: Moves front wheels forward by 1.5".
- With stock Ford K-member: Moves front wheels forward by 3/4".

Track Width

It's common for racers with 1979-93 Mustangs to widen the front track by installing SN95 front control arms. A wider track improves grip and increases cornering speed. This typically requires extensive fender modifications.

Wheelbase

Moving the front wheels forward increases the wheelbase. This improves front cornering grip by increasing caster, which in turn improves camber gain while cornering, and improves weight distribution slightly. This may require modifications to the bodywork (oftentimes for a Fox chassis, but rarely on an SN95).

Bushings

Maximum Motorsports Tubular FCAs are available with either urethane or Delrin pivot bushings.

- Urethane: Intended for street use. These bushings will make your Mustang far more responsive while keeping it quiet and comfortable.
- Delrin: Intended for racing. These bushings have zero deflection and a longer life expectancy in racing applications. Expect an increase in ride harshness and noise when compared to urethane bushings.

MM Front Control Arms

Features of MM Front Control Arms

- They weigh only 8 lbs. each. Stock control arms weigh 14.75 lb each! The total weight savings is 13.5 lbs. Additional weight is saved from installation of the front coil-over kit.
- Our engineers insisted on a welded-in cross brace, placed as close to the pivots as possible. This design makes MM Tubular Front Control Arms true 'A'-arms, unlike the 'V'-arms made by other companies. This feature increases rigidity and equalizes the forces delivered into the K-member.
- Gussets in critical areas ensure that the control arm will plastically deform in a severe accident, instead of fracturing at a weld. Deformation absorbs impact energy, reducing the severity of the impact on the vehicle and its occupants.
- Unlike the Mustang rear control arms, which must allow angular motion, the front control arms only require a pivoting motion. This means that front control arm bushings made of Delrin or urethane are ideal. Can be installed on most aftermarket K-members, as well as stock Ford K-members. Stock 1996-2004 K-members may require minor modifications to accommodate tubular front control arms.

Application	Offset	Bushing Type	Part No.	Price/pair
1979-93	Reverse-offset	Urethane	**MMFCA-20**	$349.00
		Delrin	**MMFCA-21**	$449.00
	Non-offset (stock geometry)	Urethane	**MMFCA-1**	$349.00
		Delrin	**MMFCA-2**	$449.00
	Forward-offset	Urethane	**MMFCA-4**	$349.00
		Delrin	**MMFCA-5**	$449.00
1994-04	Non-offset (stock geometry)	Urethane	**MMFCA-7**	$349.00
		Delrin	**MMFCA-8**	$449.00
	Forward-offset	Urethane	**MMFCA-10**	$349.00
		Delrin	**MMFCA-11**	$449.00

Drag Race Front Control Arms

Application	Offset	Bushing Type	Part No.	Price/pair
1979-93	Non-offset	Urethane	**MMFCA-14**	$339.00
	Non-offset	Delrin	**MMFCA-15**	$439.00
1994-04	Non-offset	Urethane	**MMFCA-17**	$339.00
	Non-offset	Delrin	**MMFCA-18**	$439.00

Our tubular FCAs for drag racing are lighter weight than standard control arms, yet retain the superior strength MM's other tubular front control arms are known for. The swaybar mount is omitted to reduce weight. Relative to stock control arm, the ball joint location remains in the stock Mustang location for best tire clearance.

Notes

- 11.4 lb lighter than stock front control arms. When installed with required coil-over conversion kit and caster camber plates, removes a total of 27.3 lb.
- Keeps the stock Mustang wheelbase when installed with a stock k-member.
- Keeps the stock Mustang track width when installed with a stock k-member.
- Quickens steering response by reducing bushing deflection.

MM Relocation Kit for the Front Swaybar

MM designed these kits to move the front swaybar mounts forward on the chassis. This can help when setting up a car with an aftermarket K-member or front control arms that move the front wheels forward. When the control arms move forward, clearance problems may arise with the front swaybar—the ends of the swaybar might hit the front struts or the end-links may not be vertical. When ordering a relocation kit you *must* also order a set of universal front swaybar bushings. The stock swaybar brackets and bushings won't fit. On a 1979-93 Mustang, we strongly recommend that you also install an MM Front Swaybar Bracket Reinforcement Kit.

Notes

- Reverse-offset control arms: Swaybar relocation is never required.
- Non-offset control arms: Swaybar relocation is seldom required.
- Forward-offset control arms: Swaybar relocation is always required.

MMFSB-50

MMFSB-51

Application	Part No.	Price/kit
1979-93 Mustang	**MMFSB-50**	$54.95
1994-04 Mustang	**MMFSB-51**	$54.95

Shop Online!

Get more front grip and dramatically improve handling with the optimized suspension geometry of a Maximum Motorsports Tubular K-member. At only 37 lbs., the MM K-member is 26% lighter than the original and the strongest, stiffest, and most durable K-member available. Installing the MM Tubular K-member reduces weight and greatly improves cornering ability.

MM K-members are designed and built to last the life of the vehicle. While most aftermarket K-members are designed to save as much weight as possible, our priorities instead led us to carefully design cross bracing and triangulation of tube intersections to ensure the strength and durability needed for this critical part. We also used thicker-gauge metal and larger tube sizes than other companies do. The result is a K-member with the strength to handle drag race launches and wheel stands, road race use, and of course, the rigors of daily street driving.

Qualities that make the MM K-member unique

- It moves the front control arms forward by 3/4". This lengthens the wheelbase, improving the front-to-rear weight distribution. It also increases the amount of positive caster, which leads to improved cornering ability.
- We optimized the vertical location of the control arm pivots to improve the camber curve on lowered vehicles and improve the roll center height.
- Two possible vertical locations for the control arm pivots (1" higher, or 2" higher than stock) are built into the K-member. This allows installing the front control arms in the optimal pivot location for the ride height you choose.
- We adjusted the steering rack location to fine-tune the Ackerman steering geometry. This improves turn-in response, reduces understeer, and improves tire wear.
- After extensive testing of different anti-dive geometries, we determined that Ford got it right! The stock amount of anti-dive provides the best performance, and that is what we build into our K-member. Increasing anti-dive geometry over the stock amount will cause the suspension to bind during hard braking, which in turn causes the front brakes to lock up too easily.
- Comes standard with an MM 2-point K-member brace. Both stock and aftermarket K-members need them. This is the first tubular K-member to have a 2-point brace as an integral part of the design.
- Our K-member for 5.0L pushrod engines allows the option of setting the engine back 1" or installing it in the stock location.
- We offer versions of our K-member that permit installation of 5.0L pushrod-based engines in 1996-2004 Mustangs, and both 4.6L modular-based engines and Coyote engines in 1979-1995 Mustangs.
- Increased clearance for the oil pan makes its removal much easier.
- Header clearance is increased in critical areas.
- Our tubular design provides easier access to the starter motor.
- Precisely located holes allow easy use of plumb bob strings for accurate squaring of the K-member to the chassis during installation.

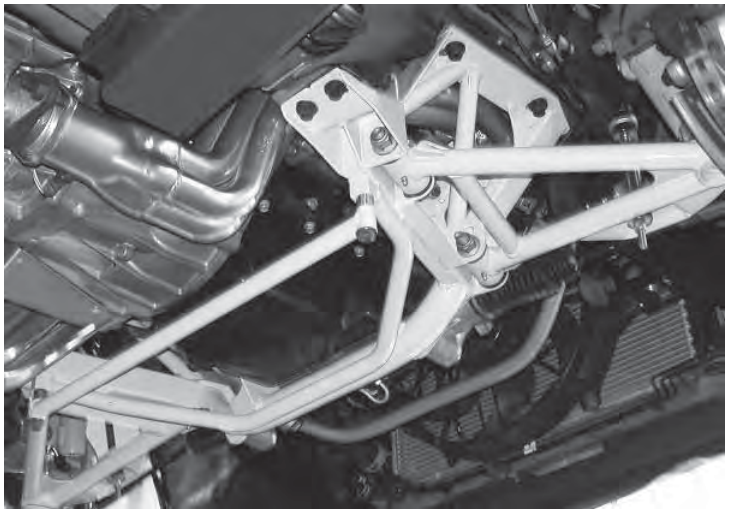
Maintain your Mustang's stock wheelbase!

In response to requests from customers, we designed front control arms that maintain the stock Mustang wheelbase when an MM K-member is installed. These Reverse-Offset Front Control Arms are only for use with MM K-members. Available for 1979-93 Mustangs only.

MM K-Members

Correct installation of an MM K-member also requires the following parts:

- Tubular front control arms (stock control arms are not compatible because of the stock pivot bushings' large outside diameter)
- Front coil-over conversion kit
- Caster/Camber plates
- MM Aluminum Steering Rack Bushings
- Adjustable tie-rod ends (bolt-through spindle style)
- Shorter swaybar end-links
- Oil filter relocation kit, for 4.6L engine applications that have an OEM oil cooler



MM K-member for Hellion Turbo Kits

MM worked with Hellion Power Systems to develop a K-member that will provide clearance for their turbo kits. Now, along with the power of a Hellion turbo system, you can have the legendary handling of a proven MM suspension system. There's no need to sacrifice the safety or handling ability of your Mustang by installing an inferior K-member. This Maximum Motorsports K-member will provide superior chassis rigidity and superb handling, ***and*** last the life of your car!

Chassis	Engine	Part No.	Price/ea
1979-95	5.0L small block	**MMKM-1**	$649.00
	4.6L/5.4L modular (2v, 3V, 4v), LSX, 5.0L Coyote	**MMKM-2.1**	$669.00
	4.6L modular (2v & 4v) with Hellion Turbo	**MMKM-3.1**	$669.00
1996-04	4.6L modular (2v & 4v), 5.4L mod, 3V mod, LSX, 5.0L Coyote	**MMKM-2**	$649.00
	4.6L modular (2v & 4v) with Hellion Turbo	**MMKM-3**	$649.00
	5.0L small block	**MMKM-1.1**	$669.00

K-Members for Hellion kits do not include a K-member brace.

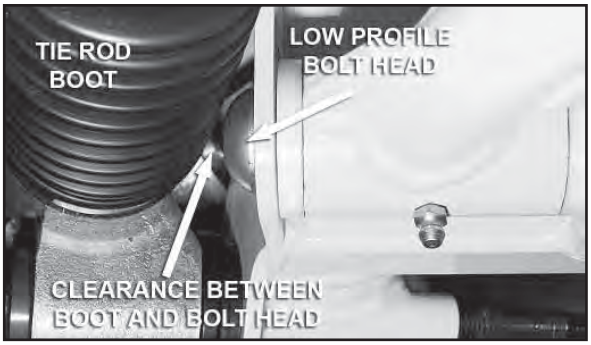
Front Control Arm Bolts: Low profile

The low-profile head of these MM-designed front control arm pivot bolts improves clearance to the rubber steering rack boot. This in turn allows mounting the steering rack further rearward, toward the K-member, for improved Ackerman steering geometry.

The low profile and rounded contour of this bolt head is less likely to damage the steering rack boot than is the stock bolt's much taller and sharper-edged hex head. The resulting increase in clearance allows the steering rack to be mounted even closer to the front of the K-member. The further rearward the steering rack is located, the greater the Ackerman steering geometry effect. Increased Ackerman effect quickens steering response at turn-in and reduces understeer.

Direct replacement for the forward-most front control arm stock pivot bolts. Reuses the stock hex nuts. Requires a Torx tool, size T-55, to hold while tightening the nut. Coated with OEM-quality corrosion inhibitor. Grade 10.9.
Low-profile bolts are included with MM K-Members. Fits 1979-2004 Mustang.

MMF-2 $29.97/pair



One kit attaches one control arm
Two kits required to attach both control arms

MMF-6 $39.97/pair

Maximum Motorsports has reinvented the steering shaft assembly! And you didn't even know there was a problem….

Improving Performance over the Stock Steering Shaft

The stock Mustang steering shaft has a rubber rag joint that flexes, giving the steering wheel a vague and imprecise feeling. As if the inherent deflection of the rubber wasn't bad enough, it's also prone to softening from the heat of aftermarket headers, especially on the 1994-2004 Mustangs. On many cars, that rubber joint flex causes enough play that the steering wheel can be rotated an uncomfortably large amount before causing the tires to change direction. Replacing the rubber rag-joint with a race-quality needle-bearing U-joint sharpens steering response. The car will respond much more quickly and precisely to the driver's steering inputs.

Aftermarket Steering Shafts: The Problems

Traditionally, the U-joints of aftermarket steering shaft assemblies were secured to the steering shaft with small setscrews. These setscrews protrude from the U-joints and are closer to the header tubes than the upper U-joint of the stock steering shaft. It's not unusual for the end of a setscrew to hit an aftermarket header tube. These setscrews also come loose over time, which causes sloppy and unsafe steering. Even when you use a thread-locking compound, the heat from the exhaust will cook it out and the setscrews will eventually loosen.

MM has long recommended aftermarket steering shafts because they improve the car's steering response. Trust us—we know! We've endured their drawbacks to enjoy the sharper steering response they provide. We've suffered through not only the problem of setscrews hitting the header tube, but also the continued loosening of those setscrews. This is simply the wrong place to use setscrews.

MMST-12

MM's New Design

The MM Engineering Team designed a **new steering shaft assembly** that doesn't use setscrews. That's right, *no setscrews!* Instead, we secure the U-joints by welding them to the shafts. We attach the steering shaft assembly to the steering rack with a pinch-bolt, just like Ford did with the stock steering shaft assembly. A bonus with the MM Steering Shaft is the addition of a telescoping center portion to the assembly. This collapsible section eases installation and improves safety in the event of an accident.

From the Bottom Up: The MM Steering Shaft

- The lower needle-bearing U-joint is secured to the input shaft of the steering rack with a pinch-bolt clamp, just like the stock steering shaft. This is a much more secure attachment than a setscrew can provide.
- The center section of the shaft assembly is made of two telescoping pieces, with one sliding inside the other. This allows collapsing the shaft to ease installation. The shaft can also be lengthened, up to 1.1" longer than a stock shaft, to allow repositioning of the steering rack. The unique design of the MM collapsible center section prevents the two halves from pulling apart.
- All U-joints are weld-secured. *No setscrews to loosen!*
- The top adaptor stub is secured to the stock steering column just like the original shaft, making installation a breeze.

Note: The **new MMST-15.1 Steering Shaft** fits the redesigned Flaming River manual steering racks for the SN95 chassis. It also fits the previous generation of Flaming River manual steering racks and other aftermarket manual rack brands. The first-gen MM Steering Shaft (MMST-15) does NOT fit the newest Flaming River manual steering racks because FR changed the retention feature on the input shaft on all of their manual steering racks.

The earlier FR racks have a circular groove machined entirely around the input shaft. Their newest ones have a circular groove only on one side of the input shaft that intersects the shaft in a straight line. *The new retention feature prevents use of the MMST-15.*

MMST-14

Application	Rack Type	Part No.	Price/ea
1979-93 Mustang	Power	**MMST-11**	$219.97
	Manual	**MMST-12.1**	$239.97
1979-93 Mustang with SN95 steering rack	Power	**MMST-13**	$239.97
1994-04 Mustang	Power	**MMST-14**	$279.97
	Manual	**MMST-15.1**	$279.97

Hybrid Steering Shaft Assembly

MMST-13

Upgrading a Fox Mustang to an SN95 Steering Rack

MM's Hybrid Steering Shaft Assembly allows the installation of an SN95 (1994-2004) power steering rack into a Fox (1979-93) chassis Mustang. The SN95 steering racks are a good upgrade for a Fox Mustang because they provide improved steering feel, with slightly higher effort and more linearity than the Fox steering rack.

With the MM Hybrid Steering Shaft Assembly, the SN95 steering racks can now be easily installed in a Fox chassis Mustang. The MM hybrid shaft assembly has the correct lower U-joint to connect to the unique triangular-shaped input shaft of the SN95 steering racks. This MM hybrid assembly also features a splined joint to allow correcting the orientation of the steering wheel. This feature is required to center the steering wheel with the SN95 steering rack. Without this unique MM shaft, the steering wheel would be rotated nearly 90 degrees from center, which is far too much to be corrected by adjustment of the tie-rods. The stock steering wheel and airbag (if equipped) are undisturbed.

The MM Hybrid Steering Shaft Assembly is constructed with all of the great features listed for our other high-performance steering shaft assemblies. *No setscrews!*

Tech Tip: Other Required Parts

You'll need other items to install an SN95 steering rack into a Fox chassis Mustang. Fox chassis inner tie-rods are required because the SN95 inner tie-rods are too long for the Fox chassis front control arms. You can easily swap the correct-length inner tie-rods into place because the inner threaded connection, where the inner tie-rod attaches to the steering rack, is the same.

Note: The outer threaded connection of the inner tie-rods, for attaching the outer tie-rod ends, are different between the SN95 inner tie-rods and the Fox inner tie-rods. This will dictate which outer tie-rod ends must be used.

For those using the longer SN95 front control arms on their Fox Mustang and an adjustable outer tie-rod end bumpsteer kit, there are two inner and outer tie-rod combinations to choose from:

- The longer SN95 inner tie-rods, which will require an SN95 adjustable outer tie-rod end kit.
-
- The shorter Fox inner tie-rods can be used, along with either our MMTR-6 or MMTR-7 outer tie-rod end kit. These kits have longer aluminum adapter sleeves that effectively lengthen the Fox outer tie-rod end, so the entire tie-rod assembly will match the longer SN95 front control arms.

See MM's bumpsteer-correcting adjustable outer tie-rod ends and steering rack mounting bushings.

Hybrid Steering Shaft Assembly

MM's Hybrid Steering Shaft Assembly allows the installation of an SN95 power steering rack into a Fox chassis Mustang. It also allows proper centering of the steering wheel. Other parts are required for the installation; see the Tech Tip above.

Fits 1979-93 Mustang, with SN95 (1994-2004) Power Steering Rack

MMST-13 $239.97

Mustang steering rack to

ST-73 $38.97

Shop Online!

- Threads directly into a 1979-2004 Mustang power steering rack.
- Opposite end of each fitting is machined as male -6 AN.
- Allows use of AN-style hose with readily available -6 AN fittings.
- Makes future maintenance easier.
- Zinc-plated steel
- Includes PTFE O-ring seals.
- Includes hydraulic sealant as a secondary seal.

MM Aluminum Steering Rack Bushings

Maximum Motorsports has reinvented the steering rack bushing! Exchanging the stock rubber steering rack bushings for bushings made of stiffer material is a fundamental step toward improved steering response. Rubber bushings, and to a lesser extent urethane bushings, allow the steering rack to move sideways, relative to the K-member, before the driver's rotation of the steering wheel begins to steer the tires. This results in slower steering response than is desirable for a performance car. Solidly mounting the rack with aluminum bushings eliminates steering rack movement relative to the K-member, and greatly improves steering response. Along with improved turn-in, the car will maintain a more precise line through a corner, and require fewer steering corrections.

The MM Engineering Team designed our steering rack bushing kits to provide the performance benefits of a solidly mounted steering rack, while also preventing the possibility of distorting the rack housing *because* it's solidly mounted. These innovative rack bushings employ spherical washers to accommodate irregularities of the mounting surfaces, providing smooth and bind-free operation of the steering rack.

Stock K-members

Stock K-members are made from stamped steel, and *always* have irregularities in the two rack-mounting surfaces. The rack-mounting surfaces are never flat, nor even in the same plane. This situation is acceptable when soft rack bushings are used, but with rigid bushings it may cause the rack housing to distort, resulting in steering chatter at low speeds. For those experiencing steering chatter, until now the only solution was to swap their aluminum rack bushings for softer bushings made of rubber or urethane. Unfortunately, this also meant a step backward in performance. MM has solved that dilemma with this innovation.

For a new installation on a 1985-2004 Mustang with stock K-member

MMST-7 $39.95/kit

MM K-members

MM K-members have large flat areas where the steering rack mounts, so there are no surface irregularities. However, there may be irregularities in the steering rack housing itself, and solidly mounting the rack can result in binding of the rack's steering motion. Because the crush sleeves welded into the MM K-member for the rack mounting bolts are completely internal and don't protrude forward, we developed a completely different steering rack bushing than the ones we designed for the stock K-member. This all-new bushing design allowed us to provide features that aren't possible for a bushing meant for use on a stock K-member.

When installed on an MM K-member, these bushings allow the steering rack to be placed in any one of five possible vertical locations. The center hole places the steering rack in the stock location. Two different offset positions are possible: 1/4" and 3/8". The offset holes can be used either to raise the steering rack, reducing the height of bumpsteer spacers used at the steering arms, or to lower the rack, providing clearance for large aftermarket oil pans.

For installation on a 1979-2004 Mustang, with MM K-member

MMST-6 $49.95/kit

Why offset rack bushings are a bad idea for stock K-members

Although sold by many as a supposed cure for bumpsteer, installing offset steering rack bushings on a stock K-member will make an acceptable situation far worse than if you had done nothing at all. How do we know this? Because *we tested it*. We measured the bumpsteer, both with and without offset rack bushings. Our test results were first published in the July 1993 issue of *Super Ford*. See the MM web site for more about bumpsteer.

Urethane Steering Rack Bushing Set

Replaces deteriorated stock rubber bushings. Provides about half the benefit of the aluminum bushings. Will not degrade like the stock rubber bushings when exposed to oil and road grime. Maintains the factory steering geometry. Not for use with MM K-Members.

1979-84 Mustang	**6-702-BL**	$16.95
10/1/1984-04 Mustang	**6-703-BL**	$16.95

Manual Steering Racks

Maximum Motorsports makes losing weight easy by switching from power to manual steering!

- 15:1 ratio is the quickest ratio of all manual racks; 20:1 is standard
- Includes inner tie-rods with 9/16”-18 SAE thread, same as OEM Ford thread. For 1979-93 Mustangs.
- Not included: outer tie-rod ends
- Rack input requires steering shaft for manual racks. Steering shaft for power rack will not fit. See below for installation kits with high-performance versions of the parts needed for manual steering rack installation.

All manual steering racks for 1979-2004 Mustangs have tie-rods with the same 9/16”-18 SAE threads at the outer end as Fox Mustang tie-rods. This requires using a 1979-93 Mustang outer tie-rod end or bumpsteer kit, even on 1994-2004 Mustangs.

FR1520

Chassis	Rack Ratio	Part No.	Price
1979-93 Mustang	15:1	FR1520	$289.97
	20:1	FR1503	$249.97
1994-04 Mustang	15:1	FR1508Q	$299.97
	20:1	FR1508	$319.97

Manual Steering Rack Installation Kits

Increase the performance of a manual steering rack installation with these MM kits. There’s no need to settle for the stock version of required parts such as outer tie-rod ends and steering shafts when converting from power steering to manual steering. These kits include the parts necessary to optimize the performance of a manual steering rack.

Includes

- MM Solid Steering Shaft eliminates the rag-joint for improved steering response, and has no setscrews to loosen.
- MM Bumpsteer Kit can minimize bumpsteer.
- Urethane steering rack bushings improve steering response by reducing the deflection that other bushings allow.

Notes

- These installation kits are intended for fitment with a stock K-member. For installation with an MM K-member or other aftermarket K-members, contact an MM Tech Associate.
- If your Fox chassis (1979-93) Mustang has the longer SN95 (1994-2004) front control arms, notify us when placing your order to make sure you get the right bumpsteer kit (adjustable outer tie-rod ends).
- Some aftermarket K-members may require different rack bushings. Check to see if yours is designed to use rack bushings secured with a 12mm or a 14mm bolt.
- If you already have an MM K-member installed in your car, call the MM Tech Line, as you already have MM Steering Rack Bushings and possibly the correct Bumpsteer Kit (adjustable outer tie-rod ends). An MM Tech Associate will help select the correct parts for your application, including Manual Steering Rack Spacers (MMST-8) if needed.

Chassis	Part No.	Price
1979-84 Mustang	**MMST-30**	$389.68
1985-93 Mustang	**MMST-31**	$389.68
1994-04 Mustang	**MMST-32**	$428.08

MMST-32

MM Bumpsteer Kits

Commonly called bumpsteer kits, these adjustable outer tie-rod ends eliminate bumpsteer. Correcting excessive bumpsteer will offer sure-footed steering characteristics and require fewer steering corrections by the driver.

"Bumpsteer" is the term used to describe undesirable changes that occur in the toe setting as the suspension moves up and down. Excessive bumpsteer will make the car feel unstable and unpredictable because the car will change direction without any driver input.

In a properly designed front suspension, the arc the outer tie-rod end follows is the same as that of the lower control arm ball joint. If these two arcs are not identical, the car will have some degree of bumpsteer. In most cases, dissimilar arcs can be made close enough to minimize bumpsteer by installing and properly adjusting an MM Bumpsteer Kit. By adjusting the vertical location of the outer tie-rod end (relative to the spindle), its arc can be altered enough to minimize toe angle changes that occur as the suspension moves.

You must use a bumpsteer gauge must be used to determine how much the toe setting changes as the suspension moves up and down. The optimum height of the outer tie-rod end *cannot* be determined by visual inspection, contrary to the Internet myth that "eyeballing" the tie-rods works just fine! Once you measure the amount of toe change, you'll use the spacers in the bumpsteer kit to adjust the height of the outer tie-rod end to minimize bumpsteer.

Tapered Stud vs. Bolt Through

MM offers two types of Bumpsteer Kits. The tapered-stud type can be used to make moderate changes to the geometry. It's best suited for use with a stock K-member. It fits the original tapered hole in the spindle. The bolt-through spindle type has a much greater range of adjustment. This type is necessary when installing an MM K-member. It requires drilling out the tapered hole in the spindle to accept a 5/8" bolt.

Conversion Kit

If you already have a tapered-stud type Bumpsteer Kit but find that you need a greater range of adjustment, you don't have to buy a new Bumpsteer Kit. MM's conversion kit (MMTR-5) will upgrade any tapered stud-type bumpsteer kit to a bolt-through spindle type. You'll reuse your aluminum adapter sleeves and 5/8" rod-ends. This kit includes detailed installation instructions, the necessary bolts, and the same large-diameter, high-alloy steel spacers included in our other bolt-through bumpsteer kits. These spacers upgrade the mild steel spacers often used by other manufacturers, for improved stiffness of the spacer stack.

Fox Chassis cars with SN95 Front Control Arms

If you've increased your 1979-93 Mustang track width by installing the longer control arms intended for a 1994-04 Mustang and retained the stock Fox chassis steering rack, you'll need longer tie-rods. We specifically designed the MMTR-6 and MMTR-7 kits to suit your needs. These kits have longer aluminum sleeves than our standard Fox Mustang kits to lengthen the Fox tie-rod so it matches the longer SN95 control arms. The aluminum sleeves in the MMTR-6 and MMTR-7 bumpsteer kits have the correct SAE threads to attach to standard Fox chassis tie-rods.

Spindle Swaps

It's become quite common for Fox chassis Mustang owners to swap to front spindles from the 1994-04 models. This swap can cause significant changes to the amount of bumpsteer. See the Tech Tips page on the Maximum Motorsports web site for the technical information you need to know before swapping spindles.

What Sets MM Apart from the Rest?

All bumpsteer kits are *not* created equal!! While the basics are the same for all manufacturers' kits (an aluminum adapter sleeve connects a spherical rod-end to the stock Mustang tie-rod), the MM kits have several features that make them superior to the rest.

- A combination of large-diameter high-alloy steel spacers provide a wide footprint and allow the 5/8" bolt to be torqued to the correct 154 ft-lb. The result is a much stiffer and safer stack of spacers compared to the smaller-diameter mild steel spacers commonly used in other manufacturer's kits. Steering responsiveness improves with MM's larger, stronger spacers.
- A large selection of different-thickness spacers allows precise adjustments to the tie-rod end's height in increments as small as .015".
- The aluminum adapter sleeve has a hex at the inboard end. This makes adjusting the toe setting much easier than if the hex was on the outboard end of the sleeve. When you crawl under your car to tighten the jam nut on the tie-rod, you'll find that with the hex located at the inboard end it's clear of the tire, making access to the hex much easier.
- High-quality, PTFE-lined spherical rod-ends
- Our ***copyrighted, illustrated instructions*** show exactly how to measure and adjust bumpsteer.

MM Bumpsteer Kits

- Bolt-through spindle kits include bolts of two different lengths to ensure the best fitment for your car.
- Tapered-stud kits are manufactured from high-strength steel with rolled threads. The thread-rolling process creates a much stronger part than machine-cut threads.

IRS Bumpsteer Kit

MM has two bumpsteer kits designed to adjust the bumpsteer at the rear of a Mustang equipped with a Cobra IRS. These kits include tapered studs to fit the IRS rear spindles (no drilling required), high-quality, PTFE-lined spherical rod-ends, and an assortment of spacers to adjust the bumpsteer. One kit has aluminum adapter sleeves to connect the spherical rod-ends to the stock IRS tie-rods, while the second kit includes a complete new IRS tie-rod.

Measuring and Adjusting Bumpsteer

To measure bumpsteer accurately, you need a good bumpsteer gauge. While many people think they can adjust the vertical position of the outer tie-rod end by eye, that technique won't provide the correct geometry. Bumpsteer geometry *cannot* be properly adjusted without the use of a bumpsteer gauge. Until we developed our own bumpsteer gauge, our choices were limited to the high-dollar units intended for professional race teams. We've designed a low-cost but accurate gauge for the do-it-yourselfer. So now you have no excuse to avoid properly adjusting your car's bumpsteer!

Note: The typical neighborhood alignment shop will have no idea how to measure or adjust bumpsteer. You'll need either to find a shop experienced in racecar suspension set-up or learn to do it yourself. With MM's Bumpsteer Gauge and its detailed instructions, the average do-it-yourselfer can accomplish the task. See below for the MM Bumpsteer Gauge.

Tech: Threads for Tie-rods

- All 1979-93 Mustang OEM steering racks (power and manual) have standard SAE threads (9/16"-18) on the tie-rods for attaching the outer tie-rod ends.
- All 1994-04 Mustang OEM steering racks (all were power) have metric threads (M14x1.5) on the tie-rods for attaching the outer tie-rod ends.
- All manual steering racks (both OEM and aftermarket) use standard SAE threads (9/16"-18) on the tie-rods for attaching the outer tie-rod ends. When installing a manual steering rack in a 1994-04 Mustang, you *must* also install outer tie-rod ends with the proper SAE threads.
- When selecting an MM Bumpsteer Kit (adjustable outer tie-rod ends) for installation with a manual steering rack (in all 1979-04 Mustangs), you *must* order one of the MM Bumpsteer Kits for the 1979-93 Mustang application to get the correct SAE threaded aluminum sleeves.

Application	Description	Part No.	Price/kit
1979-93	Bolt-through spindle (Required with MM K-Member)	**MMTR-1**	$139.00
	Tapered-stud (Suitable for stock K-Member)	**MMTR-2**	$149.00
	Bolt-through spindle (Required with MM K-Member) for 1979-93 Mustangs fitted with SN95-length front control arms.	**MMTR-6**	$139.00
	Tapered-stud (Suitable for stock K-Member) for 1979-93 Mustangs fitted with SN95-length front control arms.	**MMTR-7**	$149.00
1994-04	Bolt-through spindle (Required with MM K-Member)	**MMTR-3**	$139.00
	Tapered-stud (Suitable for stock K-Member)	**MMTR-4**	$149.00
1979-04	Conversion Kit. Converts tapered-stud style to bolt-through spindle type	**MMTR-5**	$59.00
1979-04	Spacer Kit. Includes all spacers of bolt-through type kit ***except*** the large 1.44" tall spacer	**MMTRspacer**	$29.97

MM Bumpsteer Gauge

When you want to extract the very most performance from your car, don't settle for a generic bumpsteer fix. A finely tuned car, or any vehicle with modified suspension geometry, must be individually checked for bumpsteer. In order to measure bumpsteer on your car you need this professional gauge from Maximum Motorsports. Whether you're a do-it-yourself hobbyist or own a specialized chassis shop, this tool will be an invaluable addition to your collection. Includes complete copyrighted instructions for measuring bumpsteer. This gauge can also be used to measure bumpsteer on the rear of IRS-equipped cars. *(Note: Correcting bumpsteer on a Mustang requires an adjustable tie-rod end kit.)*

Fits Ford Mustang 4-lug and 5-lug applications. The MM Bumpsteer Gauge includes a precision dial indicator for accurate measurements. Assembly required.

MMT-4 $119.95

Eibach Springs

The Eibach Pro-Kit springs will improve both the performance and appearance of your Mustang. With a higher spring rate than stock Mustang springs, the Pro-Kit will reduce body roll during cornering and nose-dive under braking. The progressively wound spring design maintains ride quality, yet provides a firmer performance feel. The lower stance these springs allow enhances the appearance of any Mustang, while the lower center of gravity further improves handling. Eibach manufactures their world-class springs in a state-of-the-art facility using only the finest spring wire, coupled with precision manufacturing techniques and extensive quality controls. The listed amount of lowering is an *average* range.

9310.14

Eibach Drag-Launch Kit

This Eibach spring kit is specifically designed for 1/4-mile use. The spring rates improve weight transfer for lower ETs. Includes an air bag to prevent the right rear corner from squatting excessively during acceleration.

1979-04 Mustang with Solid Axle

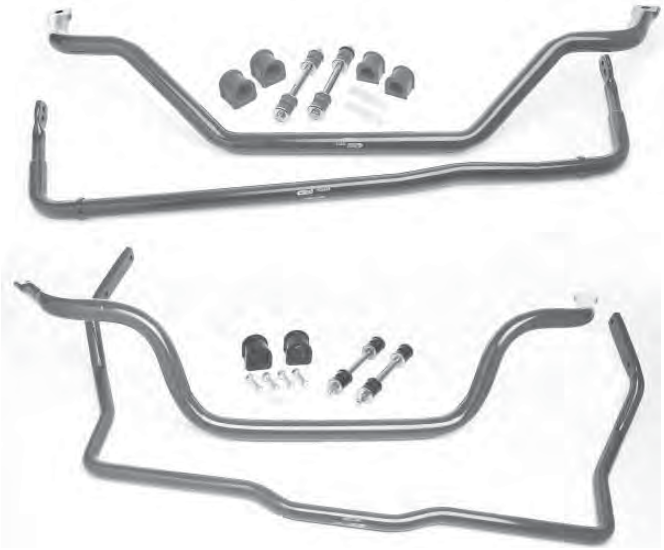
9310.14 $247.00

Application		Front/ Rear	Lowering (apx. in.)	Part No.	Price/set
1979-93 Mustang	Hardtop V8	front	1.2	**3510.140**	$217.00
		rear	1.0		
	4 & 6 cylinder (including SVO)	front	1.2	**3518.140**	
		rear	1.0		
	Convertible V8	front	1.2	**3514.140**	
		rear	1.0		
1994-04 solid-axle Mustang	Hardtop V8	front	1.5	**3510.140**	$217.00
		rear	1.5		
	Convertible V8	front	1.3	**3530.140**	
		rear	1.4		
	6-cylinder hardtop	front	1.5	**3518.140**	
		rear	1.5		
	6-cylinder convertible	front	1.1	**3510.140**	
		rear	1.1		
1999-01 IRS	Cobra HT & Convertible	front	1.4-1.5	**3590.140**	$247.00
		rear	1.4-1.5		
2003-04 IRS	Cobra HT & Convertible	front	1.0	**3594.140**	$247.00
		rear	1.4		

Eibach Swaybars

The Eibach Anti-Roll-Kit will significantly alter the handling balance of a Mustang. These swaybars are designed to reduce body roll and understeer. Complete kits include the front and rear swaybars and everything needed for installation, such as pivot bushings and end-links. Swaybars are also available individually. All Eibach swaybars are made of cold-formed, high-strength, aircraft-grade steel, and have a powder-coated finish.

Note: The rear swaybar of the 1999-2004 Cobra IRS kit is adjustable for rate.



Application	Front/ Rear	Diameter (mm)	Part No.	Price/kit
1979-93 4, 6, & 8 cylinder. Hardtop & convertible	front	36	**3510.320**	$319.97
	rear	25		
1994-04 solid axle. 6 & 8 cylinder. Hardtop & convertible	front	35	**3518.320**	$319.97
	rear	24		
2003-04 IRS Cobra. Hardtop & convertible	front	35	**3590.320**	$469.97
	rear	29		

3510-320

H&R Springs

Application	Spring Type	Location	Lowering (apx. in.)	Color	Part No.	Price/set
1979-93 Mustang HT	Sport	Front	1.25	Dk. Navy Blue	**51650**	$239.00
		Rear	1.00			
	Super Sport	Front	1.50	Bright Blue	**51650.77**	$239.00
		Rear	1.00			
	Race	Front	1.00	Red	**51650.88**	$239.00
		Rear	0.75			
	Super Race	Front	1.00	White	**51650.99**	$269.00
		Rear	0.75			
1983-93 Mustang Convertible	Sport	Front	1.30	Dk. Navy Blue	**51654**	$239.00
		Rear	1.00			
1994-95 Mustang HT	Sport	Front	1.60	Dk. Navy Blue	**51651**	$239.00
		Rear	1.50			
	Super Sport	Front	1.75	Bright Blue	**51651.77**	$239.00
		Rear	1.60			
	Race	Front	1.50	Red	**51650.88**	$239.00
		Rear	1.00			
	Super Race	Front	1.50	White	**51650.99**	$269.00
		Rear	1.00			
1994-95 Mustang Convertible	Super Sport	Front	2.00		**51658.77**	$239.00
		Rear	1.60			
1996-98 HT & 99-04 GT HT	Sport	Front	1.60	Dk. Navy Blue	**51652.77-F**	$143.14
		Rear	1.50			
	Super Sport	Front	1.75	Bright Blue	**51652.77**	$239.00
		Rear	1.60			
	Race	Front	1.75	Red	**51650.88**	$239.00
		Rear	1.25			
	Super Race	Front	1.75	White	**51650.99**	$269.00
		Rear	1.25			
1996-98 Convertible & 99-04 GT Conv.	Super Sport	Front	2.00	Bright Blue	**51658.77**	$239.00
		Rear	1.60			
1999-04 Cobra HT	Sport	Front	1.60	Dk. Navy Blue	**51659**	$249.00
		Rear	1.50			
	Race	Front	1.60	Red	**51659.88**	$269.00
		Rear	1.50			
1999-04 Cobra Convertible	Sport	Front	1.60	Dk. Navy Blue	**51659.2**	$249.00
		Rear	1.50			

NOTE
H&R springs are German manufactured and meet the ISO 9001 quality assurance standards. Though racing is indeed part of their heritage, H&R offers a complete line of Mustang spring sets designed to give your street-driven Mustang the handling characteristics and aggressive looks you want without harsh ride quality. H&R's unique process for presetting the spring length ensures the springs won't sag over time. A free MM pinion snubber comes with all solid-axle spring sets. Springs are also available in front pairs and rear pairs; call MM for pricing.

Spring Isolators

These isolators are made from tough and long-lasting urethane.
The factory rubber spring isolators tear and deteriorate, affecting ride height.

U-3

6-1703-BL

Application	Location	Part No.	Price/set
1984-04 Mustang	front	**6-1703-BL**	$29.97
1979-98 Mustang & 1999-04 GT	rear	**6-1701-BL**	$22.77
1999-04 Cobra IRS	rear	**U-3 (IRS)**	$29.95

MM Springs

After many years of tuning suspensions around off-the-shelf springs, we concluded that designing our own line of springs would better suit our customers' needs. To deliver the results you expect from MM, our Engineering Team collaborated with a major spring manufacturer to develop these top-quality springs.

MM Springs provide just the right blend of improved performance, aggressive stance, and appropriate ride quality. Each MM spring set for solid axle-equipped Mustangs includes an MM soft-touch pinion snubber. MM Springs also come in pairs (front or rear). They're listed on the MM web site. Order online or by phone.

Matching Springs with Struts and Shocks

To ensure the best ride quality and performance, springs must match their shocks and struts. Regardless of how soft a spring is, if it's not matched with the appropriate struts and shocks, the ride quality will suffer. We recommend choosing the spring rates first, based on the intended use of the car and its weight, then selecting the matching strut and shock combination. Contact the MM Tech Line for help choosing the best spring for your application.

MM Spring Installation Tool

This new MM tool is invaluable when installing lowering springs. It bolts to a stock Mustang front control arm and guides the spring's bottom coil into its proper position on the front control arm as the arm swings up into place with a floor jack. The tool then easily dismounts from the control arm and comes out through the access hole in the arm. This tool makes the often-frustrating task of spring installation quick and easy.

Note: Not for use with stock Mustang springs because of their long free length. A spring compressor is *required* to install stock springs.

Note: While spring installation in a 1994-2004 Mustang is easier than it is in a 1979-93 Mustang because the later cars have longer front control arms, this MM tool may still be a valuable asset.

MM Front Lowering Spring Installation Tool for 1979-04 Mustang **MMT-8** $14.97

MM Rear Torque-arm Springs

While these rear springs were originally designed for a torque-arm-equipped Mustang, they're also suitable for use on non-torque-arm-equipped Mustangs as a match to some front coil-over spring rates. They're simply the highest-rate direct-fit rear springs for a Mustang.

Installing these springs will help restore the handling balance after a torque-arm installation and let the car use the Torque-arm suspension to its full potential. The result is a Mustang that corners harder and faster and throws the power down better than ever before.

The addition of a Torque-arm to the Mustang's rear suspension increases the available rear tire grip so much that stiffer rear springs are required to restore a neutral handling balance. One of the key benefits of installing a torque-arm is eliminating the bind-inducing rear upper control arms. The result is a freely articulating rear suspension that has so much more traction that the grip at the front of the car will become the limiting factor when cornering. This understeer condition can be avoided by increasing the rear roll resistance with stiffer rear springs, which shifts some of the cornering load from the front tires to the rear tires. MM Torque-arm Rear Springs are available in two rates. See the MM web site or contact an MM Tech Associate for information about matching Torque-arm springs with various front springs, both conventional and coil-over.

Tech

Application	Spring Rate (lb/inch)	Lowering (apx. in.)	Part No.	Price/pair
1979-93 Mustang	375-440	1.1-1.5	**42TA5**	$139.00
	415-515		**43TA7**	
1994-95 Mustang	375-440	1.3-1.7	**42TA5**	
	415-515		**43TA7**	
1996-04 Mustang solid axle (no IRS)	375-440	1.4-1.8	**42TA5**	
	415-515		**43TA7**	

Note: As the two MM Torque-arm Springs have a progressive rate, we list two spring rates: the initial and ending rates. The initial spring rate is measured with the spring compressed to its length at normal ride height. The ending spring rate is measured when the rear *wheel* has moved 2" upward. Ride height will vary depending upon the weight of the car, and therefore the installed spring rates will vary slightly from one car to another.

Note: To precisely set your Mustang's ride height, use the Torque-arm springs along with the MM adjustable ride-height rear lower control arms.

Coil-Over Springs

MM sources coil-over springs from two companies. While we usually stock the Hyperco brand, for special orders we often go to Eibach. Both are top-quality springs made by manufacturers intent on continually improving the quality of their offerings. MM has springs custom-made to our specifications for improved fitment in Mustang applications. MM springs are made by both Hyperco and Eibach.

Both companies optimize each spring design by choosing the best combination of wire diameter and number of coils for any given free length. They provide the greatest amount of deflection and are as lightweight as possible.

The attention to detail when designing springs is what separates Hyperco and Eibach from other brands, giving your Mustang with the most bump travel possible.

Contact an MM Tech Associate for help choosing the right coil-over springs for your Mustang.

2-1/2" Diameter Springs

Fits MM Front Coil-Over

Rate (lb/in)	Length (inches)	Part No.	Price/ea
200	14	**HYP20014250**	$63.97
225	14	**HYP22510250**	
250	12	**HYP25012250**	
275	10	**HYP27510250**	
275	12	**HYP27512250**	
300	10	**HYP30010250**	
325	10	**HYP32510250**	
350	8	**HYP35008250***	
350	10	**HYP35010250**	
375	10	**HYP37510250**	
400	8	**HYP40008250***	
400	10	**HYP40010250**	
425	8	**HYP42508250***	
425	10	**HYP42510250**	
450	8	**HYP45008250***	
450	10	**HYP45010250**	
475	8	**HYP47508250***	
475	10	**HYP47510250**	
500	8	**HYP50008250***	
550	8	**HYP55008250***	

* Our MMCA-1 adapters will let you run these springs with MM rear lower control arms.

2-1/4" Diameter Springs

Fits MM Rear Coil-Over

Rate (lb/in)	Length (inches)	Part No.	Price/ea.
175*	11	**225.175.11**	74.97
200*	10	**225.200.10**	
225	9	**HYP22509225**	
250	9	**HYP25009225**	
275	9	**HYP27509225**	
300	9	**HYP30009225**	
325	8	**HYP32508225**	
350	8	**HYP32508225**	
475	8	**HYP47508225**	
500	8	**HYP50008225**	
525	8	**HYP52508225**	
550	8	**HYP55008225**	
575	8	**HYP57508225**	
600	8	**HYP60008225**	
650	8	**HYP65008225**	
700	8	**HYP70008225**	
750	8	**HYP75008225**	

* These items are barrel shaped.

Camber Gauge

This is the gauge we use when aligning our racecars. With accuracy better than 1/8 degree, it easily matches the performance of much more expensive gauges. The range of camber adjustment is from 7 degrees positive to 7 degrees negative.

MMT-3 $59.95

MMCO-1

Dramatically improve the performance of your Mustang's front suspension system by installing a coil-over conversion kit from Maximum Motorsports. We designed these unique front coil-over kits to fit MM's series of high-performance monotube struts and Bilstein HD series struts, or Tokico and Koni struts. The MM Coil-overs are not universal kits, as they were designed to fit these particular applications.

The Mustang front suspension design has the spring located on the front control arm, between the control arm and the chassis. While the handling of the car can be improved by switching to higher-rate springs, ride quality begins to suffer severely with rates over 850 lb/in. A coil-over kit allows installing springs that provide wheel rates that are much higher than the wheel rates of an 850lb/in spring left in the stock location. Higher wheel rates dramatically reduce body roll and brake dive, and improve steering response. For more information about coil-over kits, see the MM web site or the Coil-over FAQ section of this guide.

Coil-overs and Drag Racing

Coil-overs provide a number of performance benefits for a Mustang racing at the strip:

- Weight goes down because the smaller spring mounted on the strut is lighter than a conventional spring.
- Easily adjust ride height. Raising the front raises the car's center of gravity. A higher center of gravity causes more weight transfer to the rear tires during acceleration, which increases rear tire grip.
- Corner weights are adjustable to optimize rear tire loads at launch.
- Lower friction in the front suspension, allowing the front suspension to extend better ***during launch.***

MM Coil-overs: The Features

If you take a look at other brands, they may look similar, but most of them are missing critical details.

- We designed two different front coil-over kits to fit each of the two common Mustang strut dimensions. One coil-over kit fits the MM high-performance monotube struts and Bilstein struts. The other kit fits Koni, Tokico, Strange, and Lakewood struts.
- MM kits maximize front-end bump travel. Using its assortment of spacers, you can position the upper spring perch under the strut tower to get the optimum amount of bump travel.
- High-quality needle bearings above the upper spring perch allow it to rotate easily as the car is steered.
- O-rings are included to seal the needle bearings, ensuring longevity by keeping dirt and water out and grease in.
- Measuring bumpsteer is easier with coil-overs than with stock-location springs.
- Weight decreases
- A wide selection of spring rates is available.
- Unlike other companies, we include a soft, closed-cell polyurethane bumpstop with the Tokico and Koni front coil-over kits. MM monotube and Bilstein struts have their own internal bumpstop and so don't require an external one. Bumpstops are crucial because they make the suspension travel to come to a progressive and smooth end. Without them, the strut will abruptly bottom against the upper spring perch, causing unpredictable and potentially dangerous handling, as well as possible severe damage to suspension components.

MM Front Coil-Over Kits

Caster/Camber Plate Considerations

Caster/Camber Plates are required when converting to front coil-overs. To support the loads properly, use only a well-designed steel caster/camber plate with a high-quality spherical bearing. Caster/camber plates with rubber or urethane bushings cannot reliably support the loads of a coil-over conversion without excessive deformation and possible failure. Most aluminum caster/camber plates are not strong enough for coil-over applications. Those that are strong enough are very thick and unnecessarily reduce bump travel, also eliminating adjustment for alignment because of hood interference.

1979-93 caster/camber plates only require three attachment bolts because the strut top is captured within the triangle formed by the three bolts (as viewed from the top). This means that each bolt carries a relatively equal portion of the vertical strut load, which is evenly distributed into the strut towers.

For 1994-04 Mustangs, Maximum Motorsports makes the only caster/camber plates suitable for use with a coil-over kit: our innovative 4-bolt caster/camber plates (patent number 6485223). On 1994-04 cars, the strut top is located *outside* the triangle formed by the three stock mounting bolts (as viewed from the top). With a 3-bolt caster/camber plate, two of the three bolts carry most of the vertical load. This unequal distribution of forces places a large bending load on the plate. This load is unevenly distributed into the strut tower, causing the mounting bolts to pry on the strut towers, possibly bending the towers and even resulting in failure of the caster/camber plate. MM added a fourth bolt, so the strut top is captured within the square formed by the four bolts (as viewed from the top). This distributes the load evenly into the strut tower and prevents any possible damage.

Please refer to the MM Caster/Camber plate section of this guide.

Front Coil-Over Conversion Kit (no springs)

1979-2004 Mustang

Strut Type	Part No.	Price/kit
MM Sport, MM Race, Bilstein HD	**MMCO-1**	$259.00
Koni Sport SA, Koni Sport DA, Tokico, Strange, Lakewood	**MMCO-2**	$259.00

Coil-Over Kit with Springs

1979-2004 Mustang

Strut Type	Part No.	Price/kit
MM Sport, MM Race, Bilstein HD	**COP-1**	$375.33
Koni Sport SA, Koni Sport DA, Tokico, Strange, Lakewood	**COP-2**	$375.33

MM Spanner Wrench

This tool adjusts your MM coil-over lower spring perch when pre-loading the spring is necessary. Can be used on both the front and rear MM Coil-over Kits.

MM Coil-Over Spanner Wrench **MMT-2** $9.95

Shop Online!

MM Rear Coil-over Kits

Maximum Motorsports designed these unique rear coil-over kits to fit Bilstein, Koni, and MM's high-performance monotube rear shocks. Similar to MM Front Coil-over Kits, these rear coil-over kits optimize spring location and reduce unsprung weight for improved handling and ride quality. With a coil-over conversion, springs that provide *much* higher wheel rates than stock can be used without causing the same impact harshness as do springs in the stock location. In addition to the general features listed in the Coil-over Introduction section, there are several key elements that set the MM Rear Coil-over Kits apart from the rest.

Unlike rear coil-over kits from other companies, MM's are designed for springs with an inside diameter of 2.25" rather than the commonly used 2.5" inside-diameter springs. We designed our kits to use the smaller diameter spring because it provides more clearance for wide tires, more space between the spring and the chassis to reduce noise caused by interference, and lower weight than that of a 2.5"-diameter spring.

Unique to the MM Rear Coil-over Kit is the proprietary Delrin/aluminum upper shock mount. This ball-and-socket design allows the angularity of the shock to change, as is required for the suspension to move freely. The non-compressible MM Delrin/aluminum upper shock mount replaces the shock's original rubber upper mount under the shock tower, which would severely deform under the car's weight. For the same reason, the MM kits also include high-grade urethane replacements for the original rubber lower shock eye bushings.

For solid axle Mustangs, MM Includes one new lower shock-mounting heavy-gauge steel bracket that attaches to the axle with two bolts. The stock lower shock-mounting bracket attaches to the axle housing with one bolt, and is inadequate to carry the weight of the car. Our Panhard Bar axle mount provides a very sturdy mount on the driver's side of the car. We suggest installation of the MM Panhard Bar to accompany the rear coil-overs. If your Mustang doesn't have the MM Panhard Bar, you'll need an additional lower shock mount (Part# MMSM-2).

Maximum Motorsports also offers a racing upper shock mount. While not required for most rear coil-over installations, we do recommend them for racing applications.

Note: Installation of a rear coil-over kit may require removal of the quad-shocks. The quad-shocks can usually be removed without any ill effects if Maximum Motorsports' Rear Lower Control Arms are also installed. The MM Control Arms eliminate the bushing deflection that creates the need for the quad-shocks.

MMCO-3

Coil-overs for MM Monotube Shocks

MM's high-performance monotube dampers have valving specifically designed for use with coil-over conversions. All MM Sport series and Race series rear shocks have grooves machined for immediate installation of the threaded sleeve of an MM Coil-over Kit.

Coil-overs for Bilstein Shocks

For solid axle-equipped 1979-04 Mustangs, only the Bilstein shocks designed for the 1994-04 applications are suitable for a coil-over conversion. These later-model Bilstein shocks have a lower shock eye that's more securely attached to the shock body than the eye on the shocks for the Fox chassis application. The improved attachment of the shock eye is required in coil-over applications because the shock body is more heavily loaded. There are several additional advantages to using this later-model shock, such as increased bump travel, a reduction in unneeded droop travel, and a cellular foam bumpstop that allows removal of the factory frame-rail bumpstops.

The MM Rear Coil-over Kit for Bilstein shocks requires machining a groove into the shock body. MM will perform this necessary modification at no charge (with the purchase of the Maximum Motorsports Rear Coil-over Kit). Pre-modified shocks are also available from MM. Please call for details.

Coil-overs for Koni Shocks

We have versions of rear coil-over kits to fit both the Single- and Double-Adjustable Sport ("Yellow") Koni shocks, along with the Koni 30 Series race shocks. Because Koni Sport shocks for the 1979-93 solid axle Mustangs require removal of the metal dust boot, we recommend only the Koni shocks listed for the 1994-04 solid axle applications, as they can be used without modification. These later-model shocks have another advantage over the earlier versions: they come with Koni's high-quality foam bumpstops already installed so you can remove the factory frame-rail bumpstops.

MM Rear Coil-Over Kits

While the Koni shocks designed for IRS-equipped vehicles also require removal of the metal dustboot to be compatible with our coil-over kits, MM will perform the necessary modifications to the IRS application shocks at no charge (with the purchase of the MM Rear Coil-over Kit). Pre-modified shocks are also available from MM. Please contact an MM Tech Associate by email or phone for details.

Note: The MMCO-6 kit for the Koni 30 series racing shock *requires* the MMSM-3 Racing Upper Shock Mount for installation.

IRS Ford Bilstein Coil-over Installation Kit

The 2000 Cobra R and the 2003-04 Cobras were fitted at the factory with OEM Ford Cobra Bilstein struts and shocks. The OEM Cobra Bilstein shocks have been a popular upgrade for owners of IRS Cobras not originally equipped with the OEM Bilsteins. Whether originally fitted to the car or installed at a later date, the OEM Cobra Bilstein shocks come with a different upper rubber isolator assembly than the aftermarket Bilstein IRS shocks. Do *not* reuse the OEM Cobra Bilstein upper rubber isolator when installing an MM Rear Coil-over Kit. An aftermarket Bilstein upper rubber isolator *must* be installed. This does not apply to *new* 2000 Cobra R shocks that were purchased through an aftermarket vendor rather than Ford.

The OEM Cobra Bilstein upper rubber isolator is shorter and softer than the isolator that comes with the aftermarket Bilstein shocks. Thus, the OEM Cobra Bilstein upper rubber isolator cannot be correctly preloaded when a MM Rear Coil-over Kit is installed.

Not having enough preload on the upper rubber isolator may cause a clunking sound from the rear shock tower area. It can also damage the upper aluminum socket of the MM Coil-over Kit and the shock's retaining circlip. Not all vehicles may exhibit these symptoms. However, if you're using this combination of components, you have to replace the OEM Cobra Bilstein upper rubber isolator with the MMSM-10 installation kit. This will keep noise to a minimum and increase the components' longevity.

Aftermarket Bilstein shocks (including 2000 Cobra R OEM Bilstein shocks *not* sourced from Ford) come with the correct upper rubber isolator and don't require this installation kit. When installing an MM Rear Coil-over Kit with OEM Cobra Bilstein shocks, regardless of what chassis year, order an MMSM-10 installation kit. This kit includes the correct upper rubber isolators, thrust washers, and locking nuts.

Installation kit for MM Rear Coil-overs on IRS Ford OEM Cobra Bilstein shocks. One kit outfits one shock.

MMSM-10 $9.95/kit

MMCO-4

Application	Shock Type	Part No.	Price/kit
1979-04 Mustang with Solid Axle	MM Sport, MM Race, Bilstein HD	**MMCO-3**	$319.00
	Koni Sport SA, Koni Sport DA	**MMCO-5**	$319.00
	Koni 30-Series. *Requires* MMSM-3 Racing Upper Shock mount.	**MMCO-6**	$249.00
	Additional lower shock mount for solid axle. *Required* if no MM Panhard Bar.	**MMSM-2**	$45.00
1979-04 Mustang with Cobra IRS	MM Sport, MM Race, Bilstein HD	**MMCO-4**	$299.00
	Koni Sport SA. Note: The Koni metal dust cover *must* be removed by MM.	**MMCO-7**	$299.00

Application	Shock Type	Part No.	Price/kit
1979-04 Mustang with Solid Axle	MM Sport, MM Race, Bilstein HD	**COP-3**	$454.87
	Koni Sport SA, Koni Sport DA	**COP-5**	$454.87
	Koni 30-Series. *Requires* MMSM-3 Racing Upper Shock mount.	**COP-6**	$386.97
	Additional lower shock mount for solid axle. *Required* if no MM Panhard Bar.	**MMSM-2**	$45.00
1979-04 Mustang with Cobra IRS	MM Sport, MM Race, Bilstein HD	**COP-4**	$435.47
	Koni Sport SA. Note: The Koni metal dust cover *must* be removed by MM.	**COP-7**	$435.47

Maximum Motorsports Inc.

Shop Online!

Offered exclusively by Maximum Motorsports for aggressive street driving, autocross, open-tracking, and road racing, these non-adjustable struts and shocks use patented mono-tube technology. Compared to twin-tube dampers, these provide better heat dissipation to keep the damper's oil cool, which decreases heat-induced damper fade. The highest nitrogen gas pressure available prevents oil foaming and fading. The inverted strut design allows for very large strut shaft bushings, which are less prone to deflection. This inverted strut design also keeps the oil seal protected from the elements. To ensure the best quality, we test every MM damper on a shock dyno before it leaves the factory. Constructed with the highest-grade materials and extreme attention to detail, MM's high-performance monotube dampers are currently available in three unique series: MM Sport series for street-driven Mustangs and two different MM Race series for road-raced Mustangs.

All MM Rear Shocks are based on the optimal 1994-04 design of compressed and extended lengths. They include an integral, progressive bumpstop. MM shocks are coil-over ready, having the required groove to support the threaded sleeve.

MM Sport Series struts and shocks are the perfect choice for a dual-purpose car that sees aggressive street driving and occasional open-tracking. Designed to control aggressive coil-over spring rates while still maintaining good ride quality, the MM Sport struts and shocks are the perfect choice for a high-performance street-driven car equipped with coil-overs. The MM Sport series rear shocks are ready to accept the MM Rear Coil-over Conversion kit, as they're manufactured with the required groove in the shock body.

When used with conventional stock-location springs, the MM Sport series dampers provide excellent control. While ideal for track use, in street use there's an increase in ride harshness when driven on rough pavement.

Dustcovers for MM struts with coil-overs

This bellows-style dustcover fits MM struts and is small enough to fit completely inside a 2.5" coil-over spring. Included with the front coil-over conversion kit, MMCO-1. We recommend that dustcovers be used at all times to prolong strut life.

Small Dustcover fits MM Struts with 2.5" Coil-over Springs

Service-7 $4.95

Circlips for MM shocks

The pesky little circlip on top of an MM shock can escape during installation and servicing of coil-over kits. If yours get away from you or gets damaged, order a pair of replacements.

Circlips for Rear MM Shocks

Service-8 $1.99

MM Sport Series Spring Recommendations	
Conventional Location Springs	H&R Super Race
Coil-Over Spring Rates	
Front Springs	350-400 lb/in
Solid Axle Rear Springs	225-300 lb/in
IRS Rear Springs	H&R Super Race

MM Struts & Shocks

MM Race Series dampers are intended to control high-rate coil-over springs for track use. Two different series of MM Race dampers are currently available: MM2 and MM3. Each series damps a specific range of spring rates. See the spring recommendation tables to the right for each.

The same high-strength mounting ears used on the MM Sport series dampers are mounted on the Race series struts, but mounted 9/16" higher on the housing than the OEM position. This effectively pulls the strut housing down from the chassis and increases the amount of bump travel available. This feature is particularly beneficial for aggressively lowered track-driven Mustangs.

The MM Race series rear shocks are ready to accept the MM Rear Coil-over Conversion kit, as they're manufactured with the required groove in the shock body.

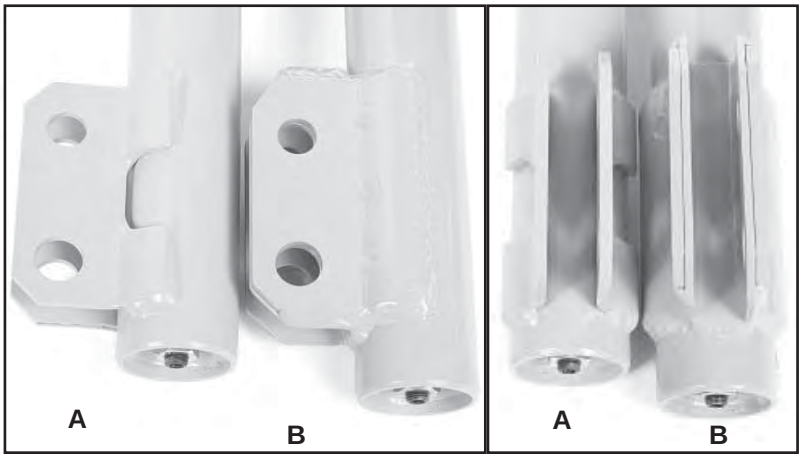
MM2 Race Series Spring Recommendations	
Conventional Location Springs	H&R Super Race
Coil-Over Spring Rates	
Front Springs	400-425 lb/in
Solid Axle Rear Springs	275-325 lb/in
IRS Rear Springs	600-650 lb/in

MM3 Race Series Spring Recommendations	
Conventional Location Springs	Not Recommended
Coil-Over Spring Rates	
Front Springs	450-500 lb/in
Solid Axle Rear Springs	325-375 lb/in
IRS Rear Springs	650-700 lb/in

MB-4138-S1 with COP-1 kit installed

MB-2959-S1 with COP-4 kit installed

Bilstein (A) vs MM (B) strut ear construction



MM Dampers

Application	Type	F/R	Part No.	Price/ea.	Pkg. No.	Price/Pkg.
1987-04 Mustang with 8.8" solid axle	MM Sport	front	**MB-4138-S1**	$249.97	**MAX-1**	$727.38
		rear	**MB-6418-S1**	$124.97		
	MM**2** Race	front	**V36-4138-MM2**	$269.97	**MAX-2**	$808.86
		rear	**BE5-6418-MM2**	$146.97		
	MM3 Race	front	**V36-4138-MM3**	$279.97	**MAX-7**	$847.66
		rear	**BE5-6418-MM2**	$146.97		
1987-04 Mustang with Cobra **IRS**	MM Sport	front	**MB-4138-S1**	$249.97	**MAX-4**	$737.08
		rear	**MB-2959-S1**	$129.97		
	MM**2** Race	front	**V36-4138-MM2**	$269.97	**MAX-5**	$808.86
		rear	**BE5-2959-MM2**	$146.97		
	MM**3** Race	front	**V36-4138-MM3**	$279.97	**MAX-6**	$847.66
		rear	**BE5-2959-MM3**	$156.97		

* Note: 1979-86 Mustangs can be fitted with MM struts if 1987-93 V8 or 1994-04 spindles are installed.

For the performance-minded driver, Bilstein struts and shocks provide an amazing level of control, precise handling, and unmatched comfort. We chose the legendary Bilstein dampers as the foundation for many of our suspension packages because they provide both reliability and outstanding performance.

While they are non-adjustable, Bilstein's unique deflective-disc valve design instantaneously self-adjusts to changing road surfaces. Their performance doesn't degrade with age, usage, or heat, requiring no compensating manual adjustments as with other brands. Bilstein uses a patented mono-tube design that allows for a larger piston size than is possible with a twin-tube damper. The mono-tube design provides better heat dissipation to keep the damper's oil cooler and decreases heat-induced damper fade. High-pressure nitrogen gas prevents oil foaming and fading. The unique inverted design of the Bilstein strut allows for very large strut shaft bushings, which are less prone to deflection. The inverted strut design also keeps the oil seal protected from the elements. Every Bilstein damper is tested on a shock dyno before leaving the factory to ensure quality.

Front coil-over applications require unique dustcovers. The MM Front Coil-over Kit (MMCO-1) includes the correct dustcovers, which are also available separately (Part No. Service-7). We recommend that dustcovers be used at all times.

Heavy-Duty (HD) Bilsteins work very well in street applications with a wide variety of both conventional springs and coil-over conversions. They are designed to deliver the best possible ride quality coupled with impressive street performance. The HD series dampers were not designed for use with aggressive spring rates, particularly in coil-over conversions. The HD series rear shocks must be modified to accept the MM Rear Coil-over Kit. This service will be performed free of charge with the purchase of an MM Rear Coil-over Kit. Pre-modified shocks are also available. For more details, please visit the MM web site or contact one of our Tech Associates by email or phone.

BIL-7

Bilstein Shock Recommendations

For competition and performance street use, we recommend only the 1994-04 rear shocks for all solid-axle applications, regardless of the model year of the Mustang. On a Fox chassis Mustang, these later model shocks slightly increase the amount of bump travel, and reduce the excessive amount of droop travel. The 1994-04 rear shocks have integral bump stops that provide far better performance than the original 1979-93 frame-mounted bump stops. When installed on a 1979-93 Mustang, we recommend removing the OEM rubber bump stops from the frame rails.

For coil-over conversions, only the later model Bilstein shocks are suitable because they have a more secure attachment of the lower shock eye to the shock body compared to the earlier units. This is an advantage with the increased loads associated with a coil-over conversion.

Heavy Duty Bilstein Spring Recommendations	
MM Road & Track	
H&R Race	
H&R Super Sport	
Eibach Pro-Kit	
Stock Springs	
Coil-Over Spring Rates	
Front Springs	250-325 lb/in
Solid Axle Rear Springs	225-250 lb/in
IRS Rear Springs	475-500 lb/in

GBE5-6148-H4

BE5-6148-HO with CO-3 coil-over kit installed

Bilstein Struts & Shocks

2003-04 Cobra Struts & Shocks

Ford outfitted the 2003-04 Cobras with Bilstein struts & shocks. Bilstein designed these dampers specifically for this application. It's important to note that the coupe and convertible shocks and struts are different. The Bilsteins that came on the coupe can be used with some aftermarket lowering springs and conservative coil-over spring rates. The Bilsteins that came on the convertible aren't suitable for performance use.

Application	Type	F/R	Part No.	Price/ea.	Pkg. No.	Price/Pkg.
1987-93 Mustang V8	Bilstein HD (Rear shock *not* suitable for coil-overs)	front	**V36-4138-H5**	$224.97	**BIL-6**	$640.08
		rear	**B46-2148-H1**	$104.97		
1987-93 Mustang V8 1994-98 Mustang 1999-04 GT	Bilstein HD (Rear shock okay for coil-over conversion)	front	**V36-4138-H5**	$224.97	**BIL-7**	$659.48
		rear	**BE5-6418-H4**	$114.97		
1999-04 Cobra with **IRS**	Bilstein HD (Rear shock *not* suitable for coil-overs)	front	**V36-4138-H5**	$224.97	**BIL-9**	$669.18
		rear	**BE5-2959-H0**	$119.97		

*Note: These packages require front spring rates under 750 lb/in or coil-over springs rates under 325 lb/in.

Bilstein packages with rear shocks grooved for coil-overs

Application	Type	F/R	Part No.	Price/ea.	Pkg. No.	Price/Pkg.
1979-04 Mustang with 8.8" solid axle	Bilstein HD (Rear shock grooved for coil-overs)	front	**V36-4138-H5**	$224.97	**BIL-7.1**	$659.48
		rear	**GBE5-6418-H4**	$114.97		
1979-04 Mustang V8 with Cobra **IRS**	Bilstein HD (Rear shock grooved for coil-overs)	front	**V36-4138-H5**	$224.97	**BIL-9.1**	$669.18
		rear	**GBE5-2959-H0**	$119.97		

*Note: These packages require front spring rates under 750 lb/in or coil-over springs rates under 325 lb/in.

Replacement Urethane / Shock Service

Dustcovers for Bilstein struts with conventional springs

Many people upgrade to 2003-04 Cobra (hardtop) OEM Bilstein front struts. As a Ford part, these struts come with a standard Ford dustcover. However, when installing any Bilstein strut with MM Caster/Camber Plates, the stock Ford dustcover won't work. Aftermarket Bilstein struts come with a bellows-style Bilstein dustcover that is compatible with MM Caster/Camber Plates. To install a dustcover when using 2003-04 Cobra Bilstein struts in conjunction with MM Caster/Camber Plates, either order one of the Bilstein bellows-style dustcovers (Service-6 or Service-7), or order the MMCC0304 Caster/Camber Plates, which include the small dustcover (Service-7). Both dustcovers are suitable replacements for the aftermarket Bilstein strut. We recommend that dustcovers be used at all times to prolong strut life.

Dustcovers for Bilstein struts with coil-overs

This bellows-style dustcover fits Bilstein struts and is small enough to fit completely inside of a 2.5" coil-over spring. We recommend that dustcovers be used at all times to prolong strut life. This dustcover is included with the MMCO-1 coil-over conversion kit and with the MMCC0304 Caster/Camber Plates.

Strut/Shock	Description	F/R	Part No.	Price/ea.
MM Sport, MM Race, Bilstein	Dustcover for **non**-coil-over strut	front	Service-6	$9.95
	Dustcover for coil-over strut	front	Service-7	$4.95
	Shock circlip (pair)	rear	Service-8	$1.99
	Upper mount hardware & rubber bushings	rear	Service-3	$8.95

Circlips for rear Bilstein shocks

The pesky little circlip on the top of a Bilstein shock can escape during installation and servicing of coil-over kits. If yours get away from you or are damaged, order a pair of replacements.

Service-6

Service-7

Replacement Shock Eye Bushings

Shock	Application	Part No.	Price/kit
MM Sport, MM Race, Bilstein HD	1987-04 Mustang, except IRS	**MMSM-102**	$19.97
	Cobra IRS	**MMSM-105**	$19.97

Each Bushing kit includes 4 urethane bushings and 2 steel crush sleeves to replace the lower shock eye bushings for 2 shocks.

Koni Adjustable Struts & Shocks

Koni adjustable struts and shocks are a popular choice among Mustang owners. The single-adjustable are a good performance upgrade for street-driven Mustangs. The double-adjustable are well suited for both street use and track use.

The single-adjustable Konis have fixed compression valving that's quite similar to the Bilstein HD compression valving. The adjustable rebound valving lets you tune the damper to match the rate of the spring being used.

The double-adjustable Konis have separate, independent adjustments for compression and rebound. This can be useful when tuning the handling balance of your car.

We recommend the 1994-04 Koni rear shock for all solid axle applications. The later model rear shock has an integral, progressive rate bumpstop that provides far better performance than the original hard rubber bumpstop of the 1979-93 Mustang chassis. To gain the full benefits of these bumpstops, the OEM rubber bumpstops should be removed from the frame rails.

Koni offers a limited lifetime warranty on the single-adjustable units and a limited 1-year warranty on the double-adjustable dampers.

See our MM Coil-over Conversion Kits designed specifically for Koni struts and shocks.

Koni-1

Koni for the IRS

Koni now has a rear shock designed specifically for the 1999-04 Cobra IRS. This is a single-adjustable shock. If you plan to install an MM Rear Coil-over Conversion Kit with this shock, notify your salesperson. *MM must modifiy this shock* when it's used with our MMCO-7 and COP-7 conversion kits. The modified Koni shock part number is 8041-1270S-MOD. The modifications are done at no charge with the purchase of an MM Koni rear coil-over kit.

Mustangs with solid rear axle

Application	Type	F/R	Part No.	Price/ea.	Pkg. No.	Price/Pkg.
1987-93 Mustang V8	Str.t	front	**8750-1024**	$138.57	**Koni-8**	$408.80
		rear	**8050-1033**	$70.00		
	Koni Sport SA	front	**8741-1121S**	$250.00	**Koni-4**	$781.20
		rear	**8041-1186S**	$148.57		
	Koni Sport DA	front	**8742-1121S**	$410.00	**Koni-1**	$1,512.00
		rear	**8042-1134S**	$361.43		
1994-04 Mustang with solid axle	Str.t	front	**8750-1027**	$138.57	**Koni-9**	$411.60
		rear	**8050-1050**	$71.43		
	Koni Sport SA	front	**8741-1401S**	$240.00	**Koni-5**	$761.60
		rear	**8041-1186S**	$148.57		
	Koni Sport DA	front	**8742-1121S**	$410.00	**Koni-1**	$1,512.00
		rear	**8042-1134S**	$361.43		

Mustangs with Cobra IRS

Application	Type	F/R	Part No.	Price/ea.	Pkg. No.	Price/Pkg.
1999-04 Cobra w/ IRS	Sport	front	**8750-1027**	$138.57	**n/a**	**n/a**
	Koni Sport SA	front	**8741-1401S**	$240.00	**Koni-7**	$823.20
		rear	**8041-1270S**	$180.00		
	Koni Sport DA/SA	front-DA	**8742-1121S***	$410.00	**Koni-2**	$1,156.40
		rear-SA	**8041-1270S**	$180.00		
	Koni Sport SA Coil-over ready	front	**8741-1401S**	$240.00	**Koni-7.1**	$823.20
		rear	**8041-1270S-MOD***	$180.00		
	Koni Sport DA/SA Coil-over ready	front-DA	**8742-1121S***	$410.00	**Koni-2.1**	$1,156.40
		rear-SA	**8041-1270S-MOD***	$180.00		

*Single-adjustable. A double-adjustable Koni shock is not available for the IRS. **This price is valid only when purchased along with an MMCO-7 coil-over kit. The metal dust cover has been removed from the rear shocks, as is required for a rear coil-over conversion.

Frequently Asked Questions

Once thought of as a racecar-only item, front coil-over suspensions are now considered the best set-up for any highly tuned street-driven car. The combination of incredible handling with great ride quality is what you should expect from a world-class car. With Maximum Motorsports' Coil-over Conversion Kits you'll have the no-compromise handling you demand without paying a penalty in comfort. Installing an MM Front Coil-over Kit is a win-win situation for any Mustang.

Warning! Not all coil-over kits are created equal. Compare the features of our application-specific kits with any other manufacturer's universal kits and you'll quickly see the differences. Careful attention to detail by our Engineering Team is why MM kits avoid the design pitfalls of others.

We offer many features that set our coil-over kits apart from the rest:

- We maximize bump travel. Our front kits include an assortment of spacers to position the upper spring perch under the strut tower correctly.
- Our front kits feature O-rings that seal the thrust bearing, ensuring longevity by keeping dirt and water out and the grease in.
- If pre-loading the spring is necessary, the lower spring perch easily adjusts with a spanner wrench. A setscrew ensures the lower spring perch won't move.
- While other companies just anodize their aluminum parts for appearance, we have critical components hard-anodized for maximum life.
- An important factor overlooked by other companies, our threaded sleeve assemblies are designed to fit the struts and shocks snugly. A tight fit keeps the threaded sleeve from rattling on the strut. More important, the lower spring perch stays square to the strut or shock, preventing the spring from bowing and rubbing on the threaded sleeve.
- For our Tokico and Koni front kits, we designed a soft, closed-cell polyurethane bumpstop. Bilstein and all MM struts have their own internal bumpstop.
- Finishing off the kits, we use only the highest-quality springs available and back them with our extensive technical knowledge of spring rates, free lengths, and proper spring travel so your car performs to the max.
- MM Coil-over Kits are a first-class design 100% made in the USA.

Q: How do I compare a coil-over spring rate to my conventional spring in the stock location?

A: First, you have to convert the spring rates into wheel rates. The wheel rate is the spring rate measured at the wheel. The conversion is done through what's called the motion ratio. The wheel rate (for the front) of a Mustang is 1/4 of the spring rate of a spring in the stock location. For example, An 800 lb/in stock-location spring has a wheel rate of 200 lb/in. For front coil-overs, the wheel rate is 9/10th of the coil-over spring's rate. A typical coil-over spring rate for street performance handling would be 300 lb/in, which provides a wheel rate of 270 lbs/in.

Q: Why does a coil-over spring with a higher wheel rate ride better than a conventional spring with a lower wheel rate?

A: Although the front coil-over spring in the above example increases the wheel rate by 35%, the ride quality will actually improve. A conventional spring located on the front control arm contributes to ride harshness because of friction in the control arm bushings and ball joints. The friction comes from the front spring trying to force the control down, away from the chassis. A front coil-over kit eliminates the friction by moving the spring off the front control arm and acting directly on the spindle and upper strut mount. Coil-over springs are also much lighter than conventional ones. The resulting reduction in unsprung weight allows the suspension to follow bumps in the road more easily, creating a smoother ride.

Q: What are my options on setting ride height?

A: Ride height can be easily adjusted by changing the position of the lower spring perch. (The spring perch is raised and lowered by rotating it on the threaded sleeve.) The total range of adjustment is more than adequate when the correct spring is chosen for your application.

Q: I've been told that if I use a stiff enough spring for racing, my suspension will never bottom and I don't need bumpstops.

A: If you're running a spring that stiff, you'll be hurting your car's ability to absorb bumps (large or small), which will reduce overall cornering grip. To quote famed racecar engineer Carroll Smith in his book *Engineer to Win,* "If you're not using bumpstops, you're running stiffer springs than you need and are therefore giving away some cornering power."

Increase both your safety and your Mustang's chassis rigidity with a Maximum Motorsports Roll Bar. We offer 6-point roll bars for drag racing (meets NHRA and NMRA requirements) and 4-point roll bars for road racing and street use. Several options are available: diagonal braces; fixed or removable harness mount tubes; and low-slung, fixed, or removable swing-out door bars.

Unique Features of MM Roll Bars

Maximum Motorsports manufactures our roll bars from the highest-quality materials and hardware.

- Designed to fit with the original interior.
- Made of 1-3/4" diameter by 0.134" wall DOM tube (much stronger than the more commonly used 0.120" wall ERW tubing).
- Contour-hugging 6" x 6" mounting pads with backup plates sandwich the unibody for safe and strong mounting.
- The rear braces of hardtop roll bars mount to the strong compound curve of the rear inner wheel well, leaving space for the back seat.
- Unlike some roll bar designs, MM rear braces don't extend rearward of the centerline of the rear axle. The MM design maintains a crush zone at the rear of the car for optimum safety.
- The rear braces are straight, with no bends. This is much stronger and safer than roll bars with bends in the rear braces. NHRA rules prohibit any bends in the tubing of the rear braces.
- All hardware is Grade 5 or higher.
- *No welding* required inside a hardtop Mustang! (Some welding required for convertible models)

Standard Door Bars

If you want to climb over your roll bar when getting in and out of your Mustang, this is the option for you! Designed for maximum chassis stiffening and easy initial installation (no welding), but not intended to be removed. Conforms to NHRA and NMRA rules.

Removable Swing-Out Door Bars

These bars swing-out parallel with the door for *easy* access to the front seats. They can also be completely removed from the car in a matter of seconds! Conforms to NHRA and NMRA rules.

Low-slung Door Bars

Designed to stiffen the chassis while also allowing easy access into the vehicle. Easy initial installation (no welding), but not intended to be removed. Does *not* meet NHRA or NMRA rules. Low-slung door bars can be added to 4-point roll bars for 1979-1993 hardtop and 1994-04 convertible applications. Check the MM web site for availability of new applications.

Option	Application	Part No.	Price
Low-slung door bars	1979-93 hardtop	**MMRBO-LB1***	$137.00
	1994-04 convertible	**MMRBO-LB2***	$137.00

*For the low-slung door bar option, this part number must be ordered *in addition* to your roll bar.

Diagonal Brace Option

A pre-welded diagonal brace is available with any MM roll bar. Located in the plane of the main hoop, the diagonal brace greatly improves chassis rigidity and rollover protection. This option isn't recommended if you need easy access to the rear seats. Compatible with the harness mount tubes on our drag race roll bars. Made from 1-3/4" diameter by 0.134" wall DOM seamless tube.

Option	Application	Part No.	Price
Diagonal brace	any MM rollbar	**MMRBO-1***	$67.00

*For the pre-welded diagonal brace option, you must order this part number *in addition* to your roll bar.

MM Roll Bar with low-slung door bars installed

MM Roll Bar with diagonal brace installed

6-Point Roll Bars

Drag Race Roll Bars

These 6-point roll bars are intended for drag racing and conform to NHRA and NMRA rules. Select either standard door bars or removable swing-out door bars. The fixed harness mount tube is pre-welded in place, since NHRA rules prohibit removable harness mount tubes.

You can get your own copy of the latest NHRA rules by calling them at (626) 914-4761.

Street & Strip Roll Bars

These 6-point roll bars are identical to the MM Drag Race Roll Bars, except they have a removable harness mount tube. Intended for street use and light drag racing. These roll bars do *not* conform to the NHRA and NMRA rules because the harness mount tube is removable.

4-Point Roll Bars

Street Roll Bars

These 4-point roll bars are intended for street-driven cars. They offer good roll-over protection, easy access to the rear seats, and increased chassis stiffness.

Sport Roll Bars

These 4-point roll bars are intended for street-driven cars that are also used for mild competition, such as autocrossing or other track events. The harness mount tube of a Sport Roll Bar provides a safe location to attach the shoulder belts of a 5-point safety harness. Select either a pre-welded or a removable harness mount tube.

Application		Description	Door Bar Type	Harness Mount Tube	Part No.	Price/ea.
1979-93 Mustang	Hardtop	Drag Race 6-point	standard	fixed	**MMRB-1**	$564.00
			swing-out	fixed	**MMRB-2**	$594.00
		Street/Strip 6-point	standard	removable	**MMRB-1.5***	$584.00
			swing-out	removable	**MMRB-1.4***	$604.00
		Street 4-point	none	none	**MMRB-1.1**	$424.00
		Sport 4-point	none	fixed	**MMRB-1.2**	$444.00
				removable	**MMRB-1.3**	$474.00
1983-93 Mustang	Convertible	Drag Race 6-point	standard	fixed	**MMRB-10**	$574.00
			swing-out	fixed	**MMRB-11**	$604.00
		Street/Strip 6-point	standard	removable	**MMRB-10.5***	$594.00
			swing-out	removable	**MMRB-10.4***	$614.00
		Street 4-point	none	none	**MMRB-10.1**	$434.00
		Sport 4-point	none	fixed	**MMRB-10.2**	$454.00
				removable	**MMRB-10.3**	$484.00
1994-2004 Mustang	Hardtop	Drag Race 6-point	standard	fixed	**MMRB-6**	$574.00
			swing-out	fixed	**MMRB-7**	$604.00
		Street/Strip 6-point	standard	removable	**MMRB-6.5***	$594.00
			swing-out	removable	**MMRB-6.4***	$614.00
		Street 4-point	none	none	**MMRB-6.1**	$434.00
		Sport 4-point	none	fixed	**MMRB-6.2**	$454.00
				removable	**MMRB-6.3**	$484.00
	Convertible	Drag Race 6-point	standard	fixed	**MMRB-14**	$584.00
			swing-out	fixed	**MMRB-15**	$614.00
		Street/Strip 6-point	standard	removable	**MMRB-14.5***	$604.00
			swing-out	removable	**MMRB-14.4***	$624.00
		Street 4-point	none	none	**MMRB-14.1**	$444.00
		Sport 4-point	none	fixed	**MMRB-14.2**	$464.00
				removable	**MMRB-14.3**	$494.00

MM roll bars are uncoated because of the welding required for installation. Shipped by truck.
*This roll bar does not meet NHRA rules due to removable harness mount/seat-back brace.

Harness Mount Style

To use a 5-point safety harness correctly with you roll bar, you'll need a harness mount tube for attachment of the shoulder belts. The harness mount tube runs from side-to-side of the main hoop just below shoulder height. It's set back over 3" behind the main hoop to allow a comfortable seat back position.

Maximum Motorsports offers two different styles of harness mounts:

Pre-Welded Harness Mount

- Conforms to NHRA & NMRA rules, but restricts usage of the rear seats and may prevent the front seats from fully reclining.

Removable Harness Mount

- This option *does not* meet NHRA or NMRA rules, but does allow easy access to the rear seats and the ability to recline the front seats fully.

Installation

To keep delivery costs to a minimum, we designed these roll bars to ship without the rear braces attached. This requires a minimal amount of welding during installation to secure the rear braces to the main hoop. To conform to the NHRA and NMRA rules, a qualified welder must MIG or TIG weld the rear braces to the main hoop. Then the MM Roll Bar bolts into the final position in the vehicle, and can be removed from the car as a complete unit. MM Roll Bars are shipped as uncoated bare steel. For a high-quality finish, the installer should paint or powder-coat the roll bar. Complete installation instructions for MM Roll Bars are available on the MM web site.

Coupes and Hatchbacks

- During installation, the rear braces are temporarily bolted to the main hoop. This keeps them precisely aligned to the main hoop, allowing all welding to be done outside the car. This means you don't need to remove your car's entire interior to avoid damaging it while welding.
- The roll bar bolts into its final position and can be removed from the car as a complete unit.
- If you want, you can weld the roll bar to the chassis.

Convertibles

- We include reinforcement plates for the convertible chassis. These reinforcements are welded into place behind the rear seat to provide a good structural attachment point for the rear braces.
- During installation the convertible top can be lowered and stowed, which provides very easy access to protect the interior and complete the required welding.
- The roll bar bolts into its final position, and can be removed from the car as a complete unit.
- If you want, you can weld the roll bar to the chassis.
- Convertible tonneau covers will not fit after a roll bar installation.
- Convertibles with roll bars will not accommodate a light bar.

Fox Chassis Convertible Roll Bars

The early 1983-93 convertibles started life as hardtops. Ford shipped them to an outside vendor for modification into convertibles. This construction method resulted in large production tolerances. The MM Roll Bar for the Fox convertibles accommodates the large variances in the location of the convertible top components by allowing the installer to tailor the rear brace fitment to match the vehicle.

Bolt-in vs. Weld-in Installation

The MM Roll Bars for hardtop Mustangs are designed to bolt to the chassis without welding. The floorpan is sandwiched between the roll bar mounting pads and the back-up plates underneath the floorpan. There's a significant clamping force between the two pads, providing a very secure method of attachment.

While any MM Roll Bar may be welded into the car, there are serious issues to consider. If the installer is not a qualified "expert welder," the installation may be much less safe than a bolt-in installation. Welding anything to the thin sheet metal Mustang floorpan will create a heat-affected zone around the weld. If the welding is not done by an expert, that heat-affected zone may fail and cause the roll bar to poke through the floor in a rollover accident.

The MM Roll Bars for convertible Mustangs do require some welding to the floorpan. A qualified expert welder must install a convertible roll bar.

Roll Bar vs. Roll Cage

A "roll bar" is different from a "roll cage." A roll cage has tubes that extend forward from the main hoop (up near the roof) to the A-pillar, and then extend down to mount to the floor near the firewall. This puts more structure around the driver and gives the main hoop additional support. The primary component of a roll bar is the single main hoop, which is supported primarily by the rear braces (secondarily by the door bars, if equipped). A roll cage is difficult to live with in a street-driven car. It reduces headroom and foot room, restricts access, and often requires extensive modifications to the dashboard.

Chro-Moly Steel

MM doesn't use Chro-Moly steel tube because its metallurgical properties cause high stress concentrations at the welded joint. This concentration of stress can lead to failure of the tube at the welded joint unless a proper post-weld stress-relieving treatment occurs. Because the MM Roll Bar design requires that the two rear braces for the main hoop be welded during installation, if we used Chro-Moly tubing those welded joints wouldn't be stress-relieved before the bar's final installation.

Padding

Roll bars should have padding wherever any part of an occupant's body may come into contact with the steel tubing. This includes hands, feet, arms, and legs, not just the occupants' heads.

Shop Online!

Crow Safety Harnesses

A 5-point safety harness not only improves your personal safety, it can also make you a better driver! Lap times usually drop with a good 5-point harness system because you're no longer expending effort to stay in the driver's seat when at speed on the racetrack.

Crow's Rotary Cam Lock 5-point safety harness is MM's choice for the driver restraints in our own racecar. The smooth exterior design of the Crow release knob prevents accidental release. Lap belts and shoulder belts are 3" wide and the anti-submarine strap is 2" wide.

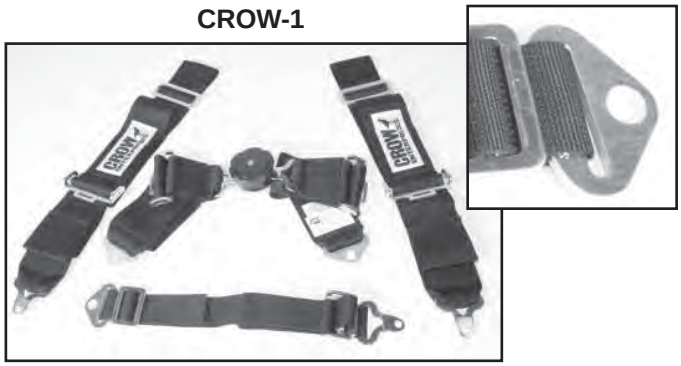
The Crow belts are designed to function as a complete 5-point harness. *It's not safe to use the lap belts and shoulder harness without an anti-submarine strap.*

Belt Attachment

- Clip-in lap and anti-submarine belts: These have a quick-release clip attached to the end of the belt. The clip attaches to an eyebolt mounted in the car. Eyebolts included.
- Bolt-in lap and anti-submarine belts: These have steel tabs (with bolt holes) attached to the end of the belt. The tab bolts to the vehicle with Grade 8 hardware. As each installation is unique to the vehicle, attachment hardware is *not* included.
- Wrap-around shoulder belts: Mounts to the roll cage by wrapping around the roll cage harness mount tube and attaching the belt to itself with the supplied buckle.

Check your sanctioning body's rules—most require replacement of belts that are more than two years old. Crow belts have sewn-in tags with the date of manufacture. Crow lap belts and shoulder harnesses are SFI 16-1 rated. The 5-point belts listed below are black. Each 5-point safety harness outfits one seat.

CROW-1



CROW-2

5-Point Harness	Part No.	Price/seat
Bolt-in lap belts	**Crow-1**	$197.00
Bolt-in anti-submarine belt		
Wrap-around shoulder belts		
Clip-in lap belts	**Crow-2**	$197.00
Clip-in anti-submarine belt		
Wrap-around shoulder belts		

Roll Bar Video Camera Mount

Daystar Pro Mount for POV video cameras. Securely attaches your small video camera to the roll bar tube. Unique urethane spacers allow fitment to 4 different tube sizes: 2", 1-3/4", 1-1/2", and 7/8". Kevlar-infused polyurethane provides high strength while damping vibration. Adjusts to set camera angle. Includes aluminum camera mount.

KU71108KV $49.97

Roll Bar Padding

Our standard race padding is a black, high-density, fire-resistant foam that progressively absorbs shock. The offset ID allows easy installation with the thicker side of the padding toward the driver. Fits 1-3/4" diameter tube.

Description	Part No.	Price/ea.
Black padding, 3' long	**RBP-1**	$5.95

Hawk Ferro Carbon Brake Pads

Hawk Performance has long been the leader in aircraft and military brake materials. That experience gave them a huge advantage when they began to make brake pads for racecars and other high-performance automobiles. Hawk pads offer better modulation, more consistent braking, and shorter stopping distances than any other pad we have tested. Maximum Motorsports stocks Hawk pads that are suitable for Fox chassis and newer Mustangs. A full line of compounds is available for daily drivers, weekend warriors, and dedicated racecars.

Hawk Street Pad Compounds

HPS -- *High-performance Street*

This unique carbon semi-metallic pad compound is world renowned for its exceptional stopping ability, high resistance to fade, and excellent modulation and consistency, whether hot or cold. Hawk HPS pads provide 20-40% more stopping power than OEM friction materials. These highly durable pads are gentle on rotors, produce minimal brake dust, offer extended pad life over stock pads, and are virtually noise free!

HP Plus -- *High-performance Street Plus*

The HP Plus compound was designed as an open-track and autocross pad that would stand up to the heat of the track and still get you home safely. These pads have more initial bite than the HPS compound, generate extremely high braking forces, and have the heat resistance to stand up to repetitive heavy braking. Due to the aggressive friction materials used to achieve a higher level of braking performance, rotor wear, noise, dust, and pad life are affected.

HB-111

Hawk Motorsports Race Pad Compounds

Hawk Motorsports Pads were designed for use on the track. Not intended for street-driven vehicles.

Black *Race*

This is a good, all-purpose, low-cost racing pad compound. It provides medium brake torque and temperature capability and is suitable for light-duty road racing applications. The optimum operational temperature range is 200-900°F.

Blue *Race*

The #1 most popular brake pad compound among SCCA road racers. This compound provides medium to high brake torque and temperature capability, with excellent brake modulation. The optimum operational temperature range is 250-1000°F. Recommended for use with gas-slotted rotors.

Application	F/R	Part No.	HPS	Plus
1984-86 SVO (front calipers have 73mm pistons)	front	**HB-125**	$173.97	$123.47
	rear	**AP204-R4S***	$138.57	n/a
1987-93 5.0 Mustang	front	**HB-263**	$125.47	$202.97
1993 Cobra	front	**HB-263**	$125.47	$202.97
	rear	**HB-580**	$88.97	n/a
1994-98 GT	front	**HB-182**	$284.47	$292.47
	rear	**HB-183.660**	$114.97	$126.47
1994-04 Cobra	front	**HB-111**	$204.97	$232.97
	rear	**HB-183.585**	$138.47	$78.97
1994-04 Baer Claw (PBR calipers)	front	**HB-111**	$204.97	$232.97
	rear	**HB-112**	$155.47	$192.47
1999-04 GT	front	**HB-274**	$156.97	$155.47
	rear	**HB-183.660**	$114.97	$126.47
2000 Cobra R (Brembo 4-piston caliper)	front	**HB-194**	$82.47	$82.47
1979-93 4-lug rear disc kits by Ford, S.S. Brakes, & T-bird T.C. Conversions.	rear	**HB-580**	$88.97	n/a
StopTech Front Calipers	front	**HB-141**	$171.47	$113.47
MM IRS Big Brake Kit (Wilwood 4-piston calipers)	rear	**HB-542**	$164.47	n/a

*** Carbon semi-metallic pads, similar to Hawk HPS.**
Notes: HB-263 supersedes HB-125 for the 1987-93 5.0 & Cobra.

Hawk Ferro Carbon Brake Pads

HT10

For severe-duty road racing, this compound has high-torque and high-temperature capabilities. Provides smooth initial bite and excellent modulation. The optimum operational temperature range is 300-1600°F. Recommended for use with gas-slotted rotors.

HT14

This compound is intended for cars with extremely high deceleration rates. While the operational temperature range is the same as the HT10 compound, the HT14 pads deliver much higher brake torque. To take full advantage of this higher torque, the car must have aerodynamic aids that generate substantial amounts of down-force. This pad compound provides aggressive initial bite and excellent modulation. The optimum operational temperature range is 300-1600°F. Recommended for use with gas-slotted rotors.

Black	Blue	HT10	HT14	DTC-60	DTC-70
n/a	$76.97	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a
n/a	$113.47	n/a	n/a	n/a	$234.97
n/a	$113.47	n/a	n/a	n/a	$234.97
n/a	$107.97	n/a	n/a	$76.47	n/a
n/a	$184.47	n/a	n/a	n/a	n/a
n/a	$108.97	n/a	n/a	n/a	n/a
$119.97	$124.97	$223.47	n/a	$114.97	$193.47
$143.47	$207.97	n/a	n/a	$229.47	$193.97
$119.97	$124.97	$223.47	n/a	$114.97	$193.47
$120.47	$209.97	$175.97	n/a	$168.47	$148.97
n/a	$189.47	$159.47	n/a	n/a	n/a
n/a	$108.97	n/a	n/a	n/a	n/a
n/a	$130.97	$113.47	$146.97	n/a	$139.97
n/a	$107.97	n/a	n/a	$76.47	n/a
n/a	$329.47	$217.47	$174.47	$420.97	$428.97
$145.97	$147.97	$89.47	n/a	$171.97	$80.97

New Compounds!

DTC Series Race Pads

The latest technological advancement in racing brake compounds from Hawk sets a new and higher standard for performance. The Dynamic Torque Control pad compound was initially designed for the NASCAR Cup and Sports Car/ GT Racing circuits. It delivers smooth braking performance with excellent torque control unmatched by any other brake pad compound. Improved modulation characteristics allow the driver to manage the amount of brake torque applied much more effectively. The DTC compound can be used on cars with or without aerodynamic down-force. The DTC compound is also gentle on rotors, even though it's a very high-torque friction material.

DTC-60

The DTC-60 compound is most frequently used in the rear only. Because it provides less initial bite than the DTC-70 pads, the DTC-60 compound provides a differential in brake torque between the front and rear, reducing the potential for rear wheel lock-up. When fitted to both ends of the car, the DTC-60 compound is best suited for intermediate braking tracks. The operational temperature range is 300-1600°F, with the pads providing more braking performance as they become hotter. Recommended for use with gas-slotted rotors.

DTC-70

The DTC-70 compound provides much more aggressive initial bite than the DTC-60 pads and will be most effective at tracks that require severe braking. The operational temperature range is 300-1600°F, with the pads providing more braking performance as they become hotter. Recommended for use with gas-slotted rotors.

HB-580.627DTC-60

Rear Brake Shoes

Through extensive testing, MM has found these brake shoes to provide the best combination of stopping ability and resistance to lockup when hot.

1979-93 Mustang **HPRS** $49.95/set

For optimum braking performance and system maintenance, MM recommends that you flush your brake system annually. Typically, it takes approximately 24-32 ounces to flush a brake system. Competition cars should have their brakes bled before every event, and in some cases before every track session.

Jay Andrew, American Iron National Champion, in his MM-equipped Mustang

Why is it important to flush your car's brake system periodically?

Because brake fluid is hygroscopic, meaning that it absorbs water. New brake fluid comes in sealed containers to prevent water absorption. Once the brake fluid's poured into the master cylinder, it begins to pull water out of the air. Moisture enters the fluid continually, so over time it steadily reduces the boiling point. This makes it boil at a lower than expected temperature, reducing the ability of the braking system to withstand heat without loss of braking. Boiling brake fluid causes a soft pedal, and may even cause complete loss of the brakes. Brake loss can happen even under normal street-driving conditions, but is most common during aggressive driving or race conditions. Flushing the system regularly prolongs the life of all of the hydraulic components in the brake system. Without regular flushing, the moisture in the brake fluid will corrode the hydraulic system from the inside, where it can't be seen.

Red Line Synthetic Gear Oil, 75W-90NS

- Designed for transmissions and transaxles helps to slow synchros for easier shifting across a broad temperature range.
- Contains extreme pressure additives like a 75W90 GL-5 oil, but lacks friction modifiers to balance slipperiness; improved copper corrosion protection to prolong synchrolife.
- Helps with lock-up on weak limited-slip differentials. Compatible with Red Line Lim Slip Friction Modifier for tuning slippage; also used with clutch-type LSDs in racing for maximum lock-up. **RL75NS** $12.97

Motul Racing Brake Fluid

While intended for the extreme conditions of racing, this synthetic DOT 4 brake fluid is also suitable for street use. It has a dry boiling point of 594°F and a wet boiling point of 421°F. Mixable with DOT 3, DOT 4, and DOT 5.1 fluids. This is *not* a silicone-based fluid and so is *not* compatible with the DOT 5 silicone-based fluids. 16 oz. plastic bottle

MOT77 $15.97

Wilwood Hi-Temp 570 Racing Brake Fluid

Wilwood's specially formulated Hi-Temp 570 brake fluid is a high-performance formulation with a dry boiling point of 570°F and a wet boiling point of 284°F. Its combination of low viscosity with low compressibility provides a firm pedal feel and quick brake response. Meets DOT 3 standards. 12-oz. bottle.

290-0632 $9.95

Ford High-Performance Brake Fluid

With its minimum dry boiling point rating of 500°F, this conventional brake fluid from Ford is suitable for street-driven cars as well as limited open-track use. Its dry boiling point exceeds the Federal Motor Vehicle Safety Standard of 401°F for a DOT 3 fluid by 99°F. The wet boiling point meets the DOT 3 standard of 284°F. 12 oz. plastic bottle

FOR-C6AZ $4.95

Red Line Power Steering Fluid

- Improved wear protection, resists thermal breakdown, evaporation, and foaming
- Lightweight fluid avoids power losses
- 50% greater high-temp viscosity and 1/5 of the high-temp evaporation
- Greater heat resistance to prevent boil-over
- Reduces high-temp steering fade and difficult effort steering at low temps
- Compatible with petroleums and synthetics.

RLPSF $9.97 1 quart

MM is *the* source for help when swapping master cylinders, installing a proportioning valve, and converting from power-assisted to manual brakes. We have a variety of installation kits, adapters, and fittings to help with your brake plumbing project.

A modified Mustang can often benefit by fine-tuning the brake bias. Adjusting the brake balance is usually necessary whenever the brake system changes significantly, such as by swapping calipers and/or rotors from a different year/model Mustang or converting to manual brakes. Even modifications such as a stiffer suspension and sticky tires can alter how much rear brake bias a particular car can utilize. Installing a Wilwood Adjustable Brake Proportioning Valve allows you to fine-tune your Mustang's brake balance to optimize the brake bias.

How it works

The master cylinder converts the driver's mechanical (foot) pressure into hydraulic pressure. The front hydraulic line pressure, which is the same as the inlet hydraulic line pressure at the proportioning valve, is determined by how hard the driver steps on the brake pedal.

An adjustable proportioning valve changes the front-to-rear brake balance by reducing the hydraulic line pressure to the rear brakes. The inlet pressure to the proportioning valve is always equal to the line pressure to the front brakes. Whenever the inlet pressure to the proportioning valve is above the breakpoint pressure (set by the proportioning valve), the outlet line pressure to the rear brakes goes down. Whenever the inlet pressure to the proportioning valve is below the breakpoint pressure, the outlet line pressure to the rear brakes will remain the same as the line pressure to the front brakes. Once the front brake/inlet line pressure goes higher than the breakpoint pressure, the rear line pressure will always be less than the front line pressure. An adjustable proportioning valve allows setting that breakpoint pressure.

Installation

- The proportioning valve itself may be mounted in any physical location; it simply needs to be plumbed into the proper line of the brake system. The valve is always placed in the rear brake line, between the master cylinder and the rear brakes or between the master cylinder and ABS unit (if installed). Depending on the model year, this may be an easy task or it may require some ingenuity.

- The stock brake proportioning valve must always be disabled when installing an adjustable valve. There must be only one proportioning valve in the brake system, never two. MM offers parts to disable the stock valve by either of two different methods for a Fox Mustang.

The BPV-1 valve comes with the correct 3/8-24 inverted flare fittings for a very easy installation on a 1983-93 Mustang. These model years have a splice-block in the rear brake line located on the passenger side of the firewall. The adjustable valve easily plumbs into the system at that point, or you can use additional hard-lines that reach a valve mounted elsewhere.

BPV-1 $42.97

The BPV-3 valve comes with M10-1.0 metric ISO bubble flare fittings. These aid installation on 1994-04 Mustangs, which have metric fittings throughout the hydraulic system.

BPV-3 $42.97

Brake Upgrade Components

Installing an adjustable brake proportioning valve requires disabling the original factory proportioning valve, either by removing it from the system, or by dismantling it and installing a different end plug. While it's common for racecars to have the brake lines completely re-plumbed to eliminate the stock proportioning valve, for the typical Mustang owner it's preferable to retain as much of the stock hydraulic system as possible.

Depending on your Mustang year, you may have two methods available to disable the stock brake proportioning valve while also retaining all of the stock brake line plumbing:

1. Remove the stock valve and replace it with the MMBAK-6 Eliminator Kit.
2. Disable the stock valve by removing the internals and replacing the stock valve's end plug with the MM-2450-A solid plug.

Brake Proportioning Valve Eliminator Kit

This MM-designed kit is easier to install than the alternatives of either dismantling the stock valve or re-plumbing the hard lines. Replacing the bulky stock proportioning valve with the much smaller MM Eliminator kit also cleans up the engine compartment's appearance.

The MM Brake Proportioning Valve Eliminator Kit maintains separate front and rear brake hydraulic systems. It's only for Mustangs with an adjustable proportioning valve or dual master cylinders.

Direct fit for 1987-93 Mustang **MMBAK-6** $19.97/kit

Notes

- Some rear disc brake conversion kits for 1987-93 Mustangs have a brake hard line relocated to an outlet of the stock brake proportioning valve. Those kits require the MM2450-A plug (see below).
- Does not fit 1979-86 or 1994-04 Mustangs.

Brake Proportioning Valve Plug

MM's Engineering Team improved on the old Ford Racing part by adding an O-ring and anodizing the aluminum plug for corrosion resistance and better appearance. You'll need this plug is required when disabling the stock proportioning valve by removing the internals. Reusing the original plug will lead to fluid leakage and brake failure. Unlike the Ford Racing part, we include copyrighted, illustrated installation instructions.

Direct fit for 1979-2004 Mustang **MM-2450-A** $16.97

MM-2450-A

Brake Adapter Fittings

1987-93 Mustangs without OEM Proportioning Valve and with Manual Brakes

The brake hard lines on racecars are often re-plumbed to improve functionality, adding some features such as an adjustable proportioning valve and deletion of the stock proportioning valve. The hard lines are usually changed to standard, easily obtainable, 3/16" lines that use standard flare fittings with 3/8"-24 tube nuts. These adapter fittings will connect 3/8"-24 flared tube nuts to the various Mustang master cylinders.

MMBAK-3.2

Description	Chassis	Master cylinder	Part #	Price/kit
Includes the adapter fittings for the master cylinder only, to attach to the 3/8"-24 flared fittings used on standard 3/16" brake hard lines	1987-93	1986 SVO	**MMBAK-2.2**	$23.95
		1987-93 stock 5.0L power brake	**MMBAK-5.2**	$12.95
		1993 Cobra	**MMBAK-3.2**	$11.95
		1994-95 GT		
		1994-95 Cobra		

Brake Upgrade Components

Brake Master Cylinders
Improving the brake system has become a common modification for Fox Mustangs. Improvements include converting the stock rear drum brakes to a disc brake system and upgrading the front brakes to SN95 brakes: either GT, Cobra, or an aftermarket big brake kit. Such brake upgrades invariably require a different master cylinder to ensure proper functioning of the brakes.

We carry the four most popular brake master cylinders for the Fox and early (1994-95) SN95 Mustangs, and have installation kits to aid with swapping them into different model year Mustangs. These are all direct-replacement master cylinders, not generic aftermarket items. Using a direct-replacement master cylinder ensures that the master cylinder will easily bolt to the power brake booster or manual brake adapter block in a 1979-95 V8 Mustang. It also makes future replacement of the master cylinder easy, as (unlike generic aftermarket units), a direct-replacement master cylinder is readily available at a local auto parts store. The master cylinders listed here are new, not rebuilt.

Swapping a different master cylinder into your Mustang will usually require an adapter fitting kit to attach the new cylinder to your Mustang's brake lines. To aid with swapping master cylinders, see our installation kit section.

Will Fit	Bore Diameter	OE Application	Part No.	Price/ea.
1979-95	15/16"	1994-95 Cobra	**BMC-4**	$134.97
	1"	1993 Cobra & Cobra R	**BMC-2**	$99.00
	1-1/16"	1994-95 GT & V6	**BMC-3**	$99.00
	1-1/8"	1984-86 SVO Mustang	**BMC-1**	$89.00

See the MM web site for more information about brakes: pedal ratios, effects of master cylinder swaps, etc.

Master Cylinder Installation Kits: Power Brakes

These installation kits include MM-designed brake hard lines and the appropriate adapter fittings to aid swaps of the most popular master cylinders between models and years of Mustangs. The choice of installation kit depends on the year of the chassis and the master cylinder being used. All Master Cylinder Installation Kits are intended for use with either the stock brake proportioning valve/junction block or MM's Proportioning Valve Eliminator Kit (MMBAK-6).

For power-assisted brakes only. Master cylinder installation kits for manual brake systems are in the Manual Brake section of this guide.

Chassis	To install this master cylinder			Installation Kit Part No.	Price/kit
	Bore	OE Application	MM m/c Part No.		
1980-86	15/16"	1994-95 Cobra	BMC-4	**MMBAK-9**	$18.95
	1"	1993 Cobra & Cobra R	BMC-2	**MMBAK-17**	$19.97
	1-1/16"	1994-95 GT & V6	BMC-3	**MMBAK-17**	$19.97
1982-86	1-1/8"	1984.5-86 SVO Mustang	BMC-1	**MMBAK-17**	$19.97
1987-93	15/16"	1994-95 Cobra	BMC-4	**MMBAK-8**	$39.95
	1"	1993 Cobra & Cobra R	BMC-2	**MMBAK-3**	$34.95
	1-1/16"	1994-95 GT & V6	BMC-3	**MMBAK-3**	$34.95
	1-1/8"	1984.5-86 SVO Mustang	BMC-1	**MMBAK-2**	$44.95
1994-95	15/16"	1994-95 Cobra	BMC-4	**MMBAK-7**	$19.95

Brake Hose Adapter

Required when installing a Brembo, StopTech, or Wilwood big brake kit onto a 1979-93 Mustang. This adapter fitting allows the connection of the passenger-side SN95 front brake hose, included with these big brake kits, to the passenger-side brake hard line on a Fox chassis Mustang.

1979-93 Mustang with StopTech or Wilwood SN95 big brake kit

MMBAK-4 $8.95

Power Slot Brake Rotors

Application			Part No.	Price/ea.
1987-93 4-lug	front	driver	**8126PSL**	$99.50
		passenger	**8126PSR**	$99.50
1987-93 5-lug	front	driver	**8118PSL**	$119.50
		passenger	**8118PSR**	$119.50
1994-04 GT	front	driver	**8141PSL**	$97.50
		passenger	**8141PSR**	$97.50
	rear	driver	**8142PSL**	$99.50
		passenger	**8142PSR**	$99.50
1994-04 Cobra	front	driver	**8144PSL**	$115.50
		passenger	**8145PSR**	$115.50
	rear	driver	**8146PSL**	$115.00
		passenger	**8146PSR**	$115.00

Improve your car's braking ability with performance gas-slotted rotors. These allow venting of the boundary layer of hot gasses produced by the brake pads during braking. Venting improves overall brake performance and helps minimize fade because the pads are in better contact with the rotors.

Power Slot's exclusive Vac-U-Slot design sheds heat and gasses while maintaining a cleaner pad surface. Gas-slotting reduces the occurrence of rotor warpage by lowering rotor temperatures. Power Slot rotors have military-spec plating that gives them their bright silver finish and protects from unsightly corrosion.

Bill Daffron's AIX contender

Manual Brake Conversion Kit

Usually, power-assisted brakes are a great thing to have on your Mustang, but they can cause problems in some high-performance applications. If you're drag racing, road racing, or simply driving on the street in a spirited fashion, this Manual Brake Conversion Kit may be for you.

For the 1979-95 Mustangs, power-assisted brakes rely on engine vacuum, supplied to the brake booster, as the source for the power assist. The 1996-04 modular engine Mustangs had hydraulic-assisted brakes (Hydroboost). Many commonly used performance camshafts reduce engine vacuum. Low or fluctuating engine vacuum will cause inconsistent and/or high pedal effort. Manual brakes aren't affected by engine vacuum and will provide consistent pedal feel. Manual brakes also provide better feedback to the driver about what's happening between the tires and the pavement, which helps the driver modulate the brakes to avoid tire lock-up in threshold braking situations.

Unlike other manual brake conversions, the Maximum Motorsports system prevents unacceptably high pedal effort because it includes a new pedal arm with the proper mechanical leverage ratio for non-assisted brakes. The brake pedal arm is much more rigid than the stock arm, greatly improving pedal feel, as well as improving control when modulating the brakes. Also included is a unique pedal pad that bolts onto the arm in six possible positions. This allows you to customize the pedal location and tailor the pedal effort to suit your preferences.

A stronger, adjustable-length pushrod attaches to the pedal arm with a spherical rod-end, eliminating the sloppy fit of the stock pushrod to further improve pedal feel. A CNC machined aluminum adapter block bolts to the firewall in place of the vacuum booster and mounts any 1979-1995 Mustang master cylinder. By using readily available master cylinders, you'll always be able to find a replacement one easily, whether at home or at the track.

Important Notes

- For a stock 1979-93 Mustang brake system with the original calipers, rotors, and rear drums, you must use the stock master cylinder size that came with the 1987-93 power brake-equipped 5.0L Mustangs. The 21mm bore of that master cylinder is the best choice to provide acceptable braking ability with reasonable pedal effort. *Note:* This master cylinder is sometimes mistakenly thought to be larger than 21mm because it's a "fast-fill" design. The initial bore is 29.9mm to quickly move the pads and shoes out to contact the rotors and drums. The bore then reduces to an effective diameter of 21mm.
- For Mustangs equipped with rear disc brakes, the master cylinder recommendation depends upon the situation. For a 1979-93 Mustang equipped with 11.65" Cobra or 10.5" GT rear disc brakes, we recommend a 1" bore master cylinder (1993 Cobra). For 1994-95 Mustangs (both GT and Cobra), we recommend a 15/16" bore master cylinder (1994-95 Cobra). Some road-course drivers prefer a master cylinder one size larger because it provides less pedal travel. We suggest trying the recommended size first and only switching to a larger master cylinder if track testing indicates a change is warranted. The master cylinder size recommendations are different for Fox chassis and SN95 cars, even though they may have the same four-wheel disc system, because the mechanical pedal ratio is different between the two chassis. For *any* other brake system combinations, contact an MM Tech Associate by email for a master cylinder recommendation.
- *To maintain safe stopping distances, install only with the correct master cylinder. If you have questions, contact an MM Tech Associate by email.* Stopping distances will dramatically INCREASE if the Manual Brake Conversion Kit is not used with correct master cylinder. For safe stopping ability, *you must install the right master cylinder.*
- The MM Manual Brake Conversion Kit will move the master cylinder 6.5" closer to the firewall. This requires rerouting and lengthening of the brake hard lines at the master cylinder. We've developed several brake line adapter-fitting kits to help with the installation.
- For best results, we *strongly* recommend installing high-performance brake pads when converting to manual brakes (see our selection of Hawk pads). Carefully chosen performance pads, with their higher friction coefficient, will greatly improve stopping ability over stock-type replacement pads.
- Braided stainless-steel brake hoses will also significantly aid brake performance and improve pedal feel. Includes a new pedal arm, pedal pad, adjustable length pushrod, firewall adapter block, brake light switch, adjustable upper pedal stop, and all necessary hardware. A brake master cylinder is *not* included.

MMBAK-10

Manual Brake Conversion Kit

1979-1993 Mustang **MMBAK-10** $199.95
1994-1995 Mustang **MMBAK-13** $199.95

MMBAK-13

See the MM web site for tech information regarding manual brakes, as well as a chart with comparisons of pedal effort and pedal travel for different master cylinders.

Pedal Arm Kit

For Fox chassis Mustangs that already have a manual brake conversion kit but need a brake pedal with the proper leverage ratio for a manual brake system, MM offers a kit that doesn't include the firewall adaptor block. This kit includes the pedal arm, pedal pad, adjustable-length pushrod, brake light switch, and adjustable upper pedal stop. Does *not* include the master cylinder.

1979-93 Mustang **MMBAK-11** $149.95

MMBAK-11

Manual Brakes: Master Cylinder Installation Kits

These kits include the appropriate brake hard lines and adapter fittings to help convert your Mustang to manual brakes. When one of the MM Manual Brake Conversion Kits (MMBAK-10 or MMBAK-13) is installed, the brake master cylinder gets relocated to a position approximately 6.5" closer to the firewall. This new position requires changes to the routing of the brake hard lines. We developed these kits to help install the most popular master cylinders.

MMBAK-8.1

Description	Chassis	Master Cylinder	Part No.	Price/kit
Includes all parts necessary to connect the relocated master cylinder to the stock proportioning valve. For manual brake conversions only.	1979-86	1994-95 Cobra	**MMBAK-9.1**	$18.95
	1987-93	1986 SVO	**MMBAK-2.1**	$36.95
		1987-93 stock	**MMBAK-5.1**	$24.95
		1993 Cobra	**MMBAK-3.1**	$39.95
		1994 GT		
		1994-95 Cobra	**MMBAK-8.1**	$39.95
	1994-95	1994-1995 Cobra	**MMBAK-7.1**	$19.95

Note: Use one of these adapter kits when installing the MM Manual Brake Conversion Kit and you're either retaining the stock proportioning valve or installing the MMBAK-6 Proportioning Valve Eliminator Kit along with an adjustable proportioning valve.

MM Brake Caliper Sleeves

The Maximum Motorsports Stainless Steel Brake Caliper Sleeves replace the factory rubber bushings. Rubber lets the calipers move during braking, preventing the pad from contacting the rotor surface squarely. This movement reduces your brakes' effectiveness and leads to tapered pad wear. These caliper sleeves also fit the 73mm SVO calipers.

1987-93 Mustang **MMSSCS** $32.97/set

MM Brake Hoses

PTFE-lined, braided stainless steel hoses improve performance over stock rubber hoses by providing a firmer brake pedal, quicker braking response, and better brake modulation. These hoses are a safety requirement for any car that is raced. The high heat generated during track use causes failure of the stock rubber hoses.

MMBK1P

Application	F/R & Car Sets	Fluid Bolts	Part No.	Price/pkg.
1987-93 5.0L Mustang with 8.8" axle	2 Front Hoses	M10 x 1.5	**MMBK1F**	$77.95
	1 Rear Center Hose	3/8" x 24	**MMBK1R**	$49.95
	3-Hose Car Set	See above	**MMBK1P**	$121.50
1994-95 Mustang GT & Cobra	2 Front Hoses	M10 x 1.0 & M10 x 1.5	**MMBK4F**	$84.95
	1 Rear Center Hose	3/8" x 24	**MMBK1R**	$49.95
	2 Rear Caliper Hoses	M10 x 1.5	**MMBK12R**	$98.95
	3-Hose Rear Set	See above	**MMBK2P**	$141.45
	5-Hose Car Set	See above	**MMBK5P**	$222.16
1996-04 GT & 1996-98 Cobra	2 Front Hoses	M10 x 1.0 & M10 x 1.5	**MMBK4F**	$84.95
1999-04 Cobra (IRS)	2 Front Hoses	M10 x 1.0 & M10 x 1.5	**MMBK4F**	$84.95
	2 Rear Hoses	M10 x 1.5	**MMBK9R**	$129.95
	4-Hose Car Set	See above	**MMBK6P**	$204.15

Maximum Motorsports was the first to offer direct-replacement stainless steel brake hoses for Mustangs over 20 years ago. Features include the ability of the hose end to swivel at the chassis prior to tightening. This allows perfect alignment to accommodate production tolerances between the chassis tab and the caliper's banjo bolt. These brake hoses are a direct fit and don't require any modification to the chassis tab. A brake fluid-resistant clear urethane covering protects the stainless steel braid. These DOT-approved hoses come complete with new fluid bolts, crush washers, and copyrighted, illustrated MM instructions.

MMBK9R

Brake Swap Hose Kit

For use when swapping SN95 calipers and spindles (Cobra or GT) onto your Fox Mustang

Kit includes 2 front hoses, 4 sealing washers, and 4 fluid bolts (Two M10 x 1.0 bolts and two M10 x 1.5 bolts)			
Chassis	**Calipers**	**Part No.**	**Price/kit**
1987-93 Mustang	1994-04 Cobra & GT front calipers	**MMBK8F**	$84.95

Rear Brake Hose Kits

MMBK14R

This brake line kit will make your life easier when swapping 1994-04 Mustang rear brakes onto a Fox Mustang. Fits 1986-93 5.0L Mustangs being equipped with rear disc conversions using 1994-04 OEM SN95 calipers and rotors.

MM's unique stainless steel hard lines were designed for a 1979-93 Mustang chassis. The hard lines and hoses clear the stock Fox chassis bumpstops, the quad-shock brackets on the 8.8" axle housing, and a rear coil-over conversion. These lines eliminate the problems that arise from trying to reuse drum brake hard lines when doing a disc conversion, and avoid the interference caused when using the 1994-95 Mustang axle hard lines on a Fox chassis.

Benefits
Makes your Fox Mustang rear disc brake conversion easy, clean-looking, and safe. MM's stainless hard lines are pre-bent to fit the unique combination of SN95 brakes on a Fox body. The PTFE-lined, braided stainless steel hoses perform better than stock rubber hoses because they provide:

- A firmer brake pedal
- Quicker braking response
- Easier brake modulation

Installation notes for all 1979-85 and non-V8 1986-93 Mustangs

The MM axle hard lines were designed to fit a standard 1986-95 5.0L center brake hose, whether stock or the MM braided hose. Modifications are required to install on a 1979-85 chassis or 1986-93 non-V8 chassis because those Mustangs were originally fitted with a 7.5" axle, which had the chassis hard line routed to fit to an axle-to-chassis brake hose located on the passenger side, rather than the left-of-center location of the 8.8"-equipped Mustangs. *Required modification:* Add an extension to the stock hard line to reach to a stock coupler and its bracket from an 8.8" axle-equipped Mustang (sourced from a salvage yard).

1986-93 Mustang with SN95 calipers, rear

When you need	choose Part No.	Price
Just the hard lines	**MMBK14R**	$95.97
The hard lines and the 2 caliper hoses	**MMBK13R**	$169.97
The hard lines and all 3 soft hoses	**MMBK7P**	$197.93

MMBK14R

Kit includes:
- Two stainless steel hard lines, pre-bent for Fox chassis with 8.8" axle
- Brackets, clamps, and hardware required for installation

Does not include:
- Any soft hoses
- Calipers, rotors, etc.
- Brackets for mounting calipers to the axle housing

Fits
- 1979-1993 Mustang chassis

MMBK13R

Kit includes:
Everything in the MMBK14R kit, plus:
- Two braided, stainless steel, PTFE-lined brake hoses for caliper attachment
- Two fluid bolts for OEM Ford SN95 calipers

Does not include:
- The center chassis-to-axle hose assembly (MMBK1R)
- Calipers, rotors, etc.
- Brackets for mounting calipers to the axle housing

Fits
- 1986-93 5.0L chassis
- 1986-98 8.8" axle housing
- Ford OEM SN95 rear calipers and rotors, Cobra, and GT
- Stock 1986-93 5.0L Mustang 8.8" axle-to-chassis brake hose
- MM stainless steel, braided, axle-to-chassis hose (MMBK1R)

MMBK7P

Kit includes:

Everything in the MMBK13R kit, plus:
- The center chassis-to-axle hose assembly (MMBK1R)

Does not include:
- Calipers, rotors, etc.
- Brackets for mounting calipers to the axle housing

Fits
- 1986-93 5.0L chassis
- 1986-98 8.8" axle housing
- Ford OEM SN95 rear calipers and rotors, Cobra, and GT

MMBK7P

StopTech Big Brake Kits

This front brake kit is a proven winner in the American Iron race series. Whether for a racecar or a street-driven car, StopTech Big Brake kits provide awesome stopping power and shorter stopping distances. StopTech focuses on innovative design and they have the patents to show for it. They've made major engineering advances in the design of their calipers, rotors, hats, and hoses.

StopTech carefully chooses the caliper piston sizes for each application. Their brake kits are designed to match the original rear calipers and master cylinder, offering the shortest possible stopping distances. The optimized brake balance provides a firmer brake pedal, less pedal travel, and superior brake modulation.

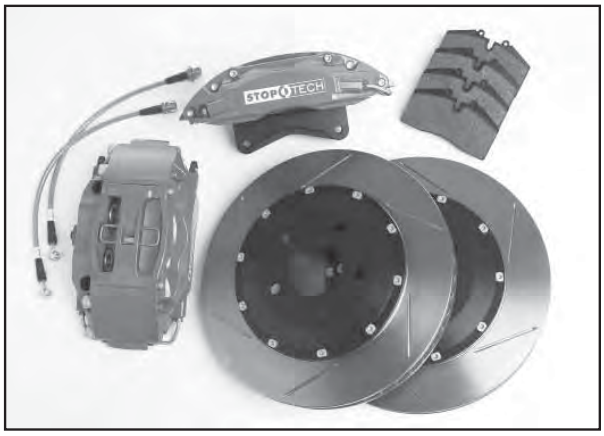
StopTech designed this kit to be a direct bolt-on for the 1994-2004 Mustangs. It may be used on pre-1994 Mustangs, with appropriate modifications. See the MM web site for details. This kit includes calipers, rotors, hoses, street compound pads, and all required hardware.

ST-40 caliper

- Made of forged aluminum.
- A unique bolt-in bridge greatly stiffens the caliper, improving pedal feel and modulation.
- 4-piston differential bore design distributes the clamping force over the length of each pad, improving braking ability and pad life.
- Hard-anodized aluminum pistons.
- Includes piston dustboots.
- Calipers are anodized and then painted. The standard available colors are black or red. Silver, blue, or yellow calipers are available by special order, at an extra charge, with an additional 30 days delivery time.
- Weighs 7.9 lbs.

AeroRotors

- Available in either 13" or 14" diameters.
- At 1.25", these rotors are thicker than stock, increasing thermal capacity.
- The 2-piece full-floating design allows the disc to float in both axial and radial directions to reduce belling of the cast iron rotor and thus stress cracking.
- Slotted to vent the hot gases created during heavy braking, improving pad bite.
- Curved vanes with unique leading and trailing edges increase airflow through the rotor by 80% over straight-vane rotors and by 30% over other curved vane rotors. The result is a cooler rotor, which improves brake performance.
- StopTech's unique AeroHat directs air to the outer face of the rotor. This reduces the always present temperature differential between the inner and outer rotor faces, decreasing the outer pad's wear and reducing rotor cracking.



- The black-anodized aluminum AeroHat minimizes the transfer of heat into the wheel hub and bearings.
- The complete 13" rotor and hat assembly weighs 17.2 lbs.

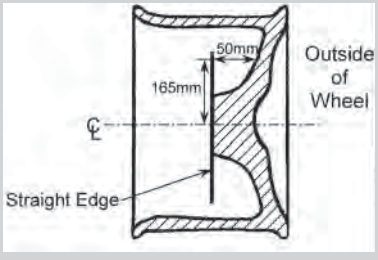
Hoses

- Instead of getting hoses from an outside vendor, StopTech manufactures stainless-steel, braided, PTFE-lined brake hoses. These DOT-compliant hoses feature a unique swiveling end that ensures correct alignment and fit to the chassis hard line. We like the hoses so much that we have StopTech manufacture the MM-designed hoses for our own OEM replacement brake hose kits.

Pads

- StopTech includes Axxis brand street/open-track compound pads. See our selection of Hawk pads.

Note: Refer to drawing below for information on wheel clearance requirements. Also order one MMBAK-4 if your chassis is pre-1994.



Big Brake Kits require 17" wheels with 50mm clearance to the back of the spokes (see drawing). We have found that Konig Villain rims (17x9), Cobra R rims (17x9), and '98 Cobra rims (17x8) will fit.

Application	Rotor Diameter	Caliper color	Rotor Type	Part #	Price/kit
1994-2004 Mustang	13"	Black	2-piece, slotted, unplated	83-328-4600-B	$2,495.00
		Red		83-358-4600-R	
	14"	Black	2-piece, slotted, unplated	83-328-4700-B	$2,895.00
		Red		83-328-4700-R	

Wilwood Superlite 6-piston Street Performance Big Brake Kits

Wilwood's Mustang Big Brake Kit features the new 6-piston SL6R series narrow-body caliper, designed to provide more clearance for wheel spokes than typical 4- and 6-piston caliper bodies allow. This Wilwood kit is an excellent choice for street-driven Mustangs and show cars, since a greater variety of wheels will fit with the narrow-body design.

Wilwood designed the kits to be a direct bolt-on for 1994-2004 Mustangs, but they also fit 1979-93 Mustangs, with appropriate vehicle modifications. (See the MM web site for details.) This kit includes SL6R series calipers, rotors, street compound pads, hoses, and all required hardware. Hoses sold separately.

SL6R Caliper

- Made of CNC-machined billet aluminum.
- Low-profile, narrow-body design provides more clearance to wheel spokes than other caliper brands.
- 6-piston differential bore design distributes the clamping force over the length of each pad, improving braking ability and pad life.
- Stainless steel pistons resist corrosion and have low heat transfer properties.
- Calipers are available with either a red powdercoat or a black anodized finish.
- Compatible with both 13" and 14" rotors, allowing later upgrading of a 13" kit to 14" rotors.
- Caliper weighs 4.68 lbs.

Wilwood Rotors

- Wilwood Street Performance rotors are available in either 13" or 14" diameters.
- At 1.25", these rotors are thicker than stock, increasing thermal capacity.
- Separate black-anodized billet aluminum rotor hat lowers overall weight and reduces heat transfer into the hubs and wheel bearings.
- The 13" rotor and hat assembly weighs 13.9 lbs.
- The 14" rotor and hat assembly weighs 19.8 lbs.
- Street Performance rotors are slotted and cross-drilled. Wilwood's unique black E-coat finish reduces corrosion on the non-swept surfaces and looks great. Directional vanes improve cooling over the OEM rotors.

Pads

The Street Performance Superlite 6-piston big brake kits include Wilwood's street compound BP-10 pads.

Hoses

Wilwood hoses are included.

Note: See the MM web site for service parts such as rotors and hats.

Street Performance Wilwood Superlite 6-Piston Big Brake Kits

Application	Rotor Diam-eter	Caliper color	Rotor Type	Part #	Price
1994-2004 Mustang	13"	Black	Street Performance (SRP)	140-9107-D	$1,802
			Race-Duty (GT)	140-9107	$1,802
		Red	Street Performance (SRP)	140-9107-D-R	$1,955
			Race-Duty (GT)	140-9107-R	$1,802
	14"	Black	Street Performance (SRP)	140-9117-D	$1,930
			Race-Duty (GT)	140-9117	$1,802
		Red	Street Performance (SRP)	140-9117-D-R	$2,074
			Race-Duty (GT)	140-9117-R	$1,802

Note: See the Wilwood web site for information on wheel clearance requirements.

IRS Racing Brake Kits

Improve the braking performance of your IRS-equipped racecar with a Maximum Motorsports IRS Racing Brake Kit. MM developed these brake kits on our own American Iron racecar. It drastically reduced our rear rotor temperatures, while the rigid 4-piston caliper greatly improved brake pad life and pedal feel by eliminating taper wear of the pads. Plus, the unique and aggressive design looks terrific!

The improved suspension of a racecar reduces forward weight transfer during braking, which gives the car the ability to utilize more rear brake bias than a street-oriented Mustang can tolerate. Dialing in more rear brake with an adjustable proportioning valve will overwhelm the thermal capacity of the stock Cobra rear brakes. The larger rotors of the MM kit provide more thermal mass, allowing an increase in rear brake bias while keeping temperatures lower than with the stock Cobra rotors. Increasing the rear brake bias allows a better match of the rear brake capacity to upgraded front brakes.

We have two versions of the kit. Both come with a two-piece rotor and hat assembly. One kit includes fixed hat rotors and the other has floating hats. The Wilwood calipers easily bolt to the standard Cobra IRS spindle with our exclusive mounting brackets.

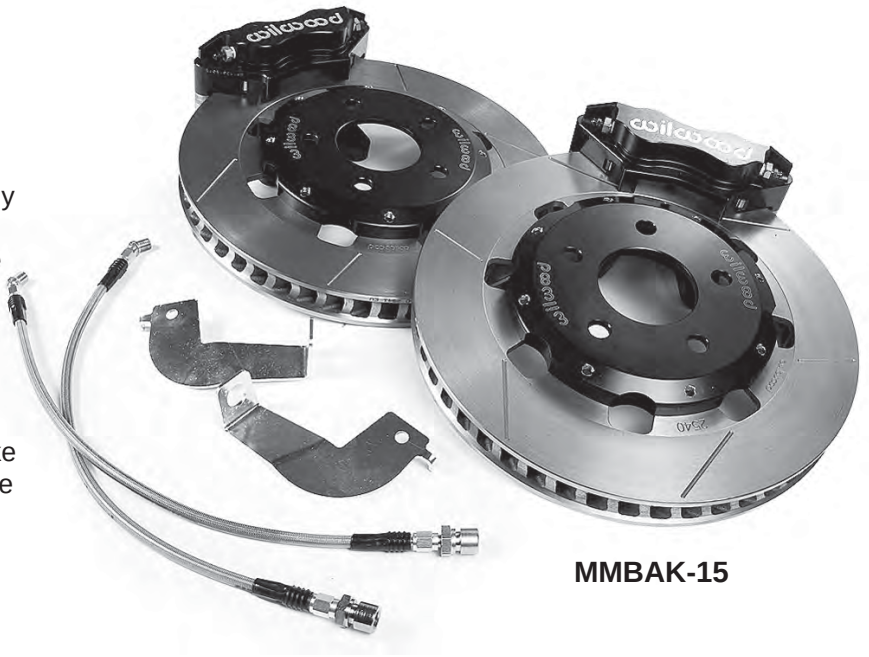
The MM IRS Racing Brake Kit should only be installed with matching front brakes. The appropriate *minimum*-size front rotor is the standard Cobra 13" rotor. The thicker rotors of a StopTech or Wilwood front brake kit are much more desirable. The stock Cobra aluminum PBR sliding-bridge calipers are the *minimum* suitable front caliper choice. Fixed-mount four-piston calipers provide a more balanced match.

MM IRS Racing Brake Kits

Application	Hat Type	Part No.	Price/kit
1999-2004 Cobra IRS, rear	fixed-mount	**MMBAK-15**	$1,309.00
	full-floating	**MMBAK-16**	$1,609.00

Service Parts

Item	Part No.	Price/pair
Replacement rotors	**WIL-BR-5**	$358.00
Fixed-mount hats, with hardware	**BAKH-15**	$297.00
Full-floating hats, with hardware	**BAKH-16**	$597.00



MMBAK-15

The MM IRS Racing Brake Kits include:

- Large, two-piece, 12.72"-diam. by 1.25"-thick rotors improve brake performance through better cooling provided by the rotor's increased thermal capacity, directional vanes, and gas slots.
- Rotor hats are machined from aluminum to reduce weight. Hats are available in either fixed or floating versions.
- Four-piston, forged-aluminum Wilwood calipers are lightweight but provide high brake torque for maximum stopping performance.
- Stainless steel brake hoses are included for improved pedal feel and increased reliability under the extreme stress of open track use.

Important Notes

- *This kit does not include a parking brake*. Installation will disable the stock parking brake.
- The four-piston caliper requires more clearance to the wheel spokes than the stock Cobra rear caliper (made by Varga). Wheels that clear 4-piston front calipers from StopTech will also clear these Wilwood calipers.
- *Brake pads are not included with this kit* because they should be chosen to complement the front pad compound on *your* racecar. MM carries Hawk brake pads in different compounds for race applications.

  The base Hawk part number is HB-237.625. Contact an MM Tech Associate to discuss your performance brake pad needs.

Wheel Spacers

Wider is better! Move your wheels out from the depths of the wheel wells with our lightweight aluminum-alloy wheel spacers. Increasing a car's track width increases its grip, and therefore its cornering ability. Improve your Mustang's appearance by moving the wheels out—closer to the fender opening. Wheel spacers can solve clearance problems when using some aftermarket wheels and brake calipers.

Slip-On Wheel Spacers

These wheel spacers are CNC machined from lightweight aluminum alloy and slip over the car's wheel studs. The factory wheel studs are usually long enough to allow the use of 1/8"- or 1/4"-thick wheel spacers with most wheels. *You* must check the amount of thread engagement on *your* car to ensure that at least 6 threads are fully engaged after installing the wheel spacer. Maximum Motorsports 3/8" and 1/2" spacers require the use of longer wheel studs for adequate thread engagement (see our wheel stud section).

MM Slip-on Wheel Spacers

Lugs	Hubcentric or Lugcentric	Thickness	Part No.	Price/pair
4	Lugcentric	1/4"	**MMWS-1**	$49.95
5	Lugcentric	1/8"	**MMWS-6**	$29.95
		1/4"	**MMWS-2**	$49.95
		3/8"	**MMWS-8**	$64.95
		1/2"	**MMWS-7**	$74.95
	Hubcentric	1/2"	**MMWS-4**	$89.95
		3/4"	**MMWS-9**	$104.95

MMWS-4

*Does *not* fit S197 front hubs. Will fit S197 rear hub. 1979-93 Mustangs: Fits only those converted to Ford 5-lug pattern by installing SN95 spindles and hubs. Will not fit a 1987-93 Mustang that was converted to 5-lug by swapping the 4-lug rotor for the Lincoln 5-lug rotor.

Bolt-On Wheel Spacers

Precision-machined for perfect balance. Available only for five-lug applications, these spacers bolt to the car with the existing wheel studs and have integral studs for attaching the wheels. These spacers are hubcentric. Note: In some instances, when installing 25mm and 30mm wheel spacers, the ends of the car's wheel studs may need to be trimmed slightly shorter for wheel clearance.

Bolt-on Wheel Spacers

Thickness	Part #	Price/pair
25mm (1")	**5065705**	$149.95
30mm (1-3/16")	**6065705**	$174.95
35mm (1-3/8")	**7065705**	$184.95
40mm (1-9/16")	**8065705**	$204.95
45mm (1-3/4")	**9065705**	$219.95

FAQs

Are wheel spacers safe?

Yes. When they're properly installed, the car is just as safe as when the wheels are installed without spacers.

Will wheel spacers cause my wheel studs to bend?

No. The load from a wheel is transferred to the axle/hub through the friction of the clamped joint, not through the wheel stud. A wheel stud can only bend if the lug nuts are not properly torqued, in which case the wheel is about to fall off anyway.

See the MM web site for more information about the physics of keeping the wheels on.

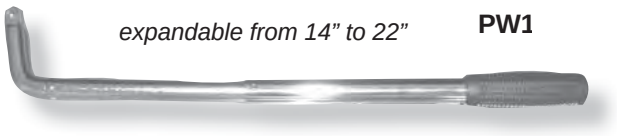
MMWS-8

Wheel Accessories

No matter what rim you're mounting, these top-quality Gorilla brand wheel accessories will make your life easier.

Description	Part No.	Price/ea.
Thin Wall Socket, 3/4" hex, 1/2" drive	**34SKT**	$9.50
Open Ended Lug Nut, 3/4" hex	**40088**	$0.99
Complete Wheel Installation Kit, 5-lug with closed nuts, locks, valve stems	**41983HT**	$34.95
Power Wrench Handle, expandable, 1/2" drive	**PW1**	$18.95

- The thin-wall socket gets into wheel lug spaces where normal sockets don't fit.
- Open-ended lug nuts allow the use of long wheel studs, as required by many sanctioning bodies. The shoulder prevents your socket from marking your wheel.
- The wheel installation kit has everything you need to install a set of four rims. It includes 4 valve stems, 4 wheel locks, and 16 factory-style closed-end lug nuts.
- The trick telescoping handle of the socket wrench extends to 22" to provide maximum leverage to loosen even the tightest lug nuts and then compacts to a convenient 14" for easy storage.



Shop Online!

Wheel Studs

MM offers long wheel studs from both ARP and Moroso. Some sanctioning bodies require long studs and open-ended lug nuts. Long studs also allow installation of MM's 3/8"- and 1/2"-thick wheel spacers.

ARP studs are plated for corrosion protection. Moroso studs are black oxide-coated.

Both ARP and Moroso wheel studs feature a quick-start tip. The first ½" of the stud is not threaded, which helps prevent cross-threading of the lug nut.

Front studs

1979-93 Both ARP and Moroso studs require drilling the front rotor/hub with a 37/64" drill bit for a proper press fit.

1994-04 Both ARP and Moroso studs have the correct diameter knurl to press into Mustang front hubs without enlarging the hole.

ARP

Application	Overall Length	Thread Length	Knurl Diam-eter	Part No.	Price/ea.
1979-04 front & rear	3.5"	2.5"	.620"	**8SWR**	$4.95

Moroso

Application	Overall Length	Thread Length	Knurl Diameter	Part No.	Price/set
1979-04 front	3.5"	2.15"	.590"	**46185**	$15.95
1979-04 rear	3.5"	2.15"	.615"	**46180**	$15.95

Rear studs

1979-04 ARP and Moroso studs require drilling the rear axle flange with a 39/64" drill bit for a good press fit.

Clutch Quadrant, Cable, & Firewall Adjuster

Take control of your car's clutch adjustment! The stock clutch quadrant is self-adjusting (it adjusts to what *it* wants, not to what *you* want), and is made of failure-prone plastic. Replace the stock self-adjusting plastic quadrant with MM's durable CNC-machined aluminum quadrant. The clutch can then be adjusted in the best, most convenient manner possible: at the firewall.

Not all clutch quadrants are created equal. The MM Engineering Team designed a solution to the shortcomings of all the other aftermarket clutch quadrants with our strong, lightweight, CNC-machined aluminum quadrant. It's our attention to detail that places the MM Aluminum Clutch Quadrant above all the rest.

- The MM Quadrant works with the durable Ford OEM cable because we designed the quadrant and the firewall adjuster around the stock cable, unlike other quadrants that require inferior adjustable cables.

- We use a stock quadrant radius. Don't be fooled by the marketing hype promoting supposedly quick-release quadrants. Those change the quadrant's radius, which in turn causes increased pedal effort, over-stroking of the pressure plate, and premature cable failure because the inner cable then rubs on its housing.

- The diameter of the quadrant's pivot hole is critical. If the hole's too large the quadrant wobbles from side to side, causing a sloppy and imprecise pedal feel. If the hole's too tight, the quadrant's difficult to install. We maintain a very tight manufacturing tolerance to ensure good fit.

- Slotting the second hole is our solution to Ford's tolerances for the distance between the two shafts that hold the quadrant. To deal with the variances in this dimension, some manufacturers make the second hole extra large, while others don't even use a hole at all but allow the quadrant to rest, unrestrained, on top of the second shaft. Both of these commonly used designs result in a loose, rattling pedal. That's why we use a carefully designed slot.

- Keeping the end of the cable properly situated increases cable longevity. We machine the quadrant to ensure that the end of the cable sits square to the quadrant. Most other quadrant manufacturers take shortcuts during machining to save money. But their design, while it makes the machining easier, also prevents the cable end from seating squarely against the quadrant. This in turn forces the cable into an abrupt bend at its end. The increased stress on the cable can lead to premature failure.

- Easier installation—we didn't just follow along with what others have done. We designed our quadrant to be as easy to install as possible. One end is machined thinner. This facilitates installation on the pre-1994 cars because they have very tight clearance to the dashboard support. Most manufacturers machine the wrong side of the quadrant, making installation more difficult. The MM Clutch Quadrant is machined on the correct side to make the installation simple. It's easy to see that we didn't copy our design from others, but rather looked at the problems and then designed a product to solve them.

Firewall Adjuster

When replacing the stock plastic clutch quadrant with a durable aluminum quadrant, you also have to have some method of adjusting the clutch. Adjustable clutch cables are inconvenient because the car has to be jacked up for access. Also, aftermarket adjustable cables are of exceedingly poor quality. The most convenient method of clutch adjustment is to use a firewall adjuster. Access to it is as easy as opening the hood. MM's Firewall Adjuster has more adjustment range than most other firewall adjusters, and it's designed to work with Ford OEM clutch cables. A slight modification must be done to the stock Mustang cable to fit the MM Firewall Adjuster. MM's Universal Ford OEM Clutch Cable requires *no modifications.*

MMCL-3

1982-2004 Mustang **MMCL-3** $39.95

Shop Online!

Clutch Quadrant, Cable, & Firewall Adjuster

Aluminum Clutch Quadrant

While the MM Clutch Quadrant requires a firewall adjuster, it also allows adjusting the clutch cable from under the hood, not under the car. Our quadrant also allows the use of the higher-quality Ford OEM clutch cable.

1982-2004 Mustang

MMCL-6 $39.97

MMCL-6

Clutch Cables

Few people realize what a significant impact the clutch cable has on clutch pedal effort. While an original Ford OEM cable feels butter smooth, aftermarket cables often cause an amazingly high increase in pedal effort.

Aftermarket cables have a much shorter lifespan because of their inferior construction and materials, and are much more susceptible to heat damage. There just isn't any reason to use anything other than a Ford OEM cable.

We've done considerable research on clutch cables, buying and testing almost every aftermarket Mustang cable on the market. After all our investigation, we found that the Ford OEM clutch cables are the best-quality cables available. Ford cables have a multi-material, layered construction that provides better heat, friction, and collapsibility protection than any of the aftermarket cables we tested.

The MM Universal Ford OEM Clutch Cable comes directly from Ford. We then modify the cable housing, so you don't need to; the MM Universal Cable is a direct fit to the MM Firewall Adjuster. The MM Universal Cable works especially well on 1982-93 Mustangs because it's longer than the original stock cable, which allows routing the cable further forward and away from the punishing heat of the exhaust headers.

Packages

MM Clutch Quadrant, MM Firewall Adjuster, MM Universal cable

MMCP-51 $139.40

MM Clutch Quadrant and MM Firewall Adjuster only (use with *your* Ford cable)

MMCP-52 $71.93

Application	Description	Part No.	Price
1982-04 Mustang	MM Universal Ford OEM clutch cable	**MMCL-11**	$74.97

MMCL-11

Clutch Pedal Height Adjuster Kit

Driving your car will be easier after installation of the Maximum Motorsports Clutch Pedal Height Adjuster Kit. This kit allows adjustment of the clutch pedal height to suit your driving style. The original placement of the clutch pedal is 1-2" above the brake pedal. This makes smooth and precise driving difficult, as your feet must search to find pedals that are placed at three different heights. This easy-to-install kit allows adjustment of the clutch pedal to the same height as the brake pedal, or even slightly below or above it. NOTE: This kit *requires* the use of an aftermarket clutch quadrant and either a firewall adjuster or an adjustable clutch cable. On some cars the adjustment range of pedal height placement may be limited. Several things, including the pressure plate, clutch cable, and the quadrant, will cause variations in the point of clutch engagement, which in turn affects where the pedal can be positioned relative to the floor.

MMCL-7

1982-93 Mustang **MMCL-10** $19.95/kit

1994-04 Mustang **MMCL-7** $19.95/kit

Clutch Kits

MM-Tilton Clutch kit for 1979-2014 Mustangs with 5.0L-based pushrod, 4.6L 8-bolt crank, and Coyote engines.

Go faster with an MM-Tilton clutch. This 7.25” clutch is significantly lighter weight than a standard clutch, with a much lower moment of inertia (MOI). That quickens acceleration and improves shifting.

Benefits

- Lighter than the standard 10.5” clutch/flywheel package
- Much lower moment of inertia (MOI) than a standard clutch
- Faster acceleration
- Quicker engine deceleration, improving braking at corner entry
- Faster shifting
- Reduced wear of synchronizers
- Low pedal effort
- Increases torque-holding capacity while reducing weight, compared to a single-disc clutch.
- Retains standard Mustang cable-actuated release bearing system. May be upgraded to a hydraulic release system.

Features

- Aluminum clutch cover
- Lightweight button-style steel flywheel
- Disc pack with solid-hub 7.25” discs and steel floaters
- MM Adjustable Height Clutch Pedal Stop
- Adjustable-height clutch fork pivot stud
- Clutch hardware kit
- ARP flywheel bolts
- Ring gear plate
- Tilton release bearing
- Disc alignment tool
- Engine torque limits of 570 ft-lb (2 disc) or 855 lb-ft (3 disc)

Fits

- 1979-2014 Mustang chassis
- 302/351/5.0L-based pushrod engines with a late-model (1981-2004) bellhousing and late-model starter offset (for 157-tooth ring gear)
- 4.6L 8-bolt crank-based engines
- OEM Mustang and typical aftermarket transmissions. *Please specify spline count when ordering.*

MM’s famous #91
Driver: MM’s infamous Mike Croutcher

Why do I need a Tilton multi-disc clutch?

To reduce your lap times.

How will a Tilton multi-disc clutch reduce my lap times?

Tilton’s race-proven 7.25” multi-disc clutch/flywheel assemblies have a lower MOI than conventional single-disc clutches. This helps the car accelerate faster out of each corner and lets the engine decelerate faster when the throttle is lifted. Quicker engine deceleration improves braking at corner entry, often allowing more rear brake bias and thus shorter stopping distances.

The low MOI also lets the transmission synchronizers easily match the gears’ speeds during shifting, allowing quicker shifts.

What’s the best application for this package?

Mustangs dedicated to road racing, time trials, or open tracking. These are Mustangs that are trailered to events. To reduce clutch wear, we recommend winching the car onto the trailer rather than driving it on.

Can I drive this Tilton clutch on the street?

While the MM-Tilton clutch kits are designed for off-highway road course use, some of our customers use them successfully on the street. However, expect accelerated disc wear.

Can I use this Tilton clutch for drag racing?

The MM-Tilton clutch kits are meant for off-highway road course use, but sometimes we get reports of customers doing well with them on the drag strip. They allow lightning-fast upshifts with very high torque capacity and quick, clean clutch release. *Note:* The slippage when launching the car from higher RPMs will accelerate wear of the friction material.

Are service parts available?

Yes. All individual components in this package are available separately. ***Note:*** You must call us to order; service components are not listed on our web site.

How do I order an MM-Tilton clutch for my Mustang?

You can order this item on our website or call us for assistance.

Remote Oil Filter Mount

We designed and manufacture this part for use in our oil filter relocation kits because none of the available remote filter mounts met our standards. This mount is available separately from the kit for those building their own custom oil system. Machined from billet aluminum, this lightweight remote filter mount is anodized black and accepts the common Ford small block-style oil filter (FL1-A and FL-1HP). Note the placement of the inlet and outlet on the MM remote filter mount—the inlet and outlet ports are located 90 degrees from the mounting surface, unlike any other remote mount. The two ports are 7/8"-14, for O-ring sealed –10AN adapter fittings.

Billet remote oil filter mount	**MMOC-5**	$49.95

Shop Online!

Oil Filters

Motorcraft Oil Filter

FL-1A	$5.99

Motorcraft Racing Oil Filter

FL-1HP	$12.99

Short Filter

This filter is a direct replacement for the standard Ford FL-1A oil filter. Its shorter length can be of great help in some restricted-clearance situations, such as when a sandwich plate has been installed for an oil cooler. These move the oil filter's location outboard, sometimes causing interference with the front swaybar. It can be intermittent and depends on how much the swaybar moves laterally.

Motorcraft Oil Filter (short)	**FL-300**	$5.99

Transmission Mounts

Transmission Crossmember to Chassis Mount

Polyurethane

1979-93	**6-1603-BL**	$19.95/set

Transmission Mount

Polyurethane

1979-98	**6-1604-BL**	$43.77

Urethane Motor Mounts

Urethane motor mounts are more durable and torque resistant than OEM rubber. Unlike solid race-style mounts, they're not too harsh for street use. These mounts feature a safety-interlock design that retains the stock engine location.

1984-95 5.0 Mustang	**4-1122 GX**	$139.95
1996-04 4.6 Mustang	**6-504-BL**	$158.37

MM Solid Mounts

MMSMM-2

Recommended for situations where, due to extreme horsepower, rubber or urethane is no longer suitable. Expect increased noise and vibration. These solid motor mounts retain the stock engine location.

MM Solid Motor Mount	1979-95	**MMSMM-1**	$64.97
MM Solid Motor Mount	1996-04	**MMSMM-2**	$84.97

MMSMM-1

Shop Online!

Ordering

Ordering is by phone (9-5:30 Pacific Time, Mon.-Fri.), 24/7 on the MM web site, and by fax, e-mail, or snail mail. Credit cards accepted: Discover, Visa, MasterCard, and American Express. PayPal is accepted on the MM web site. We do not ship COD. California residents will be charged the current state sales tax on all orders.

How to Order with a Money Order or Check
Using our on-line order form (or a piece of paper) write your name, address, phone number, car description (make, model, and year), and the products you want. Call us for the current prices, availability, and shipping charges. Send your money order or check for the total price we quoted you, the above information, and your shipping choice to our San Luis Obispo offices. There is a 12-day hold on all personal checks.

Back Orders
Back orders are shipped as soon as we possibly can, unless otherwise directed when your order is placed.

Special Orders
Special orders must be prepaid and are not returnable or refunded.

Prices
Prices are subject to change without notice. Prices charged are those prevailing at the time of shipment.

Product Changes
Maximum Motorsports reserves the unconditional right to change the design, materials, specifications, and suppliers of any product cataloged by Maximum Motorsports without incurring any liability or obligation to the purchasers of any such product.

Shipping

Large Items
Items too large for UPS (some roll bars) are shipped by truck.

Post Office Boxes
Shipment to a PO Box can only be done through the US Mail.

UPS Rush Service
Most orders are shipped UPS Ground Service. For orders received **BEFORE 12:00 noon Pacific time**, three additional options are available: Next Business Day, 2nd Business Day, or 3rd Business Day.

Returns and Exchanges

Damaged Merchandise
Merchandise damaged in transit is the sole responsibility of the carrier. Maximum Motorsports inspects all merchandise prior to shipment and packages it securely. It's your responsibility to inspect it completely while the driver is present and have him/her note any damages. If damages are found after delivery, call the carrier immediately for an inspection. DO NOT return any damaged parts to Maximum Motorsports. If you do, the carrier may not honor your claim and the loss will become your responsibility. We're happy to assist with filing a claim.

Return and Exchange Policy
To initiate a return or exchange, call Maximum Motorsports (805/544-8748) to obtain a Returned Goods Authorization Number (RGA#). The RGA# must be clearly marked on the outside of the package near your return address. Packages **WILL NOT** be accepted without prior authorization. All returns must include a copy of the original invoice and return shipping must be prepaid. CODs are NOT accepted. Returns may be subject to a 20% restocking fee. All items returned must be in perfect new condition in the original packaging. All returns must be made within 30 days of receipt.

Street Legal

Aftermarket parts are intended to modify or prepare a vehicle for uses that exceed conditions anticipated by the vehicle manufacturer.

Vehicles modified with some Maximum Motorsports-manufactured accessories may no longer be legally used on public roads. Check your state and local laws before installing Maximum Motorsports-manufactured accessories on vehicles intended for use on public roads.

Federal and state laws prohibit removing, modifying, or rendering inoperable any device or element of design of the pollution control device or system on any motor vehicle used on public highways.

Warranty

Unless otherwise specified, Maximum Motorsports parts are intended for off-road or competition use only, and are sold as-is without any warranty whatsoever. Implied warranties of merchantability or fitness, etc., are also excluded. The entire risk as to quality and performance is with the buyer. Should such accessories prove defective, the buyer assumes the entire cost of all necessary service and repair.

All accessories manufactured by another manufacturer are warranted to the extent of such warranty offered by the manufacturer. Non-Maximum Motorsports-manufactured accessories have no Maximum Motorsports warranty.

We have properly presented the required pre-sale notification of our warranty terms. We are neither liable nor responsible for ascertaining whether those terms have been read by our customers.

Warning

Do not install any Maximum Motorsports product if you do not feel competent to install the product without causing present or future injury to yourself or others. Consult a professional installer instead.

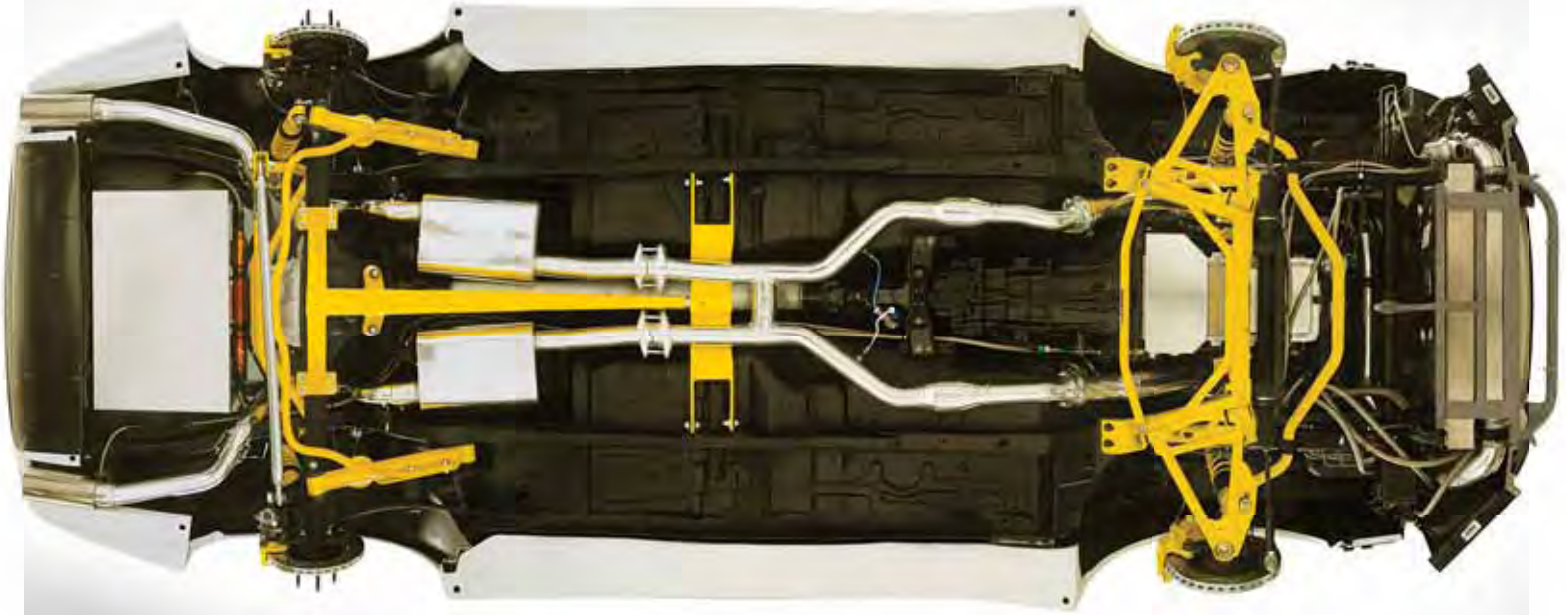
Thank you for doing business with us here at...

Maximum Motorsports Inc.

3430 Sacramento Drive, Unit D
San Luis Obispo, CA 93401
866/511-1403 (voice)
805/544-8645 (fax)

www.maximummotorsports.com

How to "Maximize" Your 1979-2005-up Mustang*



*Please see MaximumMotorsports.com for 2005-up applications not included in this catalog, or call 866/511-1403 toll-free.

The Leader in Mustang Performance Suspensions

Maximum Motorsports Inc.®

866/511-1403 MaximumMotorsports.com