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Rough Country 684194 Installation Instructions

3.5-Inch M1R Front Struts for Toyota Land Cruiser (2024–2025)

Part number: 684194

trailfortress.com/rough-country-m1r-reservoir-loaded-struts-684194

Scan for fitment, price and install help

ROUGH COUNTRY

921681187

Toyota 2024 Land Cruiser M1R Strut

Thank you for choosing Rough Country for all your vehicle needs.

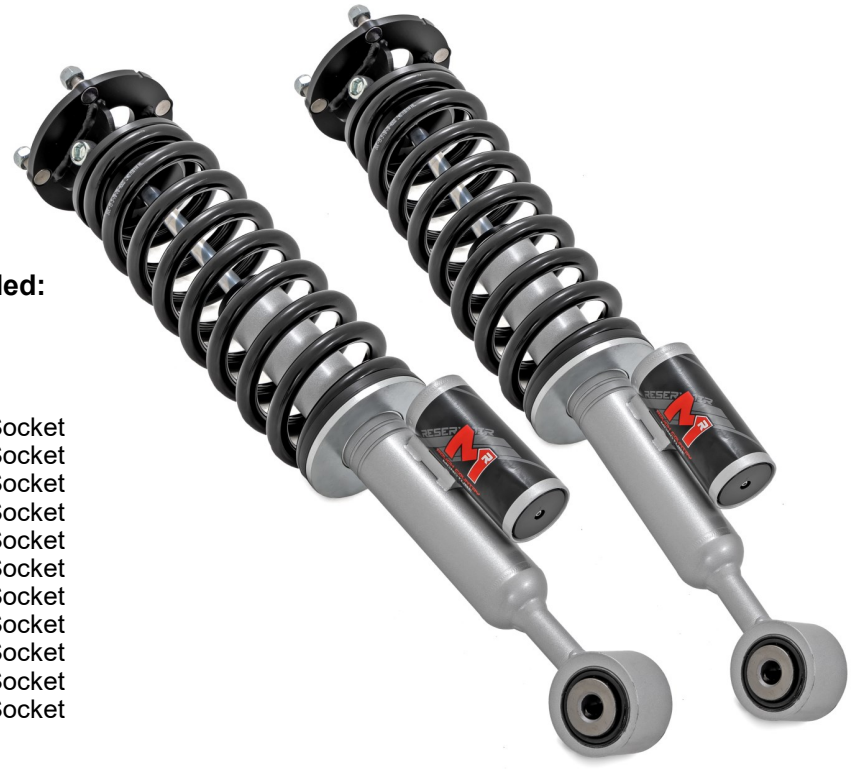
Please read instructions before beginning installation. Check the kit hardware against the kit contents shown below. Be sure you have all needed parts and know where they go.
If question exist, please call us @1-800-222-7023. We will be happy to answer any questions concerning this product.
Check all fasteners for proper torque. Check to ensure for adequate clearance between all components.
Periodically check all hardware for tightness.

Kit Contents:

Struts x2

Hardware Included:

Nuts x6



Tools Needed:

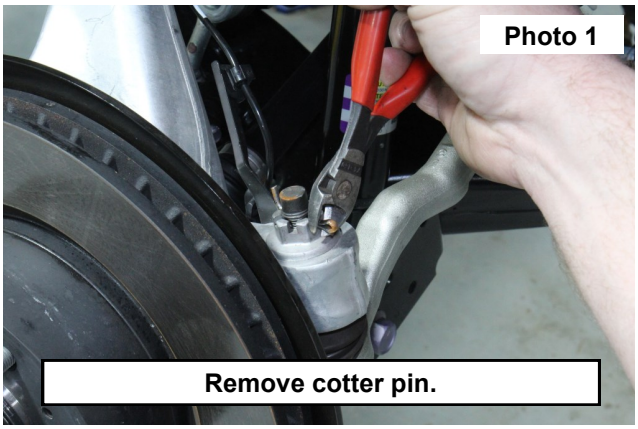
Hammer
Pliers
Jack
Jack Stands
10mm Wrench or Socket
12mm Wrench or Socket
14mm Wrench or Socket
15mm Wrench or Socket
16mm Wrench or Socket
17mm Wrench or Socket
18mm Wrench or Socket
19mm Wrench or Socket
22mm Wrench or Socket
24mm Wrench or Socket
36mm Wrench or Socket

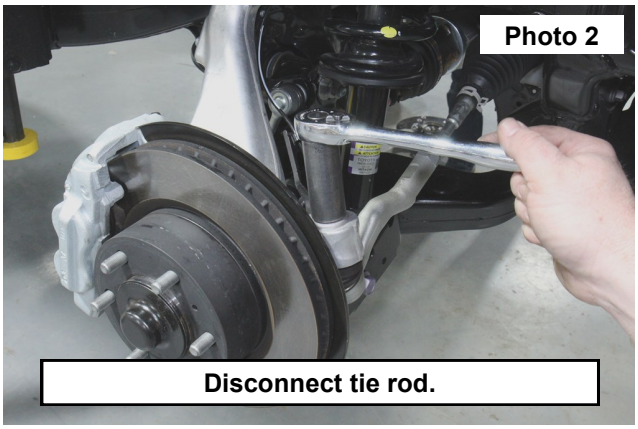
Torque Specs:

Size	Grade 5	Grade 8	Size	Class 8.8	Class 10.9
5/16”	15 ft/lbs	20ft/lbs	6MM	5ft/lbs	9ft/lbs
3/8”	30 ft/lbs	35ft/lbs	8MM	18ft/lbs	23ft/lbs
7/16”	45 ft/lbs	60ft/lbs	10MM	32ft/lbs	45ft/lbs
1/2”	65 ft/lbs	90ft/lbs	12MM	55ft/lbs	75ft/lbs
9/16”	95 ft/lbs	130ft/lbs	14MM	85ft/lbs	120ft/lbs
5/8”	135ft/lbs	175ft/lbs	16MM	130ft/lbs	165ft/lbs
3/4”	185ft/lbs	280ft/lbs	18MM	170ft/lbs	240ft/lbs

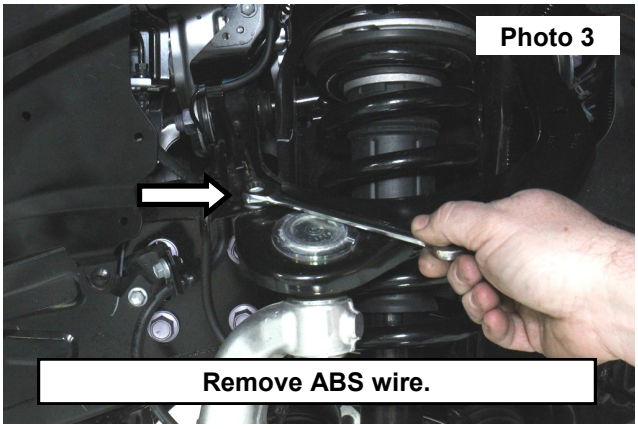
FRONT INSTALLATION

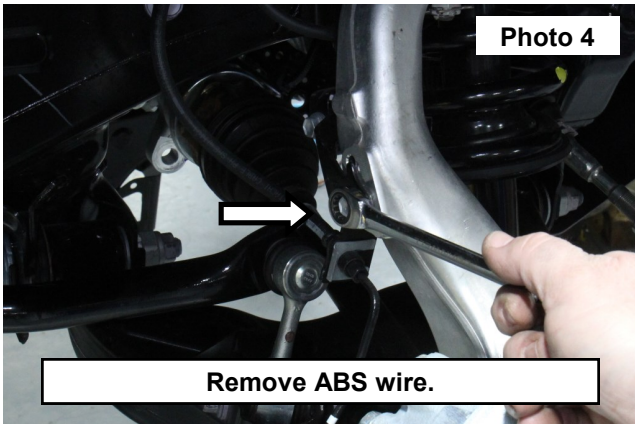
1. Jack up the front of the vehicle and support the vehicle with jack stands, so that the front wheels are off the ground.
2. Remove the front tires/wheels using a 21mm deep well socket.
3. Remove the cotter pin from the tie-rod end with a pair of pliers. Retain hardware for reuse. **See Photo 1.**
4. Loosen, but do not fully remove the castle nut with a 24mm socket. Strike the steering knuckle where the tie-rod end is with a hammer to release the taper. Finish removing the castle nut. Retain hardware for reuse. **See Photo 2.**



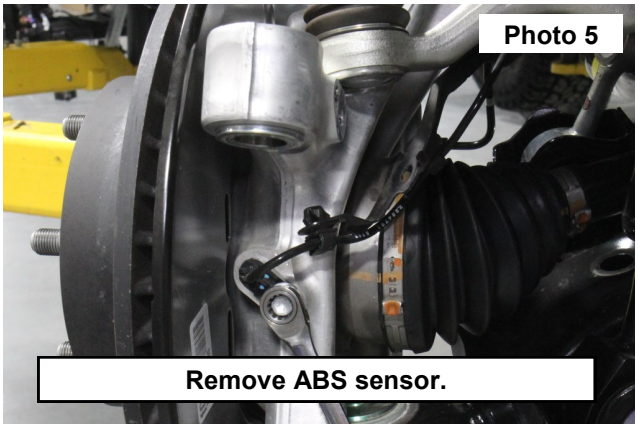


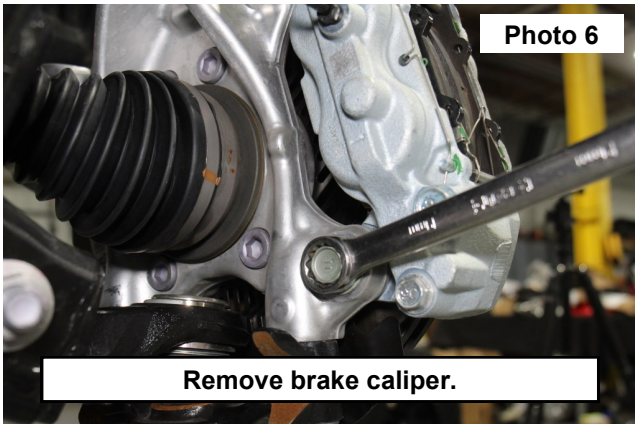
5. Remove the ABS wires from the upper control arm and steering knuckle using a 12mm wrench. Retain hardware for reuse. **See Photo 3 and Photo 4.**



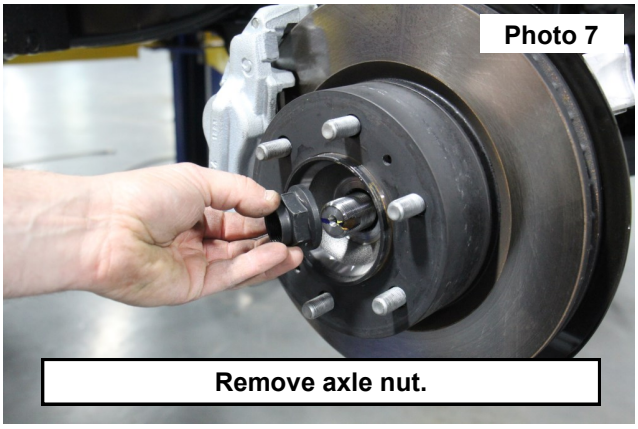


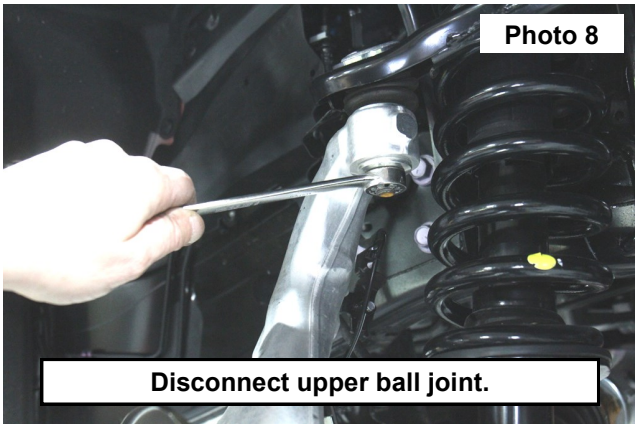
6. Remove ABS sensor from knuckle using a 10mm wrench. Retain hardware for reuse. **See Photo 5.**
7. Use a 19mm socket to remove the bolts holding the brake caliper to the knuckle. Hang brake caliper out of the way. Retain hardware for reuse. **See Photo 6.**



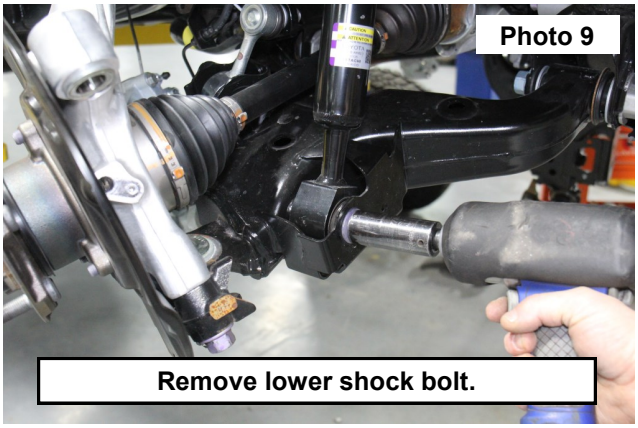


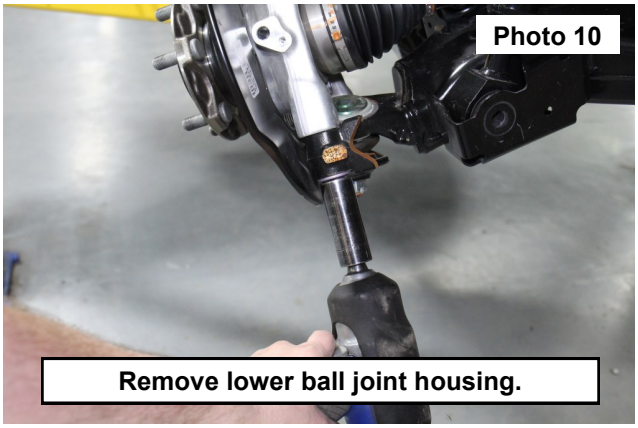
8. Remove the dust cover from the hub bearing with a pry tool and use a 36mm socket to remove the axle nut. Retain hardware for reuse. **See Photo 7.**
9. Remove the cotter pin from the upper ball joint nut and use a 19mm socket to loosen, but not remove the nut. Use a hammer to release the upper ball joint taper. Remove the nut. Retain hardware for reuse. **See Photo 8.**



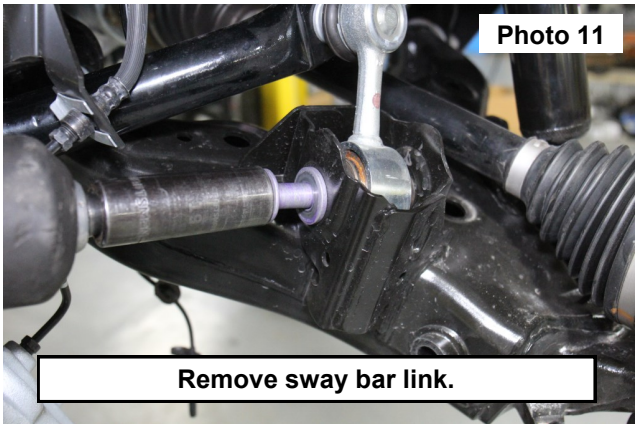


10. Remove lower strut bolt using a 22mm socket. Retain hardware for reuse. **See Photo 9.**
11. Use a 22mm socket to remove the factory bolts holding the lower ball joint housing to the steering knuckle. Retain hardware for reuse. **See Photo 10.**



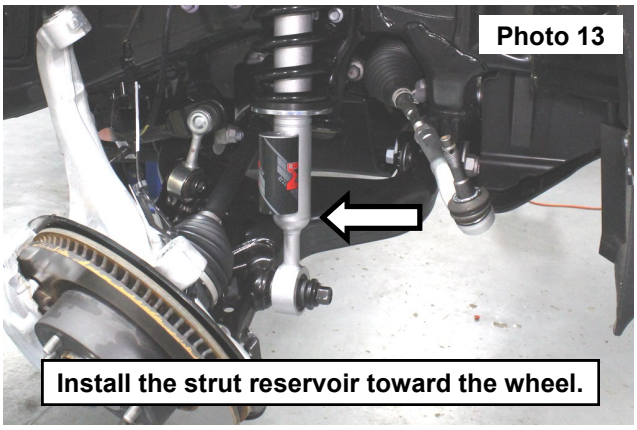


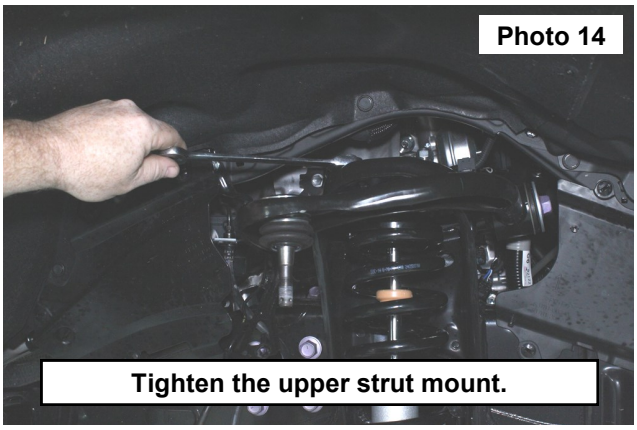
12. Remove sway bar link from the lower control arm with a 19mm socket. Retain hardware for reuse. **See Photo 11.**
13. Loosen, but do not remove, the lower control arm bolts using a 24mm wrench. Swing lower control arm out of the way.
14. Remove upper strut nuts using a 14mm wrench. Retain hardware for reuse. **See Photo 12.**
15. Remove strut from vehicle.
16. If upper control arms or any other accessory's are to be installed, do so at this time.



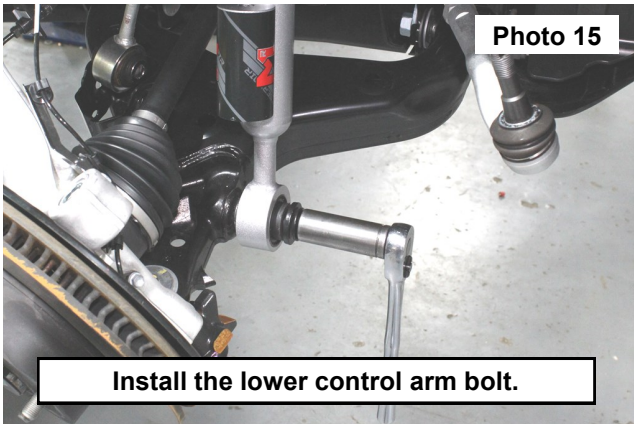


17. Install the new strut into the upper mount, the strut reservoir orientation is toward the wheel. **See Photo 13.** Passenger's Side shown.
18. Secure the upper strut mount using (3) of the supplied nuts. **See Photo 14.**





19. Raise the lower control arm to capture the lower strut mount. Secure the strut using the OE bolt. This bolt should be tightened once the vehicle is on the ground. **See Photo 15.**
20. Reverse steps 1-13 to complete the install. **See Photo 16.**
21. Install the wheels and tires onto the vehicle and lower onto the ground.
22. Tighten the lower control arm bolts using a 24mm wrench and the lower strut bolt using a 22mm socket.





POST INSTALLATION INSTRUCTIONS

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.
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. On some vehicles the front lower skirting will need to be trimmed if using certain wheel/ tire combinations and with heavy offset wheels. Trim only as needed.
4. Activate four wheel drive system and check front hubs for engagement.
5. Have a qualified alignment center align the vehicle immediately. Realign to factory specifications.
6. Perform head light check and adjustment to proper settings.
7. Check and retighten wheels at 50 miles and again at 500 miles.
8. All kit components must be retightened at 500 miles and then every three thousand miles after installation. Periodically check all hardware for tightness.
9. Install "Warning to Driver" decal on sun visor.

Note: Installation of larger tires will require speedometer recalibration.

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