





INSTALLATION INSTRUCTIONS 70-71 TORINO INDEPENDENT FRONT SUSPENSION

Please read these instructions *completely* before starting your installation. Remember the basic rule for a successful installation: **Measure Twice, Weld Once.**

Please read the complete instructions before beginning assembly or painting components.



Start by supporting the car on 4 jack stands. Place the front jack stands under the frame rails at the firewall, as the front frame pinch welds will be cut and the frame will be temporarily very weak. It may bend and not support the car. Place the other two jack stands under the rear end. The car should be sitting on approximately the same angle as it does on the ground at ride height. This is important as you will need to measure and mark wheelbase later. Before removing any suspension components mark your spindle centerline on the vehicle. Remove all the old front suspension components. The shock towers will also be removed. See **PICTURE 1** which shows the cut lines used to remove them. Draw the cut lines around the shock towers with a soap stone or other marker and cut them out. Cut them loose from the frame rails. *HEIDTS* has a panel filler kit, #PX-327, to enclose the openings which will need to be trimmed to fit. Cut and remove the lower control arm mounts. When you are done, you should have clean, bare frame rails, ready for the next step.

Boxing the rails is next. Grind or otherwise clean any rust from the rails, as the boxing plates should be welded to clean metal. The inner boxing plates are placed on the rails and bolt in using existing holes in your frame rails. Note there is a right and a left and are not interchangeable. The upper and lower boxing plates and two outer boxing plates are all the same and are interchangeable. Next measure 18.5 inches from the front of the frame rail back (**PICTURES 2 AND 3**) this will be the center of where you will need to cut the outer frame rail to fit the boxing plate for shock clearance. Use the outer boxing plate as a template for your cut by placing it on top of the frame rail and tracing radius in the plate for the shock clearance. Once you have cut the frame rail the boxing plates can be clamped into place and tack welded to the frame. Double check and make sure everything is correct and nothing moved, once you are confident the boxing plates are correct you can fully weld them to the rails. Weld short sections at a time in alternating locations to minimize warpage. You may want to grind the welds smooth when done so they don't interfere with the crossmember installation.



PICTURE 1- Removing Shock Towers and lower arm mounts





PICTURE 2

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PICTURE 3

Now it is time to start fitting and installing the new crossmember. The center of the crossmsmber should fall at the same 18.5" measurement as the boxing plates. You can also Measure 117" from center of the factory installed rear end or wheel and mark this on the welded boxing plates. The Ford Torino has a wheelbase of 117" and it is very important spindle centerline is at this measurement.



Slip the cross member onto the frame rails diagonally; starting with one end over the frame rail, making sure the larger, gusseted lower control arm mount is facing towards the front of the vehicle (See **Figure 4**.) Then slide the other end onto the rails and into place to get it square on the frame rails, centering it on the axle center lines. If it is tight when sliding it into the square position, a slight tap with a rubber mallet will help. The frame rails will usually spring out enough to allow you to do this. If it cannot be positioned to get it square, you may have to take it out and slightly grind the inner edges. Make sure that the crossmember is level side to side and front to back. Then make sure the crossmember is fully seated on the underside of the actual lower boxing plate.

We highly recommend at this time to mock up your upper and lower control arms along with the spindles and verify wheel base/spindle centerline is correct. Once wheel base is verified you can tack weld the crossmember in place, double check that it is setting level and square. Remove the mocked up suspension components and then fully weld the crossmember in place, welding the top, down both sides, and all around the bottom.



Figure 4- Crossmember Install

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Now you can fully assemble all the suspension and brake components. Start with the lower control arms. Bolt the arms to the front crossmember using 5/8-11 x 13"bolts, washers and 5/8-11 nylock nuts. Install the upper control arms using the two 5/8-11x8.5 bolts, washers, and lock nuts. Ball Joint grease fittings may be also installed at this point. Now you can install the spindle

Once the spindles, upper, and lower control arms are properly installed you can move on to the coilovers.

Begin by assembling the coilovers. Remove the top shock mount and spring hat. Coat the threads on the shock body with anti seize, install the spring collar and thread it down all the way. Next install the spring, hat and top shock mount and tighten the jam nut. You can now adjust the spring collar up until there is no slack between the spring and the top hat. The coil overs can now be installed. Thread the 7/16-14" bolt through the lower shock. You will set final adjustment once the suspension is complete and the car can be lowered.

After the coilovers are completed, the rack and pinion should be installed. Connect the outer tie rod ends snug to the spindle for wheel alignment. (see suggested specs below)

Once the steering is installed you can install the brake kit.

If you ordered a front sway bar refer to the instructions included in the kit welding is required.

Suggested wheel alignment settings are as follows:

Caster 1°-3° positive - Manual Rack

Caster 3°-6° positive - Power Rack

Camber 0 - 1/2° Negative

Toe-ln 1/8" ± 1/8"

The caster and camber settings are done with the adjusters in the upper control arms. Both adjusters are screwed in or out an equal amount to change the camber, and they are adjusted opposite each other to change the caster. Approximately 1° of caster is built into the crossmember already, so not much change is required there. The interesting thing about the caster setting is that you can experiment with different settings and actually "tune" the characteristics of the handling of your car to your driving style. 1° of caster will give a nice road

feel and good low speed drive-ability. Increasing Caster from you initial setting will yield better high speed stability and tracking, putting a better self-centering characteristic in the steering wheel, but will tend to start to make parking slightly more difficult. Have fun with this one, as it truly makes your car your own car. Just be sure that both sides have equal caster settings, or the car will tend to pull to one side. Next, relax the suspension and install the coilovers. The spring seat rings should be in the bottom position, providing the least amount of preload. The car should now be placed on the ground. The spring seat rings should be adjusted to position the lower control arms level. Make sure that at this point you are working with a finished, fully weighted car. At this point do a quick double check of your alignment.

Also note that a **REAR SUMP OIL PAN** is **REQUIRED** to clear the front crossmember and rack & pinion unit. **DO NOT** modify the rack & pinion mounts to relocate the rack to clear the pan, as that will ruin the geometry of the suspension and cause severe bump-steer. Check the installation after 100 to 200 miles, including the alignment. If you have any questions during or after the installation, feel free to call us for technical assistance.

