EDELBROCK SUB-FRAME CONNECTORS FOR 1993-2002 CAMARO/FIREBIRD CATALOG #5290 INSTALLATION INSTRUCTIONS

- Please study these instructions carefully before installing your new sub-frame connectors. If you have any questions or problems, contact our **Technical Hotline at: 1-800-416-8628**, 7:00 am - 5:00 pm, Monday through Friday, Pacific Standard Time or e-mail us at edelbrock@edelbrock.com.

APPLICATION: Designed for 1993-2000 Camaro/Firebird hard-top. Edelbrock sub-frame connectors are stronger and more effective than other brands because they have: (1) a larger welding surface area; (2) reinforce the rear lower control arm mounting points and floor pan cross-member; (3) Ground clearance will not be reduced as with other brands of sub-frame connectors.

TOOLS/EQUIPMENT SUGGESTED FOR INSTALLATION: In addition to common hand tools, you will need a wire feed MIG welder, drive on vehicle lift, pit and/or floor jack, jack stands, soft backed grinder and c-clamps and vise grips.

NOTES:

(1) Weld-on sub-frame connectors should be installed by a professional welder with the proper equipment and a good understanding of welding dissimilar metals. Your vehicle's sub-frame is formed from relatively thin gauge sheet metal. The end brackets of the sub-frame connectors are 1/8" thick hot rolled steel, laser cut and formed to fit your vehicle's sub-frames.

(2) Sub-frame connectors should not be installed on vehicles that have sub-frame damage due to accident or vehicles with weak or unequal rate springs.

INSTALLATION INSTRUCTIONS

(1) Disconnect battery. Remove rear seat lower cushions, front/side plastic kick panels, lift carpet, padding and wire loom and support up off the floor pan during welding process.

(2) Disconnect the fuel lines, located under the vehicle on the left side between transmission cross-member and body pinch weld. These lines may be under pressure, so use caution when disconnecting (use eye protection). Plug fuel lines as necessary so no fuel can leak from lines. Remember, you will be welding in this area and don't want any fuel anywhere around. Remove the fuel line protector block (if equipped), located on left side under vehicle, behind the left front tire, bolted to the floor pan. Remove the plastic clip holding the fuel lines and carefully move fuel lines out of the way. Note: 2000-2002 model year vehicles have the fuel and brake lines protected by a sheet metal shield on the inside surface of the left front sub-frame. Remove the shield and gently pull the lines away from the sub-frame where you will be welding. Protect as necessary during welding.

(3) Carefully pull the steel brake line away from the vehicle's front sub-frame (see figure 1) just enough to enable welding of front-end bracket to sub-frame. ***Note:*** *Duct tape can be used to protect the steel brake line from being damaged during welding.*

Fig. 1

(4) For fit and welding, your vehicle's full weight should be resting on all four tires. The tires should be the same size and have the same air pressure. This will ensure that your vehicle's body and sub-frames are neutral and are not in pre-load (twist or bind).

(5) Remove the front bolt from the rear lower control arm and position the sub-frame connector in place (see figure 2).

Fig. 2

Note: *Only remove one control arm bolt at a time. This will make reinstallation of bolts much easier. Reinstall control arm bolt. Do not tighten at this time. Raise the front of sub-frame connector into place. Use the nut plates, 5/16 hex bolts and flat washers supplied in kit, to temporarily secure the front bracket to the vehicle's sub-frame (see figures 1 & 3).*

Fig. 3

(6) The rear end bracket can be held up tight against the rear control arm mount with either vise grip pliers, as shown in figure 2, or you can use the hole in the bottom of the end bracket as a guide to drill a hole in the control arm pocket and install a 5/16 hex bolt with flat washer and nut into the rear bracket.

(7) Using a marker or scribe, outline the front and rear brackets where they are to be welded. Then remove the sub-frame connectors and grind the surface of the vehicle's sub-frame in the areas where they are to be welded. This will make welding much easier and you will end up with much better weld quality.

(8) Reinstall the sub-frame connectors into place, using the hardware supplied in the kit. (Nut plates, 5/16 hex bolts, washers, nuts, and new control arm bolts, washers and nuts). Do not fully tighten the control arm bolts at this time. Vise grips or c-clamps should be used to hold the end brackets in place tight against the vehicle's sub-frame surfaces during welding. When properly positioned into place, the main tube of the sub-frame connector will be approximately ¼ to ½ inches below the body pinch weld.

(9) Tack weld into place, then recheck clearance, level, and positioning of the sub-frame connectors in the vehicle. (At this point, it is still easy to make adjustments but very difficult to change after welding is complete).

(10) Begin welding with front-end brackets. Weld all areas that are tight against the sub-frame surface. As you weld, you may need to form the end brackets to the vehicle's sub-frame surface to minimize gaps between the two surfaces. (You can use c-clamps to assist you to pull the sides of end brackets tight to the surface of the sub-frame.

(11) Weld as much of the rear end bracket to the lower control arm mount as you can (sides, bottom, rear edges, etc.). Remove the control arm bolts. We have purposely oversized the control arm bolt-holes for welding on the ID of the hole. This weld must be level with or below the surface of the end bracket so the washer will sit flat when tightened. Note: The rear end brackets greatly reinforce the lower control arm mount area when properly welded. Reinstall control arm bolts.

(12) You will find three filler plates in your installation kit. These are to be used on the front-end brackets to finish boxing in the end brackets and add reinforcement into the floor pan cross-member and sub-frame connector. The longest plate is to be welded to the outside surface of the right front-end bracket. The medium length plate is to be welded on the inside of the right-end bracket. (Figure 4 shows the filler plate welded in place and finished off by grinding weld smooth).

The shorter filler plate is to be used on the outside surface of the left front-end bracket and should be welded in the same manner as the other filler plates. The fuel lines will need to be moved out of the way to complete welding of this area. ***Note:*** *Be careful not to damage the fuel lines when welding.*

Fig. 4

(13) Grind excess weld as needed. Clean and paint sub-frame connectors and all welded areas to keep from rusting. The 5/16 bolts, nut plates and hardware can be removed to leave a smooth surface under your vehicle. (See figures 4 & 5).

Fig. 5

(14) Route the fuel lines over the top of the left side sub-frame connector tube and reconnect the fuel lines. Reattach the steel brake line to the factory clips on the vehicle's sub-frame (see figure 6). Torque rear control arm bolts to factory specs. 70 ft. lbs. Reinstall carpet, kick panels, and rear lower seat cushions. Reconnect battery. Turn ignition key on and check fuel lines for leaks.

Fig. 6

(15) Drive vehicle 20-30 miles, then re-torque the lower control arm bolts.

Note: Check into other Edelbrock suspension products to further enhance the handling and performance of your Camaro or Firebird, such as coil springs, lower control arms, torque arm, panhard rod and strut tower brace.

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Revised 7/01 (P&D)