



F2302 Installation Instructions 2021 Ford Bronco Adventure Series Upper Control Arm

Read and understand all instructions and warnings prior to installation of product and operation of vehicle.

Zone Offroad Products recommends this system be installed by a professional technician. In addition to these instructions, professional knowledge of disassembly/ reassembly procedures and post installation checks must be known. Minimum tool requirements include the following: Assorted metric and standard wrenches, hammer, hydraulic floor jack and a set of jack stands. See the "Special Tools Required" section for additional tools needed to complete this installation properly and safely.

» PRODUCT SAFETY WARNING

Certain Zone Suspension Products are intended to improve off-road performance. Modifying your vehicle for off-road use may result in the vehicle handling differently than a factory equipped vehicle. Extreme care must be used to prevent loss of control or vehicle rollover. Failure to drive your modified vehicle safely may result in serious injury or death. Zone Offroad Products does not recommend the combined use of suspension lifts, body lifts, or other lifting devices.

You should never operate your modified vehicle under the influence of alcohol or drugs. Always drive your modified vehicle at reduced speeds to ensure your ability to control your vehicle under all driving conditions. Always wear your seat belt.

» TECHNICAL SUPPORT

www.zoneoffroad.com may have additional information about this product including the latest instructions, videos, photos, etc.

Send an e-mail to tech-zone@ridefox.com detailing your issue for a quick response.

888.998.ZONE Call to speak directly with Zone tech support.

» PRE-INSTALLATION NOTES

1. Special literature required: OE Service Manual for model/year of vehicle. Refer to manual for proper disassembly/reassembly procedures of OE and related components.
2. **Adhere to recommendations when replacement fasteners, retainers and keepers are called out in the OE manual.**
3. Larger rim and tire combinations may increase leverage on suspension, steering, and related components. When selecting combinations larger than OE, consider the additional stress you could be inducing on the OE and related components.
4. Post suspension system vehicles may experience drive line vibrations. Angles may require tuning, slider on shaft may require replacement, shafts may need to be lengthened or trued, and U-joints may need to be replaced.
5. Secure and properly block vehicle prior to installation of Zone Offroad Products. Always wear safety glasses when using power tools.
6. If installation is to be performed without a hoist, Zone Offroad Products recommends rear alterations first.
7. Due to payload options and initial ride height variances, the amount of lift is a base figure. Final ride height dimensions may vary in accordance to original vehicle attitude. Always measure the attitude prior to beginning installation.

Difficulty Level

easy 1 2 **3** 4 5 difficult

Estimated installation: 2-3 hours

Special Tools Required

OTC 204-592 Ball Joint Separator

ATD 8696 Ball Joint Press

Tire/Wheel Fitment

Stock wheels and stock tires can be installed. Taller tires on stock wheels may contact the UCA. 4.5" to 5" back spacing wheels is recommended for most clearance to the UCA. 5.5" back spacing on a 35" tire will be close to the UCA at full steering lock.

F2302 Kit Contents

<i>Qty</i>	<i>Part</i>
1	DRV Arm Assembly
2	Rubber Bushing
1	Zone UCA Badge
1	PASS Arm Assembly
2	Rubber Bushing
1	Zone UCA Badge
2	Ball Joint Caps
2	O-Rings
1	Grease Packet
1	Ball Joint Press Tool - Washer
1	Ball Joint Press Tool - Tube

PRE-INSTALLATION NOTES

1. Replacement ball joints can be purchased from a local Ford dealer. Part # **MB3Z-3050-A**. Although this control arm reuses the factory ball joint, the ball joint position is indexed and relocated to correct for alignment and range of motion for 1"-4" of lift. When used with 1" of lift, caster will be at the high end of the specification.
2. Will work with Sasquatch, Badlands, or Base model Broncos.
3. Does not fit Bronco Sport models.
4. Do NOT hit the aluminum knuckle with a hammer to separate the ball joint. Use appropriate ball joint separation tool (OTC 204-592).
5. A ball joint press is needed to press out the ball joint in the factory arm and press it into the Zone Offroad UCA. ATD 8696 ball joint press is recommended and can be rented from most auto parts stores.
6. Will not work with models with a height sensor attached to the UCA.
7. Fox Coilovers (883-06-195 & 883-06-192) will work with these UCAs
8. Stock height Bilstein Sasquatch or Badlands and black body struts without a spacer will work with these Zone UCAs.
9. Zone UCAs will work with certain spacer leveling kits, such as ZONF1102, ZONF1220, ZONF1301, ZONF1302, ZONF1430, and ZONF1431.

INSTALLATION INSTRUCTIONS

1. Park the vehicle on a clean, flat surface and block the rear wheels for safety.
2. Raise the front of the vehicle and support with jack stands at the frame rails.
3. Remove the front wheels.
4. Complete this portion of the installation on one side at a time
5. Starting on the passenger side, remove the upper arm shield bolt. Remove the shield from vehicle and save for later installation **Figure 1**.

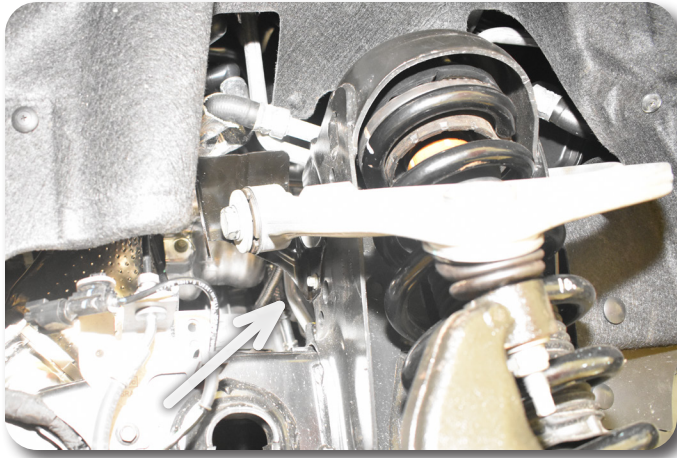


Figure 1

6. Support the knuckle assembly so that the CV shaft and ABS / brake lines are not overextended when removing the UCA.
7. Remove the upper ball joint nut.

Step 7 Note:

Use the hex holding feature to prevent the stud from turning while removing the nut.

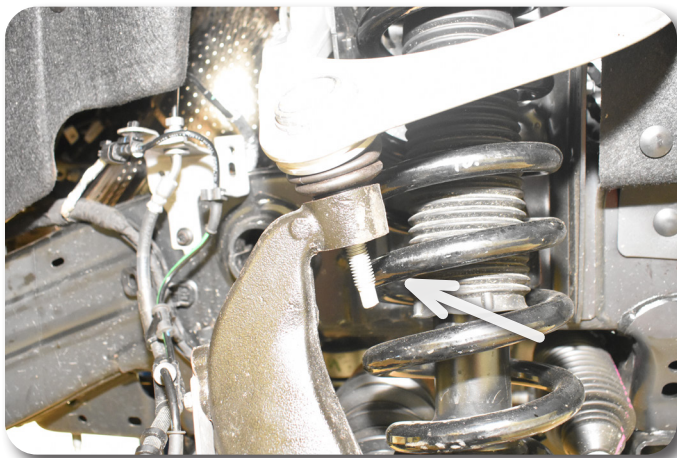


Figure 2

8. Using an appropriate separator, dislodge the upper ball joint from the steering knuckle Figure 3.

Step 8 Note:

Special service tool OTC 204-592 is recommended to dislodge the ball joint taper.

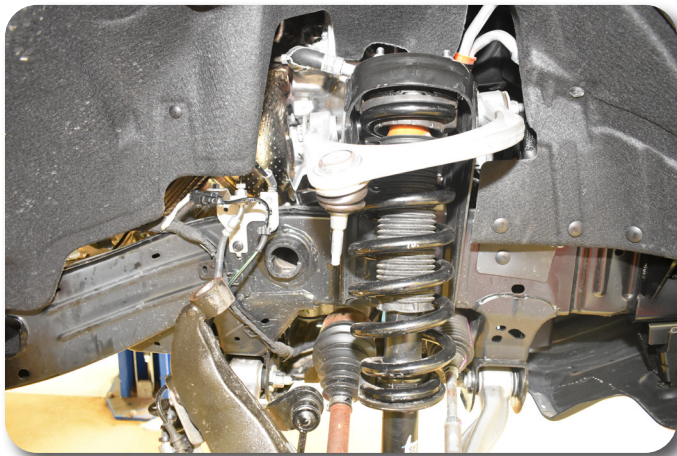


Figure 3

9. Remove the long upper control arm bolt attaching the upper control arm to the vehicle Figure 4.

Step 9 Note:

When removing the upper control arm bolt on the driver side the steering linkage most likely will need to be disconnected. Make sure when removing the bolt the steering wheel does not rotate and the joint is connected together at the same position. Damage to the clock spring may result.

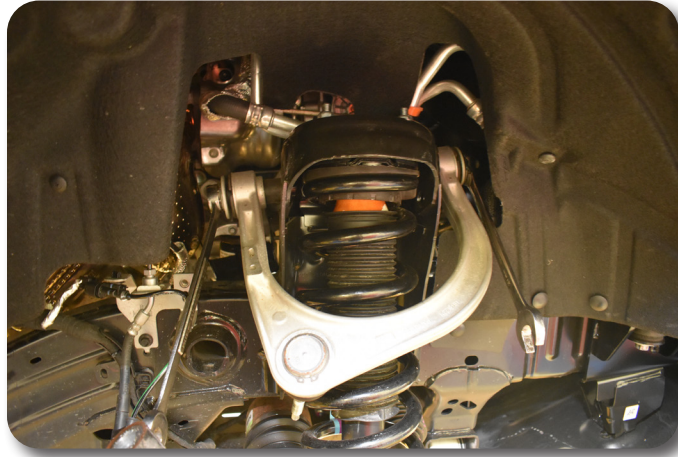


Figure 4A

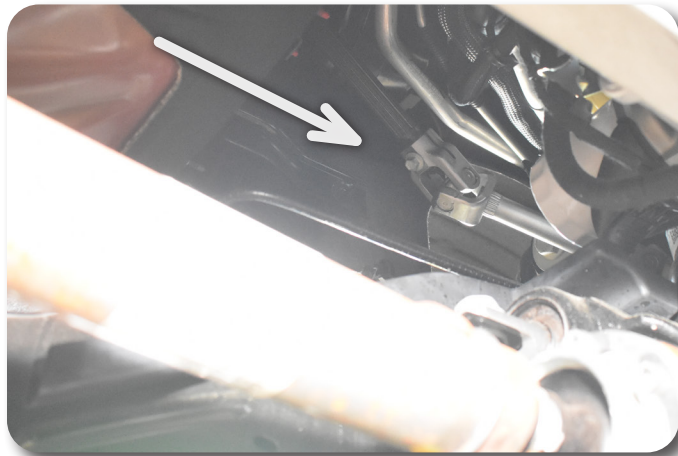


Figure 4A

10. Using a ball joint press and the provided tube and washer press tools the ball joint will need to be pressed out of the factory arm and into the Zone Offroad arm.

Step 10 Note:

If you choose not to press out the ball joint in the OE control arm, they can be purchased from Ford. OE part # MB3Z-3050-A

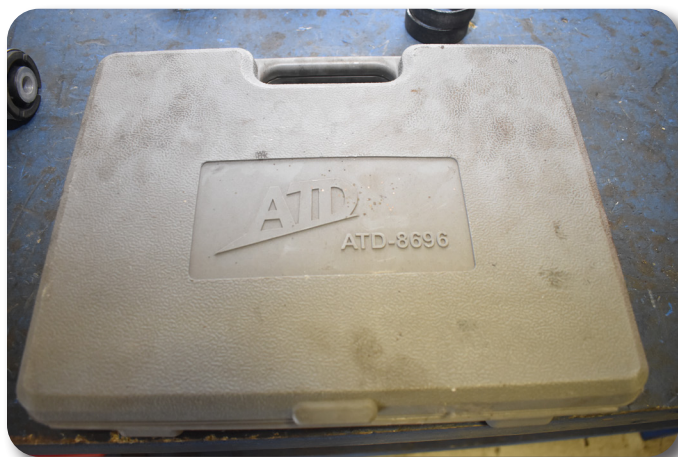


Figure 5A

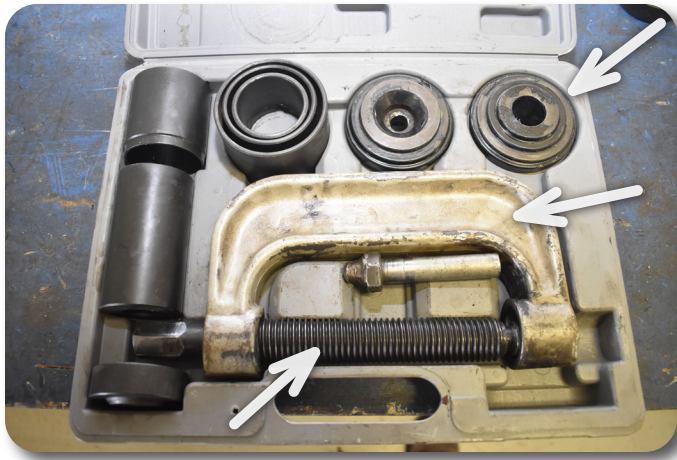


Figure 5B

11. Remove the snap ring from the top of the ball joint Figure 6. Save for later installation.



Figure 6

Step 11 Note:

Be sure to only press on the ball joint housing, do NOT press on the ball stud.

12. Using a flat head screw driver, carefully remove the OE ball joint boot Figure 7. **BE VERY CAREFUL NOT TO PUNCTURE THE BOOT.**



Figure 7A



Figure 7B

13. Using the provided washer and tube with the ball joint press, Press out the factory ball joint from the factory control arm Figure 8.

Step 13 Note:

The press tube has a notch cut into it to better fit the profile of the factory control arm.

Be sure to use the provided washer in order to not damage the cap of the ball joint.

Be sure NOT to press on the ball stud, but only press on the ball joint housing.



Figure 8A

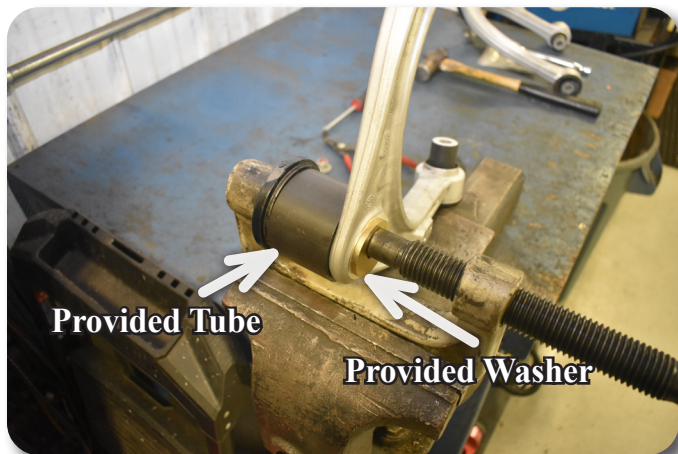


Figure 8B



Figure 8C



Figure 8D

14. Install the ball joint into the Zone Offroad upper control arm using the ball joint press Figure 9.



Figure 9A

Step 14 Note:

The flat side on the ball joint housing must line up with the flat side on the Zone Offroad control arm. This will ensure the ball joint is installed in the proper orientation for range of motion of the joint.

Be sure NOT to press on the ball stud, but only press on the ball joint housing.



Figure 9B

Step 14 Note:
Use the medium sized tube provided with the ball joint press to press the ball joint into the Zone Offroad upper control arm.

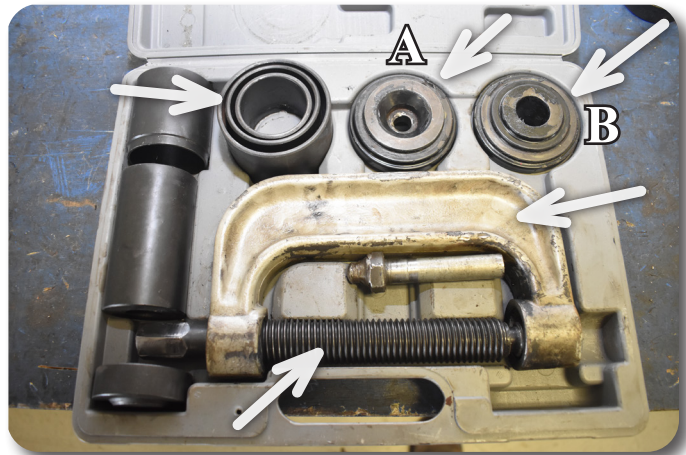


Figure 9C

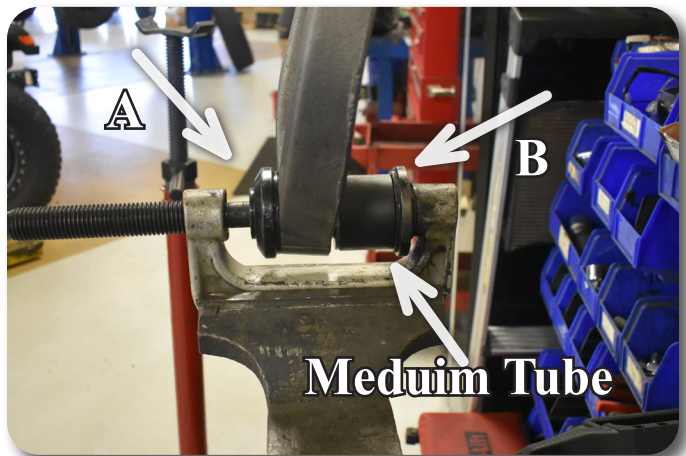


Figure 9D



Figure 9E

Step 16 Note:

Grease the OE ball joint boot and the ball joint before assembly.

15. Install the snap ring on the inside of the ball joint using snap ring pliers Figure 10.



Figure 10

16. Ensure there is no dirt / debris in the ball joint socket. Grease the ball joint and ball joint boot



Figure 11

17. Install the factory ball joint boot back onto the ball joint using the boot installation tool in the ball joint press tool set Figure 12A & B.

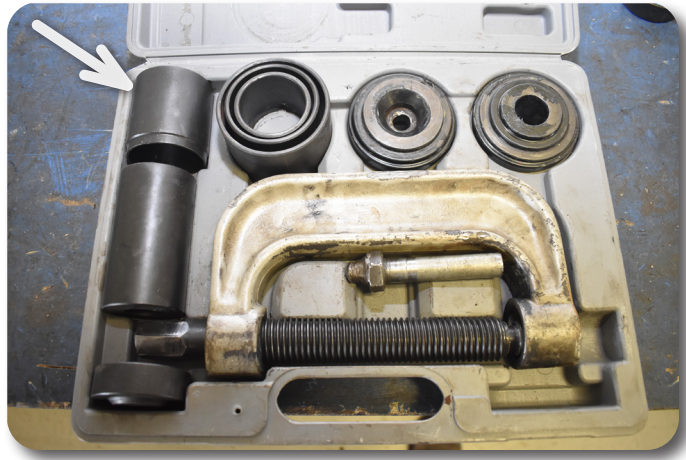


Figure 12A



Figure 12B



Figure 12C

18. Install new Zone Offroad upper control arm. Replace with factory hardware. Do not tighten the bushing hardware at this time Figure 13.



Figure 13

19. Attach the upper ball joint to the steering knuckle with factory hardware. Torque the upper ball joint nut to 46 ft-lbs Figure 14.

Step 19 Note:

Use the hex holding feature to prevent the stud from turning while removing the nut.

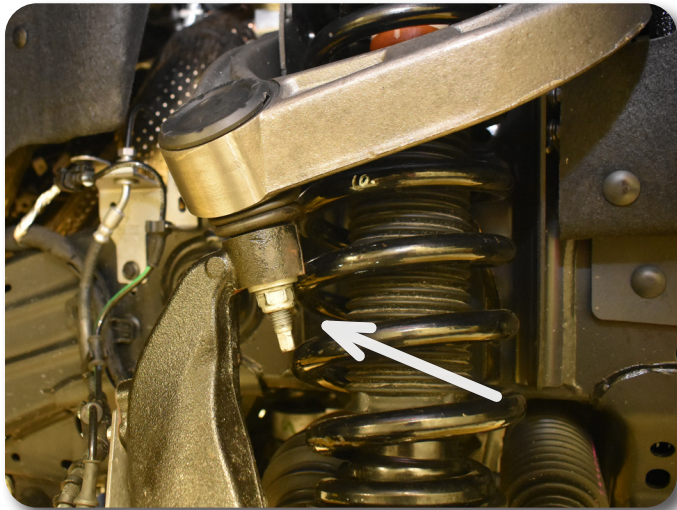


Figure 14

20. Use the included grease packet to lube the o-ring. Install o-ring onto the cap and install cap into the arm Figure 15.

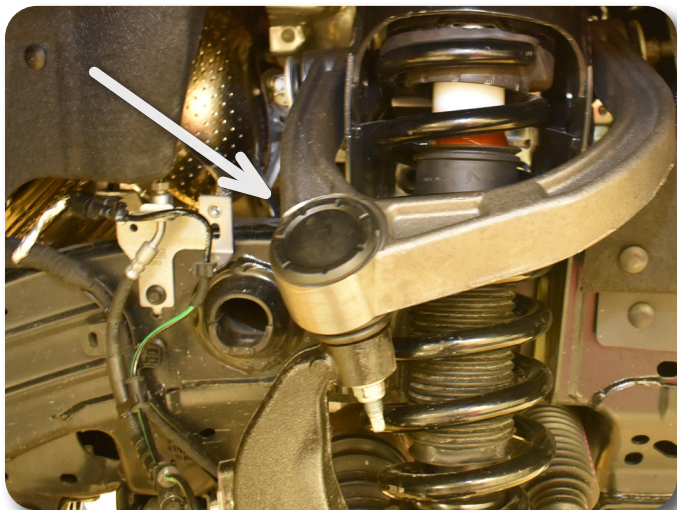


Figure 15

21. Reinstall the upper arm shield on the passenger side. Replace with a factory bolt and tighten to 80 in-lbs.
22. Install the wheels and lower the vehicle to the ground. Torque lug nuts to 100 ft-lbs in a crossing pattern.
23. Bounce the front of the vehicle to settle the suspension.
24. Torque upper control arm bushing hardware to 122 ft-lbs **Figure 16**.

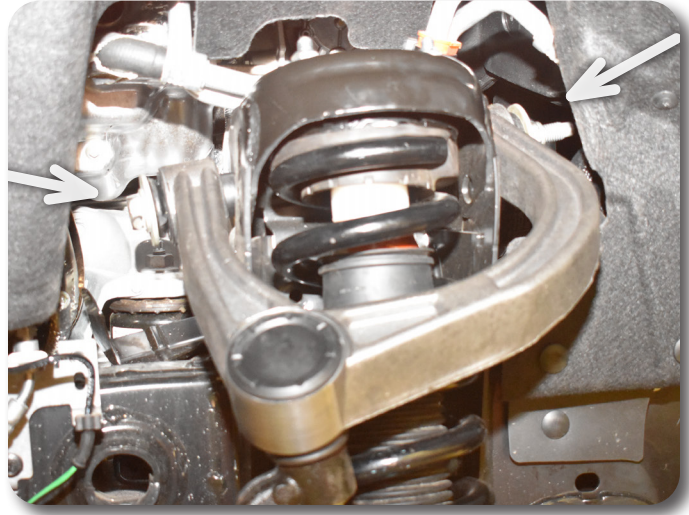


Figure 16

25. Check all hardware for proper torque.
26. Recheck hardware after 500 miles.
27. The vehicle will need a complete front end alignment.

Post-Installation

28. Check all hardware for proper torque.
29. Reconnect the positive and negative battery cables if removed.
30. The vehicle will need a complete front end alignment.
31. Check all hardware after 500 miles.
32. Adjust headlights as necessary

Post-Installation Warnings

1. Check all fasteners for proper torque. Check to ensure for adequate clearance between all rotating, mobile, fixed, and heated members. Verify clearance between exhaust and brake lines, fuel lines, fuel tank, floor boards and wiring harness. Check steering gear for clearance. Test and inspect brake system.

2. Perform steering sweep to ensure front brake hoses have adequate slack and do not contact any rotating, mobile or heated members. Inspect rear brake hoses at full extension for adequate slack. Failure to perform hose check/ replacement may result in component failure.

3. Perform head light check and adjustment.

4. Re-torque all fasteners after 500 miles. Always inspect fasteners and components during routine servicing.

Recommend Alignment Specifications

CASTER

$3.18^{\circ} \pm 0.60^{\circ}$

CAMBER

$+0.20^{\circ} \pm 0.50^{\circ}$

TOE

$+0.10^{\circ} \pm 0.15^{\circ}$