






4RUNNER SPINDLE GUSSET INSTALLATION INSTRUCTIONS

	NOTICE Read instructions completely before installing this product. Refer back to the instructions frequently during installation.		CAUTION Flying Object Hazard. Fluid Splash Hazard. Wear safety glasses at all times when working on vehicle.
 WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov			

1. Safely support the vehicle by the frame using jackstands so the front suspension is at full droop. Remove the front wheel.
2. Remove all wheel speed sensors and related wiring from the knuckle.



AP-307695-INS

3. Remove the front caliper and rotor. Keep the brake line connected to the caliper and disconnect any brake line mounts connected to the knuckle. **DO NOT** let the caliper hang by the brake line, support the caliper with a piece of wire or zip tie.

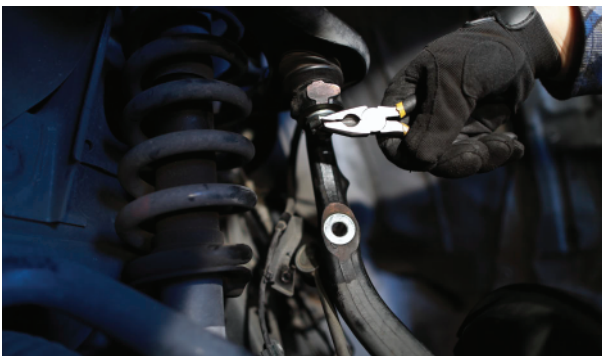


4. If the vehicle is equipped with 4WD, remove dust cap exposing the axle nut. Remove the cotter pin and remove the axle nut.

5. Loosen but **DO NOT** remove the (4) 17mm bolts that hold the bearing assembly in the knuckle.



6. Remove the cotter pin from the upper ball joint and loosen the upper ball joint nut.



7. Remove the cotter pin and loosen the tie rod nut.



8. Remove the sway bar nut and remove the sway bar from the spindle..



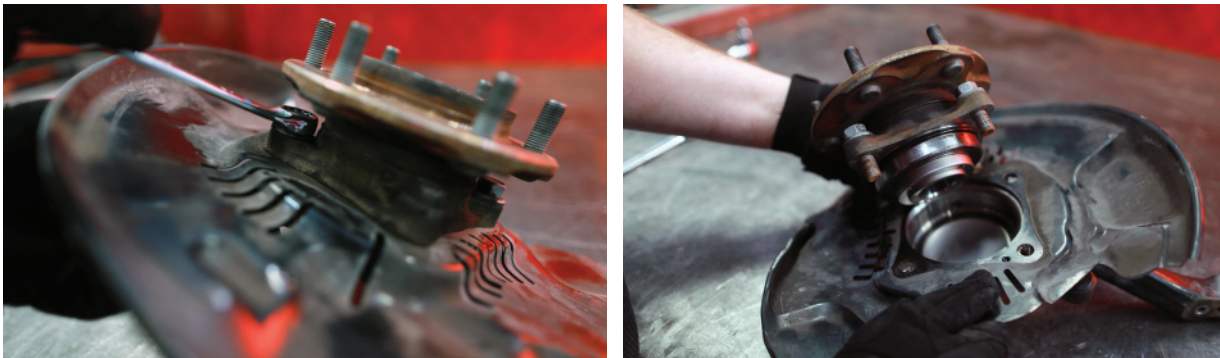
9. Remove the upper ball joint and tire rod from the knuckle.

10. Remove the (2) 19mm bolts that attach the lower ball joint cradle to the knuckle.



11. If the vehicle is equipped with 4WD, use a dead blow hammer to knock the axle out of the hub assembly. Move the knuckle and bearing housing to a work bench.

12. Remove the bearing housing and dust shield by unbolting the (4) 17mm bolts loosened earlier.



13. Remove the ABS sensor from the knuckle.



14. If the vehicle is equipped with 4WD, remove the axle seal with a scraper. When reassembling, replace this seal if damaged.

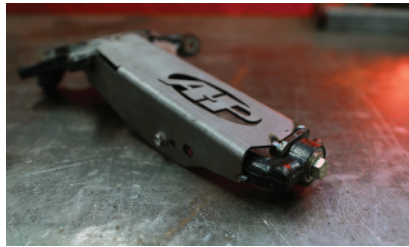
15. Mount the smaller top plate of the gusset on the knuckle using a 9/16" or 14mm bolt as shown. Choose the appropriate top plate from the (2) different thicknesses supplied (.125" and .25"). Insert a 12mm bolt through the gusset body into the side hole of the spindle to prevent the gusset from moving during welding. Ensure that the hole in the top plate is centered with the ball joint hole in the spindle and the three holes in the gusset body are aligned with the holes in the side of the spindle. Align the steering arm brace piece with the steering arm.





16. Mark the areas where the gusset contacts the knuckle. Remove any paint, grease, or other contaminants around the marked areas and prep the knuckle for welding.

17. With the three gusset pieces aligned in place, tack weld the provided gusset pieces together and then tack weld the gusset pieces to the knuckle. After the pieces are tack welded together fully weld the gusset pieces to each other and the spindle. Only weld about an inch at a time to prevent warping the spindle and overheating the rear dust seal (on 2WD vehicles).



18. After the knuckle has cooled paint any exposed metal to prevent rust.





- 19.** Reinstall the dust shield, bearing housing, and axle seal (if equipped) replacing any components as necessary. Follow the appropriate Toyota Service Manual when replacing all components.
- 20.** Reinstall the knuckle onto the vehicle following the appropriate Toyota Service Manual.
- 21.** Before installing the rotor, use a hammer to form the dust shield around the new gusset so the dust shield will not contact the rotor. Install the rotor and check for any contact between the dust shield and rotor.
- 22.** On some model years it may be necessary to trim the ABS wire mounting bracket before reattaching to the knuckle.
- 23.** Double check to ensure all bolts are tightened to the factory torque specification.
- 24.** Replace the front wheel and torque the lug nuts.
- 25.** Repeat the process on the other side of the vehicle.