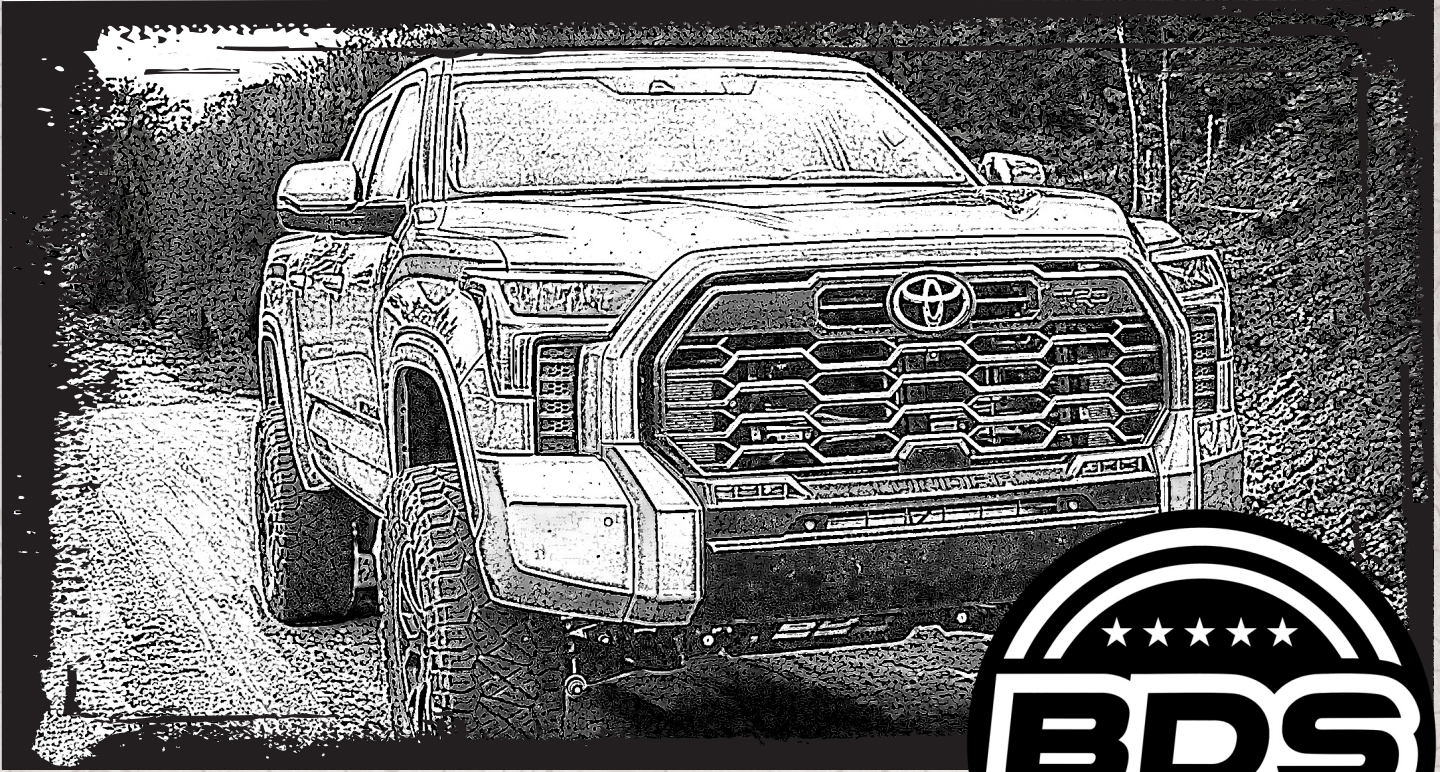


# INSTALLATION GUIDE



Part#: 128254



**HARDCORE LIMITED LIFETIME WARRANTY**

## Upper Control Arm Kit

Toyota Tundra 4WD | 2022

Rev. 010824

491 W. Garfield Ave., Coldwater, MI 49036 • Phone: 517-279-2135

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# Read And Understand All Instructions And Warnings Prior To Installation Of System And Operation Of Vehicle.



## THANK YOU

Your truck is about to be fitted with the best suspension system on the market today. That means you will be driving the baddest looking truck in the neighborhood, and you'll have the warranty to ensure that it stays that way for years to come.

Thank you for choosing BDS Suspension!

### BEFORE YOU START

BDS Suspension Co. 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.

### FOR YOUR SAFETY

Certain BDS 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. BDS Suspension Co. 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.

### BEFORE INSTALLATION

- Special literature required: OE Service Manual for model/year of vehicle. Refer to manual for proper disassembly/reassembly procedures of OE and related components.
- Adhere to recommendations when replacement fasteners, retainers and keepers are called out in the OE manual.
- 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.
- 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.
- Secure and properly block vehicle prior to installation of BDS Suspension components. Always wear safety glasses when using power tools.
- If installation is to be performed without a hoist, BDS Suspension Co. recommends rear alterations first.
- 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.



Visit [560plus.com](http://560plus.com) for more information.

### TIRES AND WHEELS

- 6-7/8 BS (OE TRD Wheel)
- 6-1/8" BS Wheel
- 5-1/2" BS Wheel
- 5" BS Wheel



### BEFORE YOU DRIVE

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.

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. Longer replacement hoses, if needed can be purchased from a local parts supplier.

Perform head light check and adjustment.

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

# CONTENTS OF YOUR KIT

Box Kit #128254		
Part #	Qty	Description
390	2	<b>Bolt Pack</b>
	4	1/4"-20 x 3/8" Bolt, Grade 5, Clear Zinc
	4	1/4" Lock Washer, Clear Zinc
	4	Wire Clamp
BP1068	1	Bolt Pack
	2	1/2" USS Washer. Clear Zinc
	2	14mm-2.00 Nylon Locknut, Clear Zinc
2911	2	Ball Joint Cap
45NA53	2	Multi Purpose Grease, Packet, 1cc
9452K145	2	O Ring
A451	1	2022 Tundra UCA - Drv
A452	1	2022 Tundra UCA - Pass

## TROUBLESHOOTING INFORMATION FOR YOUR VEHICLE

1. Do NOT hit the aluminum knuckle on later model trucks with a hammer to separate the ball joint. Use appropriate ball joint separation tool.

**TECH  
TIPS**

# INSTALLATION INSTRUCTIONS

## INSTALLATION INSTRUCTIONS

### PCM AND AIRBOX REMOVAL

1. Park vehicle on clean, flat, and level surface.
2. Block the rear wheels for safety
3. Disconnect battery.
4. In order to remove driver side UCA(Upper Control Arm) bolt, the factory airbox and PCM must first be removed.
5. Disconnect wire harness from air box.

**FIGURE 1**



6. Loosen the air hose clamp. (**Fig. 2**)

**FIGURE 2**



7. Remove Air box by pulling up and out. **(Fig. 3)**

**FIGURE 3**



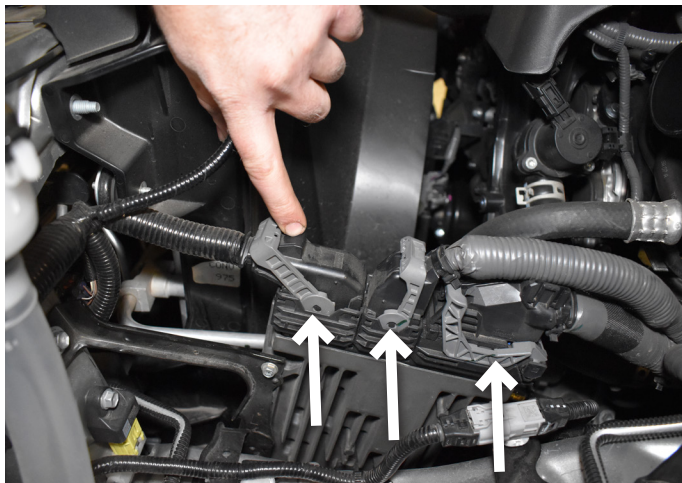
8. Remove PCM(Power Control Module) wire harness clip by pressing out on the clip tabs on both sides using a flat head screwdriver. **(Fig. 4)**

**FIGURE 4**



9. Remove the three PCM harness connectors by flipping the 3 gray locking switches. **(Fig. 5,6,7)**

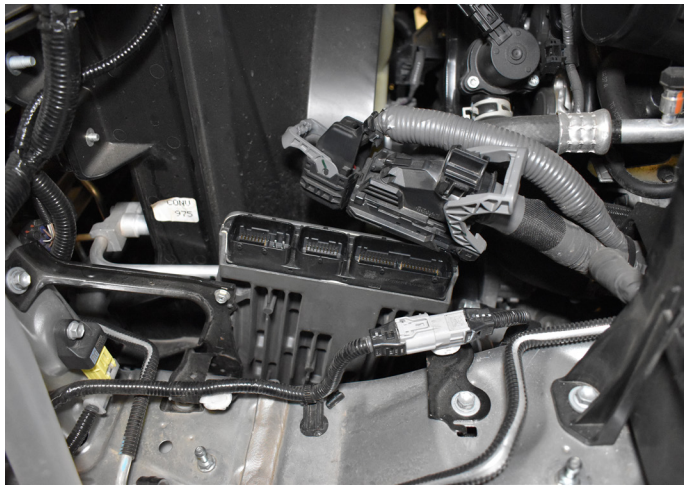
**FIGURE 5**



**FIGURE 6**

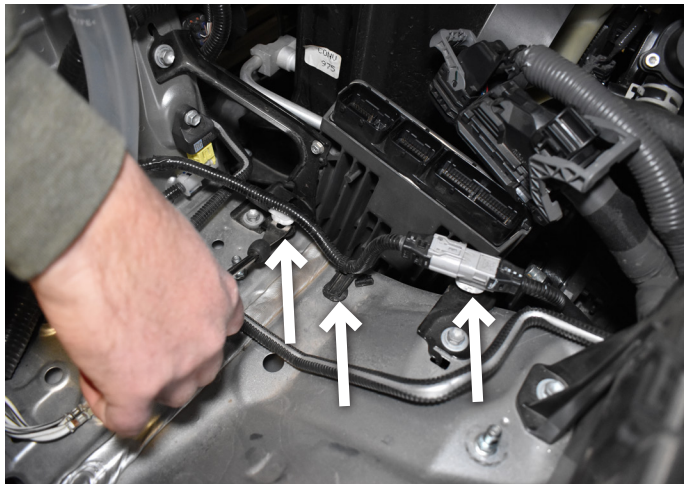


**FIGURE 7**



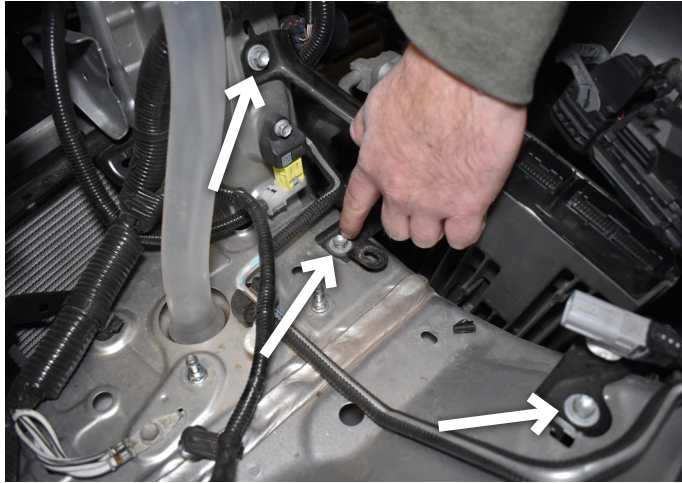
10. Remove 3 harness clips. (Fig. 8)

**FIGURE 8**



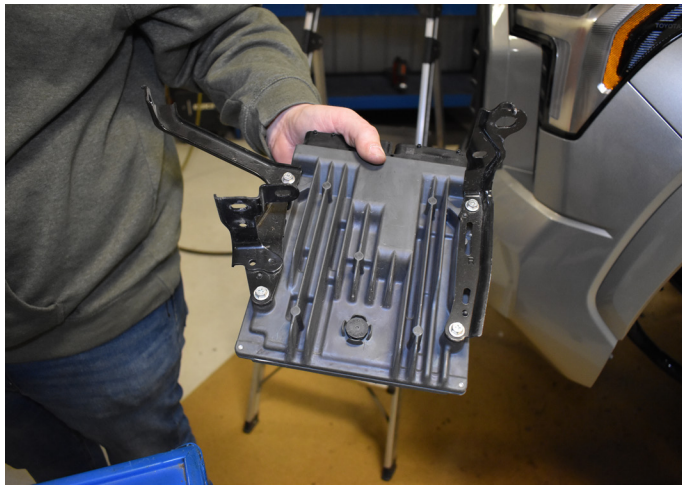
11. Remove the 3 PCM bracket bolt. (Fig. 9)

**FIGURE 9**



12. Carefully remove PCM and set aside in a secure location. (Fig. 10)

**FIGURE 10**



## UPPER CONTROL ARM REMOVAL

13. Remove the driver side brake line shield by pulling of carefully. (Fig. 11)

**FIGURE 11**

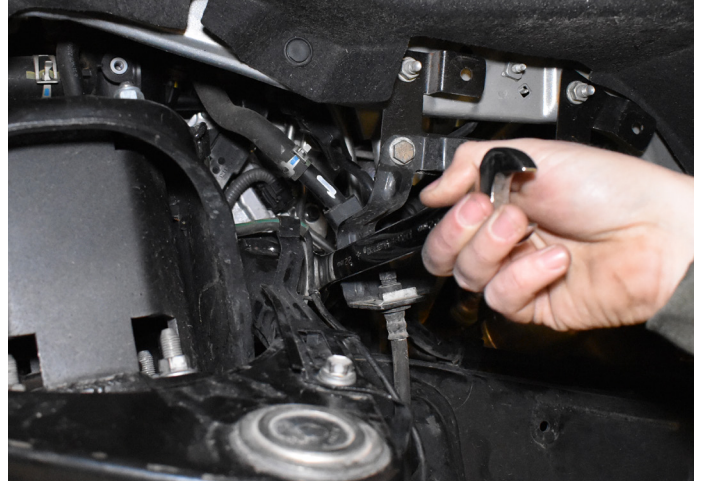


14. Loosen the UCA bolt and nut. (Fig. 12,13)

**FIGURE 12**



**FIGURE 13**



15. Remove cotter key from ball joint. (Fig. 14)

**FIGURE 14**



16. Remove ABS line bracket bolt. (Fig. 15)

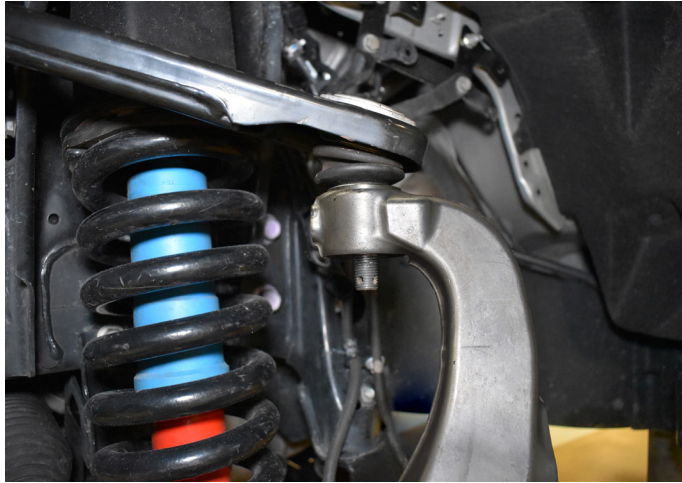
**FIGURE 15**





17. Remove ball joint castle nut. **(Fig. 16)**

**FIGURE 16**



18. Dislodge ball joint by striking knuckle with hammer, or using a pickle fork which is recommended for aluminum knuckles.
19. Remove UCA bolt and feeding bolt out and into the space made by the removal of the PCM and air box. Retain bolt, nut and washers for reuse. NOTE: Bolt can be reinstalled in opposite direction during reassembly to ease any need for future removals. **(Fig. 17,18)**

**FIGURE 17**



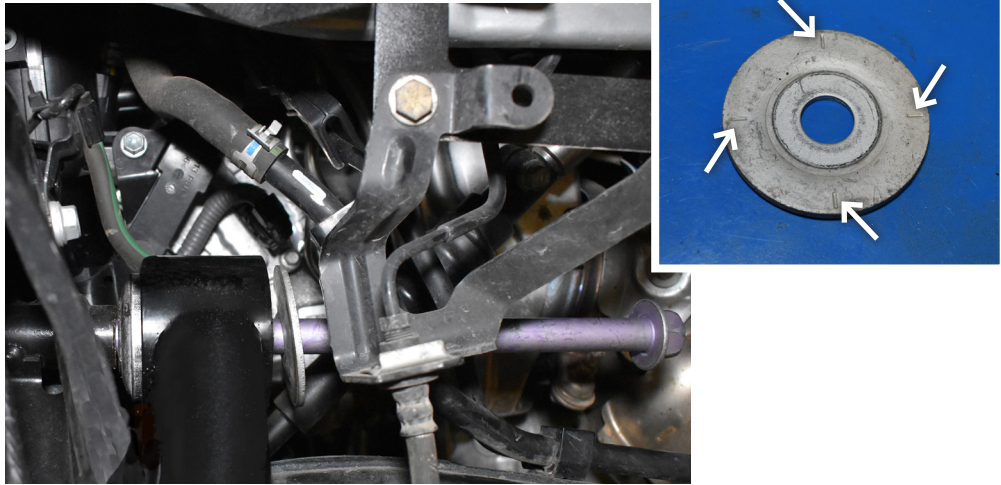
**FIGURE 18**



## UPPER CONTROL ARM INSTALLATION

20. Install new UCA using factory bolt, nut and washers. NOTE: Ensure that the 4 stamped marks on the washer are facing out when re-installed. DO NOT TIGHTEN UCA BOLT UNTIL THE VEHICLE IS ON THE GROUND AND UNDER LOAD. (Fig. 19)

**FIGURE 19**



21. Attach UCA ball joint to knuckle using provided washer and nut in bolt pack BP1068. Torque to 92 in-lb. (Fig. 20) Do not use the provided flange nut that came with the ball joint.

**FIGURE 20**



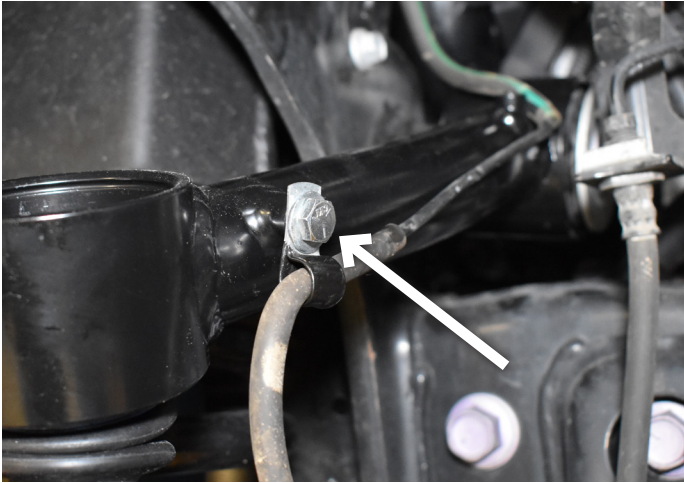
22. Remove ABS line from the ABS bracket by bending the bracket loop tabs. Discard bracket. (Fig. 21)

**FIGURE 21**

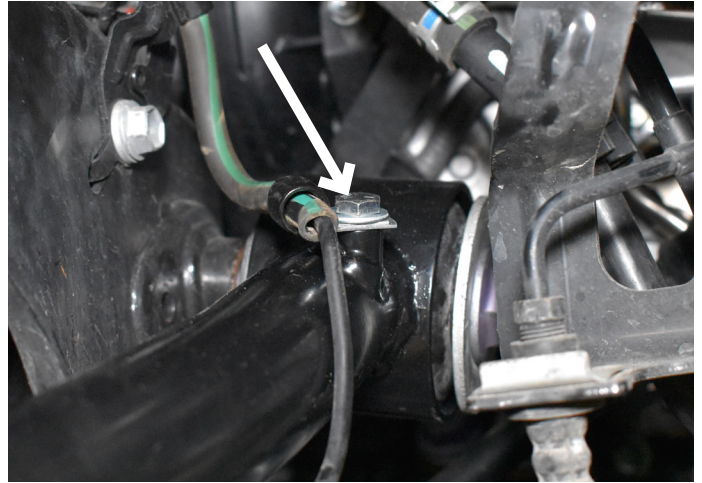


23. Attach ABS line to UCA using provided cable loops, bolt and washer found in bolt pack 390. Slide line up to so that sheathing is held by the clamp. (Fig. 22,23)

**FIGURE 22**



**FIGURE 23**



24. Grease ball joint. Grease O-ring, install on ball joint cap, install in UCA. (Fig. 24,25)

**FIGURE 24**



**FIGURE 25**



25. Re-install the brake line shield.  
26. Re-install PCM by reversing steps 12-8. Torque PCM bolts to 40 in-lb.  
27. Re-install Airbox and Airbox Hose by reversing steps 7-5  
28. Reinstall wheels and torque lug nuts to factory specifications.  
29. Lower the vehicle to the ground and torque upper control arm hardware to 122 ft-lbs.  
30. Align vehicle.

### **BALL JOINT SERVICE**

31. Recheck hardware after 500 miles.  
32. Remove the cap and grease the ball joint at regular service intervals.



## **WE WANT TO SEE YOUR RIDE!**

Grab photos of your BDS-equipped truck in action and send them in for a chance to be featured. Send it in to our Bad Ass Rides customer gallery at [bds-suspension.com/bar](http://bds-suspension.com/bar) and post them on the BDS Fan Page on Facebook at [facebook.com/BDSSuspensions](https://facebook.com/BDSSuspensions). Don't forget about your BDS swag! BDS offers t-shirts, hoodies, decals and more available on the BDS website or through your local BDS distributor.

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## **TIME TO HAVE SOME FUN**

### **Thank you for choosing BDS Suspension.**

For questions, technical support and warranty issues relating to this BDS Suspension product, please contact your distributor/installer before contacting BDS Suspension directly.