

# RIDE

## SHOCKS™

INST-1000-017 REV C

### 2021+ Ford Bronco | Shock Installation Guide



#### Front 2.5 Coilover Shocks

P/N: 525414389

P/N: 525414489

#### Rear 2.5 Coilover Shocks

P/N: 525414589

P/N: 525414689

## CONTENTS

Page 1:	Introduction
Page 2:	Supplied Parts/Tools
Page 3:	Safety Warnings
Page 4:	Warning (cont)/Warranty/Alignment
Page 5-6:	Front Shock Removal
Page 6-8:	Front Shock Installation
Page 9-10:	Rear Shock Removal
Page 10-12:	Rear Shock Installation
Page 12-14:	Setup Information



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install guide here:*

REV 2.26.25

## INTRODUCTION:

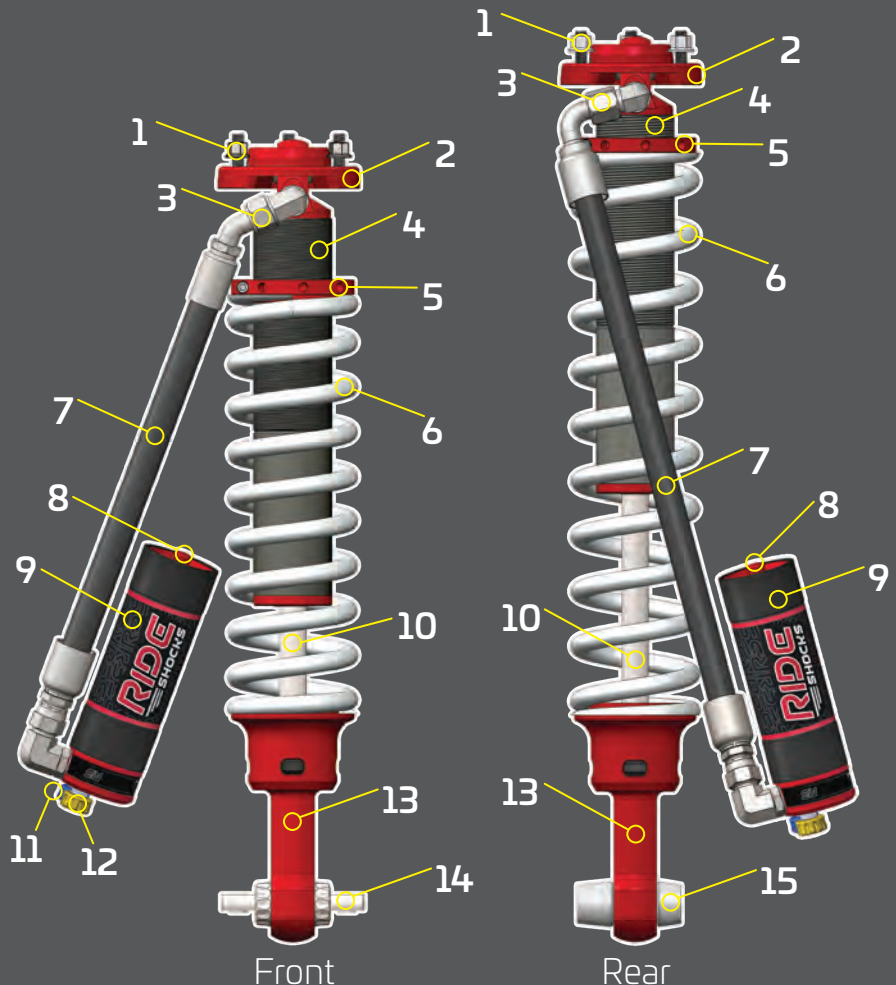
Thank you for purchasing Ride Shocks direct replacement shocks. We spent many years perfecting the designs for what we believe are the highest quality and best performing aftermarket shocks for your vehicle. Our unique approach boosts the industry standard for shock technology by offering vehicle and weight range specific shocks. This was ultimately done to provide customers the best ride quality they deserve.

RIDE confidently for years to come knowing your purchase is backed by industry leading expertise and US based sales and service.

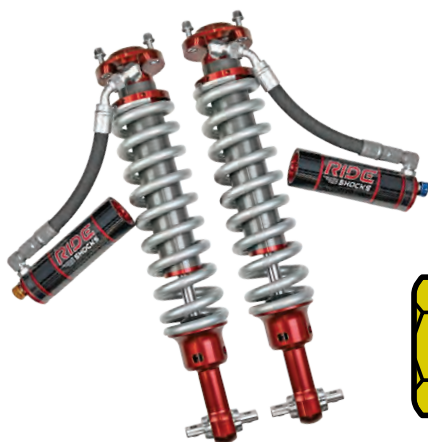
Please visit our website at [www.rideshocks.com](http://www.rideshocks.com) for more information as we are constantly working on new projects. **And don't forget to tag us on social media with pictures of your project @RIDESHOCKS on Instagram.**

## GET TO KNOW YOUR RIDE SHOCKS:

1	TOP HAT BOLTS
2	TOP HAT
3	HOSE FITTING
4	SHOCK BODY
5	PRELOAD RING
6	SPRING
7	HOSE
8	SCHRADER VALVE
9	RESERVOIR
10	SHOCK SHAFT
11	HIGH SPEED ADJUSTER
12	LOW SPEED ADJUSTER
13	ROD END
14	BAR PIN
15	BEARING SPACER



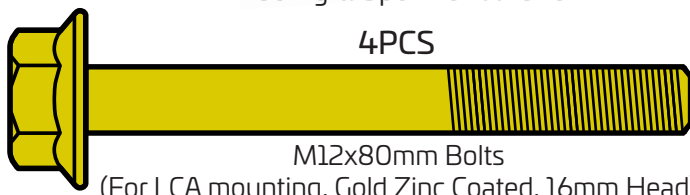
## FRONT COILOVERS (included items):



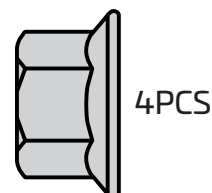
Front Reservoir Mounts/Clamps/  
Tubing & Spanner Wrench



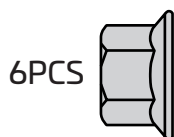
4PCS  
M8 U-Clip Spring Nuts  
(For attaching front  
reservoir brackets)



4PCS  
M12x80mm Bolts  
(For LCA mounting, Gold Zinc Coated, 16mm Head)



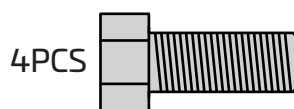
4PCS  
M12-1.75 Flanged Nuts  
(For front LCA mounting,  
Silver Zinc Coated,  
15mm Head)



6PCS  
M10-1.50 Flanged Nuts  
(For coilover top hats,  
Silver Zinc Coated, 15mm Head)



4PCS  
M8 Washers  
(For mounting front reservoir  
brackets, Silver Zinc Coated)



4PCS  
M8 x 20mm Bolts  
(For attaching front reservoir brackets,  
Silver Zinc Coated, 13mm Head)

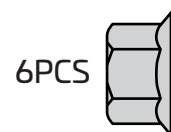
## REAR COILOVERS (included items):



Rear Reservoir Mounts/Clamps/  
Tubing & Spanner Wrench



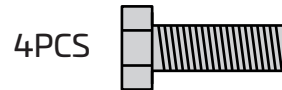
8PCS  
1/4" Washers  
(For mounting rear  
reservoir brackets,  
Gold Zinc Coated)



6PCS  
M10-1.50 Flanged Nuts  
(For coilover top hats,  
Silver Zinc Coated,  
15mm Head)



4PCS  
1/4-20 Lock Nuts  
(For mounting rear reservoir brackets,  
Silver Zinc Coated, 11mm Head)



4PCS  
1/4-20 x .75" Bolts  
(For attaching rear reservoir brackets,  
Silver Zinc Coated, 11mm Head)

## TOOLS NEEDED:



Tape Measure



Hammer



Panel Popper



Phillips Screw Driver



Safety Glasses



Soft Jaw  
Spring Clamp



Lug Nut  
Wrench



7/16" - 10, 13, & 15mm  
Wrench



7/16", 9/32" - 7, 8, 13, 15, & 16mm  
Sockets + 27mm (or 1 1/16")



Torque Wrench  
(up to 350 ft-lbs)

## A FEW WORDS ON PRODUCT SAFETY AND MESSAGING:

*Motor vehicles and off road motor sports/use involve high levels of risks and variables including speed, terrain, overall suspension component choice, driver behavior and other variables outside Ride Shocks knowledge or influence. It follows that Ride Shocks is unable to foresee every combination of variables and these installation instructions do not reflect all product safety information which may be required to reduce risk of accident or injury related to your vehicle and selected modifications.*

*Before installation, please review the following safety information and installation instructions. Within these Instructions important safety information is generally preceded by one of three signal words indicating the relative risk of injury.*



The signal words mean:

**⚠ WARNING** A hazardous situation which, if not avoided, could result in death or serious injury. You **CAN** be Killed or Seriously Hurt if you don't follow instructions.

**⚠ CAUTION** A hazardous situation which, if not avoided, could result in minor or moderate injury. You **CAN** be moderately HURT and also may suffer property damage if you don't follow instructions.

**NOTICE** Careful attention is required to this instruction or operation but does generally not relate to personal injury. Damage to your Ride Shocks product or other property may result if you don't follow instructions.

**⚠ WARNING** Suspension Modified with Tuned Shock Components/Higher Risk of Roll-over or Other Accident

<b>⚠ WARNING: HIGHER ROLLOVER RISK</b>		
	<b>Avoid Excessive Speeds, Abrupt Maneuvers, Surfaces/Obstacles Which May Induce a Tripping Moment. All Occupants Buckle UP &amp; USE Supplemental Restraints.</b>	

The suspension of this vehicle has been optimized for off-road utility through installation of Ride Shocks products, which may increase ride height, modify damping/rebound and other suspension parameters. The suspension feel and handling may be different than an unmodified vehicle.

To reduce risk of roll-over or other accident always:

- Routinely inspect suspension components. IF DAMAGED, DO NOT USE UNTIL REPAIRED OR REPLACED.
- Do Not modify or substitute components of the Ride Shocks suspension products.
- Use of oversize tire/wheel combinations may increase stopping distances, ride height and/or compromise performance of vehicle stability control and other systems.
- Many states have restrictions on height and suspension modifications for highway use vehicles. Owners & drivers are exclusively responsible for construction and compliance of their vehicles.
- For additional safety messaging consult your OEM owners manual and off road supplements.





**WARNING** (CA residents) Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov). Handling passenger or off-highway motor vehicle parts can expose you to chemicals such as phthalates and lead, which can cause cancer and reproductive harm. To minimize exposure, service the vehicle in a well-ventilated area, wear gloves, and wash your hands. For more information see: <https://www.p65warnings.ca.gov/fact-sheets/motor-vehicle-parts>.

Read and follow all instructions and understand all safety messaging before beginning Installation. This installation requires intermediate mechanical skills and should be performed by a professional mechanic with access to a lift and means of securing the vehicle.

#### WARRANTY:

##### 3 YEAR / 50,000 MILES WORRY-FREE LIMITED WARRANTY

For warranty details please see: [www.rideshocks.com/terms-conditions](http://www.rideshocks.com/terms-conditions)

#### PRODUCT REGISTRATION:

To register your product, visit: [www.rideshocks.com/product-registration](http://www.rideshocks.com/product-registration)

Benefits include:



(scan to register products)

- Information about product updates/valuable safety notices.
- Access to product installation videos/updated installation guides.
- Fast-tracked customer support.
- Option to opt-in to special customer incentives/discounts.

#### ALIGNMENT:

Arrange for a professional alignment to be done on this vehicle once installation has been completed.

Read all instructions from start to finish before beginning the installation process. Confirm you have all tools necessary to complete the job.

#### SERVICE:

More information can be found at [www.rideshocks.com/service](http://www.rideshocks.com/service) or by calling (619) 810-9740 and speaking to one of our service technicians.

Basic service should be done every 50,000 miles of street use or less in combination with occasional off-road use.

If you have any questions or concerns, please contact us directly.

## FRONT SHOCK REMOVAL:

**⚠ WARNING** 1. Always use a chassis lift for the installation of shocks, and make certain the raised vehicle is securely attached to the lift to prevent the vehicle from slipping, falling, or moving during the installation process.

2. Remove the front wheels.

### BEGIN WORKING FROM THE DRIVER SIDE

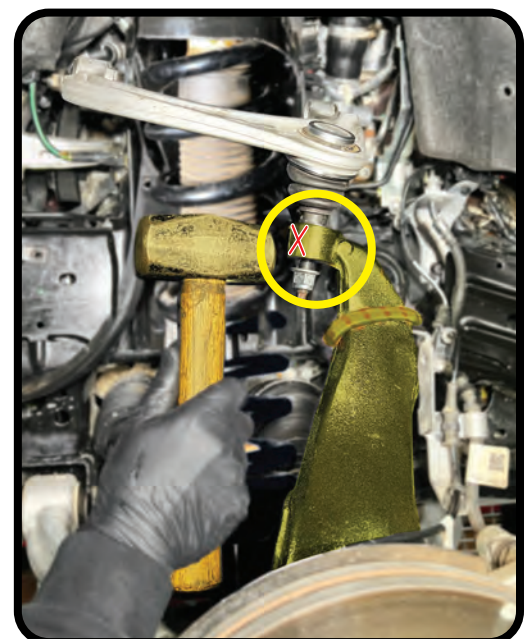
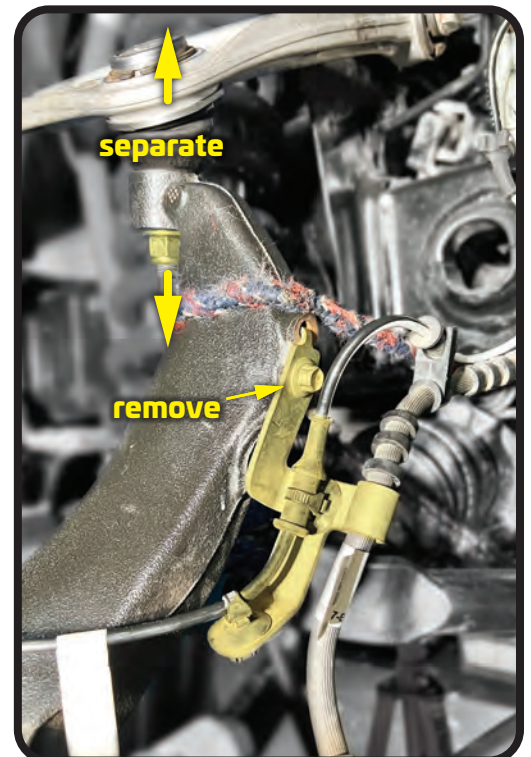
3. Use a bungee cord, ratchet strap or rope to support the knuckle, so once it is disconnected from the UCA, it is supported and not able to fall downward.

4. Using a 10mm wrench, remove the bolt holding the brake line bracket on the knuckle. Move this assembly to the side and safe from damage.

5. Using a 18 mm deep socket or wrench, loosen, but DO NOT remove, the upper ball joint nut. Leaving the nut loosely attached, protects the ball joint threads from possibly being damaged. Do not remove at this time.

6. Using a hammer, lightly tap the spindle to break the tapered ball joint union free. Periodically check the tapered connection until it becomes fully dislodged.

7. Now fully remove the nut from the upper ball joint and separate the upper control arm with the spindle. **NOTE: The strap added earlier will help keep the knuckle from tilting outward, possibly damaging components.**



8. Remove the 3 top hat nuts, highlighted in yellow, that secure the shock to the frame.

**⚠️WARNING** **DO NOT** remove the center nut on top. Doing so can result in serious injury or death.

If you do not already have aftermarket upper control arms installed, now would be a good time to install those.

9. Remove the 2 nuts from the shock bar-pin bolts.

10. Now remove the shock from the vehicle. This procedure may involve steps that include further disassembly, however we encourage you to follow the method that suits your skills best. Follow your owners manual for more information.

**TECH TIP:**

Since the OEM lower shock bolts are press fit in, they are not easily removable. Also, since

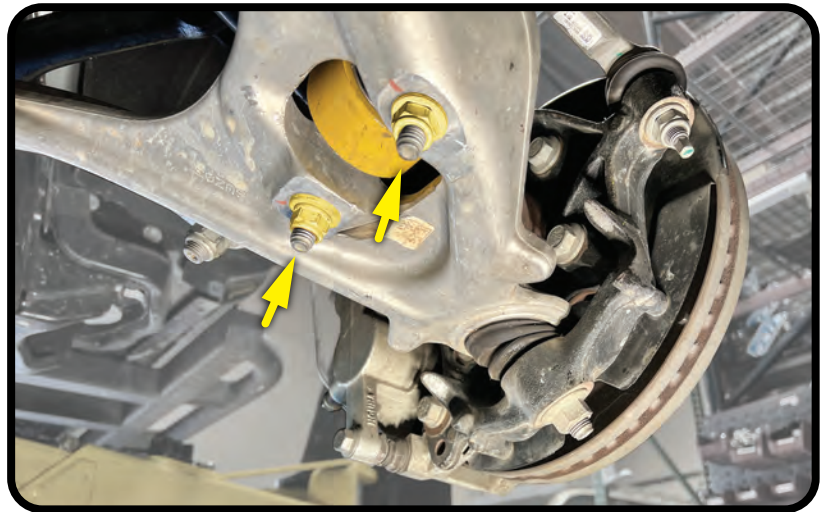
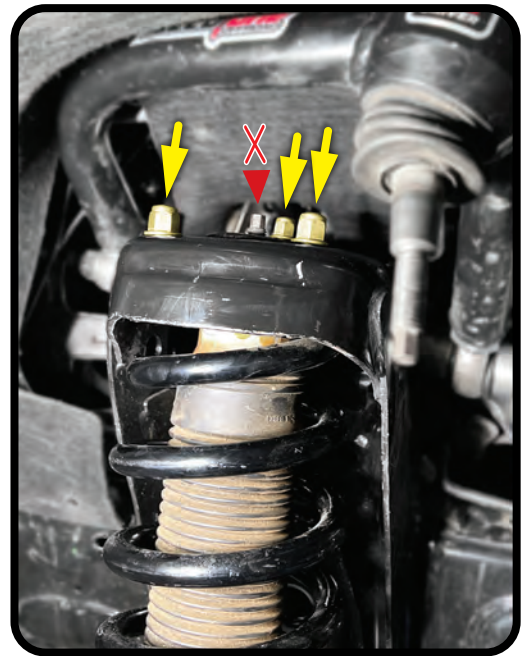
**⚠️WARNING**

they are so long, it requires the lower control arm to drop much further down to get the shock out of the vehicle. This can be very hard to do without damage or possibly harming yourself. The **TECH TIP** would be to hammer out the lower shock bolts that are pressed into the shocks. This won't hurt the shock bolts if you keep the nuts in place to protect the threads, and they can be pressed back in later if needed. You can remove one at a time and put a spare nut and bolt into the vacant hole, to keep the shock in place while you work on the other bolt.

**\*PROCEED AT YOUR OWN RISK.**

**FRONT SHOCK INSTALLATION:**

1. To prevent damage to the finish of your reservoirs when mounting them, add the provided heat shrink tubing onto each of the 4 hose clamps. Apply heat to shrink the tubing onto the clamps.





**2.** Install new shock. The shocks are side specific, so be sure the hose orientation points towards the front of the vehicle.

Use caution when setting it into place so that you do not damage any electrical wires or brake lines.

Use the 3 pieces (M10-1.50) flanged nuts (included) to secure the top hat to the mounting area.

Torque to 41 ft-lbs using a 15mm socket.



**3.** Connect the coilover to the lower control arm using 2 pieces M12x80MM bolts and M12 nuts. You may need to use a pry bar to help push the lower control arm down for clearance.

Torque to 66 ft-lbs using a 16mm socket.





## FRONT RESERVOIR BRACKET INSTALLATION:

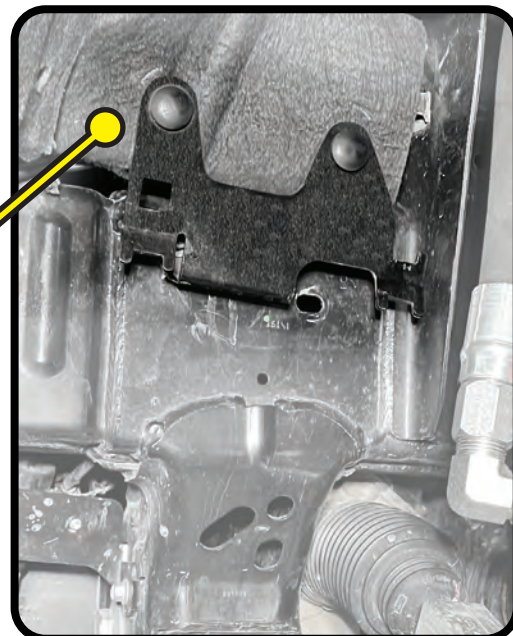
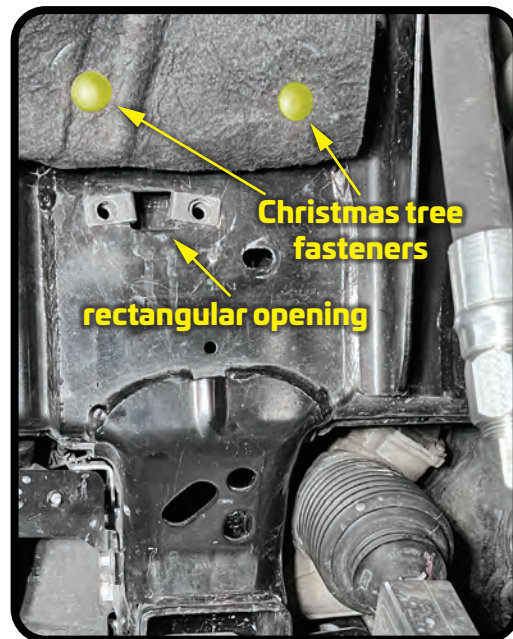
4. There is a rubber connecting piece bridged between the fabric fender liner and the frame. This piece needs to be removed and discarded. To do this, start by removing the bottom two plastic fasteners. These can be discarded. Next, carefully separate the Christmas tree fasteners and retaining washers holding this piece to the fender liner using a panel popper. Be sure to retain the fasteners and washers for reuse during step 7. Now the small rectangular opening in the frame will be visible.

5. Attach the provided u-clip spring nuts to either side of the rectangular opening. Line the clips up with the holes in the frame so that the reservoir mount screws can be installed.

6. Install the reservoir mount with the provided M8x20MM bolts & M8 washers. **NOTE: The reservoir mounts are side specific. They have an arrow on them that should be pointing towards the front of the vehicle.** Tighten these down firmly using an 13mm combination wrench.

7. Re-install the two Christmas tree fasteners and two metal retaining washers to hold the fender liner to the ears of the new reservoir bracket.

8. Attach the reservoir to the mounting bracket using the hose clamps from step 1. Run one clamp behind the mounting ear closest to the shock, and route the other through the opening on the other side. Tighten clamps down so that the reservoir is secure and will not move during use.



## FINISHING STEPS:

- Reconnect UCA to Spindle, torque to the manufacturer's specifications.
- Reconnect ABS Wire to spindle and UCA. Torque to 60 in-lbs.
- Retorque after 500 miles of driving.

**REPEAT PRECEDING STEPS ON THE OPPOSITE SIDE**



## REAR SHOCK REMOVAL:

**⚠ WARNING** 1. Always use a chassis lift for the installation of shocks, and make certain the raised vehicle is securely attached to the lift to prevent the vehicle from slipping, falling, or moving during the installation process.

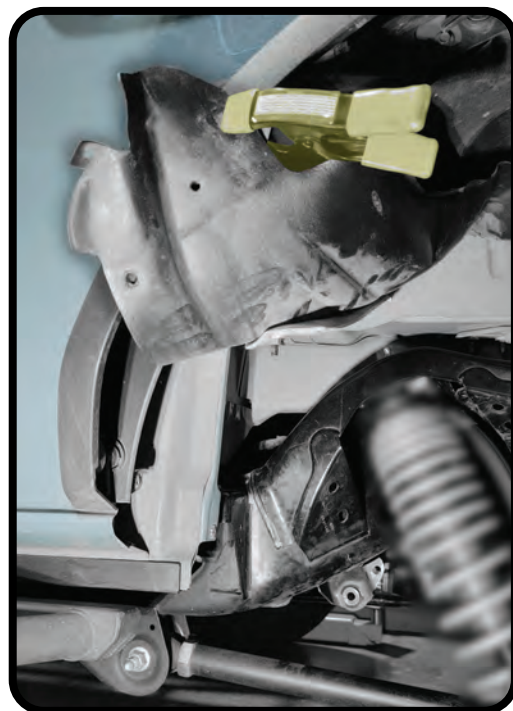
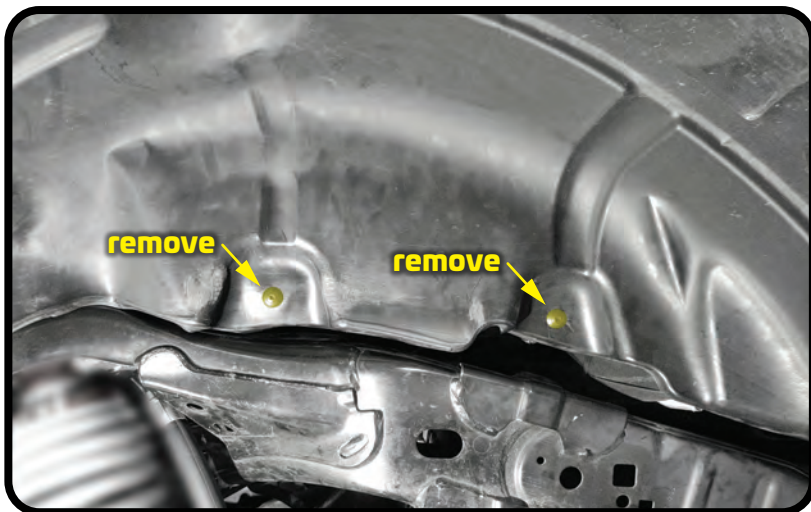
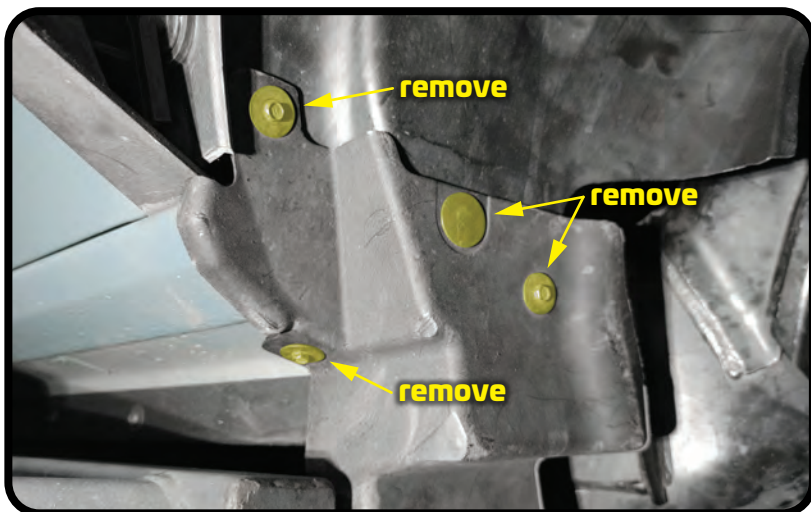
2. Remove the rear wheels.

### BEGIN WORKING FROM THE DRIVER SIDE

3. Remove the 3 bolts holding the plastic corner trim piece in place using a 9/32 or 7mm wrench. Using a panel popper, remove the plastic fastener. Remove trim piece.

4. Remove panel fasteners. **TIP:** Use the panel popper to apply leverage under the fastener to keep it from rotating while you unscrew it.

5. Bend the fender liner upward and attach to fender flare using a soft-jawed spring clamp. This will keep it out of the way so you can access the top hat nuts.



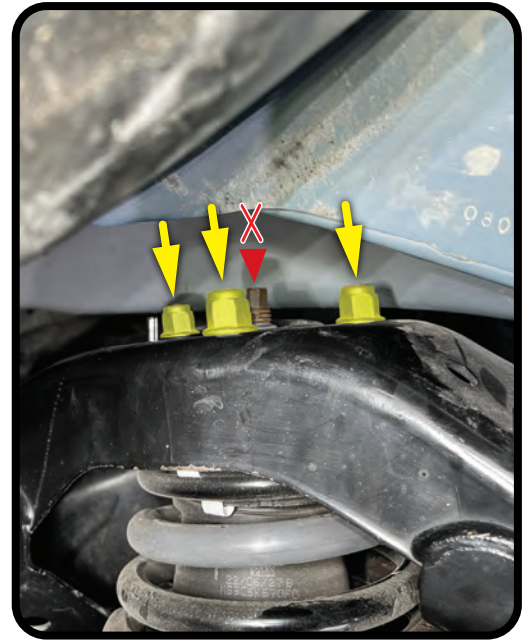


6. Remove the 3 top hat nuts that secure the shock to the frame.

**⚠️WARNING** **DO NOT** remove the center nut on top. Doing so can result in serious injury or death.

7. Remove the bolt holding the shock to the rear axle. Set the bolt and nut aside. This will be used later during the installation of the new shocks.

8. Remove the shock from the vehicle.



#### REAR SHOCK INSTALLATION:

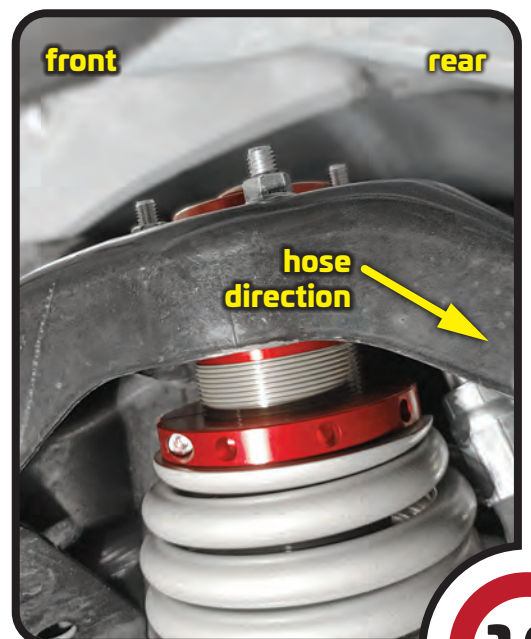
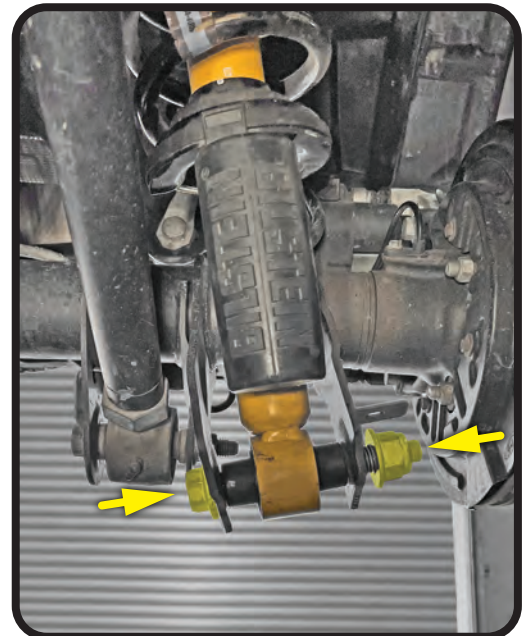
1. To prevent damage to the finish of your reservoirs when mounting them, add the provided heat shrink tubing onto each of the 4 hose clamps. Apply heat to shrink the tubing onto the clamps.



2. Install new shock. The shocks are side specific, so be sure the hose orientation points towards the rear of the vehicle.

3. Use the 3 pieces (M10-1.50) flanged nuts (included) to secure the top hat to the mounting area.

Torque to 41 ft-lbs using a 15mm socket.



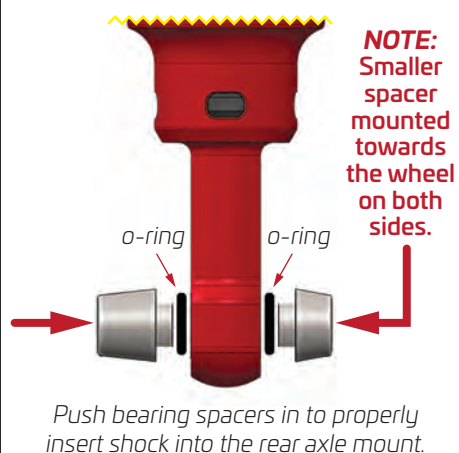


4. Now attach the shock to the rear axle mount, re-using the OEM bolt and nut from the disassembly.

To make this step easier, use a jack to lift the axle up, while inserting the bolt.

Torque to 350 ft-lbs.

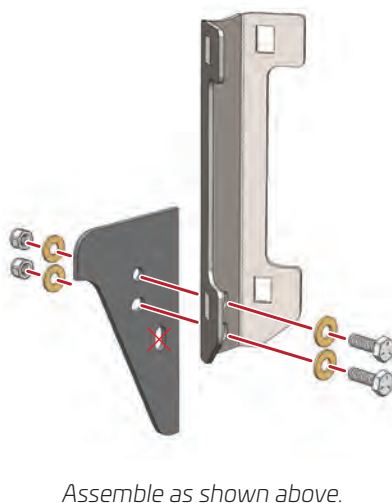
#### REAR SHOCK BOTTOM BEARING SPACER DIAGRAM



5. Attach the reservoir bracket to the frame using the top two holes with the provided 1/4-20 screws, washers and nuts (bottom hole will not be present on the passenger side).

Tighten both bolts to 72 in-lbs.

#### REAR SHOCK RESERVOIR BRACKET INSTALL



6. Now attach the reservoir to the mount using the hose clamps prepared earlier as shown in the image. Do the same for the top hose clamp.

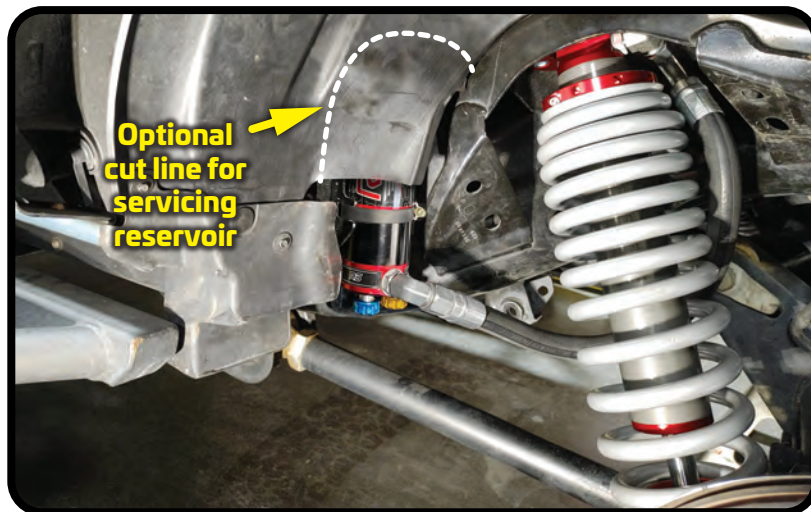
Do not over-tighten.



7. Now with the reservoir installed, you can reinstall the fender liner.

\*You can leave the fender liner covering the reservoir, or trim to reveal reservoir. If you choose to trim the fender liner, you can reference the cut lines in the image.

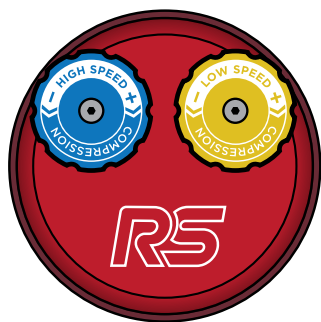
### REPEAT PRECEDING STEPS ON THE PASSENGER SIDE



### FINISHING STEPS:

- Reinstall Tires & Lug Nuts (torque to OEM specifications)
- Check Ride Height (see page 13)
- Check All Torque Settings
- Get an Alignment
- Retorque after 500 miles of driving.

### DUAL PISTON ADJUSTERS (DPA):



#### Low Speed Adjuster:

**What is Low Speed Compression?** Low Speed Compression on a shock refers to the speed at which the shaft compresses into the shock body. A smoother, more gradual shock movement. Low speed compression occurs when a vehicle is cornering, braking/accelerating and driving over large rolling bumps.

**When would I need to adjust Low Speed Compression?** If you find the vehicle is having too much brake dive, feeling too bouncy or bottoming out on big rolling bumps, you should increase the Low Speed Compression on your DPA. Low speed adjustments on the reservoir are less noticeable than high speed adjustments.

#### High Speed Adjuster:

**What is High Speed Compression?** High Speed Compression happens when the shock compresses very quickly. High speed compression occurs when hitting things like curbs, speed bumps, larger rocks, or washboard roads at higher speeds (although this is not exclusive to driving speeds). Even at 75 mph approaching a gradual hill is low speed compression, but if you hit a speed bump at just 15 mph, your shock must react very quickly. This is high speed compression.

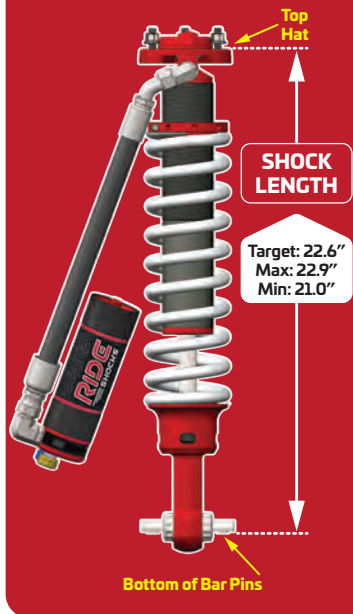
**When would I need to adjust High Speed Compression?** If the suspension and tires are slamming through and bottoming out on hard hits you need to increase high speed compression. You should also increase it when adding weight to the vehicle or doing more aggressive offroad driving. High speed compression adjustments are more noticeable and can be the most useful adjustment on the shock.



**12-CLICKS OF ADJUSTMENT** - Ride Shocks come from the factory with both adjusters all the way decreased (open). This means they are at their softest setting. This allows you to have a full adjustment to increase the firmness of the ride. **Only make adjustments by hand. Using a tool may damage adjusters.**

## SETUP INFORMATION:

### BRONCO - FRONT



### BRONCO - REAR



## Measuring Your Ride Height

Getting the correct ride height is the first step in setting up your suspension. Pre-load is the initial (pre) tension (load) on your springs before carrying the weight of the vehicle.

For the fronts, each .50" of adjustment you make on the pre-load ring translates to approximately 1.00" of ride height change.

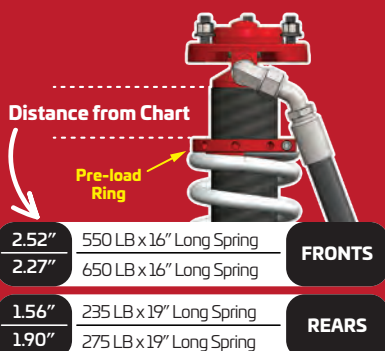
For the rears, each .80" of adjustment you make on the pre-load ring translates to approximately 1.00" of ride height change.

1. Install shocks. With the vehicle on level ground, ballpark toe setting if necessary, settle suspension (drive back and forth 10 feet).
2. Record height measurement.
3. Adjust pre-load with shocks removed from vehicle.
4. Repeat step 1 and re-check height when complete.
5. Repeat steps above as necessary until ride height is achieved.



- Do not adjust preload with shocks installed on vehicle.
- If you exceed the maximum shock length at ride height, you can damage your shocks.

### BRONCO FRONT/REAR MAX THREAD MEASUREMENTS



\* If you have more than the max thread distance showing at your desired ride height, you may require a heavier rate spring.

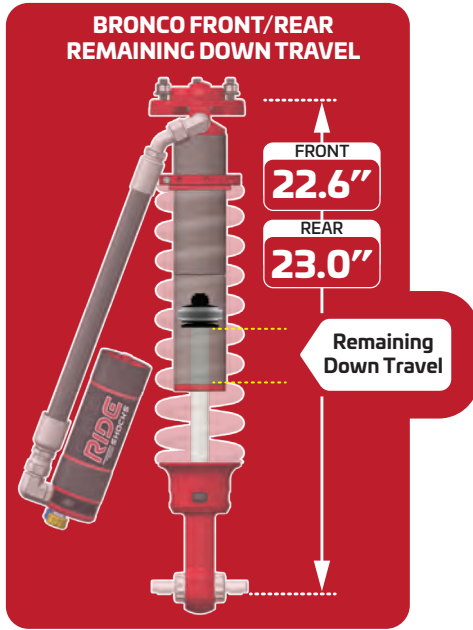
## Max Thread Length Above Pre-load Ring

Refer to the chart to correctly find the maximum.

- Never adjust pre-load with shocks on the vehicle.
- Use provided spanner wrench.
- DO NOT ADD additional pre-load past the max listed for your spring.
- Too much thread showing can cause coil bind, which will damage the spring and shock.



## SETUP INFORMATION (continued):



### Too Much of a Good Thing. Don't Over Do It!

Of course the main objective in adding pre-load is to increase the lift of the vehicle, but there can be a point where you added too much, even if you are still in range of the max exposed threads measurement.

The key is to make sure you still have sufficient down travel remaining when at ride height. Too little and you will run into handling issues and potentially damage suspension components.

Springs work in both extension and compression, so too much pre-load makes the shocks too harsh on compression and can lead to a bumpy ride. We look at suspension as a complete package and every piece of it has a purpose, as every component needs to work together in harmony.

Having too much pre-load could actually be a sign that you need to move up to the next available spring rate.

So after everything is accounted for, it is best to find that happy medium between ride height and ride quality.