ridetech

INSTALLATION INSTRUCTIONS

Part # 12262401

Front HQ Series ShockWaves

2003-2012 Ford Crown Victoria

www.ridetech.com
812.482.2932

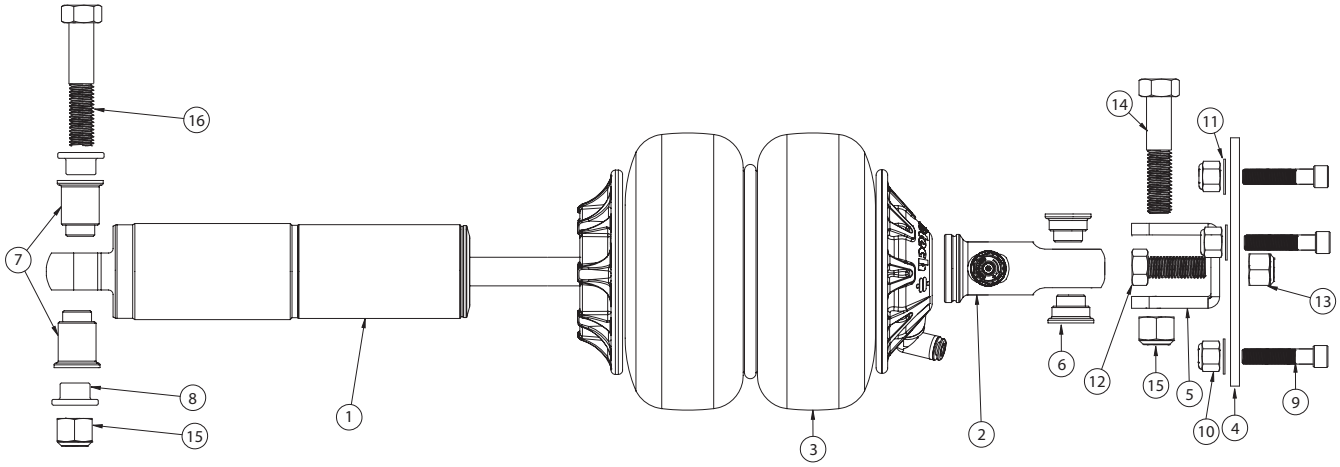
Please Read And Understand All Instructions And Warnings Prior To The Installation Of This Product.

Congratulations on your new ridetech product! It's an honor that you've selected the ridetech brand to upgrade your ride. Our products are developed around quality and performance without compromise. We're confident you'll have many years (and miles) of pure driving enjoyment.
Thank you for choosing ridetech!

Road Map

ShockWave Dimensions	
Measured From Center-To-Center Of Shock Bearings	
Compressed	**11.05"**
Ride Height	**12.50"**
Extended	**14.30"**

EXPLODED VIEWS AND PARTS LISTING



Item #	Part #	Description	QTY
1	982-10-803	3.6" Stroke HQ Series Shock	2
2	90002025	Upper Shock Eyelet	2
3	24090199	6.5" Diameter Air Spring 1000 Series	2
4	90002189	Upper Mounting Plate	2
5	70012120	Upper Shock Bracket (Bolts to 90002189)	2
6	90002040	Upper Shock Bearing Spacers	4
7	90002062	Lower Shock Bearing Spacers	4
8	90002188	Lower Control Arm T-Bushing	4
9	99311003	5/16"-18 x 1 1/2" Hex Bolt	6
10	99312003	5/16"-18 Nylok Nut	6
11	99313002	5/16" SAE Flat washer	6
12	99431001	7/16"-14 x 1" Hex Bolt	2
13	99432001	7/16"-14 Nylok Nut	2
14	99501011	1/2"-20 x 2 1/2" Hex Bolt	2
15	99502002	1/2"-20 Nylok Nut	4
16	99501015	1/2"-20 x 3 3/4" Hex Bolt	2

Upper Mount Installation

1. Raise the vehicle to a safe and comfortable working height and remove the existing front shocks and coil springs.

Refer to the factory service manual for the correct disassembly procedure.

2. Both sides of the suspension use an identical upper mounting plate (Figure 1).

3. Using the 7/16"-14 x 1" Hex Bolt and 7/16"-14 Nylok Nut, bolt the Upper Shock Mount to the Upper Mounting Plate. The bolt needs to be installed with the hex head of the bolt in the shock mount. The open end of the shock mount should be parallel with the flat edge of the mounting plate as shown in Figure 2. Be sure to maintain this position while tightening the 7/16" bolt and nut.

NOTE: Once assembled, both upper mount assemblies should be identical (not mirrored).

4. Attach the upper mount assembly to the cross member using (3) 5/16" x 1 1/2" hex bolts, (3) 5/16" SAE flat washers, & (3) 5/16" Nylok nuts. Position the straight edge of the mount so it is facing the engine bay. Tighten the mounting hardware.

Figure 1

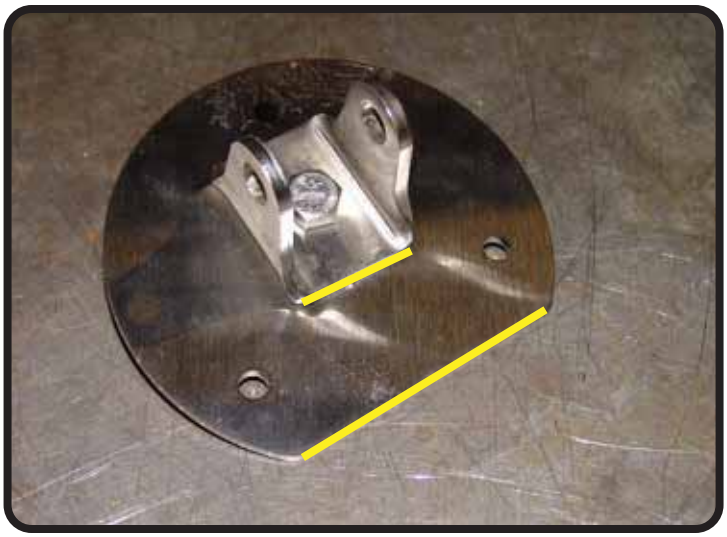


Figure 2

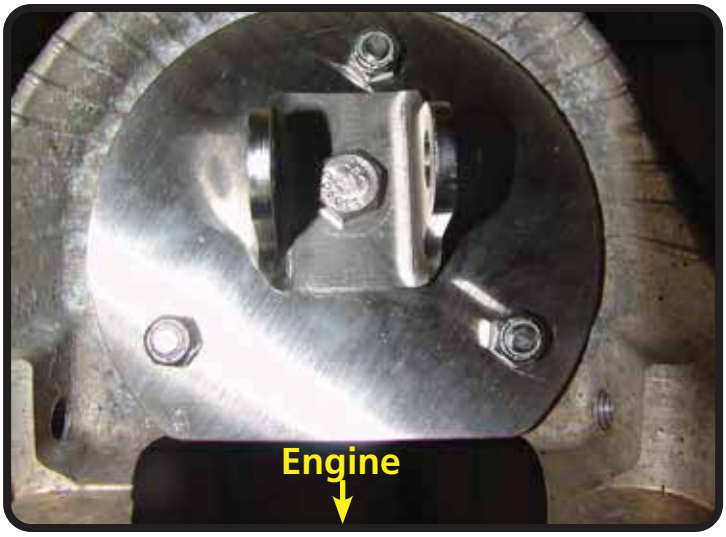


Figure 3

ShockWave Installation

5. See Figure 4. Insert the NARROW spacers (1) into the upper shock bearings. Install the WIDE spacers into the lower shock bearing. With the spacers installed, insert the ShockWave assembly into the upper shock mount (2). Align the holes in the bracket with the hole in the shock spacers and insert the 1/2" x 2 1/2" bolt (3) with the 1/2" Nylok nut (4). Torque to **90 ft-lbs**.

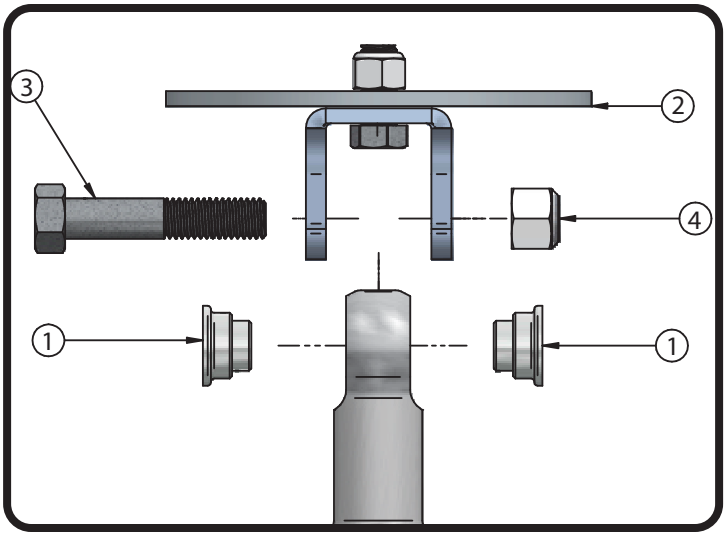


Figure 4

6. Insert the supplied T-Bushings into the OEM lower control arm as shown in Figure 5. Insert the T-bushings from the outside of the OEM Control Arm.


Figure 5

7. With the WIDE spacers installed in the lower ShockWave bearing, insert the ShockWave into the lower control arm. Align the hole in the ShockWave with the hole in the T-bushing. Insert the 1/2" x 3 3/4" hex bolt into the mounting hole in lower control arm. Install a 1/2" Nylok nut onto the bolt and torque to **90 ft-lbs** (Figure 6).

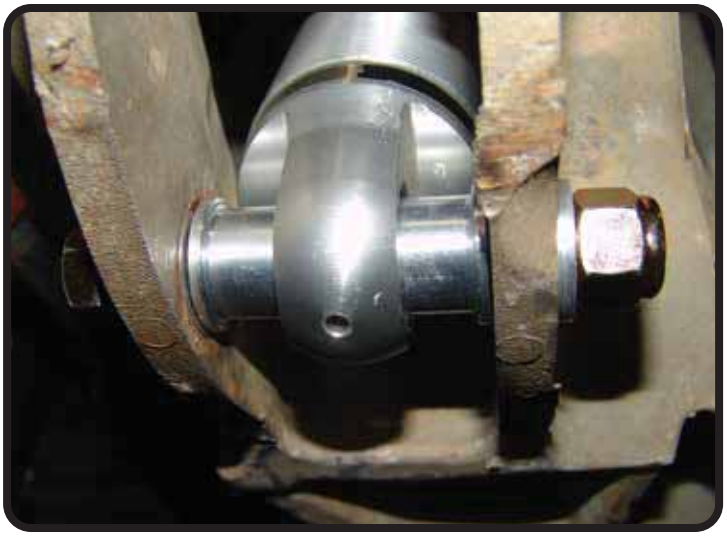


Figure 6

SHOCK*WAVE* 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.

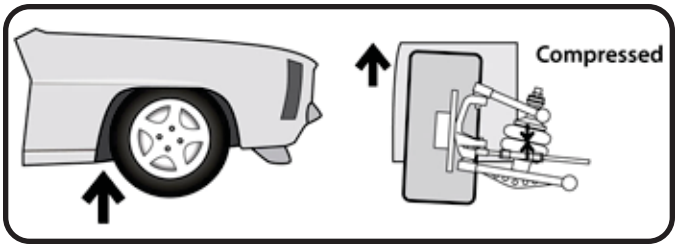
DO NOT attempt to remove the press-in air fitting. It may result in damage to the composite cap and void your warranty.

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.**

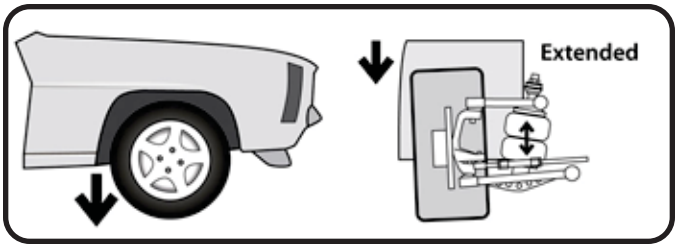
TUNING GUIDE
SINGLE-ADJUSTABLE SHOCKS

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.



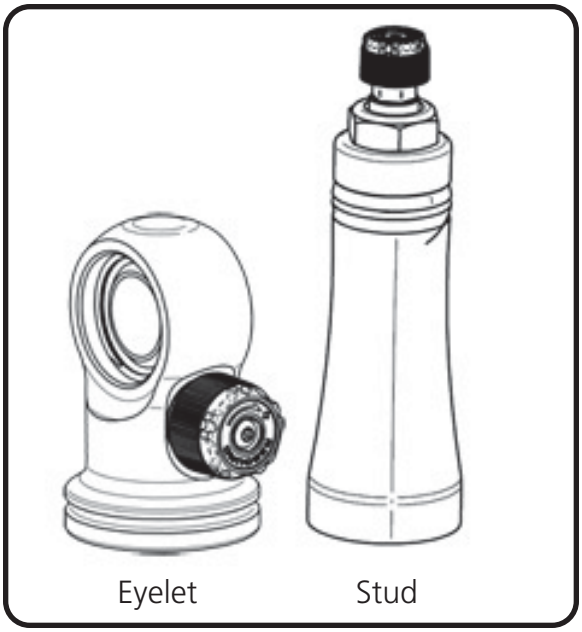
REBOUND

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?

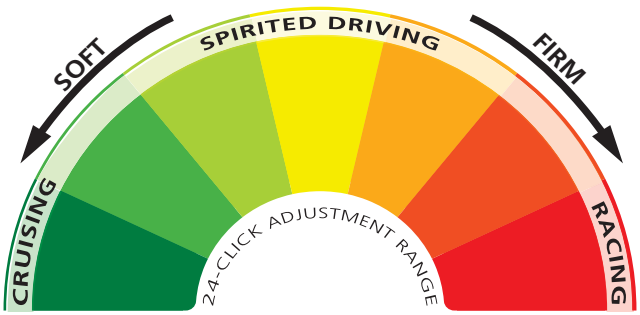
HQ Series Shocks

- **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.