





INSTALLATION INSTRUCTIONS 1947-1954 CHEVY PICK-UP INDEPENDENT FRONT SUSPENSION

Please read these instructions *completely*Before starting your installation.
Remember the basic rule for a successful installation:

Measure Twice, Weld Once.

For questions on installations please call 800-841-8188 In Illinois (847) 487-0150



You are about to install your *HEIDTS* suspension system. You are probably wondering how complicated installing a complete IFS system really is, with all those pieces, all the angles, anti-dive, geometry... Don't worry. The *HEIDTS* IFS kits are designed so all that is taken care of for you. Just follow the instructions step by step and in a very short time your car will be sitting on the nicest riding IFS kit available.

- 1. Start by supporting the truck on 4 jack stands. The truck should be sitting at approximately the same angle as it does on the ground, or slightly lower in front.
- 2. Remove all the stock suspension components from the frame. The front spring shackle mounts riveted in the frame are used for a measuring point. The top of the frame rail should also be flattened in the area where it is turned up for the old steering box mount.
- 3. Next the front frame section is to be boxed, using the boxing plates supplied. The plates fit up against the rear of the radiator crossmember. You can grind the inside edges of the frame rails flat so the plates lay flat against them, but do not grind off too much material as the rails will become too thin. The plates can set on the lower flanges of the rails in front, but most of the flange will eventually be trimmed away for the rack and pinion C-notch piece and crossmember clearance. Fit the plates and tack in place. Finish weld, welding in small sections, then grind smooth.
- 4. Now it is time to install the new crossmember. Measure straight back 18-1/8" from the center of the front spring shackle hole in the frame and make a vertical line. See **Figure 1**. This will be the center of the crossmember and spindle centerline. Slip the crossmember up into the frame and center it on the centerline mark. If it does not fit up into the frame, grind the sides of the crossmember uprights until it fits in place. Make sure it is fully seated on the underside of the frame. It should be seated flat against the bottom of the frame rails. Clamp in place, double check your measurements, making sure the crossmember is squared to the frame, then weld in place. Weld all around, top, sides and bottom. This crossmember keeps the front frame rails from twisting and flexing, so good strong welds are required.
- 5. The upper control arm mounts are next. See **Figure 2**. They are positioned with the anti-dive angle of the upper arms higher in front, as shown. The upper mount should fit up with the main crossmember and contact the entire top of ends of the crossmember. If the upper mounts do not, grind the edges of the mounts where they sit on the frame. If there is a gap between the frame and the upper mounts, grind the edge where the upper mounts contact the crossmember. Care must be taken, however, to grind an equal amount off the entire edge so the angle of the upper mounts is not changed. Again, they should appear to be an extension of the crossmember. Now check the dimension across the upper mount tubes. That dimension should be 28 1/8". It is more important that the tubes be parallel and square as viewed from the top than exactly that dimension. See **Figure 3**. Again, cross measuring, square-ness and accuracy cannot be overstressed at this stage, as the closer the installation is at this point, the easier your final wheel alignment will be. Good strong welds are also required here, as the weight of the car hangs on the upper coil-over mounts.
- 6. The C-notch for the rack and pinion is the last part to be done. Measure forward 4-5/8" from the centerline for manual rack or 5" for power rack, and up 1-1/2" and make a mark. Now draw a 2-1/8" radius, using your mark as the top of the radius. See **Figure 4**. Trim out the material marked, leaving about 1/8" to work with, and then try the rack and the C-notch filler pieces. Finish grinding the notch for fit and location, and tack the filler pieces in place. Remove the rack and finish welding the fillers in place. Grind smooth.
- 7. Now assemble all the suspension components. **Note:** The shim washers supplied may be needed to center the calipers on the rotors. Do not install the coil-over assemblies just yet. Position the car at approximately the ride angle or rake the car will sit at when finished. Prop up the lower control arms so they are level. This is the designed midpoint of the suspension system. Now set the caster, camber and toe in. The settings are as follows:

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CAMBER 1/4° positive

TOE-IN 1/8"+/-1/8"

- 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 driveability. 2° or 3° 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.
- 9. Next, relax the suspension and install the coil-overs. 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, not just a frame, or a frame and body. At this point do a quick double check of your alignment.
- 10. Since you are now at the point where you have a finished, running car (we hope!) it is time to test drive it. After a few hundred miles, double check the ride height and alignment. The springs may have settled, which would change the camber setting. Readjust the ride height before changing the alignment. After this initial settling period, the springs and bushings should have pretty much taken their final set, so you should be on your way to many miles of cruising in style, independently.

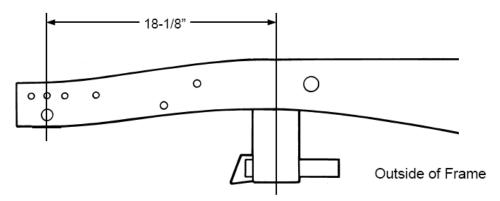


Figure 1- Crossmember Install

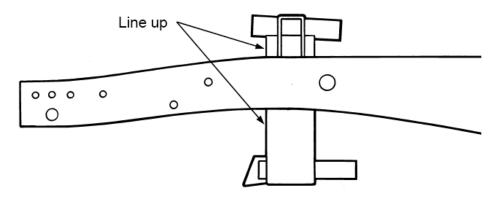


Figure 2- Upper Control Arm Mounts Install

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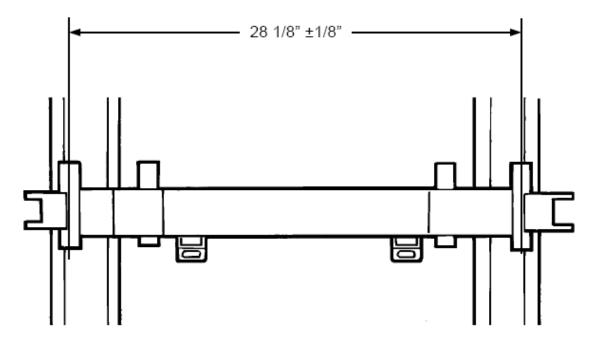
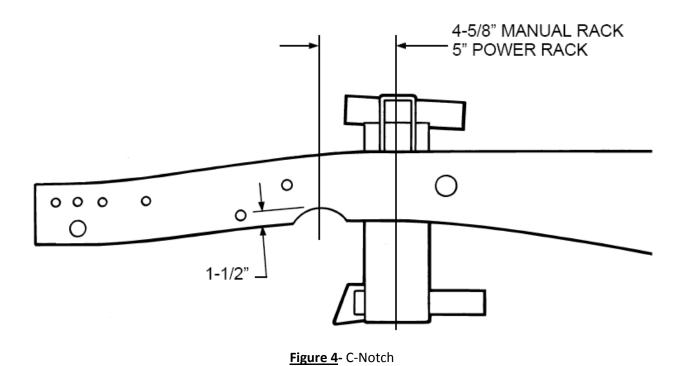


Figure 3- Upper Mount Tubes Dimension



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