



Detroit Speed, Inc.
Subframe Connectors
1967-1969 Camaro/Firebird
P/N: 010101

The DSE subframe connectors are designed to give maximum longitudinal and torsional stiffness by integrating the connector into front and rear frame rails and floor pan. This installation is virtually unnoticed when finished. Please follow the guidelines below.

1. The first step is to inspect and/or install new body mount bushings and then correctly align the subframe to the body. This can be done by carefully checking measurements for wheelbase and diagonal corner measurements. Follow steps 2 through 5 for this process.



(Figure 1)



(Figure 2)

2. It is important to properly support the vehicle under the rear axle and front subframe to avoid tension in the body when installing the connectors.
3. Locate the lower control arm forward mounting locations and drop a plumb line to the ground and mark locations. (Figure 1)
4. On the rear of the car, locate the round flanged hole that is next to the rear leaf spring front mounts and mark a center line on the frame. (Figure 2)
5. Drop plumb lines to the ground and mark. You can now check square by measuring diagonally. Loosen the core support and body mount bolts and position subframe as needed. Sheet metal measurements should also be checked by inspecting body fits and alignment.
6. Remove fuel lines and brake lines to provide adequate clearance for placing the templates and cutting the floor pan.



[Figure3]



[Figure 4]

7. The subframe connectors are not symmetrical; they are labeled driver side and passenger side for your convenience. (Figure 3)
8. Templates are provided for the installer to mark the floor pan. (Figure 4) The templates should be cut from the provided sheet. The floor pan template should be placed on the underside of car (using tape or small magnets) and mark the edges for your cuts. There are dimensions on the template to assist locating cut lines (do not use drain holes for locating template). The pinch weld flanges on the rocker are used as a reference. The template can be used on either side by flipping the template from side to side.
9. The seat riser template locates the material to be removed using the seat frame mounting locations marked at arrow. (Figures 5 and 6)



[Figure 5]



(Figure 6)

10. When using an aftermarket one-piece floor pan the braces in front of the rear seat riser needs to be cut out to gain welding access for the rear of the connector. Once it is welded in place, notch the brace so that it can be welded in place over the connector. (Figure 7)



(Figure 7)

11. Once the cut lines are carefully marked, the sheet metal can be removed. Start by cutting to the inside of your marks. You can always trim more away as you begin fitting the subframe connector in the car. Further trimming of the floor pan toward the front of the car may be required to properly fit the top of the subframe connector flush to the top of the subframe.
12. Starting with the rear (slotted end) of the correct subframe connector (driver or passenger side), insert the open slotted end into the rear floor pan. The lower portion of the connector will butt against the front of the rear rail.
13. Position the front of the connector as close as possible to the subframe. (The front of the connector may be longer than needed.)

14. From the top of the subframe, measure back 1/2", then mark the subframe connector. Cut the connector to length and weld the end cap in place.
15. Again, place the connector into position keeping the top of the connector even with the top of the subframe. Clamp the subframe brackets onto the front of the subframe connector. The brackets are laser cut to match the contour of the stock sub-frame. If you have an aftermarket subframe other than the DSE hydro-formed subframe, you may have to modify the bracket end to match the contour of your subframe.
16. The inside and outside brackets can be welded to the connector. The holes in the brackets are designed to be puddle welded and edge welded. (DO NOT WELD SOLID TO THE SUBFRAME AT THIS TIME.)
17. With the connector in position, begin by only tack welding the connector to the rear rail and the front subframe.



(Figure 8)

18. Next, weld the floor pan to the connector. This should be done in short segments to avoid excessive heat build-up in the thin floor pan. (Figure 8)
19. Lastly, weld the front and rear of the connector solid to the vehicle. (Figure 9)



(Figure 9)

20. Protect and paint accordingly and you have finished the installation of your subframe connectors. (Figure 10)



(Figure 10)