

Installation Instructions

1934 to 1936 Chevy Master Crossmember Kit

Please read these instructions completely before starting your installation.

Remember the basic rule for a successful installation:
Measure Twice, Weld Once.

1. Start by supporting the car on 4 jack stands. The car should be sitting on approximately the same angle as it does on the ground, or slightly lower in front.
2. Remove all the old suspension components from the frame. Also remove any mounts which are riveted to the bottom of the frame.
3. Remove the stock radiator support crossmember. A temporary brace can be tack welded across the front part of the frame rails or bolted to the bumper mounts to hold the rails in place. If the motor is left in place, make sure the weight of the motor on the mounts does not spread or twist the rails when the stock crossmember is removed.
4. It is time to locate the axle centerline. The front section of the frame should be boxed at this point, from approximately 3' forward of the axle centerline to a minimum of 18' back from the axle centerline. For overall frame strength, it is recommended that the frame be boxed to the crossmember. Use 1/8 to 3/16 steel. Box the frame to an overall rail width of 2-3/8 inches, including the boxing plates in the area of the new crossmember. Most cars have already had the frame boxed from a previous engine or suspension swap. If not, box the frame at this point. Next, scribe a line around the frame rails, at 18-1/8 inches from the front of the frame, as shown in Figure 1. This is the axle centerline. Due to the different models and midyear changes in the Chevy frames through those years, we suggest that you temporarily place a front fender on the frame and stand a wheel and tire in place in the center of the wheel opening. By laying a bar or broom handle through the wheel centerhole, you can verify or adjust the correct axle centerline. Remember the basic rule above.
5. Now it is time to start fitting and installing the new components in the frame. Start with the new crossmember. Slip it into the frame, center it on the scribed axle center line (Figure 2). If it does not fit, grind the sides of the crossmember until you can get the crossmember in place, as shown. Make sure the crossmember is seated fully on the underside of the frame. Tack weld in place, check location, then weld in place, welding all around both ends, top, sides, and bottom.
6. Next are the spring towers. They sit on top of the frame rails, and are located as shown in Figure 3, (1-3/4" forward of the crossmember measuring from the front of the crossmember to the front of the spring tower). The higher side of the spring tower goes towards the front of the frame. Clamp in place, double check your dimensions, then weld all around, including the gusset flanges on the sides of the rails. For added strength, you can also weld the inside of the gusset flanges.
7. You will use the lower control arm and strut rod for locating the rear strut rod supports and gussets. Using a 2 x 4 and a C-clamp, install the control arm as shown in Figure 4. Also install the strut rod. The Pinto and Mustang strut rods are different lengths. We recommend the Pinto strut rods, as they are shorter and will position the strut rod plates more closely to the underside of the frame rails. The Mustang strut rods can be used, however, by heating the rod at the bend at the ball joint end and bending out enough to align the strut plate to the bottom of the frame. Now, assemble onto the strut rod end the large rubber bushings, including the cupped washers, and the strut mount plate. Be certain to fully tighten the nut on the strut rod to its' fully seated position. (See Figure 5.) There are two rubber bushing sets available; the standard replacement and the improved set. We recommend the improved set, as it provides more stability to the front suspension. The strut rod will act as an alignment fixture while you tack weld the mount plate in place, then tack weld the gusset in place, as shown in Figure 5. Remove the strut rod, bushings, and arm, and finish welding.
8. The radiator support is the last item. Center the support on the front of the crossmember and clamp or tack in place. Measure up from the top of the support to the top of the frame directly above the radiator perch, using a straight edge across the top of the frame rails. That dimension should measure 4-1/4, as shown in Figure 6. If it is too high and the dimension is less than 4-1/4, trim the base of the radiator support to bring it down to that dimension. Also check the clearance to the steering rack if any trimming is done to the radiator support. If the support is low, the radiator cradle assembly can be shimmed up to its correct position when it is bolted to the radiator support. Please note that this model car does not accept the power rack and pinion rack without serious modifications to the factory Ford geometry design, due to the much larger pinion housing and hydraulic lines. They interfere with the stock radiator cradle. Power steering is absolutely not recommended for this car even if it would fit. The light front end weight, compared to a Pinto, coupled with the extra ease of power steering, will cause you to lose the feel of the car on the highway.

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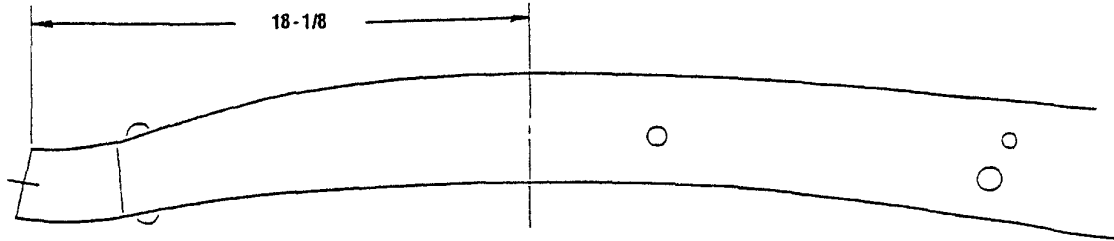


Figure 1

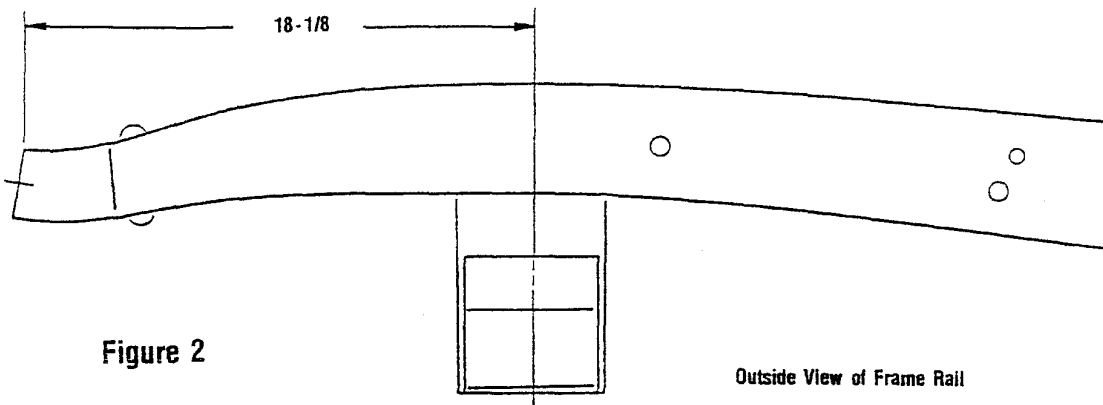


Figure 2

Outside View of Frame Rail

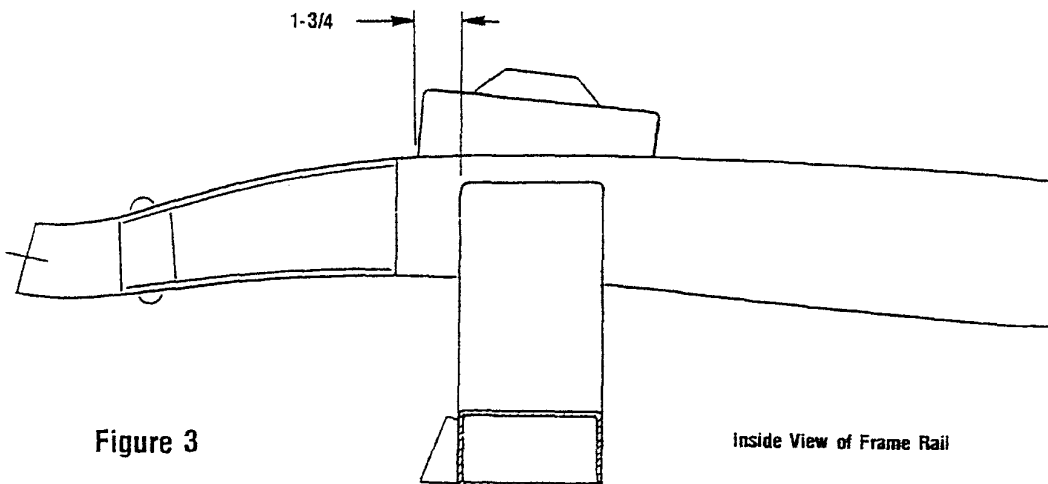


Figure 3

Inside View of Frame Rail

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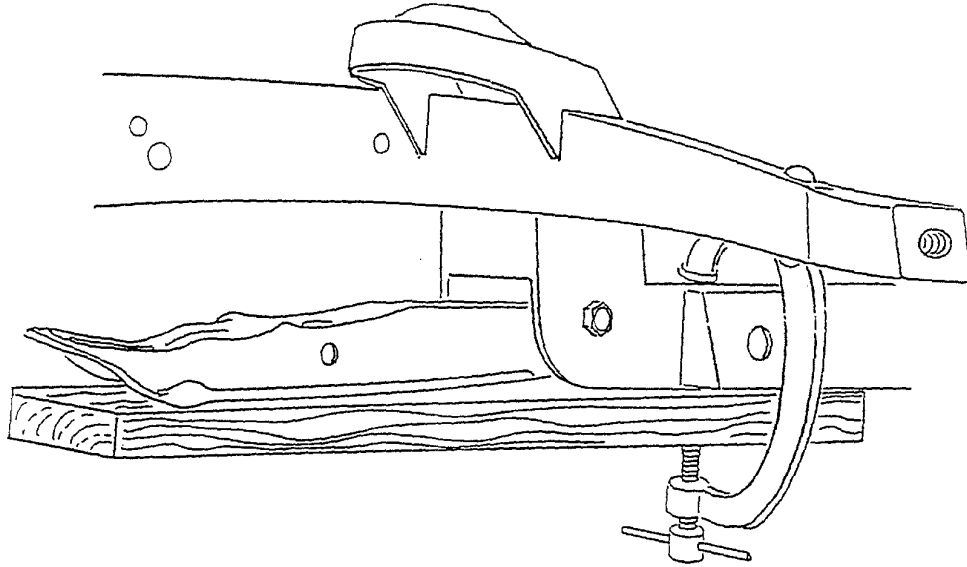


Figure 4

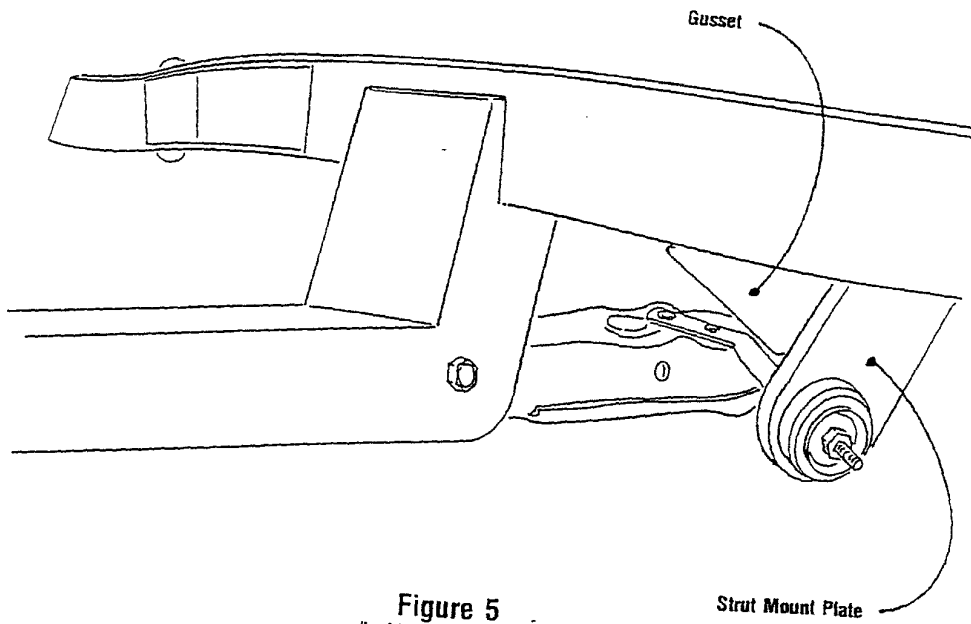


Figure 5
(Inside of Frame Rail)

Strut Mount Plate

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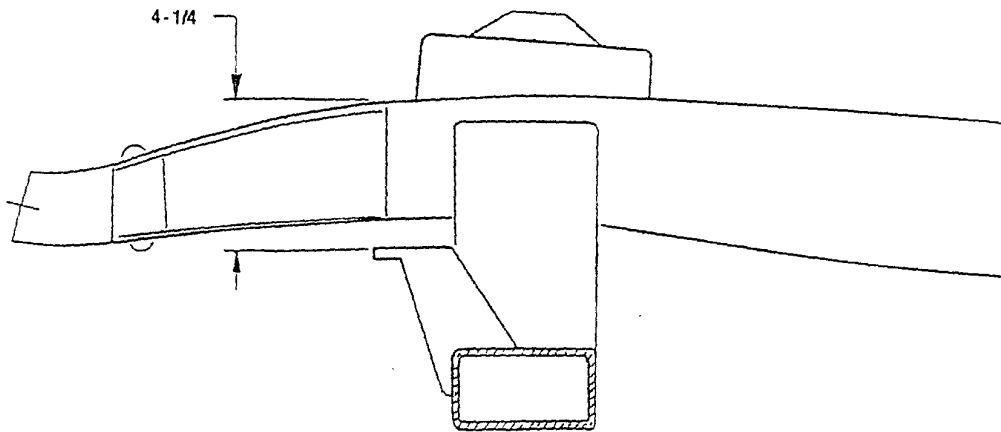


Figure 6

Inside View of Frame Rail

That's all there is to it. Go ahead and finish the assembly of the Pinto parts. We recommend the use of Pinto 4 cylinder springs (Moog #8542). After the rest of the car is assembled and back on the ground, do your front end alignment as follows:

Caster $7/8^{\circ} \pm 3/4^{\circ}$

Camber $1/2^{\circ} \pm 3/4^{\circ}$

Toe-In $1/8'' \pm 1/8''$

Check the installation after 100 to 200 miles, including the alignment. The springs should have settled down by now, so the lower control arms are parallel to the ground. If the car still is too high, you can cut up to one coil off the bottom of the springs to get the lower arms horizontal. If you have any questions during or after the installation, feel free to call us for technical assistance.