



## **INSTALLATION INSTRUCTIONS**

### 1962-1967 Chevrolet Nova

# **Pro G Independent Front Suspension**



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

**Assemble suspension on vehicle** before powder-coating to ensure proper fitment, and to make modifications if necessary.



#### **PARTS LIST**

1) Pro G Nova Subframe 2) Subframe to Firewall Support Tubes

2) Pro G Spindles 1) Sway Bar

2) Upper Control Arms 1) Power Rack & Pinion

2) Lower Control Arms 2) Front Shocks

2) Chrome Springs 1) Wilwood Brake Kit

#### **HARDWARE PACKAGE**

2) Firewall Shim .047 2) Firewall Shim .135

8) ½-20 Nylock Nut 8) ½-20 x 1 ¼" Grade 8 Bolt

16) ½ " Washer 10) 3/8-16 x 1" Hex Bolt

10) 5/16 Washer 4) 7/16-20 x 1" Hex Bolt

4) 7/16 Split Lock Washer 4) 7/16-20 x 1 1/4" Hex Bolt

4) 7/16 Washer



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

1) Begin your installation by jacking up your vehicle and supporting it on sturdy jack stands. The stands must be placed on the flat section of the frame rails close to the front body mounts. First remove the front bumper grill and core support. Disconnect and remove the engine and transmission. SAVE AND LABEL ALL FASTENERS FOR RE-INSTALLATION! Remove the front wheels and shocks. Disconnect the brake lines and tie-rods. Unbolt the factory subframe from the firewall. The subframe can be removed as one whole assembly. See **Figure 1**.



Figure 1



Figure 2



2) After removing the factory subframe, the eight mounting holes on the firewall must be drilled to  $^{1}/_{2}$ ". See **Figure 3**.



Figure 3

3) Install HEIDTS Nova Pro G Subframe (HEIDTS tag facing the front). Use a floor jack underneath the crossmember to align the mounting holes of the subframe to the drilled out  $\frac{1}{2}$ " firewall holes. Use the  $\frac{1}{2}$ -20 x 1  $\frac{1}{4}$ " Grade 8 bolts,  $\frac{1}{2}$ "-20 nylock nuts and  $\frac{1}{2}$ " washers to **snug** the subframe to the firewall. DO NOT TIGHTEN until the support tubes are installed. See **Figures 4 and 5.** 





Figure 4 Figure 5



4) At this point the subframe is bolted snug to the firewall. The reason is for alignment of the subframe you are about to do next using the support tubes and shims provided in the kit. Begin this step with a level on the outer frame rail of the vehicle. See **Figures 6 and 7.** Level the vehicle to 0 using shims underneath the vehicle between the jack stands. Check Both driver and passenger sides. Now, level the subframe to 0 using the support tubes and shims. Use the 3/8-16 x 1" bolts and washers for the firewall, and 7/16-20 x 1" grade 8 bolts and lock washers for the subframe. Once the subframe is level tighten ALL bolts. See **Figures 6-11**.





Figure 6 Figure 7





Figure 8 Figure 9







Figure 10 Figure 11

5) After the subframe is level and secure to the firewall, the lower control arms can be installed. Install the lower control arms using the  $5/8-11 \times 9''$  hex bolts, washers (on each side of rear bracket, See **Figure 13**) and nylock nuts from the control arm hardware kit. The front cross member will require the  $5/8-11 \times 4''$  hex bolts, washers and nylock nuts. Sway bar tab should be towards the front of the vehicle. See **Figures 12 and 13**.





Figure 12 Figure 13



6) Install the adjustable upper control arms using the  $5/8-11 \times 11$ " hex bolts, 5/8" dished washers and nylock nuts. Ball Joint grease fittings may also be installed at this point. See **Figures 14 and 15.** 





Figure 14 Figure 15

7) Attach the steering arms to the Pro G spindles using  $\frac{1}{2}$ -20 x 1  $\frac{3}{4}$ " Grade 8 hex bolts. Use Blue thread locker on the grade 8 bolts prior to installation. Install the Pro G spindles onto the lower ball joints. See **Figures 16-19**.

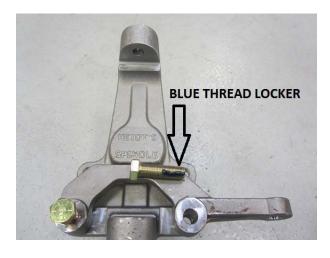




Figure 16 Figure 17







Figure 18 Figure 19

8) Assemble and install the front coil over shocks using %-20 x 1 %" hex bolt and %" nylock nuts for the upper mounts. Use 5/16"-18 x 1 %" hex bolts, washers and nylock nuts for the lower control arms. The shock adjuster needs to face inboard for ease of adjustment. See **Figures 20 and 21**.





Figure 20 Figure 21



9) After the coil over shocks are in place, the rack and pinion can be installed. Use the 5/16" U bolts and spacers to mount the rack and pinion to the subframe mounts. Connect the outer tie rod ends just snug to the spindle for adjusting wheel alignment later.

\*\*\* USE ANTI SEIZE ON OUTER TIE ROD THREADS\*\*\*. See Figures 22 and 23.





Figure 22 Figure 23

10) Assemble the adjustable rod ends as shown in **Figures 24 and 25**. The ½-20 jam nut threads onto the male rod end. Use anti seize on the male rod end threads. Set the rod end center to center at 3 5/8". See **Figures 24 and 25**.





Figure 24 Figure 25



11) The front sway bar will be installed next. Install the sway bar pillow blocks, bushings and locking collars prior to the end links (See Figure 26). Attach the sway bar end links and mount the links to the tapped ends of the sway bar using ½-20 x 1" hex bolts. See Figure 26.

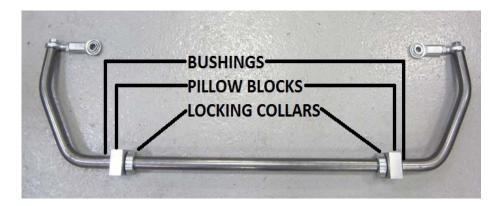


Figure 26

12) Install the front sway bar onto the subframe. There are holes already drilled and tapped 3/8-16 for the 3/8-16 x 2 ½" allen head hex bolts. Square both ends of the sway bar aligning the tapped ends of the sway bar with the sway bar mount of the lower control arm. Attach the adjustable rod ends to the lower control arms using the ½-20 x 1 ½" hex bolts and nylock jam nuts. Adjustable rod ends need to be straight up and down from the front and side of the vehicle. Tighten the locking collars. See **Figures 27 and 28**.

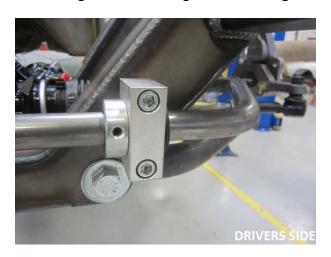




Figure 27 Figure 28



13) Install the motor mounts with the  $3/8-16 \times 1''$  hex bolts and washers supplied. Install motor mounts just snug until the engine block is in the desired location then tighten. See **Figures 29** and **30**.





Figure 29 Figure 30





14) This completes the installation of the Heidts Pro G Nova subframe. Make sure all nuts and bolts are tight before the wheels are installed and the car is on the ground. Lastly, you are ready to set the alignment of your vehicle. Be sure to do so with the lower control arms set at ride height (the lower control arms should be level). 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 caster. 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. 3° of caster will give a nice road feel and good low speed drive-ability. 4° or 5° 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. Just be sure that both sides have equal caster settings, or the car will tend to pull to one side.

15) Refer to IN-078 to install the front core support, inner fender panels and hood hinge brackets.

## **Alignment Specifications:**

**Caster: 4° Positive** 

Camber: - .5° Negative

Toe: 0 - 1/16 Toe-In/Out

Since you are now to 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 the alignment. The springs may have settled, which would change the ride height and the camber setting. Readjust the ride height before changing the alignment. After this initial setting period, the springs and bushings should have taken their final set, so you should be on your way to many miles of cruising.

