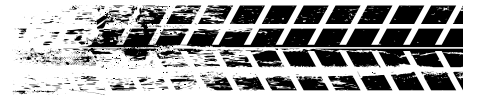




INSTALLATION INSTRUCTIONS



Part # 11410298



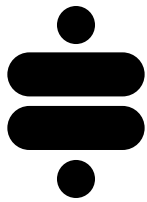
Front and Rear Air Suspension System

2000-2006 Tahoe / Yukon / Suburban 2WD

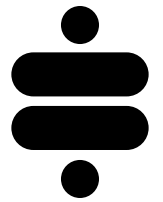


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**Please Read And Understand All Instructions
And Warnings Prior To The Installation Of
This Product.**



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Thank you for choosing ridetech!

Road Map

Pre-Installation Notes	3
Recommended Tools	4
<u>Front HQ ShockWaves: 11412401</u>	
Front Installation Instructions	5-13
<u>Rear CoolRide Kit: 11414010</u>	
Rear Installation Instructions	14-22
Shock Tuning Guide	23-24



SAFETY FIRST



Always use jack stands (if not using a lift). Never rely solely on a hydraulic jack to support the vehicle.

Always raise the vehicle on a clean and level surface. Use wheel chocks when necessary.

Be sure to wear proper Personal Protective Equipment (PPE) when welding.

Always wear eye protection (Z87.1) when operating power tools.

PRE-INSTALLATION NOTES

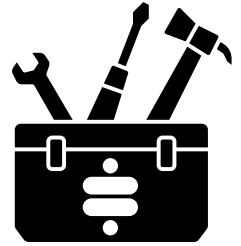
If you live in a rust-prone region, you may want to apply some penetrating oil to the shock bolts and sway bar linkage bolts a day or two prior to beginning this installation.

This kit requires cutting and welding. If you are uncomfortable with this type of operation, you may want to find someone with welding experience to assist.

Ridetech recommends this system be installed by a professional technician or experienced, reputable mechanic. Modification or improper installation of this product may result in loss of warranty. Proper installation and setup of your suspension is critical to the safe and enjoyable operation of your vehicle. Failure to follow the guidelines and specifications provided in these instructions may result in damage to your vehicle and/or death or serious injury to you, your passengers, or other motorists. Ridetech will not be held liable for any damage, loss or injury occurring from the use of this product outside of its intended application and design parameters.



RECOMMENDED TOOLS



Jack Stands or Lift

Thread Sealant

Cut-Off Wheel

Tape Measure

Pry bar/Crowbar

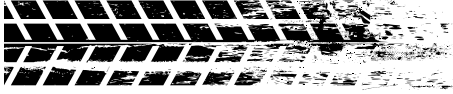
6mm Allen Socket

Torque Wrench

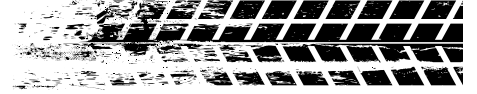
Welder

SAE Socket/Wrench Set

Metric Socket/Wrench Set



**INSTALLATION
INSTRUCTIONS**



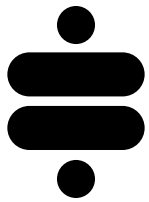
Part # 11412401



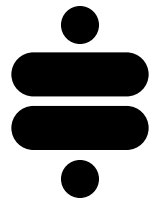
Front HQ ShockWaves

2000-2006 Tahoe/Yukon/Suburban 2WD





**Please Read And Understand All Instructions
And Warnings Prior To The Installation Of
This Product.**

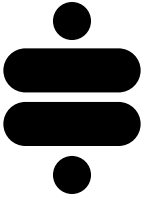


THANK YOU

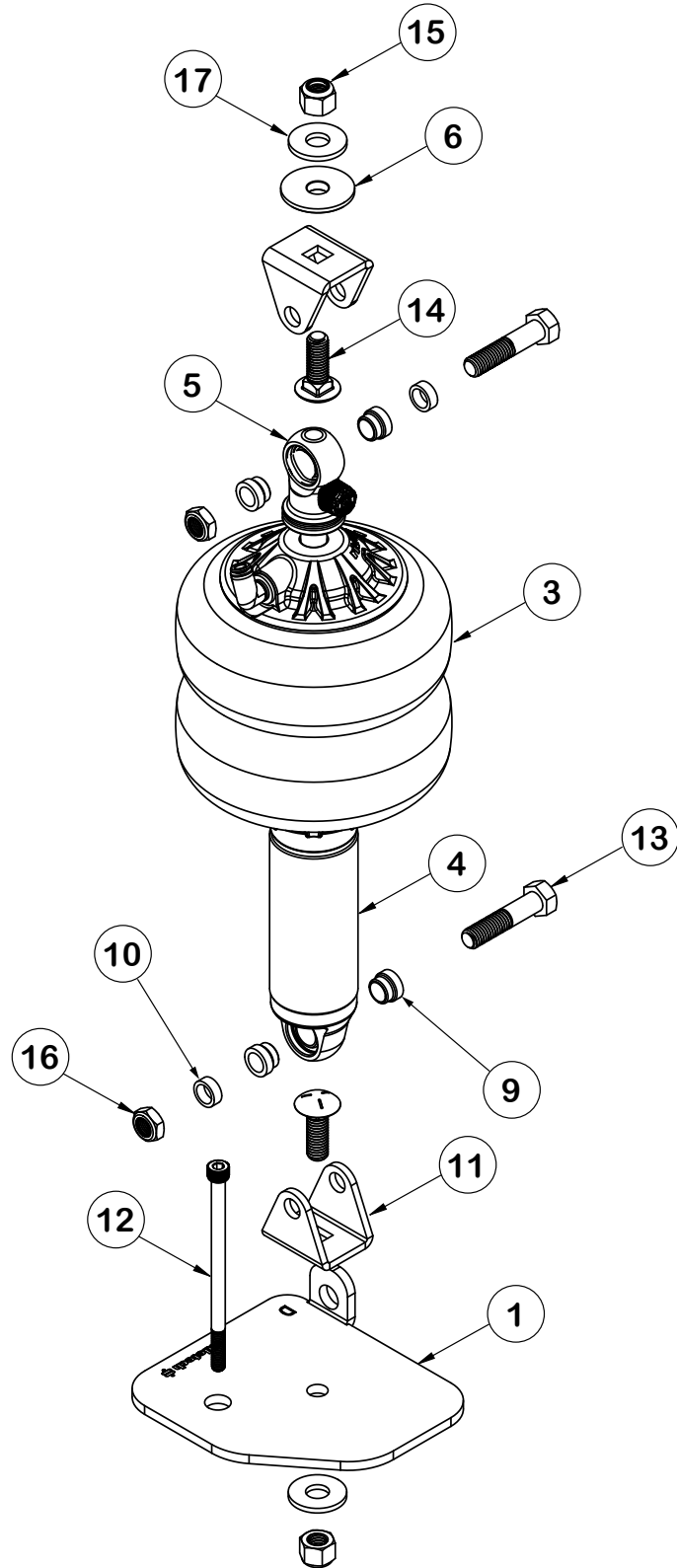
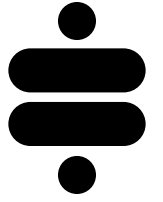
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Road Map

Exploded View	7
Parts Listing	8
Installation Prep	9
Upper Shock Mount	10
Lower Shock Mount	11
Final Installation	12
ShockWave Care Guide	13



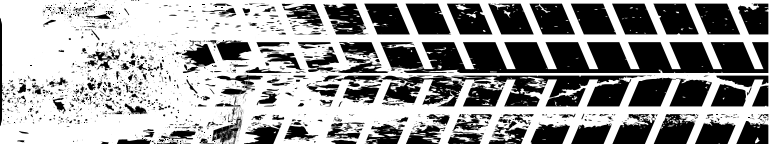
EXPLODED VIEW



PARTS LISTING

ITEM #	PART #	DESCRIPTION	QTY
1	90000281	ShockWave Lower Plate - Driver (Shown)	1
2	90000282	ShockWave Lower Plate - Passenger	1
3	24090199	1000 Series ShockWave	2
4	982-10-804	4.1" Travel SA Threaded Shock	2
5	815-05-022-KIT	Rebound Adjustable Eyelet, 1.7	2
6	90000359	Stepped Washer	2
7	90001994	Shock Bearing .625" ID x 1.0" (Preinstalled)	4
8	90001995	Internal Snap Ring (Preinstalled)	8
9	90002041	Aluminum Spacer, .500" ID	8
10	90002298	SKW Spacer, .50 ID	4
11	90009982	Upper/Lower Shock Mount	4
12	99081001	M8-1.250 x 140mm SOC CAP Screw	2
13	99501010	1/2-20 X 2 1/4 SAE HCS GR8	4
14	99501018	1/2-13 X 1 1/2 Carriage Bolt	4
15	99502001	1/2-13 NYLOK NUT	4
16	99502003	1/2-20 THIN NYLOK NUT	4
17	99503003	1/2 USS FLAT WASHER	4

Installation Prep



1. Raise the vehicle to a safe and comfortable working height. Allow the front suspension to hang freely.
2. Remove the torsion bar and existing shock. Refer to the factory service manual for proper disassembly procedure.

NOTE: Retain the factory shock bolts. They will be reused when mounting the lower ShockWave plate.

3. In order to achieve adequate clearance for the ShockWave, the corner of the bump stop bracket must be trimmed (Figure 1). A cut-off wheel works well for this.

4. Remove the bump stop cup (Figure 2). Again, a cut-off wheel works well here.

5. Remove and disassemble the sway bar end link. Shorten the end link by 2 1/4" as shown in Figure 3.

Reassemble the end link after shortening. A new end link bolt is included.

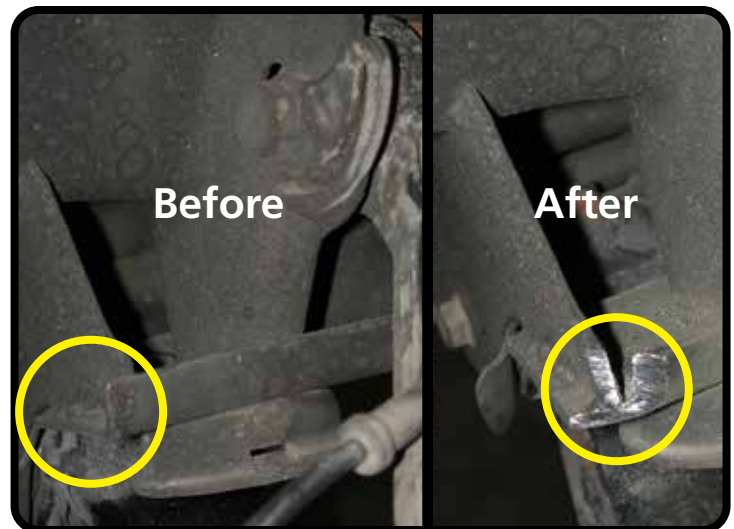


Figure 1



Figure 2

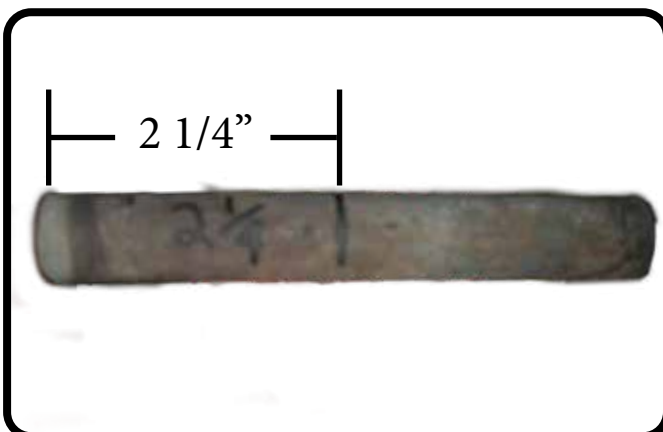


Figure 3

Upper Shock Mount

6. Insert a 90002041 shock spacer into each side of the shock eyelet bearing and assemble the upper shock mount as shown in Figure 4.

7. Place the 90000359 Stepped Washer on top of the coil spring pocket with the step facing down. Ensure the step is resting inside the factory shock hole (Figure 5).

8. Insert the carriage bolt of the assembled upper shock mount from step 6 through the factory shock hole and stepped washer.

NOTE: The aluminum spacer should be positioned to the rear (Figure 6).

Secure using a 1/2" flat washer and 1/2"-13 Nylok nut.

Torque the carriage bolt nut to **57 ft-lbs.**

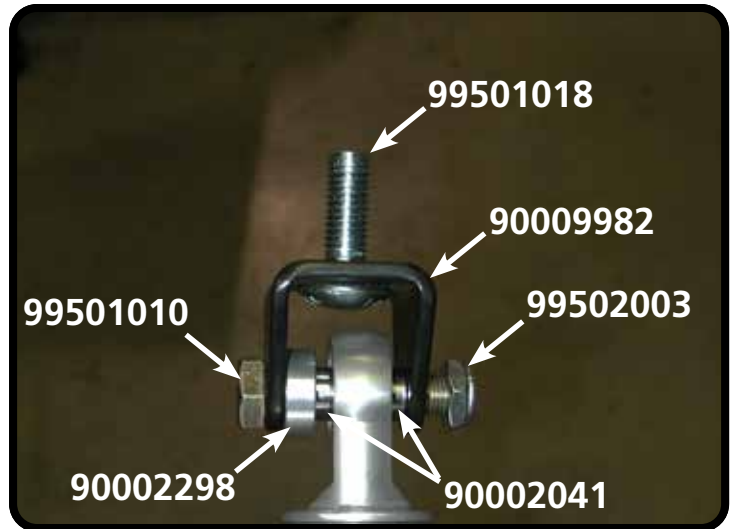


Figure 4



Figure 5



Figure 6

Lower Shock Mount

9. Attach a shock mount to the lower mounting plate as illustrated in Figure 7.

Torque the nut to **57 ft-lbs.**

10. Position the lower plate assembly from step 9 onto the lower control arm. The plates are stamped with a "D" or "P". Align the hole in the plate with the sway bar end link attachment point on the arm. Also align the tab hole with the factory shock mount hole (Figure 8 & 9).

11. Insert the factory shock bolt through the original mount and through the tab on the plate.

NOTE: One side of the factory shock mount nut will have to be ground flat as shown in Figures 9 & 10.

Thread the bolt into the modified nut and tighten.

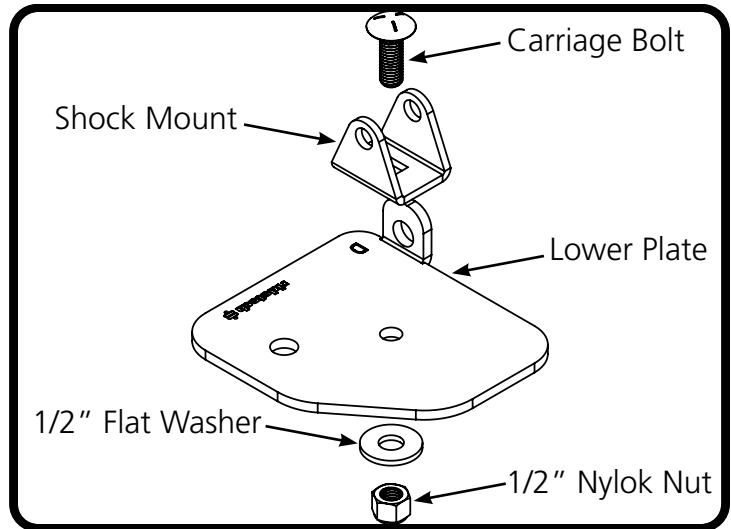


Figure 7



Figure 8



Figure 10



Figure 9

Final Steps

12. Reattach the modified sway bar end link using the supplied M8-1.250 x 140MM bolt (Figure 11).



Figure 11

13. Insert a 90002041 shock spacer into each side of the lower shock bearing and align with the holes in the lower shock mount (Figure 12).



Figure 12

14. Insert a 1/2"-20 bolt through the front flange of the shock mount and slide a 90002298 spacer onto the bolt. Then slide the bolt through the shock bearing and rear flange of the mount. Secure with a 1/2"-20 thin Nylok nut (Figure 13).



Figure 13

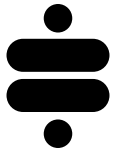
NOTE: Opposite to the top mount, the aluminum spacer on the lower shock mount must be positioned to the front of the vehicle.

15. Torque the upper and lower shock mount bolts/nuts to **75 ft-lbs.**

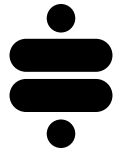
16. Check to ensure there is no interference throughout the full range of shock travel.

NOTE: You may adjust the position of the air fitting by rotating the shock bellows while the shock is held in place.

17. Repeat on the opposite side.



SHOCKWAVE CARE GUIDE



PLEASE READ



The air spring locking ring **IS NOT** adjustable. This ring is set to a specific position at the factory to optimize the air spring stroke with the shock stroke. Attempting to adjust this ring will void your warranty.



DO NOT attempt to remove the press-in air fitting. It may result in damage to the composite cap and void your warranty.

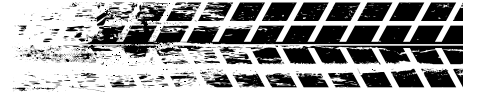


DO NOT drive the vehicle with the air springs fully deflated. Severe damage to the internal bump stop, shock bushings, and shock mounts may occur.

- Avoid driving the vehicle with the air springs overinflated or “topped out”. Over time the shock valving may suffer severe damage or total failure. Our recommended ride-height range is between 40-60% of total suspension travel.
- Do not allow the air spring bellows to rub on or interfere with any surrounding objects. Ensure the ShockWaves are adequately distanced from the exhaust system. Damage or total failure may occur.
- Do not use harsh or abrasive chemicals or solvents to clean your ShockWaves. A mild soap and water solution is sufficient.
- When working around or near your shocks, avoid allowing over spray of harsh chemicals or solvents to make contact with your ShockWaves.
- When attempting to clock the air fitting, you may rotate the air spring assembly on the shock. Ensure the fitting does not contact the vehicle frame or other surrounding objects.



**INSTALLATION
INSTRUCTIONS**



Part # 11414010



Rear CoolRide Air Spring and Shock Kit

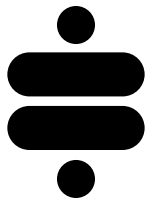
2000-2006 Tahoe / Yukon / Suburban 2WD

2000-2006 Tahoe / Yukon / Suburban 4WD

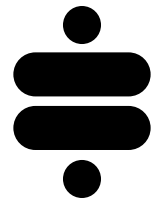


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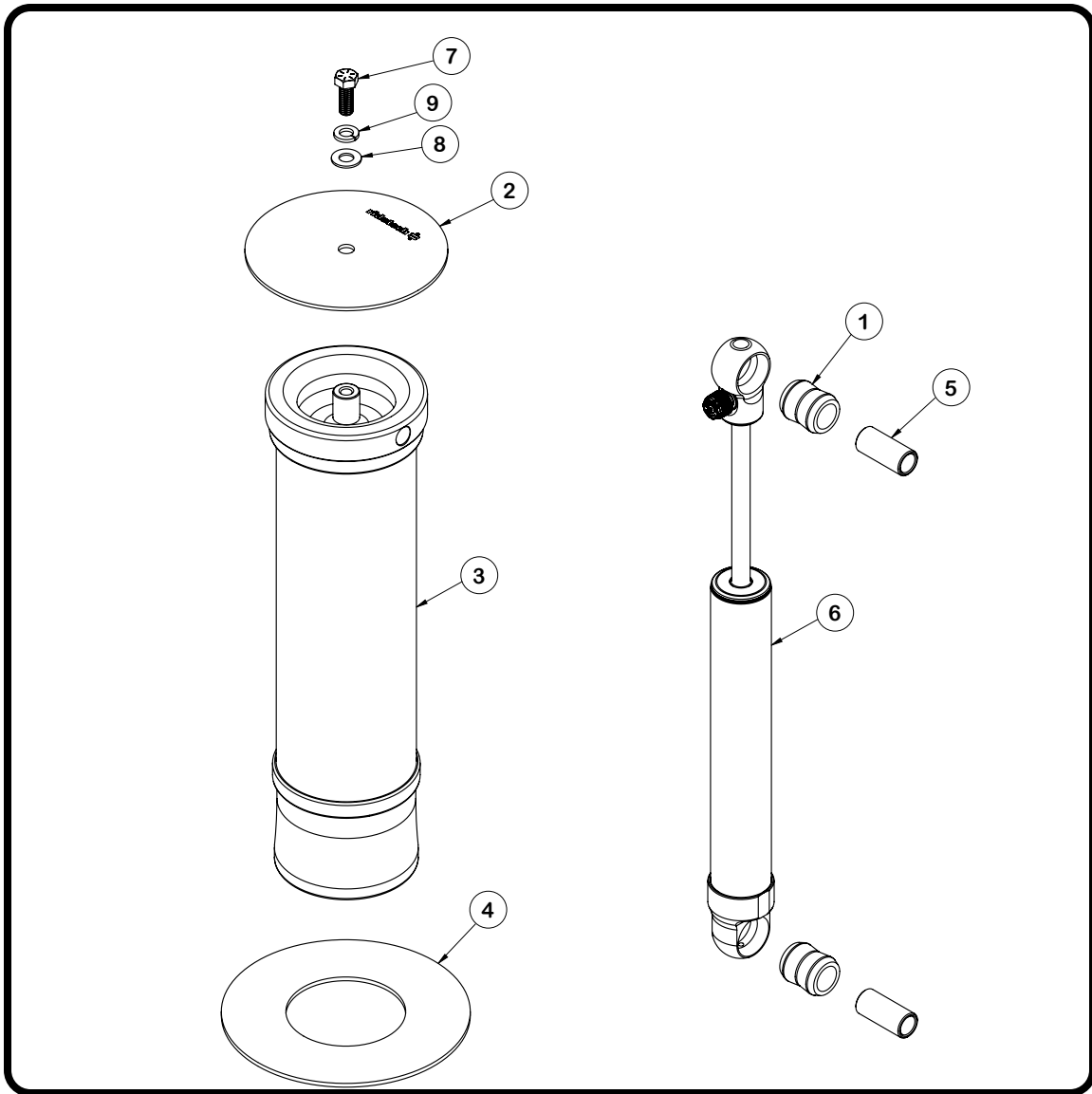
THANK YOU

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Road Map

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Bump Stop Modification	21
Sway Bar Link Modification	21
Shock Installation	22
Shock Tuning Guide	23-24

EXPLODED VIEWS AND PARTS LISTING



Item #	Part #	Description	Qty
1	70011138	Poly Bushing	4
2	90000070	Upper Mounting Plate	2
3	90002018	91mm Straight Sleeve Airspring	2
4	90003328	Lower Bag Roll Plate	2
5	90003474	Sleeve; .558 ID x .75 OD x 1.6	4
6	986-10-020	7.55" HQ Series Shock, Eyelet Top	2
7	99371025	3/8-16 X 1 Hex Bolt	2
8	99373002	3/8 SAE Flat Washer	2
9	99373006	3/8 Split Lockwasher	2

Disassembly

1. Raise the vehicle to a safe and comfortable working height, supported by the frame.

NOTE: You will need to place a jack under the rear axle to be able to raise and lower the axle during the install.

2. Raise the rear axle slightly to remove the tension from the rear shocks (Figure 1).

3. Remove the upper & lower shock bolts and remove the rear shocks.

NOTE: Retain the existing shock hardware. It will be used in step 19 when installing your Ridetech HQ Series shocks.

4. Remove the rear sway bar linkage from both sides (Figure 3). Retain the hardware.

NOTE: The sway bar links will be modified in step 15 prior to re-installation.



Figure 1



Figure 2



Figure 3

Disassembly (CONT.)

5. Lower the axle jack so the coil springs are fully relaxed.

6. Remove the rear coil springs. A pry bar or crowbar works well.

NOTE: Be sure to also remove the spring isolators (See Figure 5).

The bare spring perch should look similar to Figure 6.



Figure 4

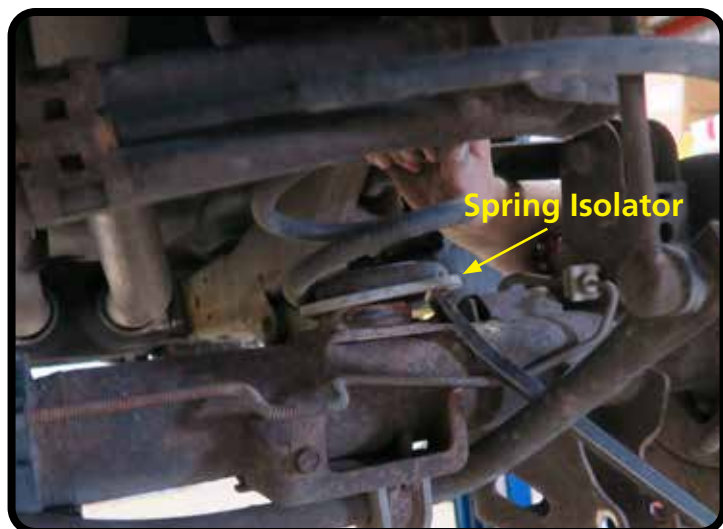


Figure 5



Figure 6

Air Spring Installation

7. Install the roll plate on the bare coil spring perch (Figure 7). The roll plate is the larger plate with the 3.25" diameter hole in the center.



Figure 7

8. Install a 3/8" split lock washer and 3/8" flat washer on a 3/8"-16 x 1" bolt. Insert the bolt into the center hole of the top plate (Figure 8).



Figure 8

9. Place the top plate w/bolt on top of the frame rail at the OEM coil spring location (Figure 9).



Figure 9

Air Spring Installation

10. Apply thread sealant to an air fitting and install the fitting in the side of the air spring cap.

11. Position the air spring at the original coil spring location. Thread the bolt coming through the top plate into the threaded bung in the center of the air spring top cap.

***Do Not Tighten The Bolt Yet.**

12. Rotate the air spring to position the air fitting for optimal air line routing. Once you are satisfied with the location of the air fitting, torque the 3/8" top bolt to **15-20 ft-lbs.**

13. Repeat steps 7-12 on the opposite side.



Figure 10

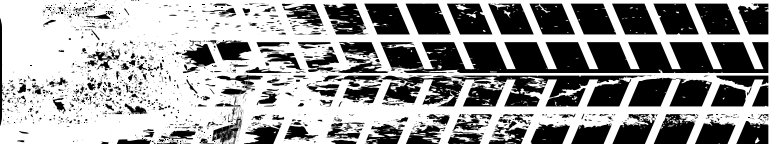


Figure 11



Figure 12

Bump Stop & Sway Bar Link Modifications



14. Shorten the bump stops by cutting off the bottom ring/segment of each bump stop.



Figure 13

15. Each of the OEM sway bar links will need to be shortened by 1".

NOTE: In order to maintain the orientation of the ends of the linkage once the 1" segment has been removed, we recommend scribing a line lengthwise to aid in realigning the two ends when welding back together (Figure 14).

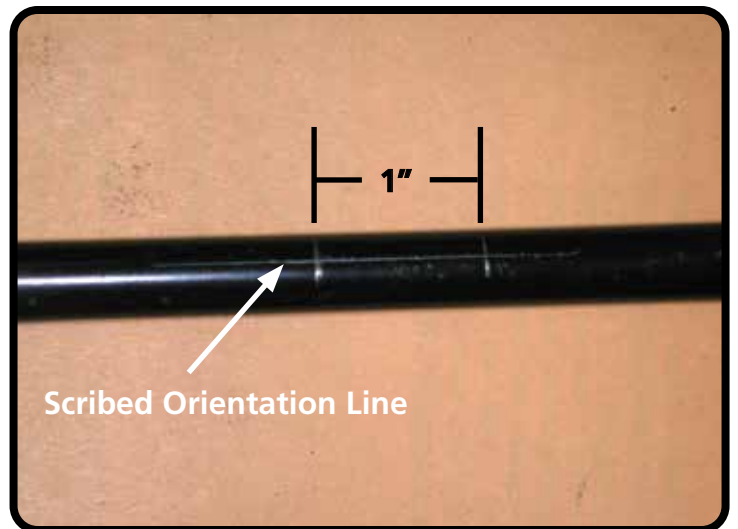


Figure 14

16. Remove a 1" segment from the center of the linkage (Figure 15, top).

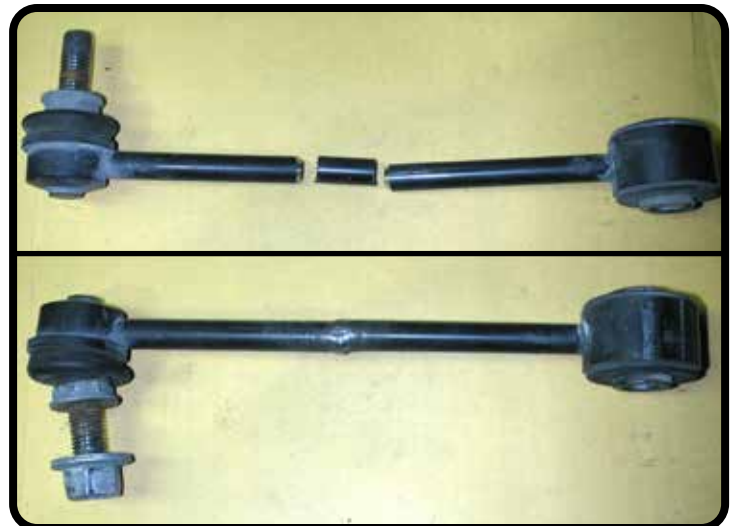


Figure 15

17. Align your scribe line and weld the two halves back together (Figure 15, bottom).

18. Reinstall both of the modified sway bar links using the OEM hardware.

Shock Installation

19. Using the OEM shock hardware, install your new Ridetech HQ Series shocks.

NOTE: The shocks may be installed with the adjustment knob at either the upper or lower shock mount. This is a matter of personal preference and is typically dictated by whichever position offers the easiest access to the adjustment knob.

20. Torque the upper and lower shock bolts to **85 ft-lbs.**

NOTE: When lowering the vehicle, lower slowly and ensure that the air spring properly aligns with and sits centered on the roll plate (Figure 18).



Figure 16



Figure 17

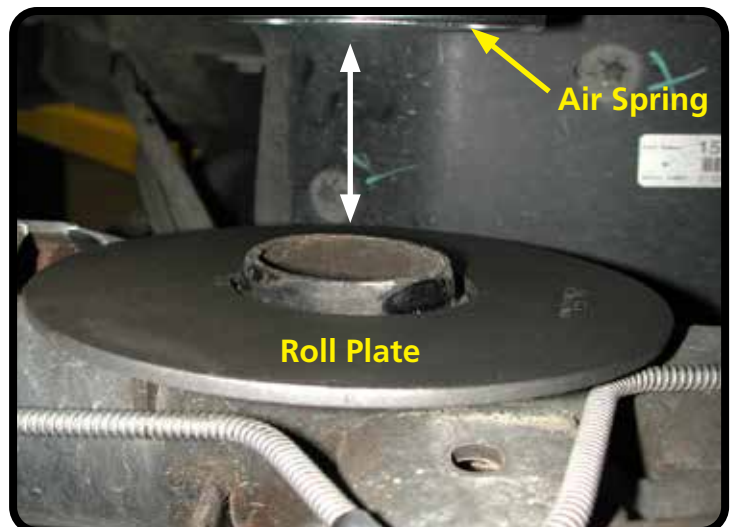
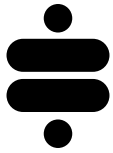
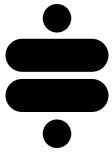


Figure 18

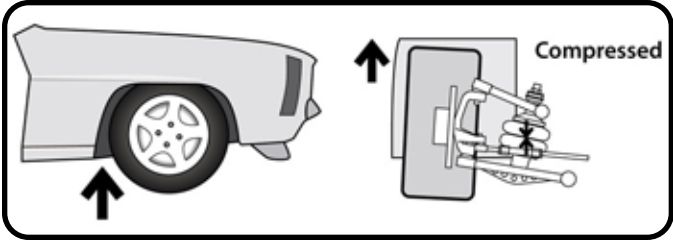


TUNING GUIDE

SINGLE-ADJUSTABLE SHOCKS

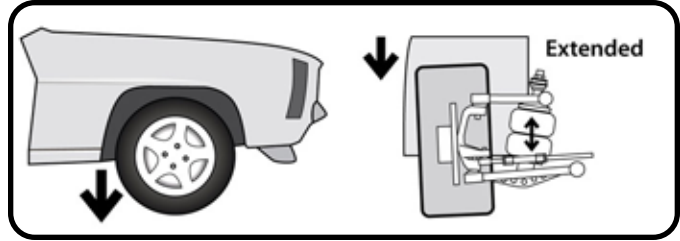


The Basics...



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.



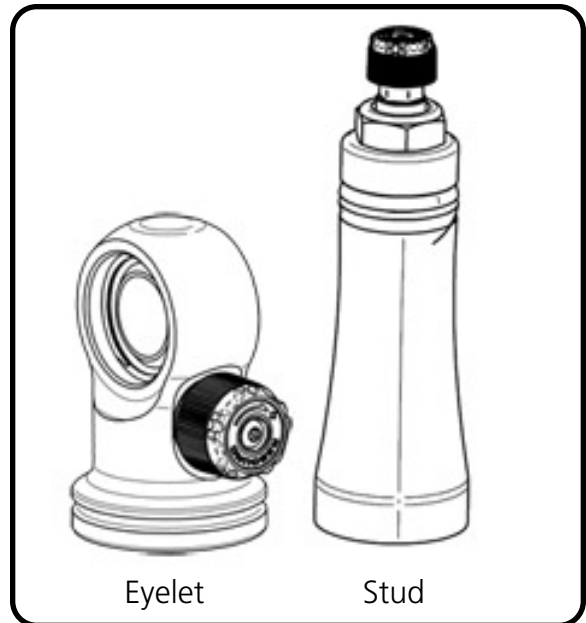
REBOUND

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

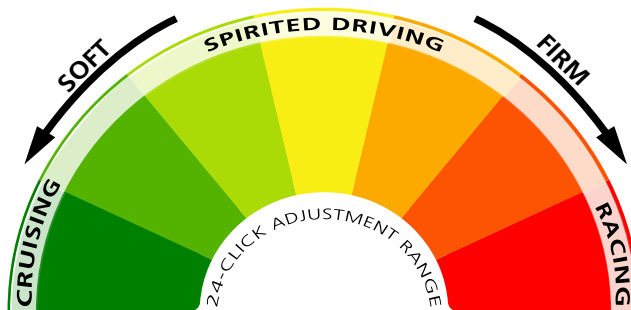
- The adjustment knob is located on the top of the shock, either protruding from the side of the eyelet, or atop the stud.
- This knob provides rebound adjustment only.



Knob Function

Counterclockwise

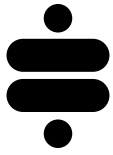
=
Softer



Clockwise

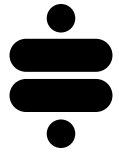
=
Firmer





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 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.