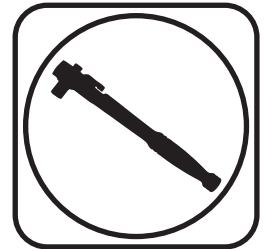




**Part # 12094810 - 64-66 Mustang Composite Leaf Springs Kit with HQ Series Shock Kit**



### Recommended Tools



## 64-66 Mustang Composite Leaf Springs & Shock Kit

# Installation Instructions

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Page 4..... Leaf Spring Installation

**IT IS VERY IMPORTANT THAT NOTHING COMES IN CONTACT WITH THE COMPOSITE LEAF SPRINGS.**

**WILL NOT FIT CONVERTIBLES**

[www.ridetech.com](http://www.ridetech.com)



10/27/25 REV2



### Major Components .....In the box

Part #	Description	QTY
90002909	Leaf Spring Blade Assembly w/70012652, 70012653, & 90000519 installed	2
70012605	Delrin Rear Shackle Frame Bushing - 1/4" Flange	4
90000519	Inner Bushing Sleeve	2
70013973	1" Lowering Block w/70012898 pressed in	2
90002496	Shackle Plate	4
90002758	3/16" Spacers	4

### Hardware Bags - Leaf Spring Kit

Part #	Description	QTY
99501029	1/2"-13 x 6 1/2" Hex Bolt GR8 - FRONT	2
99501037	1/2"-13 x 4" Hex Bolt GR8 - REAR	4
99502007	1/2"-13 Thin Nylok Nut	6
99436001	7/16"-20 x 6 3/4" U-bolt	4
99432009/99433002	7/16"-20 High Nuts/ 7/16" Flat Washers	8



**SWEDGED AXLE TUBES!** - IF YOUR CAR EQUIPPED WITH A DIFFERENTIAL THAT HAS THE ENDS OF THE AXLE TUBES SWEDGED TO 2 1/4", YOU WILL NEED DIFFERENT U-BOLTS. YOU WILL NEED (4) OF RIDETECH PART # 99436004.

## Getting Started.....

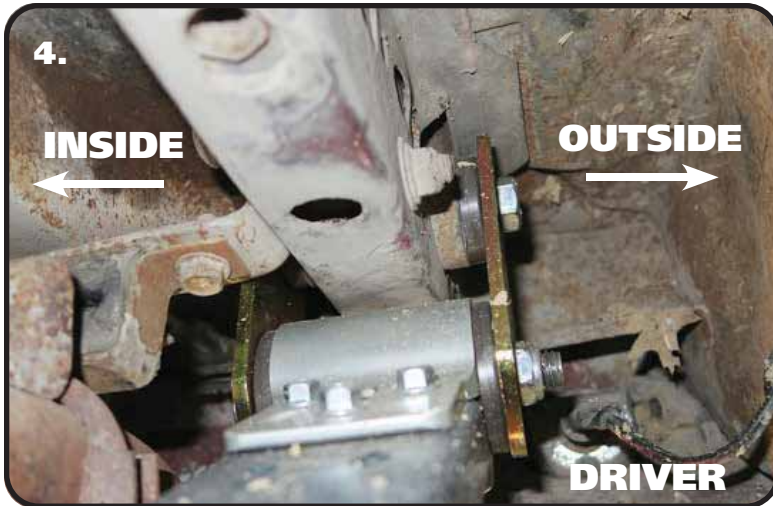
**IT IS VERY IMPORTANT THAT NOTHING COMES IN CONTACT WITH THE LEAF SPRING.**

1. Jack the car up and support it by the frame rails. You will need to raise and lower the rear differential with a jack to ease installation. With the car supported by the frame, put the jack underneath the rear end housing and raise the jack up just enough to support the differential. Remove the rear leaf springs & OEM shocks.
2. The Delrin Bushings will be preinstalled in the Composite Leaf Springs. The Delrin Frame Bushings will need to be installed. Start by removing the OEM frame bushings.
3. The Shackle Plates and Hardware can be used to push the rear bushings and sleeves into the frame location. Start by inserting an Inner Sleeve into a Bushing from the inner side (opposite of the flange). Push the sleeve in until it is flush with the flange side of the bushing. Insert the bushing/sleeve into the shackle bushing hole. Insert a 2nd bushing half in the opposite side pushing it onto the sleeve as far as you can by hand. Insert a 1/2"-13 bolt into a shackle plate. Insert the bolt/shackle plate into the bushing/sleeve and install a second shackle plate on the threads sticking out of the bushing. Install a 1/2"-13 nut and tighten until the bushings bottom out on the frame.

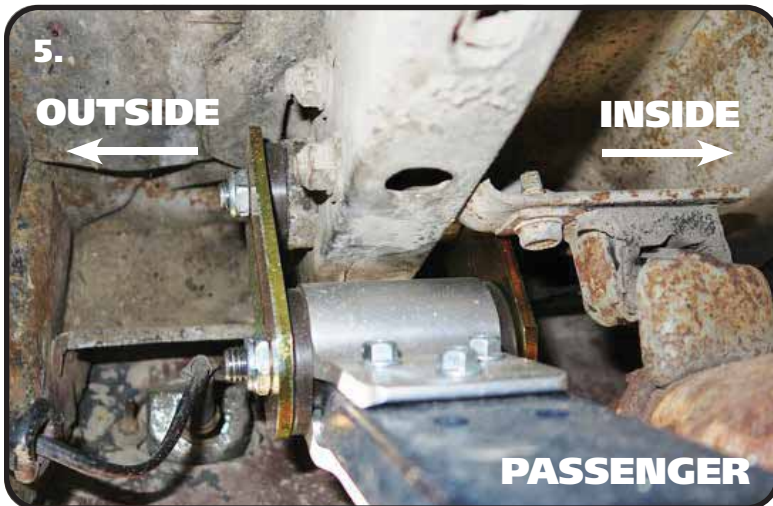
**THESE LEAF SPRINGS ARE DESIGNED AND MADE FROM BLANKS. THE BLANK FOR YOUR SPRING COULD HAVE THE WORD "CHEVROLET" ON IT. THIS ONLY MEANS THE FIRST VEHICLE THE BLANK WAS TESTED ON WAS A CHEVROLET. EACH VEHICLE HAS A SPECIFIC LENGTH, PIN LOCATION, AND SPRING RATE. THESE LEAF SPRINGS WERE DESIGNED SPECIFICALLY FOR THE MUSTANG.**



### Leaf Spring Installation



**4 & 5.** Attach the rear of the Composite Leaf Spring to the rear mount. THE REAR BUSHING IS THE **SMALLER** OF THE 2 LEAF SPRING BUSHINGS. New Shackles and Hardware is supplied with Delrin Bushings. The orientation of the hardware differs on the driver and passenger shackles. **Image 4** illustrates the driver side hardware orientation, **Image 5** illustrates the passenger side. Attach a Shackle Plate to each side of the Frame Bushing using a 1/2"-13 x 4" Bolt and 1/2"-13 Nylok Nut. Driver side bolt will need the threads pointing to the inside of the car. Passenger side will need the threads pointing to the outside of the car. Do not tighten. Align the remaining bolt holes in the shackle plates with the sleeve in the rear Leaf Spring bushing. Install a 1/2"-13 x 4" Bolt and 1/2"-13 Nylok Nut. Both sides will need the threads of the bolt pointing out. Do Not tighten hardware, it will get tightened later.



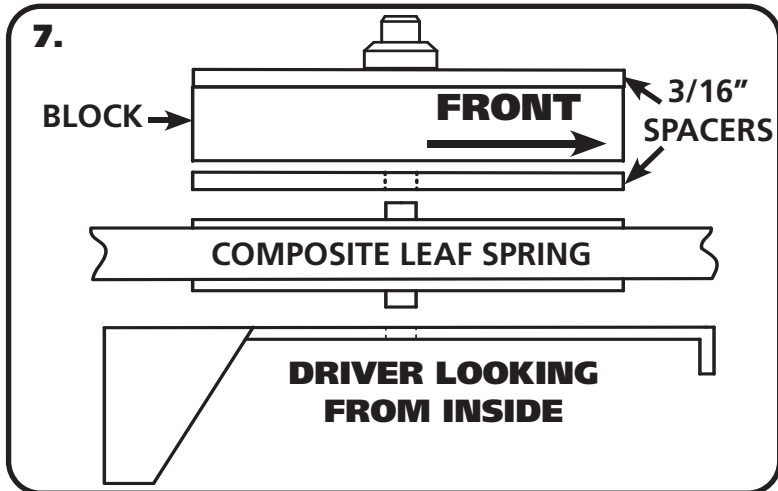
**6.** Swing the Leaf Spring up and attach the **LARGE BUSHING END** of the Composite Leaf Spring into the OEM front leaf spring mount using a 1/2"-13 x 6.5" Hex Bolt and 1/2"-13 Nylok Nut.

**Note:** You may have to jack the rear differential up enough to swing the leaf spring in place.



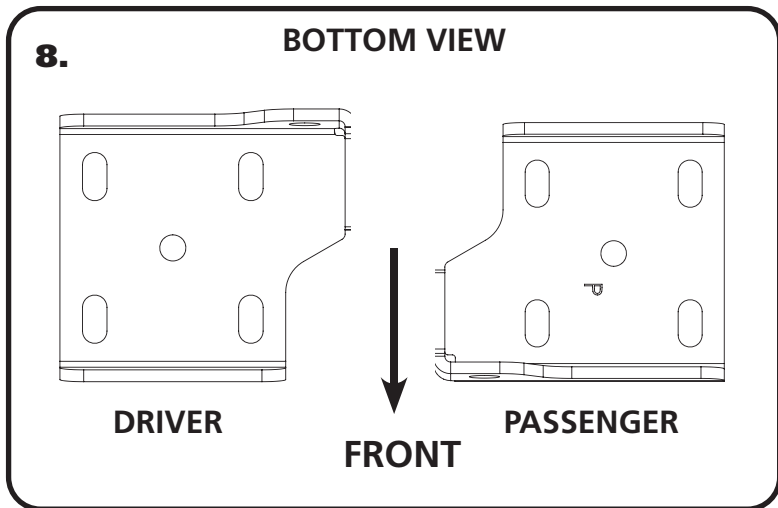


### Leaf Spring Installation

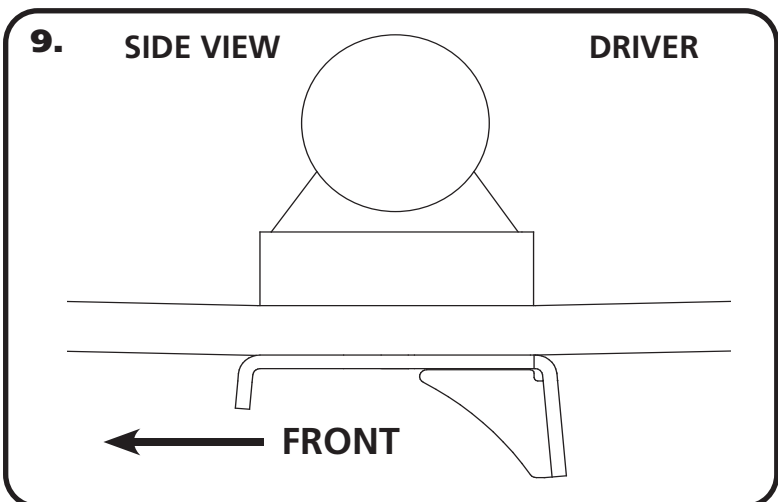


7. The Composite Leaf Spring has to be clamped in place with the Lower U-bolt Plate. If installing the Ridetech HQ Shock Kit too, new Plates are included with it. Install (1) 3/16" Spacer Plate on the Leaf Spring with the locating pin inserted in the center hole of the spacer. Next, install the 1" Lowering Block/Spacer Plate on top of the Spacer with the locating pin inserted into the center hole of the block. The 3/16" Spacers are to help even out the Clamping on the axle mount and leaf spring.

**NOTE:** Check the fitment of the Pin in the lowering block with the hole in the leaf spring pad. We have seen slight variations in the hole diameter due to the production process, it may be necessary to buff out the hole to get the pin to fit. **THE KIT INCLUDES A SMALLER PIN FOR CARS WITH THE SMALL LOCATING HOLE. YOU WILL NEED TO SWITCH THEM IN THE ALUMINUM BLOCK.**



8. Install the lower U-Bolt Plate/Shock Mount **being sure the Pins and Holes are aligned.** (Image 7) shows the U-bolt Plates/Shock Mounts as viewed from the bottom. (Image 8) shows the Driver Mount viewed from the outside of the car. The Driver Mount positions the bottom of the shock to the inside behind the axle. The Passenger Mount positions the bottom of the shock to the inside in front of the axle, IT HAS A "P" STAMPED IN IT. Install the 7/16" U-bolts on the axle tube in place of the OEM u-bolts. Slide the New U-bolt Plates onto the U-bolts using (Image 9) as a reference. Verify that the lower locating pin is indexed into the locating hole of the Plate. Install the hardware on each U-bolt. Evenly tighten the hardware by tightening in a crisscross fashion. Torque the nuts to 55 ftlbs. (Image 10) shows the Driver Plate installed.



**Composite Leaf Spring Note:** When tightening the mounts, pay attention to the pads on the springs to make sure there is visible compression of the pads. .030"- .060" of compression is needed for the springs to be securely mounted. All of the clamping force needs to be on the spring itself.



### Leaf Spring Installation



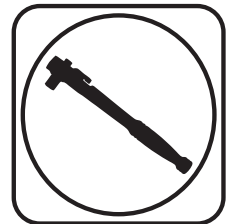
10. Tighten the Bushing hardware, torquing it to 75 ftlbs. The Delrin Bushings will not bind, so it isn't necessary to have the car at ride height.

11. **DOUBLE CHECK TO MAKE SURE NOTHING IS COMING INTO CONTACT WITH THE LEAF SPRING.**

### Part # 12099510 - 64-66 Mustang Staggered Shock Kit



#### Recommended Tools



## HQ Series Staggered Shock Kit Installation Instructions

#### Table of contents

- Page 6..... Components
- Page 7..... Upper Mount Installation
- Page 8..... Shock Installation
- Page 9..... Shock Adjustment



### 5.25" HQ Series Smooth Body Shocks

#### Major Components .....In the box

Part #	Description	QTY
986-10-085	5.25" Stroke Shock	2
70011138	3/4" ID Shock Bushing (Installed in Shock)	4
90002103	5/8" ID Shock Sleeve (Installed in Shock Eyelet)	2
90002102	1/2" ID Shock Sleeve (Installed in Shock Body)	2
90002616	Upper Shock Mount Assembly - Driver	1
90002614	Upper Shock Mount Assembly - Passenger	1
90002617	Upper Shock Mount Inner Brace - Driver	1
90002615	Upper Shock Mount Inner Brace - Passenger	1
90001617	Lower Shock Stud	2
90000471	Cantilever Pin Spacer	2
90003577	Leaf Spring U-bolt Plate - Driver	1
90003578	Leaf Spring U-bolt Plate - Passenger "P" Stamped on Part	1

#### Hardware Bags - Rear Shock Kit

Part #	Description	Usage	QTY
99433002	7/16" Flat Washer	Passenger Upper Shock Mount to Body	1
99432001	7/16"-14 Nylok Nut	Passenger Upper Shock Mount to Body	1
99311011	5/16"-18 x 1 1/4" Hex Bolt	Driver Upper Shock Mount to Body	7
99312002	5/16"-18 Nylok Nut	Driver Upper Shock Mount to Body	7
99313002	5/16" Flat Washer	Driver Upper Shock Mount to Body	14
99501010	1/2"-20 x 2 1/4" Hex Bolt	Shock to Upper Shock Mount	2
99503001	1/2" Flat Washer	Shock to Upper Shock Mount	2
99502002	1/2"-20 Nylok Nut	Shock to Upper Shock Mount	2

The Rear Shocks will be installed in conjunction with the Rear Leaf Springs.



### Upper Mount Installation

THE LOWER PLATES ARE INSTALLED ALONG WITH THE COMPOSITE LEAF SPRINGS.



5. The Driver Upper Shock Mount repositions the top of the shock to behind the axle. The Mount nests in the car one way. Position the Mount in the car with the Shock attaching point to the rear and away from the frame. The outside edge of the mount will touch the frame with the front edge against a body seam. Using these points as a guide, the Mount will fit the contours of the body. With the Mount in position, use it to mark the 7 holes and drill them 5/16"



6. After drilling the 5/16" holes for the Driver Mount, position the backer plate on the inside of the car. Use **(Figure 6)** as a reference. When the Backer Plate is put into place, it will fit the contours of the body, aligning with the drilled holes. Install a Flat Washer on each of the 5/16"-18 x 1 1/4" Hex Bolts and insert them through the Backer and Body. Hold the Shock Mount in place and install a 5/16" Flat Washer and 5/16"-18 Nylok on each of the Bolts sticking through the Backer and Body. Tighten the hardware. A plug is supplied in the kit to seal off the driver side OEM shock hole.



7. Install the Passenger Shock Mount will be installed in the OEM location. The Shock Mount is shaped to fit the body and will only fit into the OEM location one way. Install the mount into the OEM location with the Stud sticking through the OEM shock hole. Have someone hold the mount in place while installing the top support and mounting hardware,



### Shock Installation



**8.** Insert the Upper Backer through the shock access hole. Install it with the Stud from the Shock Mount sticking through the hole in the Backer. Rotate the Backer on the Stud to get it sitting flat against the body of the car. Once the Backer is positioned properly, install a 7/16" Flat Washer and 7/16"-14 Nylok Nut on the Stud and tighten. Make sure the Shock Mount stays positioned correctly while tightening.



**9.** The Shock is mounted in the Upper Mount with the BODY UP. It is held in place with a 1/2"-20 x 2 1/4" Hex Bolt & 1/2"-20 Nylok. If the threads of the bolt would happen to touch the floor pan of the car, a 1/2" Flat Washer can be installed under the head of the bolt.



**10.** The Lower Shock is Bolted to the Lower Shock Mount using the supplied Shock Stud. Install the Studs into the Lower Mounts with a Washer on each side of the Mount. Slide a Washer onto the Stud. Jack the Rear Differential up until the Shocks can be slid onto the Shock Stud. Slide the Shock onto the Stud with the Adjuster Knob pointing inward. Install the supplied 7/16" Flat Washer and Nylok Nut onto the Threads and tighten.

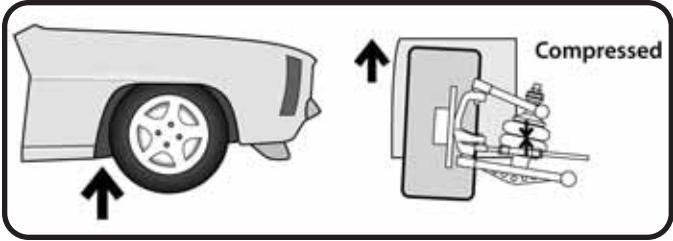


# TUNING GUIDE

## SINGLE-ADJUSTABLE SHOCKS

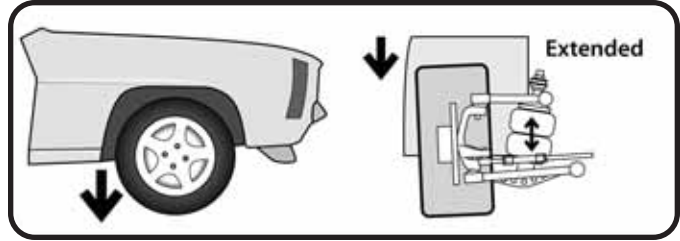


### The Basics...



#### COMPRESSION

This typically occurs when you hit a bump in the road. The bump forces the wheel/tire/suspension assembly to "compress" or move upwards into the car.



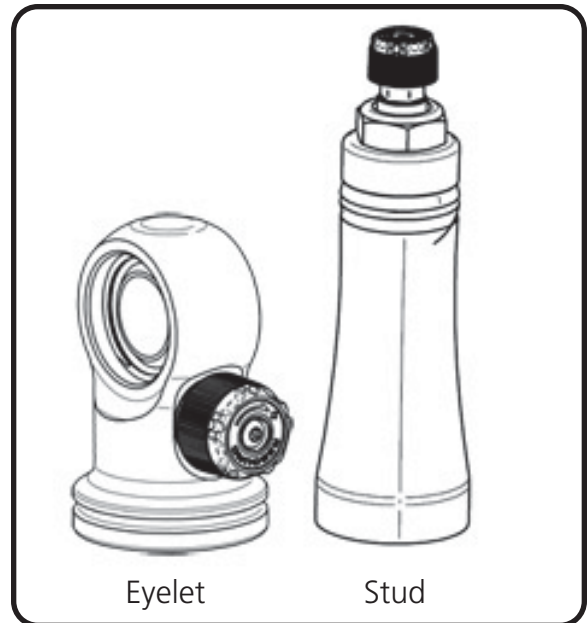
#### REBOUND

Rebound is the opposite of compression. This occurs when the wheel/tire/suspension assembly falls into a pothole, or simply "rebounds" from being compressed.

### Where Are The Knobs?

#### HQ Series Shocks

- The adjustment knob is located on the top of the shock, either protruding from the side of the eyelet, or atop the stud.
- This knob provides rebound adjustment only.



### Knob Function

Counterclockwise

=  
Softer



Clockwise

=  
Firmer





# TUNING GUIDE

## SINGLE-ADJUSTABLE SHOCKS



### Initial Rebound Setting

**NOTE:** Before jumping straight to a middle-of-the-road shock setting, we recommend you experience the full range of adjustment potential of your new shocks by first driving your vehicle at both the “full stiff” and “full soft” settings. Understanding how your shocks behave at these extremes will provide recognizable reference points as you attempt to dial in your settings.

1. Begin by setting your shocks to the “full stiff”, or minimal rebound position. You do this by turning the adjustment knob clockwise until it stops.

2. Now turn the adjustment knob counterclockwise 12 clicks. This is the approximate center of the adjustment range.

3. Take the vehicle for a test drive. Try to determine if you are experiencing any of the unwanted behaviors found at the extremes of the adjustment range. If you are satisfied with the ride quality and handling, you’re all set. Enjoy the ride!

4. If the vehicle feels too “floaty” or soft, turn the knob a few clicks clockwise to increase the damping effect.

If the ride quality is still too harsh or stiff, turn the knob a few more clicks counterclockwise to decrease the damping effect.

5. Take the vehicle for another test drive. If necessary, repeat the steps above until your desired optimal ride quality has been achieved.



### General Guidelines

- The rear shocks typically have the most influence on ride quality. This is due to your seating position being closer to the rear than the front.
- Adjustments to the front shocks will generally require 3-4 clicks in any direction to be noticeable, while adjustments to the rear shocks may only require 1-2 clicks to be felt.
- Don’t be afraid to turn the knobs and experience the full adjustment range. You are not going to hurt anything and you can always go back if you adjust too far one way or the other.