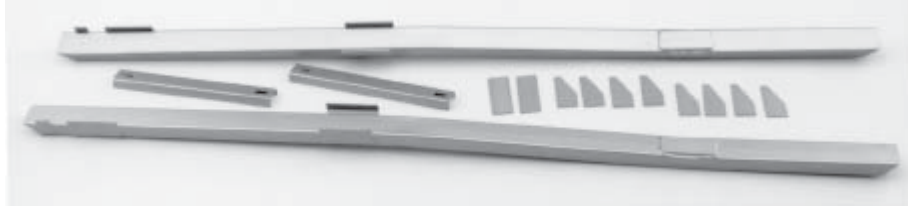

1994-04 MM Full Length Subframe Conn. (MMFL-3)



Important Note

These instructions have been revised (9/1/04) with the introduction of the new and improved MM Full-length Subframe Connectors. There are significant changes from the installation of our previous subframe connectors. If you have previously installed MM Full-length Subframe Connectors, be sure to **read these instructions carefully** to avoid improper installation.

Congratulations on purchasing Maximum Motorsports' new and improved Full-length Subframe Connectors. MM created the first full-length subframe connectors (We even coined the name) many years ago to provide more chassis stiffening than any other subframe connector available. We have now improved on our previous design with an even stiffer Full-length Subframe Connector. These have a taller tube for increased bending strength, and are longer to provide increased weld area and better support to the rear subframe. Once again Maximum Motorsports leads the way with better engineering and design.

Read all instructions before beginning work. Following instructions in the proper sequence will ensure the best and easiest installation.

All welding must be done with a MIG welder. The car's weight must be on the tires. Do not lift on a regular hoist or place on jackstands. Use a muffler shop type hoist (which lifts the car by the tires) or ramps. Clean off paint and primer to bare metal - a wire wheel in a drill works well.

The subframe connectors must be coated (Either powder coated or painted) to prevent rusting. MM bare steel subframe connectors must be painted, including all surfaces that will be hidden after installation, prior to installation. That coating, whether powder coating or paint, must be removed from the weld areas. Before painting bare steel subframe connectors, it may be helpful to mask off the areas that will be welded, see Step 3 below.

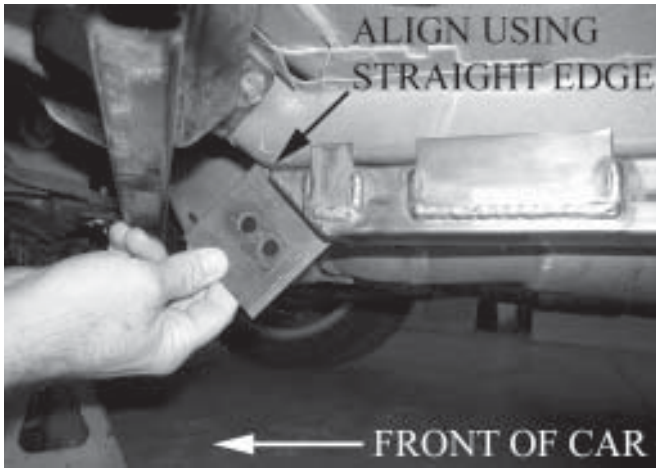
1. Attach the seat reinforcing crossbars to the rearward seat mounting bolts. Use the supplied washers and lock-nuts. If necessary, replace the stock bolts with the supplied longer bolts. Position the crossbar's larger flange towards the front of the car.



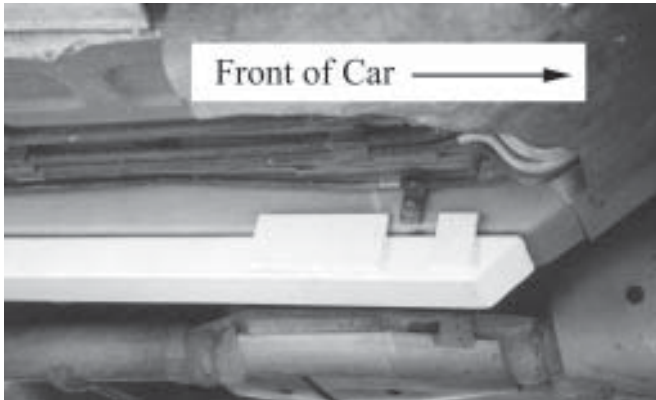
2. Place one of the subframe connectors into position. The connectors fit specific sides. The forward end of the subframe connector tube has a locating tab, which is to be positioned on the outside of the front subframe.

To position the subframe connector

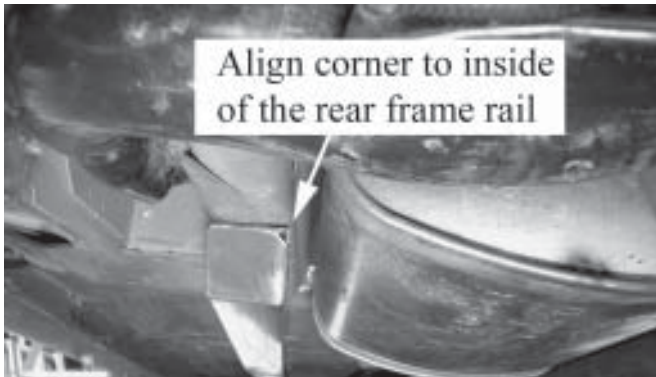
- Hold the subframe connector up against the bottom of the car, underneath the front and rear subframes of the car.
- Place a straightedge on the front end-cap, extending above the top surface of the connector tube by about 1/2". Use the straightedge to align the front of the subframe connector with the car's front subframe, where the front subframe angles upwards. This sets the fore and aft position of the subframe connector.



- Push the front of the subframe connector towards the center of the car, so that the forward locating tab is tight against the outboard side of the car's front subframe.



- The rear of the subframe connector is to be positioned with the inboard side of its end aligned with the inner side of the car's rear subframe. This positions the subframe connector directly underneath the car's rear subframe, and provides the most clearance for the muffler and the rear lower control arm (or IRS subframe).



- Check how closely the subframe connector fits to the underside of the car's front subframe. Due to production tolerances in stamping the floorpan, there may be a gap between the connector and the front subframe. A gap at the very front of the subframe connector of no more than 1/8" is acceptable. A gap at the rearward end of the car's front subframe of no more than 1/4" is acceptable.

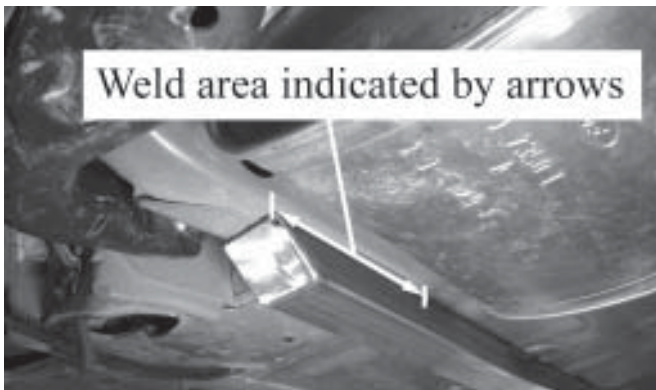
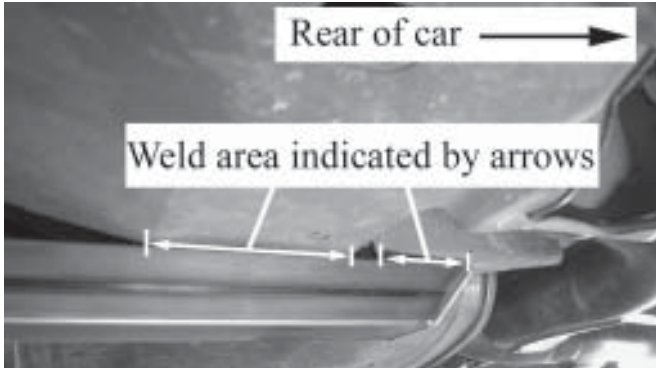
- If there is a larger gap than noted above, steps should be taken to reduce the gap. Lifting the car up with an improperly placed floorjack underneath the front subframe often distorts the floorpan and will cause a gap at the rearward end of the car's front subframe. This gap can be reduced in one of two ways: Move the floorpan down to match the subframe connector (Remove the front seat and use a large hammer on the top of the floorpan), or increase the angle of the forward bend of the subframe connector tube.
- If there is a gap between the car's front subframe and the subframe connector at its front end, the subframe connector tube needs to have its forward bend straightened. Very small changes in the bend angle will have a large effect on the gap. The subframe connector tube can have the bend angle straightened out slightly while off the car by careful use of a hydraulic press, or by clamping one end of the tube to a stout workbench and then applying a large weight at the other end of the tube to straighten out the bend slightly. If using a press, be careful not to crush the tube.

Note: Close shut the gap at the corner of the end cap. Either weld it closed, or seal it with silicone after all welding and painting is completed.

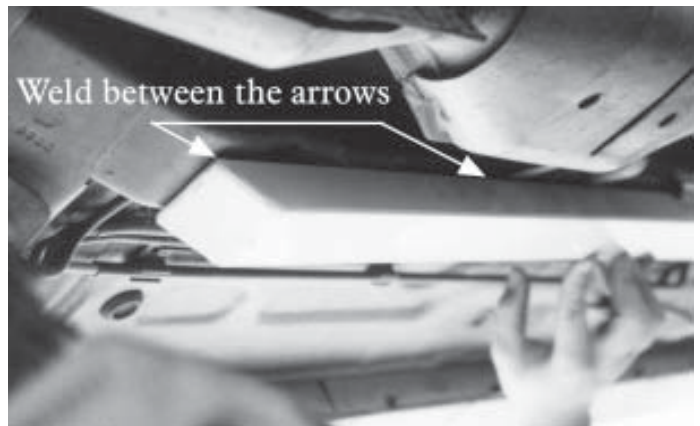
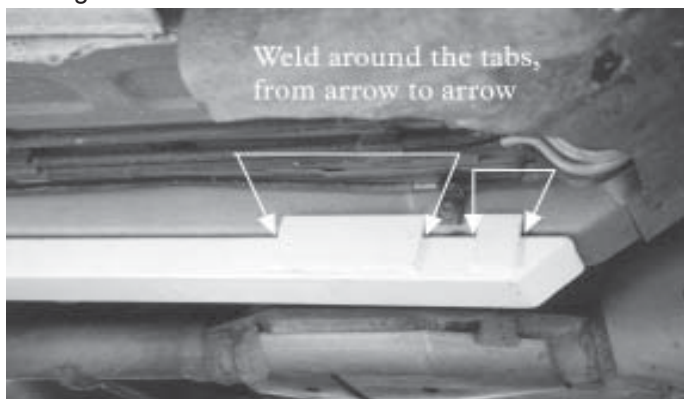
Warning: Be careful to protect the fuel lines from heat and sparks during all welding operations.

3. With the subframe connector held in the correct position (as described above), mark on the subframe connector every place that will be welded. If these areas of bare steel subframe connectors were not masked prior to painting, remove the paint at this time. MM powder coated subframe connectors must have the coating removed from the subframe connector in the weld areas. A power disc sander works well for this.
4. With the subframe connector again held in the correct position, tack-weld the forward end in place, and then the rearward end. With the subframe connector now secured in place, double check that its position is correct. If necessary, remove the tack welds and reposition the subframe connector.

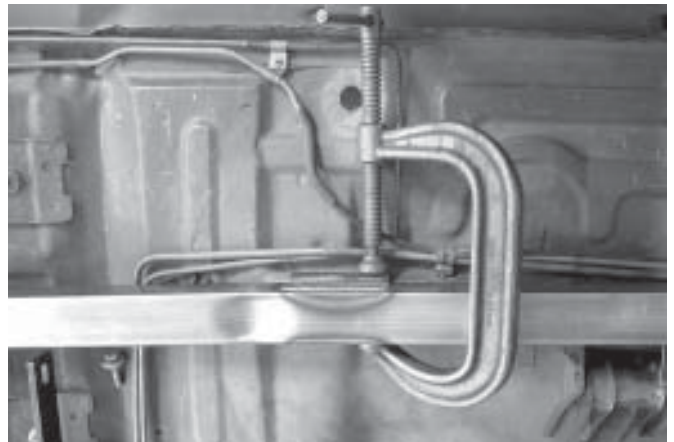
- Weld the rearward end of the subframe connector into place. Weld where indicated in the photos. Do not weld across the end-cap, as doing so will create a heat-affected zone on the unibody that may lead to later cracking due to the orientation of the weld relative to the bending loads. Close shut the gap at the corner of the end cap. Either weld it closed now, or seal it later with silicone.



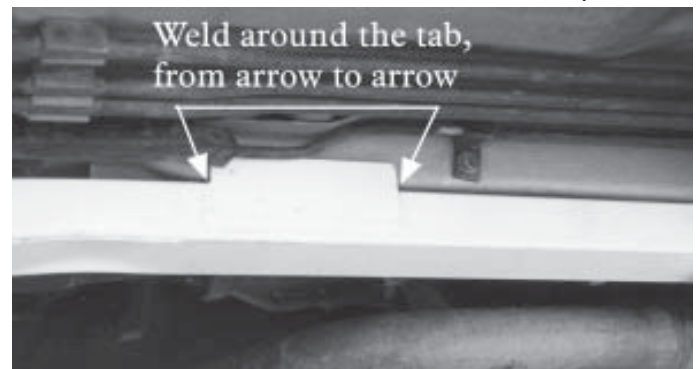
- Weld the forward end of the subframe connector into place. Weld where indicated in the photos. Do not weld across the end-cap, as doing so will create a heat-affected zone on the unibody that may lead to later cracking due to the orientation of the weld relative to the bending loads.

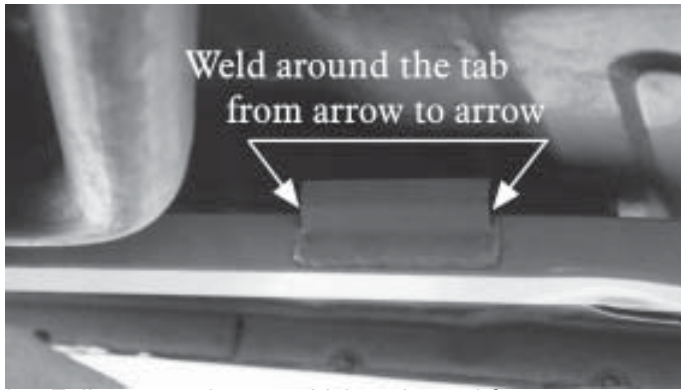


- The two rearward mounting tabs near the forward bend of the subframe connector tube will need to be custom-fitted into place against each side of the car's front subframe. This can be done by squeezing them with a C-clamp or large Channellock pliers, or by careful hammering. We position the mounting tabs to accommodate the range of tolerances in the placement of the front subframe on the floorpan, which requires the tabs to be custom-fitted to the car during installation.



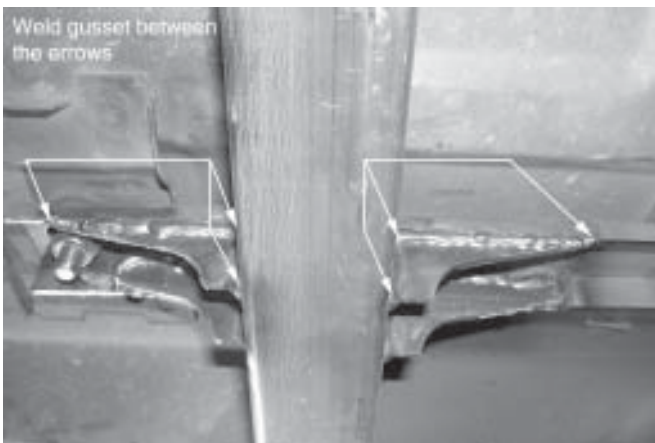
- Weld the two rearward mounting tabs to the car's front subframe, as indicated in the photos.



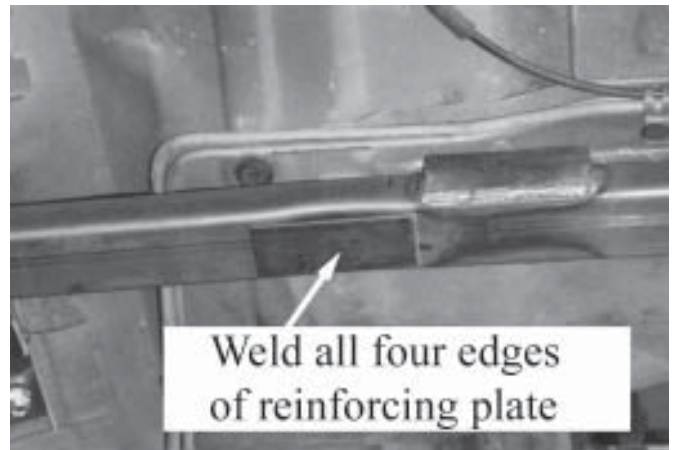
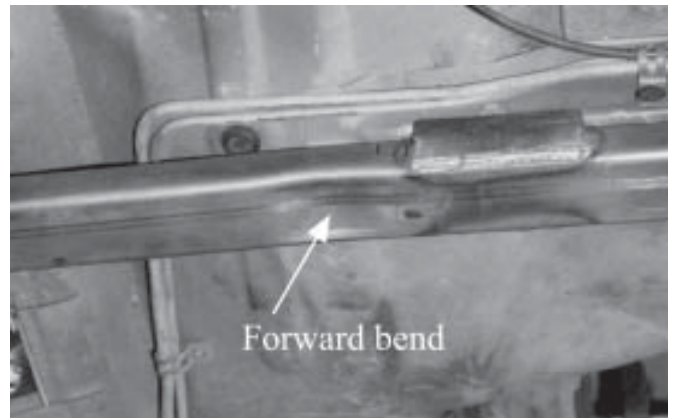


9. Follow steps 2-7 to weld the other subframe connector into place.
10. Place four gussets into position between each crossbar and connector. Position the gussets perpendicular and flush with the bottom of the subframe connector as shown. Finish welding into place as indicated.

Note: It is important to position the gussets perpendicular to facilitate torque arm crossmember bolt removal on cars so equipped.



11. Locate the forward bend of the subframe connector tube (see photo). Place a supplied Reinforcing Plate against the bottom of the tube so it covers the bend area. Weld the entire perimeter. Repeat on the other subframe connector.



12. If so desired, the subframe connector tube may be stitch-welded to the car's front subframe. Weld the corners of the subframe connector tube to the car's front subframe. A 1-inch weld every 3 inches is sufficient.
13. Clean the weld areas and paint with a high quality rustproof primer and topcoat.

Supplemental Instructions for 1996-98 Cobra

On these cars each end of the transmission crossmember is bolted to a bracket, which is in turn bolted to the car's front subframe. This bracket must be modified to install the subframe connectors. This modification will not interfere with future removal of the transmission crossmember for transmission or clutch service, and will actually strengthen the attachment of the mounting bracket to the unibody.

1. Notch both the passenger side and driver side transmission crossmember mounting brackets so that the subframe connector will sit into position underneath the car's front subframe, as detailed in Step 2, above. The notch should be only large enough to allow installation of the subframe connectors.



2. After welding the subframe connectors into place, weld the notched edges of the transmission crossmember mounting brackets to the subframe connector tubes.



3. Clean the weld areas and paint with a high quality rustproof primer and topcoat.

This kit contains the following:

- 4 10mm x 1.5 x 40mm Hexbolt
- 4 10mm x 1.5 Nylock nut
- 8 7/16" AN Washer
- 2 Reinforcing Plates
- 8 Gussets
- 2 Full Length Subframe Connectors