INSTALLATION INSTRUCTIONS: Long Link Radius Arms

PART #5345 4WD Bronco II, 83-87 Ranger, 91-94 Explorer



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Contents:

1	Driver side Radius Arm	12	1/2" x 1 1/2" NC GR5 Bolts	TONVINE, THE ST
1	Passenger side Radius Arm	14	1/2" NC Nyloc Nuts	1/2 1.09
1	Transmission Crossmember	32	1/2" Flat Washers	1/2 1.00
1	Transmission Adapter plate	2	1/2" x 4" NC GR5 Bolts	
2	1" x 4 1/2" NC GR5 bolts	2	1/2" x 5 1/2" NC GR5 Bolts	

1 Driver side frame Bracket 4 1" Flat Washers

1 Passenger side frame Bracket 2 1" Bore x 1 1/4" Thread Rod Ends

2 1" Nyloc Nuts 2 1 1/4" Jam Nuts 4 1" I.D. Spacers

Suggested Tool List:

1	7/16" End wrench	1	7/8" End Wrench or Large Crescent Wrench
1	1/2" Socket and Ratchet	1	Grinder or Cold Chisel and Hammer
1	1/2" Drill bit and Drill	1	Floor Jack
2	3/4" End wrench	1	Transmission Jack
1	3/4" Socket and Ratchet	2	Axle stands
1	1/8" End wrench	2	Frame Stands

Please read all instructions before beginning.

1/8" Socket and Ratchet

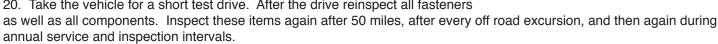
Note: Use caution when drilling any holes to avoid damage to wiring or fluid lines.

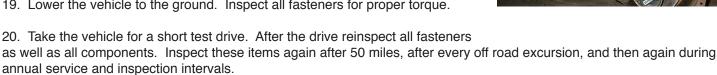
- 1. Begin by blocking the rear tires and setting the parking brake.
- 2. Disconnect the front anti-sway bar from each side of the front axle.
- 3. Jack up the front end and place the frame stands so that the tires hang but do not touch the ground. Remove tires and wheels. If the brake lines are tight it may be necessary to temporarily remove the brake calipers in order to facilitate this installation. If the calipers are removed, make sure to not hang the calipers by the brake hose, as damage to the hose may occur.
- 4. On the driver side disconnect the shocks from the radius arm.
- 5. Make sure the coil is sitting without tension on it. Remove the lower coil retainer nut. Twist the coil spring out of its mount and remove from the vehicle.
- 6. Place a jack stand under the transmission and remove the stock transmission crossmember. If the crossmember is a ure-thane style, the frame mounting brackets will need removed as well.
- 7. Place a stand under the axle. Remove the radius arm to front axle bolt.
- 8. Grind or chisel off the factory rivets holding the radius arm to frame bracket onto the frame. Remove radius arm and bracket from the vehicle (if the vehicle is equipped with the connector between the stock radius arm mounts remove it at this time).
- 9. Fully thread a jam nut onto a rod end. Thread the rod end fully into the end of the radius arm. Back it out three full turns.
- 10. Using the existing holes bolt the driver side frame bracket to the frame where the transmission crossmember was bolted or riveted in place. The leading edge of the bracket should be 5" back of the firewall body mount frame bracket (on some models there are two sets of holes. The rear set should be used). It may be necessary to enlarge the existing holes in the frame to 1/2". Use the 1/2" x 1 1/2" NC GR5 bolt, washers and Nyloc nuts to secure. Note that while our bracket has a slotted hole in the bottom of the bracket there may not be a corresponding hole in the frame. If a hole is not present, a hole will need to be drilled. Use the bracket as a guide and drill a 1/2" hole through the frame. Secure the hole with a 1/2" x 1 1/2" NC GR5 bolt, washer and Nyloc nut (bolt head must be on the bottom). Torque to 90 ft-lbs.

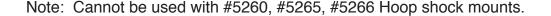
- 11. Slide the new driver side radius arm in place over the axle and loosely hold in place with the stock mounting bolt.
- 12. Position the rod end of the arm inside the frame bracket. In this order slide a 1" bolt through a flat washer, through the bracket, a 1" I.D. spacer, the rod end, a 1" I.D. spacer and then through the bracket. For now do not fully insert the 1" bolt through the inside frame bracket. It should fit flush with the edge of the frame bracket. This is to facilitate the transmission crossmember installation in later steps. The head of the bolt must be to the outside of the frame.
- 13. Torque the front axle to radius arm bolt to 190-220 ft-lbs.
- 14. Reinstall the coils. Torque the coil retention nut to 70-100 ft-lbs.
- 15. Do steps 4-14 for the passenger side.
- 16. Slide the crossmember up between the mounting brackets and align with the mount on the transmission and the 1" and 1/2" holes in the frame mounting brackets. Insert the 1" bolt through the side plates on each side. Use a 1/2" x 1 1/2" NC GR5 bolts, washers and Nyloc nuts to secure the remaining holes in the crossmember to frame brackets. Secure each of the 1" bolts with a flat washer and Nyloc nut. Torque the two 1/2" bolts to 90 ft-lbs and the two 1" bolts to 200 ft-lbs.

Note: Some transmission such as the Toyo-Koygo transmission (code X or 5 on the door sticker), require the adapter plate to bolt the crossmember to the transmission. Align the holes in the adapter plate with the slotted holes in the crossmember. Align the slotted holes in the adapter plate with the bolts for the transmission mount. Use two 1/2" x 1 1/2" NC GR5 bolts, washers and Nyloc nuts to secure the adapter plate on top of the crossmember. Torque the 1/2" bolts to 90 ft-lbs.

- 17. Reinstall the shocks to the radius arms. Use the 1/2" x 4" NC GR5 bolt for single shocks (shock on front side of lower shock mount) and the 1/2" x 5 1/2" NC GR5 bolt for dual shocks mounted behind the coil. Use a 1/2" plated washer on each side of the shock bushing(s) and mount. Secure with 1/2" Nyloc nut. Tighten the nut and bolt until the bushing just barely starts to bulge. Do not overtighten as bushing life will be diminished.
- 18. If the brake calipers were removed replace them now and bleed the brakes as necessary. Replace the tires and wheels. Torque the lug nuts to factory specifications (approximately 90 ft-lbs.).
- 19. Lower the vehicle to the ground. Inspect all fasteners for proper torque.







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