

## INSTALLATION INSTRUCTIONS 1962-1967 Chevy NOVA INDEPENDENT FRONT SUSPENSION SUB-FRAME

Please read these instructions *completely* before starting your installation.



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

Your HEIDTS Hot Rod Shop Nova Sub-Frame contains the following items:

1) Nova Sub-Frame Assembly 1) Left & Right Upper Support Tubes 2) 5/8-11 Flanged Lock Nuts 4) 7/16-20 x 1" Hex Bolts 4) 7/16 Lock Washers

2) 5/8-11 x 3 1/2" Hex Bolts 2) 5/8 Washers Firewall Shim Assortment

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. First, remove the hood and hood hinges. Remove the front wheels and disconnect the wiring to the front components such as the headlights, turn signals and parking lights, etc. Remove the front bumper and brackets, front fenders and grill. Be certain to retain all these bolts, as they will be reused when these parts are reinstalled. Next remove the core support and radiator. Next remove the engine and transmission. Now unbolt and remove the factory subframe with the inner fender panels. Save these firewall bolts as they will be used to install the new sub-frame. 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 a good cleaning and detailing, as there should be nothing more attached to it.

2. Start the installation of the new sub-frame by raising it up into place in front of the firewall. See Figure 1. A floor jack will help here. Line up the holes to the holes in the firewall and bolt it on using the original bolts and lock washers. Tighten up the bolts. Next install the upper firewall support tubes from the front rails to the mounting surfaces on the firewall, using the original inner fender panel bolts. If there is a gap here, you can install some of the shims now, or bolt it tight and wait until the fenders are reinstalled to determine the correct shims for the final sheet metal alignment.

3. You can now install your engine and transmission back into the car next. The weight of the engine will be helpful to compress the springs while installing the suspension components. The factory engine mounts should line up to the stands on the sub-frame. Check the oil pan clearance, if you are using a deep sump pan.

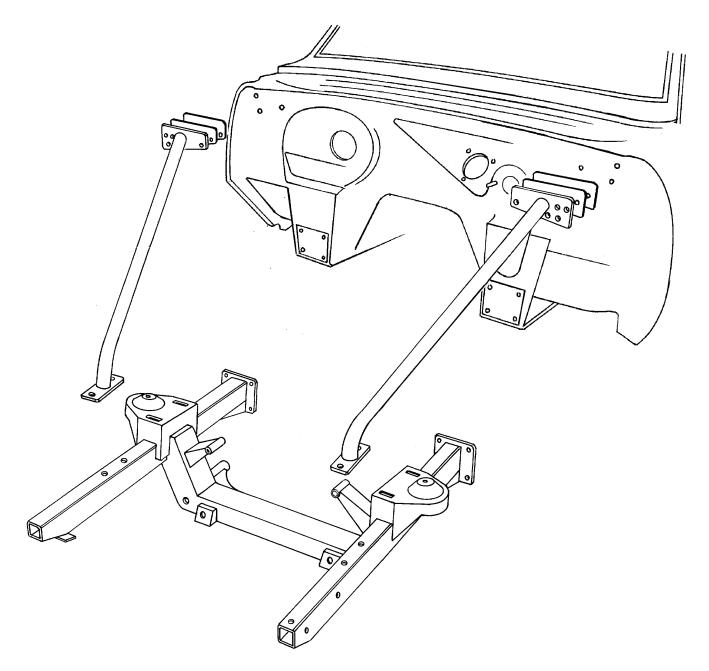
4. Now you can continue with the suspension component installation. See Figure 2. Install the upper and lower control arms using their instruction sheets. Place the coil springs up into the spring pockets and bring the lower arms up to them. Install the shocks by placing the first washer and rubber mount on the shock stud and sliding them up thru the lower arms and install the long 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 headers now, as it is easier to work on the steering column connection to the rack & pinion before the sheet metal is in place. (HEIDTS has available a Steering Column Kit which has everything you need to complete this connection).

5. If you purchased a Sway Bar for your Nova Sub-Frame, install it next. Drill two 7/16" dia. holes in the underside of each rail as shown in Figure 3. Install the U-bolts from the sway bar into the frame through the 7/16" holes. Slip the bushings and mounting brackets onto the sway bar and attach the sway bar to the rails. Attach the links to the ends of the sway bar and to the lower control arms using the SB-012 Bracket Kit from HEIDTS.

6. Finish up by installing the core support and radiator. Next install the grill and front fenders. You may have to adjust the shims at the upper mounts to align the front fender gap at the doors. 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. If the car is too high, you may have to cut some off the springs. Cut only a guarter of a coil at a time and check the height again. Align the front suspension to the following specs:

> Caster 7/8º ±3/4º Camber 3/4° ±1/2° Toe In 1/8" ±1/8"

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**FIGURE 1** 

