

# F1103 Installation Instructions 2021 Ford Bronco Sport - Badlands Leveling Kit

# 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. Secure and properly block vehicle prior to installation of Zone Offroad Products. Always wear safety glasses when using power tools.

- 5. If installation is to be performed without a hoist, Zone Offroad Products recommends rear alterations first.
- 6. 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: 1-2 hours Special Tools Required Hammer Trim Removal Tool Tie Rod End Separator (Recommended) Tire/Wheel Fitment 245/65 w/ stock 17" Wheels 245/60 w/ stock 18" Wheels 245/65R17 w/ 17"x7" wide wheel w/5.5" BS 245/60R18 w/ 18"x7" wide wheel w/5.5" BS See more information at end of instructions. BS = Backspacing

rev093022

## F1103 Kit Contents - Leveling Kit

Qty Part

1

- 2 Front Upper Strut Spacer
  - Bolt Pack 1018
  - 6 5/16"-18 Prevailing Torque Nut
    - 6 5/16" Washer

### Important—measure before starting!

Measure from the center of the wheel up to the bottom edge of the wheel opening

<i>LF</i>	<i>RF</i>
LR	RR

## **INSTALLATION INSTRUCTIONS**

#### >> FRONT DISASSEMBLY

- 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 on the subframe.
- 3. Remove the front wheels.
- 4. Open and prop the hood
- 5. Remove the clips (6 total) that secure the cowl trim. Figure 1



Figure 1

6. Pick up the cowl to access the rear bolt holding the strut top trim, carefully remove the 2 bolts and the trim piece covering the strut mounting bolts. Figure 2



Figure 2

7. Disconnect the driver's and passenger's side tie rod end from the knuckle.





8. Disconnect the driver's and passenger's side sway bar link from the strut. Do NOT use an impact to remove the sway bar link nut as this can cause damage to the joint and boot.



Figure

9. Disconnect the front brake line and ABS line from the strut and steering knuckle. Figure 5A/5B/5C



iaure 5A

## **Step 7 Note:**

It is recommended to use a tie rod separator tool to dislodge the tie rod end stud from the knuckle to prevent damaging the knuckle or stud.

## **Step 8 Note:**

It may be necessary to turn the front of the knuckle inward to make room to remove the swaybar link from the strut.



Figure 5B



Figure 5C

10. Remove the lower mounting bolts from the strut using a hammer to dislodge bolts. Figure 6



Figure 6

11. Once your ABS line, brake line and knuckle are disconnected from the bottom of the strut support the weight of the strut while you remove the 3 upper strut mounting bolts from under the hood. Retain hardware Figure 7A/7B. DO NOT remove the center strut rod nut.



Figure 7A



Figure 7B

12. Remove the strut assembly from the vehicle.

#### >>> STRUT SPACER INSTALLATION

13. Once the strut has been removed, install the top spacer using the factory mounting bolts. The top spacers are side specific, the notch on th the top plate of the spacer should face towards the front of the vehicle when installed. Torque bolts to 26 ft-lbs.Figure 8A/8B.



Figure 8A



Figure 8B

#### >> FRONT INSTALLATION

14. With the spacer installed on the strut install the strut assembly into the vehicle using the provided 5/16" washers and prevailing torque nuts **Figure 9.** Torque the strut mounting nuts to 26 ft-lbs.



Figure 9

- 15. Once the strut is mounted on the top, install the knuckle into the bottom of the strut, insert factory lower strut bolts from front to back and use a hammer to fully seat the bolts into the strut. Install nuts and torque each nut to 103 ft-lbs, then tighten each nut another 120 degrees.
- 16. Reconnect the brake line bracket to the strut. Figure 10 Torque to 97 in-lbs.



Figure 10

17. In some cases the brake line mounting tab on the body may need to be bent for extra slack in the line at droop. Figure 11 Torque hardware to 97 in-lbs.



Figure 11

- 18. Reconnect sway bar links to the strut and replace with factory hardware. Torque to 81 ft-lbs.
- 19. Attach the steering tie rod end to the steering knuckle and replace with factory nuts. Torque to 35 ft-lbs.
- 20. Check all brake / ABS lines for proper routing and clearances.
- 21. Install the wheels and lower the vehicle to the ground. Torque lug nuts to 100 ft-lbs in a crossing pattern.
- 22. Re-install strut top trim and torque bolts to 13 in-lbs.
- 23. Re-install the cowl trim clips

#### >> FINAL INSTALLATION

- 24. Adjust head lights.
- 25. The vehicle will need a complete front end alignment.
- 26. Check all hardware for proper torque.
- 27. Check hardware after 500 miles.

## 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.

Component	Torque (Ft-Lbs)
Strut Trim Plate Bolts	13 (in-lbs)
Brake Line Routing Bolt	97 (in-lbs)
Upper Strut Mounting Bolts	26
Lower Strut Mount Bolts	103 + 120°
Tie Rod End	35
Sway Bar Link Nut	81
Wheel Lug Nuts	100