

CHASSIS CONCEPTS, inc.

Chassis Assembly and Preparation

C1/C4 Replacement Chassis

Bare Chassis Assembly

ALL CHASSIS ARE SHIPPED DRY

PLEASE GREASE ALL FITTINGS AND LUBRICATION POINTS

IF DIFFERENTIAL HAS POSI FLUID – CHECK BEFORE USE

Acquire complete Front and Rear Suspension from a 1989 thru 1996 Corvette with the Rack and Pinion. Make sure to get the Strap that secures the Steering Rack to the “K” Member.

Be sure that ALL NUTS, BOLTS, WASHERS AND HARDWARE are included. This will make the installation safer and easier if the correct parts are used.

Clean, Media Blast and Clear Coat all of the “Factory” Nuts, Bolts, Washers and loose parts.

Prepare the Suspension Parts, to your specifications (New, Refurbished or Cleaned), for installation.

Due to varying tolerances in the Suspension Parts and replacement bushings, adjustments may be necessary. Check for clearance for installation of Suspension Parts as shown in Diagram # ?? . Adjust opening as required, as shown in Diagram # ??.

Differential Bushings

Strut Bushing

Dogbones

Rack Mount Bracket

FRONT SUSPENSION

Install Left Lower Control Arm using ?? Nuts and Bolts.

Install Upper Control Arms using ?? Fitted Bolts and ?? Lock Nuts.

If desired, shorten Upper Control Arm Bolts for Appearance, as shown in Diagram # ??.

Install Front Spring using four ?? Bolts and ?? Nuts, as per Diagram #??.

Attach Spindle Assembly to Lower Ball Joint, tighten and install Cotter Pin.

Place Floor Jack under Lower Ball Joint(remove Grease Fitting) and raise the Jack as shown in Diagram #??. Guide Spindle Assembly into Upper Ball Joint, tighten and install Cotter Pin. If you have a heavy Spring, it may require weight on the frame, as shown in Diagram #??.

Lower Jack and insert extended Shock into place. Tighten top mount of Shock into Chassis. Raise Jack to position lower mount of the Shock and install ?? Bolts and ?? Lock Nuts.

Repeat procedure to the Right side.

Install Rack and Pinion with one ?? Bolt, Flat Washer and ?? Nut along with the O.E.M. Strap using two ?? Nuts, Flat Washers, Lock Washers and ?? Nuts.

Install Front Tie Bar to L&R Control Arm Towers using 12 point Bolts provided

REAR SUSPENSION

Install the Rear Differential Housing with two ?? Bolts, Flat Washers and ?? Lock Nuts. The Differential Bushings Bolts are installed front to rear for clearance. They will also need to be trimmed by ?? inches to a 4 ½ Bolt, as shown in Diagram # ??.

Use Thin Lock Nut that is supplied, or use enclosed bolt kit as shown.

Loosely install Torque Bar Assembly to the Pinion Housing with ?? Bolts, Flat Washer and ?? Lock Nuts and to the Chassis with ?? Bolt, Flat Washers and ?? Lock Nut as shown in Diagram #??.

Adjust Pinion Angle to 2-5 degrees using adjustable Torque Arm Assembly, and tighten all bolts.

LEFT REAR

Install DogBones to Chassis first, being careful not to cross thread the bolts.

Install Short Upper DogBone with ?? Bolts with the ?? Nut to the outside.

Install Long Lower DogBone with the ?? Bolts into the Threaded Chassis Mounting Boss with caution. Be certain that it is aligned properly. If it is not, it can cross thread and cause damage.

Assemble Rear Spindle Housing as shown in Diagram #??.

Install Rear Spindle Housing to the DogBones using ?? Bolts, Squared Washers and ?? Lock Nuts.

Install Half Shaft to Differential with ?? Bolts and Flat Plates.

Install Lower Strut Bars into Spindle Housing using ?? Bolts and ?? Nuts as shown in Diagram # ???. Swing the other end of the Strut Bar up to Differential Housing Bracket, and install with the Elliptical Bolts, Set Washers and ?? Lock Nuts as shown in Diagram # ??.

RIGHT REAR

Repeat procedure same as Left Rear.

Shorten Toe Bar Assembly $\frac{1}{2}$ inch per side and install to rear of the Differential with three ?? Bolts.

Install Rear Spring, with the same amount of Spacers as when removed, with O.E.M. Brackets and ?? Bolts.

Place Floor Jack under Rear Spring next to Bushing Hole and raise up until ?? Nut can be threaded onto ?? Spring Bolt.

Rear Spring Bushings and washers may need to be drilled to accommodate a longer/hicker bolt to lower rear of the vehicle.

Install Rear Shocks.

DRIVELINE INSTALLATION

Install desired Driveline completely, including all components, Adapters and Brackets. It is much easier to do this with the body off, while you have access to the open chassis. These Items would include; Motor, all Motor Accessories (Pumps, Pulleys, Belts, A/C, etc.) Trans, Driveshaft, Clutch Z bar and Linkage, Shifter, Battery and shield, Exhaust System, P/S Hoses and Trans Fluid Lines.

If standard trans, fill with gear lube.

Fill rear differential with GM Positraction Fluid and Additive only.

Install Steering Linkage Adapters to the Chassis. Start with a ?? X DD Swivel. Attach the ?? end to the C4 Rack. Next, Slip one end of the DD Bar into the DD end. If necessary, slide the Heim Joint on to the DD Bar and mount the Heim Joint Adapter to the back of the Drivers Upper Control Arm Tower, as shown in Diagram #??. Now install the Steering Column Adapter X DD Swivel to the top end of the DD Bar. Adjust Assembly for proper clearance and tighten all Nuts and Allen Bolts. You will complete the rest of this procedure after the Body is in place.

Install E-Brake Kit. Determine the type of Kit required and the location of the Hand Brake. Install Kit as per Manufacturers Directions (see Digram # ?? for suggestions).

Install and hook up all Fuel Lines.

Install Brake Lines and Adapters for Dual Master Cylinder.

Install Brake – Rotors, Calipers, Pads and Brackets.

If Caliper Brackets have been Powdercoated, grind clean the area that is in the travel path of the Pads, as in Picture # ??

Hook up all Brake Lines and fittings. Double check that everything is tight and installed properly.

Install applicable bumper brackets.

Position the Body Mount Cushions (Polyurathane is suggested) in the proper locations as shown in Diagram # ??. You will reinstall the Shims, as the Body is lowered.

CHECK EVERY NUT, BOLT, SCREW, BRACKET AND STRAP THAT YOU CAN SEE – YOU CAN NEVER BE TOO SAFE !!!!!

You are now ready to re-install the Body onto your New *CHASSIS CONCEPTS* C1/C4 Chassis.