

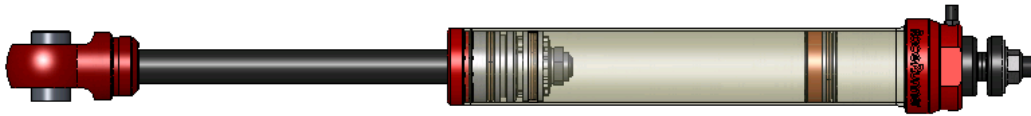


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**2007-2014 FJ Cruiser, 2003-2020 4-Runner 2.0" Dia.
RaceRunner Rear Performance Shock**

Parts List

-2 RaceRunner Shocks (PN 52000-108-XX)



Tool List

-1/4" Allen wrench
-3/4" open-end wrench
-14mm open-end wrench
-5mm open-end wrench
-17mm wrench or socket

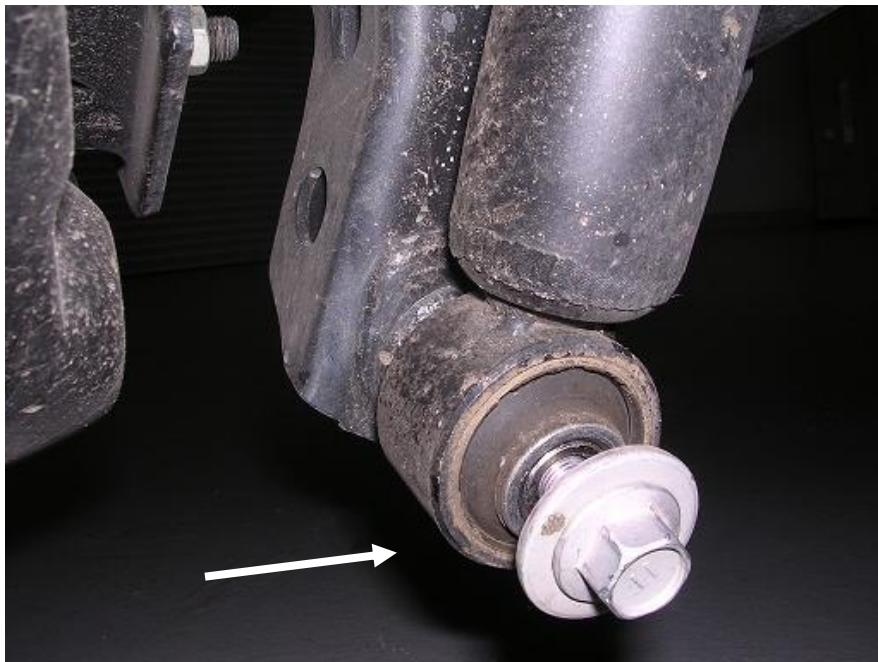
-Jack and jack stands
-Safety Glasses

Removal and Installation Procedure for FJ Cruiser Rear
(Shocks are already charged with 150 PSI of Nitrogen)

1. Park the vehicle on a level concrete surface where it is safe to work on your vehicle.
2. Lock and center the steering wheel. Engage the hand brake.
3. With the vehicle on the ground loosen and remove the upper nut on the stock shock using the **14mm** open-end wrench while holding the shaft with the **5mm** open-end wrench.



4. Place blocks in front and behind the front tires keep the vehicle from moving forwards or backwards.
5. Using a jack, lift the rear of the vehicle until the rear tires are off the ground. Place the jack stands under the frame
6. Using a **17mm** wrench or a **17mm** socket loosen and remove the stock shock-mounting bolt. Save the stock lower shock mount bolts, as you will be re-using them with your new Racersrunners.



7. Lower the shock until it is free of the upper mount hole in the frame. Remove the shock.
8. Install the Racerunner shocks by reversing the removal technique. Slide the rod end of the shock onto the lower shock stud, with one heim spacer first, the rod-end second and the other heim spacer last. Using the stock lower bolt, install the lower end of the shock to the stock stud. Torque the bolt to 75 ft-lb.



9. Next, install the top stud through the frame. Only one black urethane bushing should be on the stud when you insert the stud through the hole in the frame. Make sure the Racerunner logo is facing out and the Schrader valve axis is parallel to the vehicle axis.



10. Place the second bushing on the stud, on the top side of the frame, followed by the washer and the locknut. Hand-tighten the locknut, until the nylon engages and the nut starts to tighten.



11. Lower the vehicle slowly while checking to make sure the upper studs of the Racrunner shocks stay centered in the holes in the frame.
12. Set the vehicle down and make sure the vehicle is sitting on its own weight (no jacks or jack-stands). Using the $\frac{3}{4}$ " wrench tighten the $\frac{1}{2}$ -20 shallow locknut (provided with the shock) to the top stud (using the $\frac{1}{4}$ " Allen wrench to keep the stud from rotating).
Tighten the lock nut until the washer between the top bushing and the nut is not loose (just tight enough so that the washer doesn't move side ways when you push on it with a finger) and than tighten half a turn more. DO NOT OVER TIGHTEN THE NUT, OVERTIGHTENING THE NUT WILL OVER STRESS THE STUD AND CAUSE IT TO FAIL OVERTIME. The nut provided is a locknut and it does not need to be torqued to prevent it from turning loose. If it is torqued like a regular nut it will be over tightened and it will break the stud. Also the locknut is reusable for multiple times. However, if after multiple installations the nut turns freely (not locking anymore) it should be replaced with a brand new one that locks.
13. Drive the vehicle for 5 miles and check for loose nuts and interference. Check the Schrader valve clearance with the frame. If the Schrader valve is hitting to the frame (or close to hitting) turn the shock so that the Schrader is away from the frame walls and tighten the locknut another quarter turn to prevent the shock from turning again. Repeat the step by driving 5 miles and checking the vehicle again.
14. Drive the vehicle for 30 miles and recheck for loose nuts and etc. Recheck periodically (every 3 months).
15. You are done 😊.