

Installation Instructions 1962-1967 NOVA Crossmember Kit

*Please read these instructions completely **BEFORE**
starting your installation!*

Remember the basic rule for a successful installation:

Measure Twice, Weld Once!

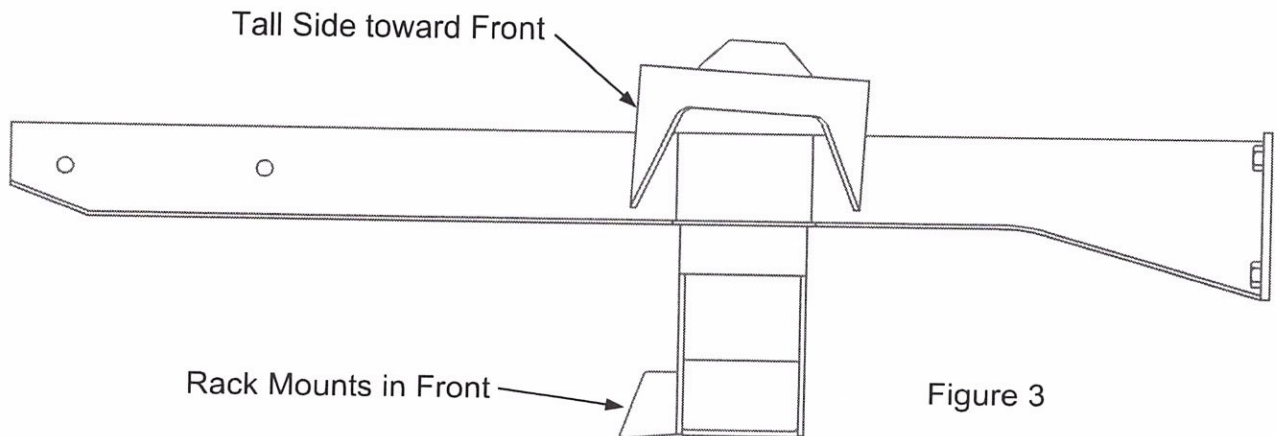
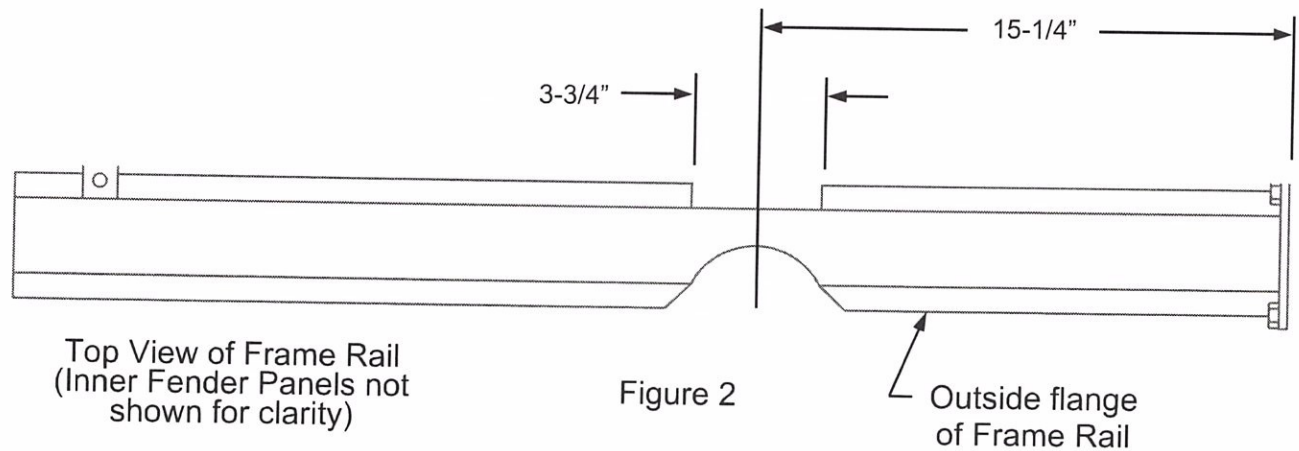
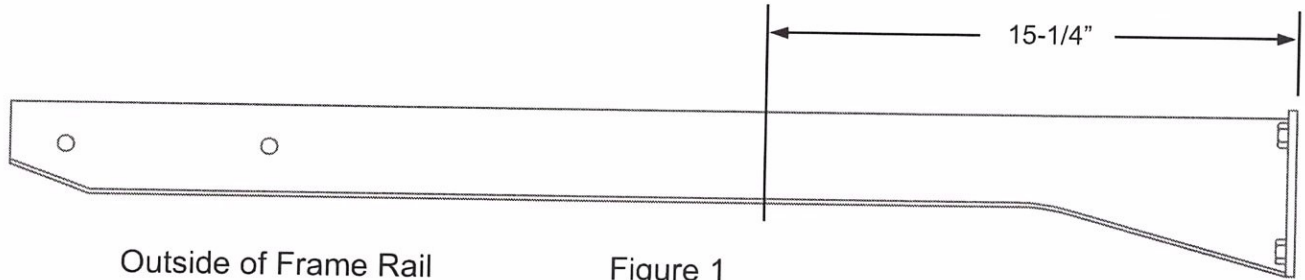
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1. Begin your installation by jacking the car up and supporting it on sturdy jack stands. The stands must be located on the main floor area, just behind the firewall. Do not support the car from the front sub-frame. Remove the hood and hood hinges.
2. Remove the front wheels and front suspension components. The engine and transmission does not need to be removed, however, it will be easier to weld the new crossmember parts in with the engine out of the way. Next remove the factory sheet metal shock towers, which are attached to the inner fender panels. Next remove the old steering box and the steering column. You can use the original steering column with the new rack and pinion suspension with a little modification to the column. The original steering box will not be used. This is a good time to give the firewall and inner fenders a good cleaning and detailing.
3. Begin by marking the axle centerline on the frame rails, as shown in Figure 1. Measure forward from the firewall and mark a line all around the rails.
4. The rails need to be modified next. The inner flange of the rails will need to be trimmed off for 3-3/4" as shown in Figure 2, to make room for the crossmember to slide up into place. Measure forward and back 1-7/8" from the centerline and trim the flange off on both rails. They will also need to be C-notched for coil spring clearance. Use the C-notch pieces supplied. Cut the rails to fit the C-notch pieces, centering them on the axle centerline. Fit them in to the dimension shown and weld all around. The rails may tend to pull inward during welding, so a temporary brace across the rails would be helpful.
5. Start by installing the new crossmember. If you are going to use Full Lower A-Arms, now is a good time to install the crossmember parts, as you can do it on the bench rather than in the car. Raise the crossmember up into place into the rails. A floor jack will help here, to hold it in place. It should be centered on the axle centerline. If it does not fit, make sure that the rails have not pulled in from welding. The crossmember may also need to be ground slightly to fit up into the rails. Grind the upright part of the rails only, do not grind the surface that fits against the bottom of the frame. Make sure that the crossmember is seated fully against the bottom of the frame, and tack weld in place. Double check the location for location and square, then fully weld in place, welding all around the top, sides and underside.
6. The spring towers are next. They sit on top of the frame rails, and engage the upper part of the crossmember. There are left and right towers. The higher side of the tower goes toward the front, which creates the anti-dive. See Figure 3. Place them onto the rails, clamp in place, and weld all around and down the sides of the rails. You can also weld the inside of the gusset flanges on the sides of the rails.
7. Now you can continue with the suspension component installation. A word about suspension component selection. We do **NOT** recommend the use of the Ford lower arms or strut rods for this application. Due to the wide spread of the frame rails, the strut rods require severe bending, out far beyond the centerline alignment of the lower arm inner bushings, causing severe binding and premature failure of the arm bushings. We **DO** recommend the use of Full Lower A-Arms. A-Arms which are designed for use on Mustang II installations. They are true, full A-arms, similar to Camaro or Chevelle A-arms which do not use strut rods, but are specifically designed for Mustang II IFS. They will also give you more header clearance.
8. Install the upper and lower control arms using their instruction sheets. Place the coil springs up into the spring pockets and bring the lower arms up to them. Install the shocks by placing the first washer and rubber mount on the shock stud and sliding them up thru the lower arms and install the lower shock bolts thru the lower arms and shocks. Using a floor jack under the lower ball joint (or an external spring compressor), compress the springs by raising the lower arms up into position. The shocks are the top-out device and will hold the springs in place. As the lower arms are raised, attach the upper rubber mount, washer and nut on top of the shocks when they come through the upper shock mount cups. Install the spindles onto the lower ball joints and then install the upper ball joints into them. Now install the rack and pinion assembly using the two 5/8" bolts, washers and lock nuts supplied. Install the tie rod ends onto the rack and into the spindle arms. Estimate the alignment at this point. Install the rotors and calipers next. It is a good time to install your steering column and connect it to the rack. (Heidt's has available a Steering Column Hook-Up Kit which has everything you need to complete this connection).
9. Install the front wheels and place the car on the ground. The springs will need a little time to settle out. The lower control arms should be level. The entire car must be fully assembled to determine final ride height. If the car is too high, you may have to cut some off the springs.

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Go ahead and install the engine, transmission, etc. The full weight of the car needs to be on the springs for some time before the springs will arrive at their final ride height. You may need to cut some off of the springs to position the suspension at it's correct ride height. Only cut a quarter of a coil at a time, until the correct ride height is obtained. The alignment specifications are as follows:

Caster $7/8^{\circ} \pm 3/4^{\circ}$
Camber $1/2^{\circ} \pm 3/4^{\circ}$
Toe-In $1/8'' \pm 1/8''$