



PT# 59651 03+ 4Runner & 07+ FJ Cruiser (**SHOWN IN PICS**)

PT# 59652 00-06 Tundra 2wd & 4wd PT# 59653 05+ Tacoma Prerunner/4wd

# These weld on tower gussets are ONLY FOR USE WITH TC UCA's or Long Travel Systems. They also do not fit vehicles equipped with KDSS or 96-04 models with 4cyl engines.

# Weld-on Upper Coil Bucket Tower Gussets

This process will require the removal of the upper control arms. A fresh prep and replacing any worn or damaged urethane bushings at this time is optimal.

Chock rear tires.

Place front of vehicle securely on jack stands.

Remove front wheels and tires.

# **Upper Control Arm Removal:**

- 1. With front suspension at full extension (max droop), loosen & remove upper control arm through bolt.
  - Tacoma bolt removes front wards
  - Tundra bolt removes rear wards
  - Remove airbag sensors, wire harness tab and a/c tab, to run bolt front to rear.

<u>Notes:</u> When using TC UCA control arm the 2 outside bushing washers **WILL NOT** be reinstalled. The washers are 3/16" thick, you will only retain the 2 pivot washers closest to the coil bucket. If installing with heim-pivot UCA's, you will have to shorten the outer-most heim spacers.

FIT CHECK : These items will require you to grind and sand each gusset to ensure proper fitment. Factory weld placements can vary and may interfere on some vehicles.

# Gusset set up: (see photos on pages 3 and 4))

- 1. Slide control arm bolt through new TC bracket, making sure the bracket sits flush against the bushing area. Bolt runs front to firewall
- 2. Make sure the 3/16" washer is inserted between the coil bucket & bushing area of control arm when fitting both front and rear gussets. Note: rear brackets have a window & notch in them for brake line clearance.
- 3. Make sure rear bracket is not coming in contact with the brake line.
- 4. Bend for clearance if necessary.
- 5. With front and rear brackets in place snug down upper control arm bolt & nut. Pay close attention that the 2 brackets that replace the outer washers sit as flush against the bushings as possible
- 6. Mark along outside and inside of tabs with a marking pen.
- 7. With marks made, remove upper control arm and brackets. Clean & remove all paint and grease and prep surface area to weld. (Left over paint and grease will cause porosity in the weld)

### **Tack & Weld Brackets:**

- 1. With the frame free of paint and grease reassemble brackets and upper control arm.
- 2. Be sure to put bolt in from top/inside engine compartment. Tighten the upper control arm bolt snug.
- 3. Tack front and rear brackets into place.
- 4. Remove upper control arm again. Urethane bushings will melt under heat. *TC highly recommends removing the upper control arm inner sleeve, reinstalling the 3/16" washer and through bolt to hold the spacing correct before completely welding the brackets to the frame.* (See photo 2-1)

### Grease and re-assemble:

- 1. Re-assemble upper control arms with new replacement bushing if applicable. Grease inside of brackets and both faces of control arm bushings. Generously grease inner sleeves before reinserting them into the urethane bushings.
- 2. Place upper control arm between brackets and install through bolt from front to rear.
- 3. Tighten to factory torque spec. see below
  - Model application: 59651 85 ft/lb
  - Model application: 59652 72 ft/lb
- 4. Reinstall wheels and tires.
- 5. Lower vehicle to ground.
- 6. Torque all lug nuts.
- 7. Test drive vehicle.

TC recommends that you re-torque all hardware after 500 miles.

Factory manual is recommended for removal and re-installation of all factory components.



(2-1) Gussets mocked up and ready to be welded. Note: Use inner sleeve and inside washer for coil bucket spacing



(2-2) Gussets welded and painted.



Final re-assembly complete.