

HEIDTS

SUPERIDE IRS

INSTALLATION INSTRUCTIONS INDEPENDENT REAR SUSPENSION

Please read these instructions *completely*
before starting your installation.
Remember the basic rule for a successful installation:
Measure Twice, Weld Once.



HEIDTS SUPERIDE IRS

PARTS LIST

- | | | |
|---------------------------|----------------------------|-----------------------|
| 1) Center Housing | 2) Bearing Assemblies | 2) Outer Frame Mounts |
| 2) Stub Axles w/ Bearings | 2) Half Shaft Assemblies | 1) Pinion Crossmember |
| 1) 3rd Member | 2) Brake Rotors | 2) Strut Rods |
| 1) Pinion Mounting Plate | 2) Rotor Adapters | 2) Front Mounts |
| 2) Pinion Links | 2) Polished Calipers | 2) Coil-overs |
| 2) Lower Control Arms | 2) Caliper Mounting Plates | 2) Chrome Springs |
| 2) Tie Bars | 2) Front Plates | 1) Hardware Package |
| 2) Outer Uprights | 1) Top Crossmember | |

HARDWARE PACKAGE

Center Housing

- 10) 3/8-16 x 1-1/2" Studs
- 10) 3/8-16 x 2" Studs
- 10) 3/8-16 Nylock Nuts
- 10) 3/8 AN Washers
- 2) Axle Seals
- 1) Breather Vent
- 1) Drain Plug

Stub Axles

- 2) Caliper Plates
- 2) Caliper Front Plates
- 10) 3/8-16 Nylock Nuts
- 10) 3/8 SAE Washers

Pinion Plate Assembly

- 5) 3/8-16 x 1-1/4" Bolts
- 5) 3/8-24 x 1-1/4" (Alum. 3rd Mbr)
- 5) 3/8 SAE Washers

Lower Control Arm Assemblies

- 2) 5/8-11 x 3" Bolts
- 4) 5/8-11 x 5" Bolts
- 2) 5/8-11 x 10-1/2" Bolts
- 8) Nylock Nuts
- 14) 5/8 SAE Washers

Pinion Crossmember

- 4) 1/2-13 x 2-1/2" Bolts
- 4) 1/2-13 Nylock Nuts

Calipers

- 1) Caliper Hardware Mounting Kit

Half Shaft Assemblies

- 8) 7/16-20 x 1-1/4" GR. 8 Bolts
- 8) Lock Washers
- 2) Nuts, Cages, & Cotter Pins
- 2) Washers

Rotors

- 12) 5/16-24 x 3/4" Button Head Bolts
- 12) 5/16 Lock Washers

Top Crossmember

- 4) 1/2-13 x 2-1/2" Bolts
- 4) M12 Washers
- 2) 5/8-11 x 5" Bolts
- 2) 5/8-11 Nylock Nuts

Coil-Over Shocks

- 2) 1/2-13 x 2-1/2" Bolts*
- 2) 1/2-13 x 6-1/2" Bolts*
- 4) 1/2 SAE Washers*
- *Quantities and Size will vary with Dual Coil-Overs
- 2) Spacers (Dual Coil-Overs Only)

Outer Uprights

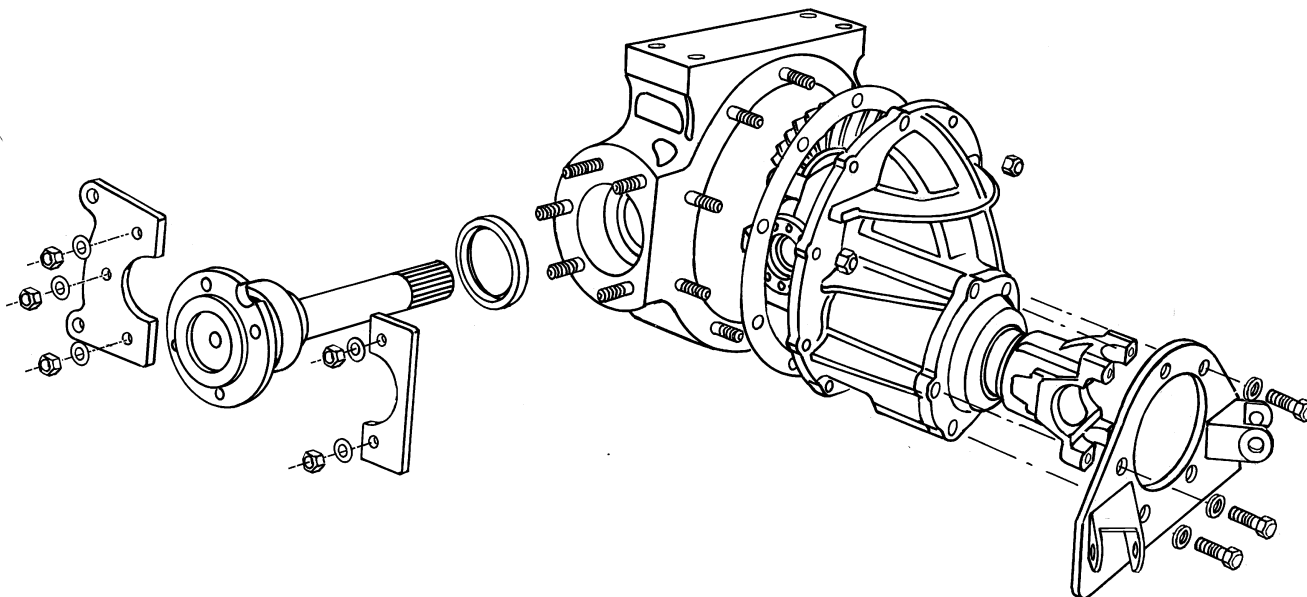
- 2) Bearing Assemblies
- 6) M12 x 2-3/8" Socket Head Bolts
- 6) M12 Washers

Strut Rods

- 4) 1/2-13 x 2-1/2" Bolts
- 4) 1/2-13 Nylock Nuts

NOTE: Some type of ANTI-SEIZE compound must be used on threads of **ALL** stainless hardware.

You are about to install your *HEIDTS* suspension system. You are probably wondering how complicated installing a complete IRS system really is, with all those pieces, all the angles, geometry... Don't worry. The *HEIDTS* IRS 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 IRS kit available.



1. AXLE SEALS AND STUDS

Begin your installation with the center housing. First, install the stub axle seals into the housing ends. Use a suitable sealant and insert the seals into the housing ends, with the lips pointing inward, until they bottom out on the shoulder in the bore. A seal installation tool will insure that the seals are installed square. Next, install the studs into the housing. Use a suitable thread locking compound, install the 1-1/2" studs into the ends of the housing with 7/8" extended and the 2" studs into the face of the housing with 1-1/8" extended. Install the breather into the top of the housing and the drain plug into the bottom, using a suitable pipe sealer on the threads.

2. 3rd MEMBER INTO CENTER HOUSING

Now you can install the 3rd member. If you supplied your own, it will need to be a 31 spline unit. Install the gasket onto the housing using a suitable gasket sealer. Install the 3rd member into the housing, applying gasket sealer to the contacting surface. Use the 10 nylock nuts and small AN washers supplied to secure the 3rd member in place

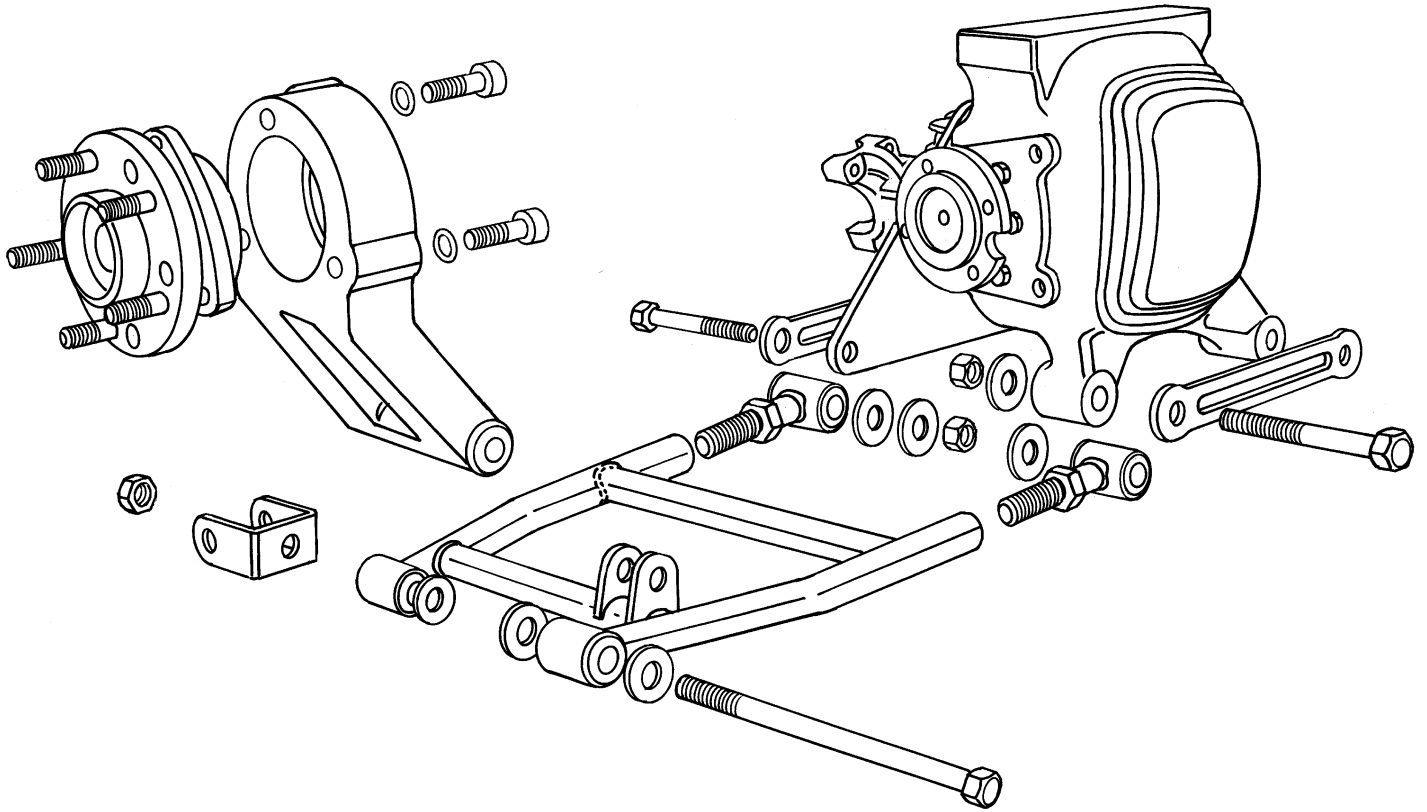
3. STUB AXLES

Apply a small amount of white grease to the splines and seal area of the stub axles and also to the seal lips and install the stub axles into the housing. The longer one goes on the passenger side. Slip the shaft and bearing assembly into the housing until the bearing bottoms out. Install the caliper plates and front plates onto the studs, with the threaded inserts in the caliper plates toward the stub axle flanges. Secure with the nylock nuts and washers supplied. If you are using parking brakes, the caliper mounting plates will be installed in place of the front plates.

4. FRONT PINION PLATE

The pinion plate is installed onto the pinion assembly using the bolts which hold the pinion assembly in the 3rd member. Remove the factory bolts, install the plate using the new bolts provided. The coarse thread bolts are for iron 3rd members, the fine thread bolts are for aluminum.

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5. LOWER CONTROL ARMS

The lower control arms are attached to the housing and the pinion plate with the tie bars as shown, using the 5/8" bolts, nuts and washers supplied. Be certain to use washers between the rear adjusters and the housing. Shim washers are used between the pinion plate and the front adjusters to fit the arms. Do not tighten the bolts and nuts yet, as the camber is adjusted here by turning the adjusters in or out. The arms should be set with the adjusters equal, to make the arms straight out and parallel for now.

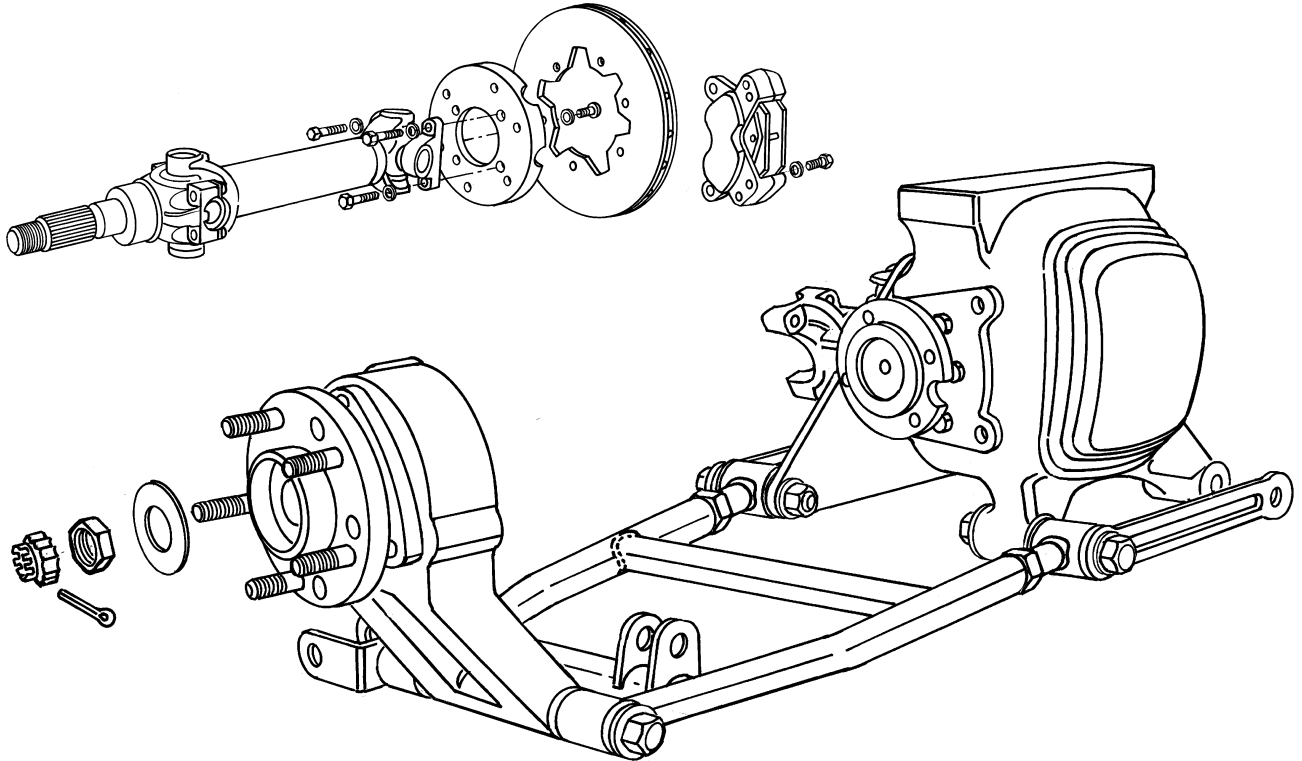
6. OUTER UPRIGHTS ONTO CONTROL ARMS

Insert the outer upright assemblies into the outer ends of the control arms, with the supplied washers between the uprights and the bushings in the arms. Insert the 10-1/2" long 5/8" bolts into the uprights with the supplied washers on the outside of the rear bushings and the u-brackets on the front bushings. Snug up only, as they may have to be realigned later.

7. OUTER BEARINGS INTO UPRIGHTS

The outer bearings are installed into the outer uprights and secured with the 12mm socket head bolts and washers supplied. A small amount of thread locking compound is suggested here.

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8. HALF SHAFTS INTO OUTER BEARINGS

Insert the half-shaft assemblies into the outer uprights, with a small amount of grease on the splines, and secure them with the spacers, nuts, nut cages and cotter pins supplied. Tighten the nuts to 100 ft/lbs torque and install the cages and cotter pins. DO NOT use an impact gun! You can do this process after you have the brakes installed and bled to hold the half-shafts from turning, but don't forget to do it!

9. ROTORS AND ROTOR ADAPTERS

Attach the rotor adapters to the rotors with the shoulder side of the adapters to the flat side of the rotors using the 5/16-24 x 3/4" button head bolts and lock washers supplied. Tighten the bolts to 180 in/lbs torque. Again, a small amount of thread locking compound is recommended here.

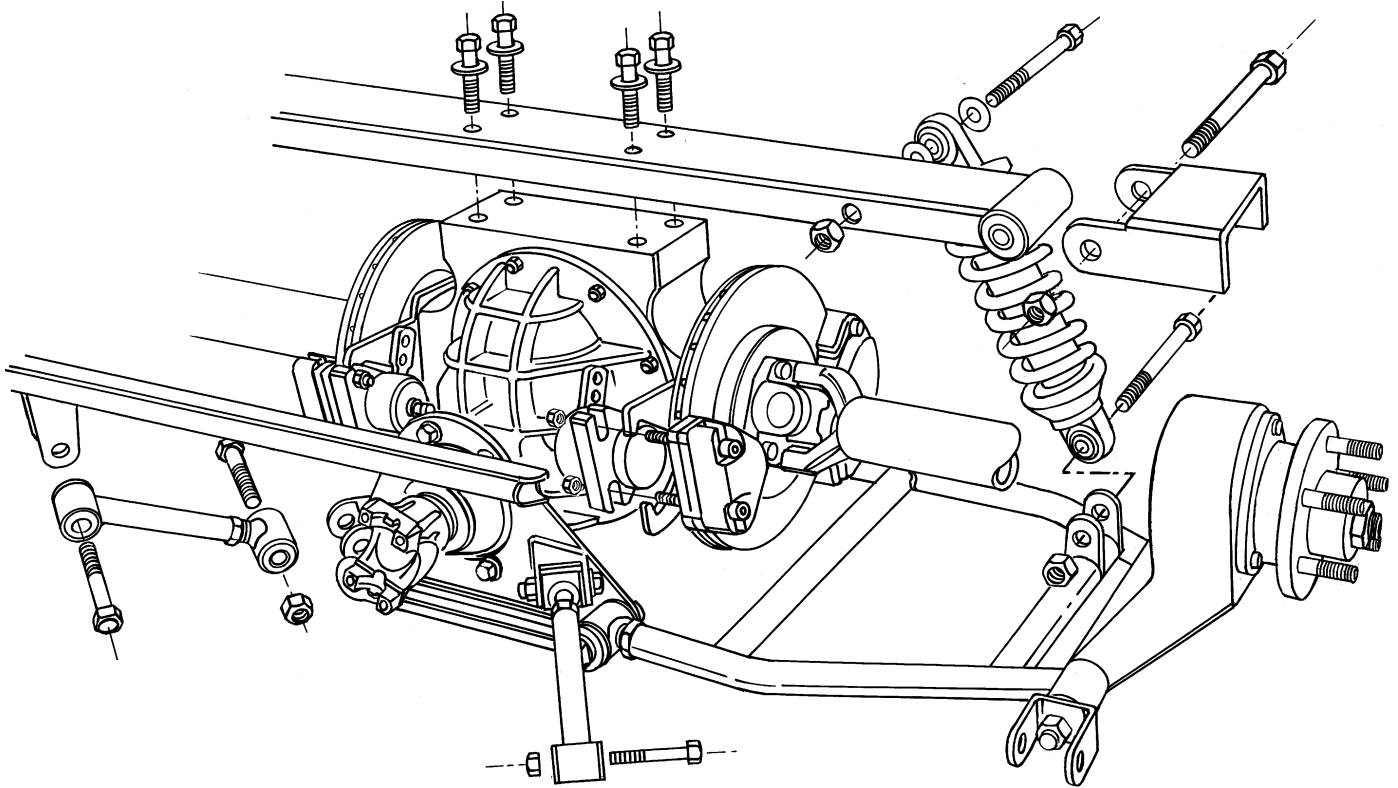
10. ROTORS AND HALF SHAFTS ONTO AXLES

Now assemble the rotor assemblies onto the half-shafts with the recessed side of the rotor assembly onto the stub axle. Hold in place and raise the half-shaft up and place it onto the rotor adapter and secure with the 7/16" x 1-1/4" Grade 8 bolts and lock washers supplied. Tighten to 75 ft/lbs torque. Thread locking compound is recommended here, also.

11. CALIPERS ONTO MOUNTS

Install the calipers onto the caliper plates using the 3/8" Grade 8 bolts, washers, and shims supplied in the caliper mounting kit. The shims may be used to center the calipers on the rotors. Tighten the caliper bolts to 20 ft/lbs torque, using a thread locking compound on the bolts. It is a good idea to install your brake line fittings into the calipers before installing them on the rear end. The parking brake calipers can be installed now by splitting them apart, slipping them in place with the actuating lever up, and reassembling.

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12. TOP CROSSMEMBER ONTO CENTER HOUSING.

Install the top crossmember onto the housing with the coil-over holes to the bottom side. Attach using the 1/2 x 2 1/2" bolts supplied. Torque to 70-75 ft/lbs.

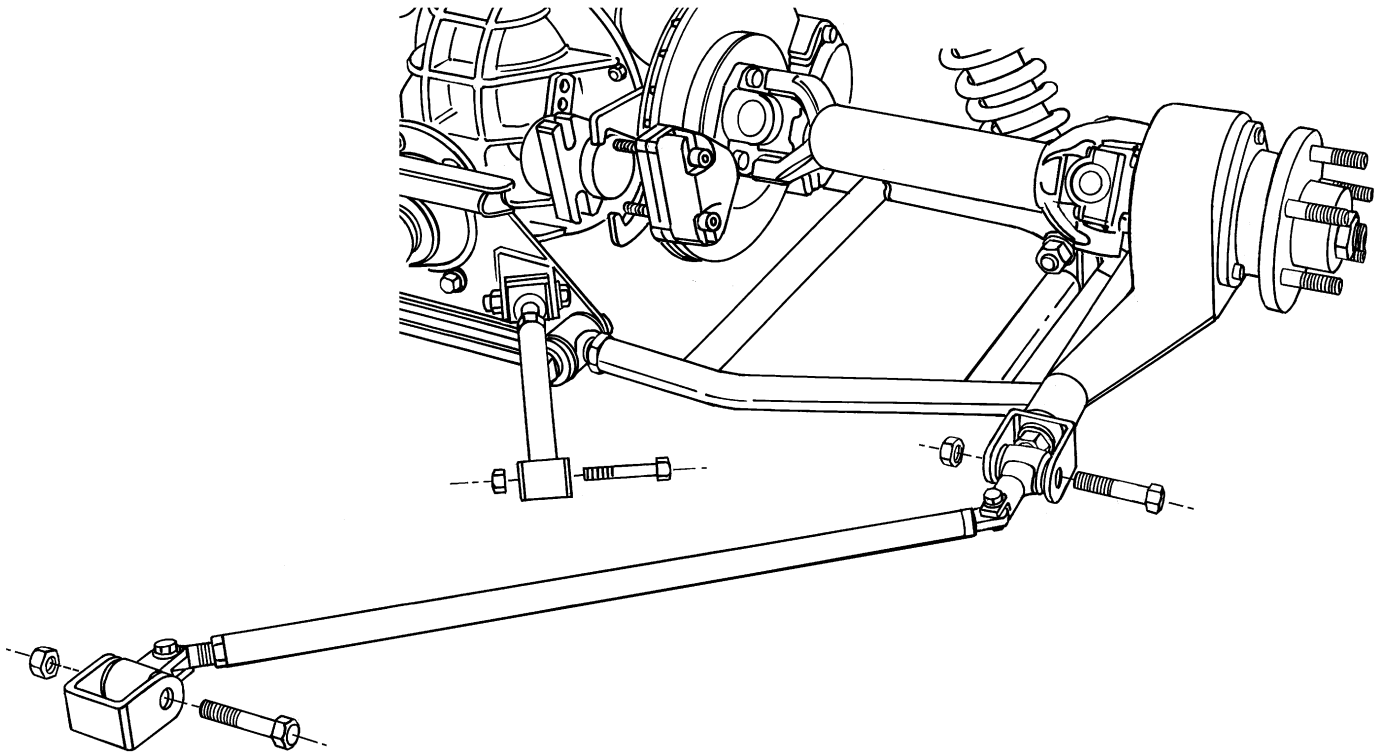
13. POSITION THE UNIT IN FRAME

At this point you have a complete unit, minus coil-over shocks. It is recommended that you fabricate temporary links 12" long, which is the ride length of the coil-overs, and install them in place of the coil-overs. This allows you to handle the IRS as a complete unit to set it at its designed ride height, which is with the half shafts level. Position the unit in your chassis and set the desired ride height you want the car to have. The pinion angle must also now be set, as it is only slightly adjustable later. It should be the same as the transmission. The outer crossmember mounts can now be trimmed to fit the frame. When they are fitted correctly, tack weld them in place. Temporarily install the 5/8 bolts and nuts supplied.

14. FIT PINION CROSSMEMBER and LINKS

Install the pinion support links onto the pinion plate. Install the upper mounting brackets onto the links and position the links approximately 45° forward and upward. These links support the torque of the center member. Cut the pinion crossmember tube to fit between the rails and set on the ends of the pinion links. When everything is in place correctly, tack weld the crossmember and upper brackets in place.

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15. INSTALL STRUT RODS

The strut rods are the last part to install. Insert the non-adjustable ends of the strut rods into the U-brackets on the outer uprights and install the 1/2" bolts and nuts provided. The rods can be positioned straight forward or angled inward. If you have a crossmember or want to install a crossmember so the front ends of the rods are in line with the inner pivots of the lower arms, that is the preferred position. If not, they can be installed straight forward under the frame rails. Either way, position the rods, keeping the front ends of the strut rods in the same plane as the lower control arms. Trim or add to the brackets to fit the crossmember or frame rails. Tack weld in place, remove the ends and finish weld in place.

That's all there is to it. You can now align the camber on the outer uprights, using the adjusters. Just remember to turn them equal amounts as not to change their alignment. The camber is set at 0° at ride height, which is with the half-shafts level. Toe-in is set at 0°. Now you can install the coil-overs, using the bolts, nuts and washers supplied. After all the weight is on the vehicle, adjust the lower spring seats on the coil-overs to level the half shafts. Fill the center section with the proper gear lube, bleed the brakes and cruise down the road, independently.

