



Detroit Speed, Inc.
Heavy Duty Leaf Spring Pocket Kit
1967-69 Camaro/Firebird
P/N: 040110

Thank you for purchasing the Detroit Speed Inc., Heavy Duty Leaf Spring Pocket Kit for your 1967-69 Camaro/Firebird. The DSE Leaf Spring Pocket Kit was engineered to work with stock leaf springs vehicles as well as vehicles with the DSE QUADRALink installed. The kit is significantly stronger than the stock pocket, connects into the doubler plate on the top side of the floor pan and offers an additional link mounting location that is 1" lower than the stock location. The assembly is bolt-on for easier installation and comes with a powder coated pocket.



Item #	Description	Quantity
1	HD Leaf Spring Pocket Assembly - LH	1
2	HD Leaf Spring Pocket Assembly - RH	1
3	HD Leaf Spring Pocket Floor Doubler Assembly - LH	1
4	HD Leaf Spring Pocket Floor Doubler Assembly - RH	1
5	Hardware Kit	1
6	Instructions	1

Hardware Checklist – DSE HD Leaf Spring Pocket Kit			
Part Number	Description	Quantity	Check
9304294	DSE HD Leaf Spring Pocket Hardware Kit	1	
99040492	Frame Rail Crush Tube	2	
99040493	Leaf Spring Bolt Adapter Bushing	4	
980088FS	1/2"-13 x 5"L Hex Head Bolt	2	
960019FS	1/2"-13 Nylock Nut	2	
980089FS	7/16"-14 x 4-1/4"L Hex Head Bolt	2	
970042FS	7/16" SAE Flat Washer	2	
980027FS	3/8"-16 x 1"L Hex Head Bolt	16	
970023FS	3/8" SAE Flat Washer	16	

Fastener Torque Specifications – DSE HD Leaf Spring Pocket Kit	
Application	Torque (ft-lb)
1/2"-13 x 5"L Hex Head Bolt	90
7/16"-14 x 4-1/4"L Hex Head Bolt	65
3/8"-16 x 1"L Hex Head Bolt	45

NOTE: All work should be performed by a qualified welder and technician.

NOTE: The photos used in this installation are using DSE pocket assemblies that are not powder coated. The DSE pockets in the kit you purchased are powder coated black.

1. To begin installation, chock the front wheels and loosen the rear lug nuts. Raise and support the vehicle with jack stands under the frame. Make sure that the vehicle is level and well supported. Remove the rear wheels.
2. Disconnect the negative battery cable. Remove the rear suspension. Remove the seats, carpet and padding, rear interior quarter trim panels. Any other interior panels, headliner, door panels, etc., should be removed or masked well to protect them from grinding and welding sparks.
3. Remove the factory leaf spring pockets from the vehicle.
4. Install either your leaf springs or the DSE Swivel Links into the DSE pocket assemblies. Continue on to step 5 if you have the QUADRAlink. If you are using leaf springs, skip to step 9.
NOTE: You will need to install either your leaf springs or your DSE Swivel Links into the DSE pocket assemblies before you install them into the vehicle. The bolts for the leaf springs or Swivel-Links will not install through the DSE pocket assemblies once they're installed into the vehicle.
5. If you have the DSE QUADRAlink, refer to the instructions to install the lower Swivel Links using the 9/16"-18 hardware along with the aluminum spacers provided in that kit. Do not torque the bolts at this time. **NOTE:** The bottom hole in the DSE pocket is 1" lower than the stock hole location, you can use either hole location for this step.
6. Install the DSE pocket assemblies with your lower links in place of the factory leaf spring pockets using 2 of the 3 factory bolts (Figure 1 on the next page). The U-clip for the 3rd factory bolt that is not used can be removed. **NOTE:** Figure 1 has the Swivel Link removed to show the DSE pocket more clearly.

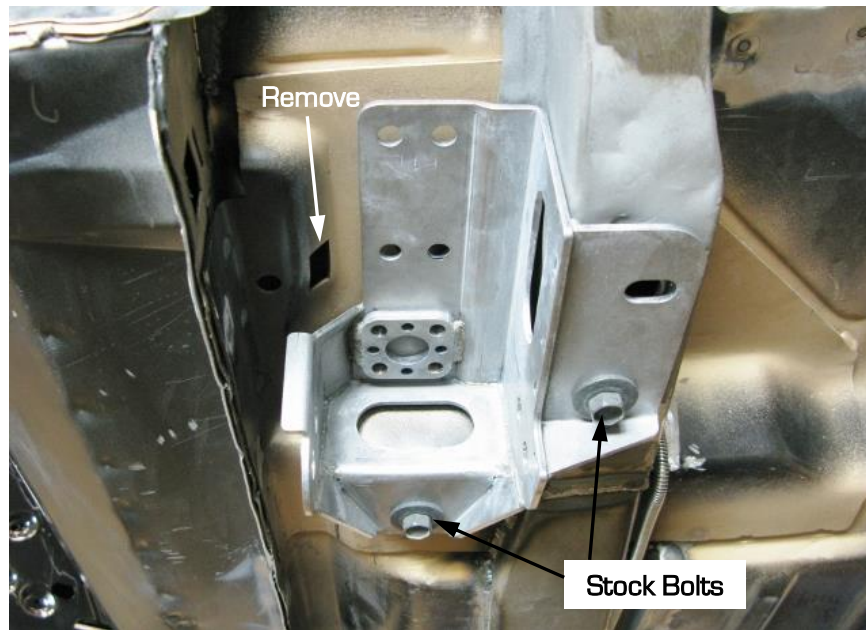


Figure 1 - Position Leaf Spring Pocket Assembly

7. With both DSE pocket assemblies installed into the vehicle, square the pockets to the vehicle. Hold the opposite ends of the Swivel Links up with jack stands. Measure across the width of the vehicle at the front and the back of the links to show that they are parallel (Figure 2).



Figure 2 - Width Measurement

8. Take a diagonal measurement off of the Swivel Links from the front left DSE pocket to the rear right Swivel Link bushing and vice versa (Figure 3). If your diagonal measurements are within $1/8$ ", skip to step 12, otherwise adjust the DSE pockets with the 2 stock bolts as necessary.



Figure 3 - Diagonal Measurement

9. If you are installing leaf springs, install the front leaf spring eye into the DSE pocket assemblies with the provided leaf spring adapter bushings along with the 1/2"-13 x 5"L hex head bolts. Install the adapter bushings on the outside of the DSE pocket holes. Install the 1/2"-13 x 5"L bolt through the adapter bushing, DSE pocket hole and leaf spring bushing. Install the provided 1/2"-13 Nylock nut once the bolt is all the way through the DSE pocket and the other adapter bushing. Do not torque the bolts at this time. **NOTE:** The bottom hole in the DSE pocket is 1" lower than the stock hole location, you can use either hole location for this step.
10. Install the DSE pocket assemblies with your leaf springs in place of the factory leaf spring pockets using 2 of the 3 factory bolts (Figure 4). The U-clip for the 3rd factory bolt that is not used can be removed.

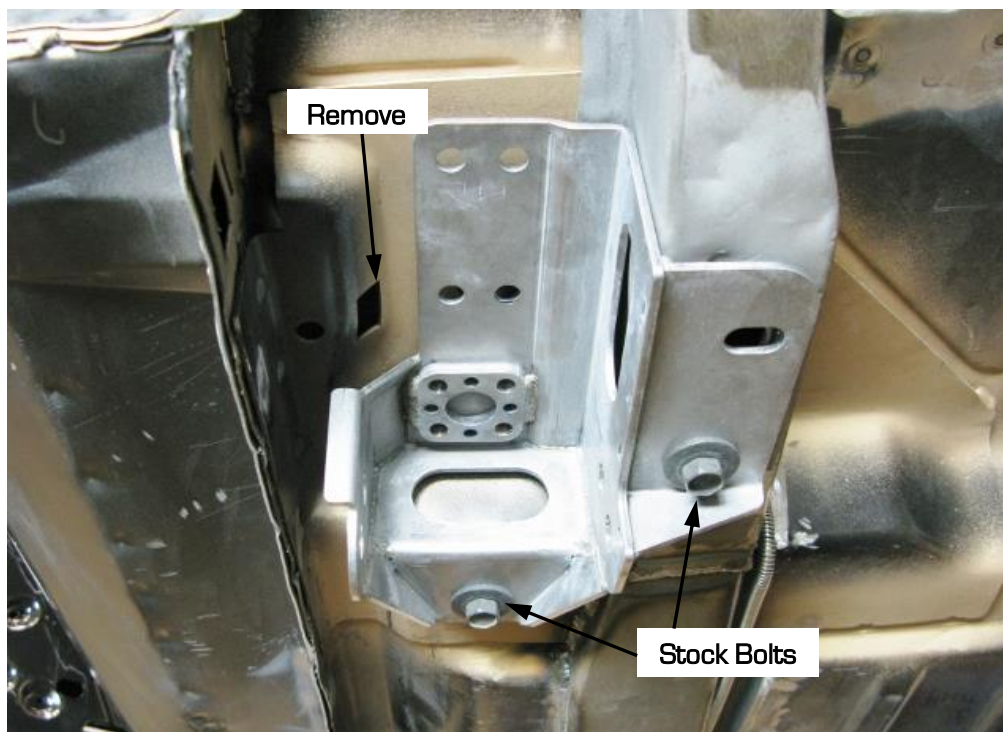


Figure 4 – Position Leaf Spring Pocket Assembly

11. With both DSE pockets installed into the vehicle, square the pockets to the vehicle. Using leaf springs, install the rear spring eye into the rear shackles and tighten the shackle bolts. Leaving the 2 stock bolts holding in the DSE pocket assemblies loose, this should square up the DSE pockets. Tighten the 2 stock bolts when the DSE pockets are square to the vehicle.
12. Once the DSE pockets are square to the vehicle, you can either mark their locations by scribing around the perimeter of the DSE pockets or drilling two 1/8" location holes in the DSE pockets into the floor pan or framerail.
13. Remove the DSE pocket assemblies from the vehicle and remove either the leaf springs or the Swivel Links from the pockets. Re-install the pockets again with the 2 stock bolts and line up the pockets with your locating method from the previous step.
14. With the DSE pockets in the correct location, transfer punch the front and rear outboard holes on the DSE pockets to the floor pan (Figure 5 on the next page).

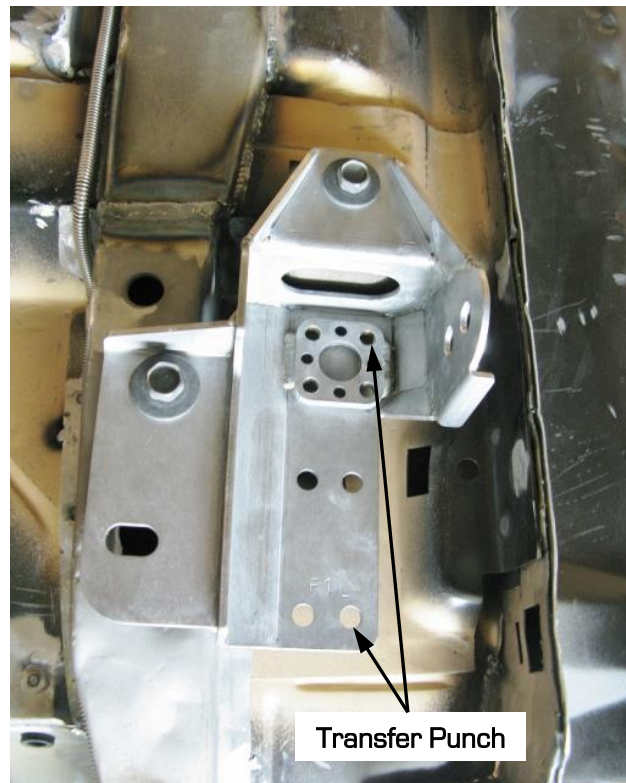


Figure 5 – Transfer Punch 2 Holes

15. Remove the DSE pockets and drill 2 holes that were marked in the previous step for 3/8" bolts from underneath the vehicle. Re-install the DSE pocket assemblies into the vehicle using the stock 2 bolts.
16. Position the DSE leaf spring pocket floor doubler on the top side of the floor inside the vehicle, above the leaf spring pocket assembly. Install one of the provided 3/8"-16 x 1"L hex head bolt through the pocket assembly into the floor doubler where there already is a hole in the floor pan from the factory. (Figure 6).

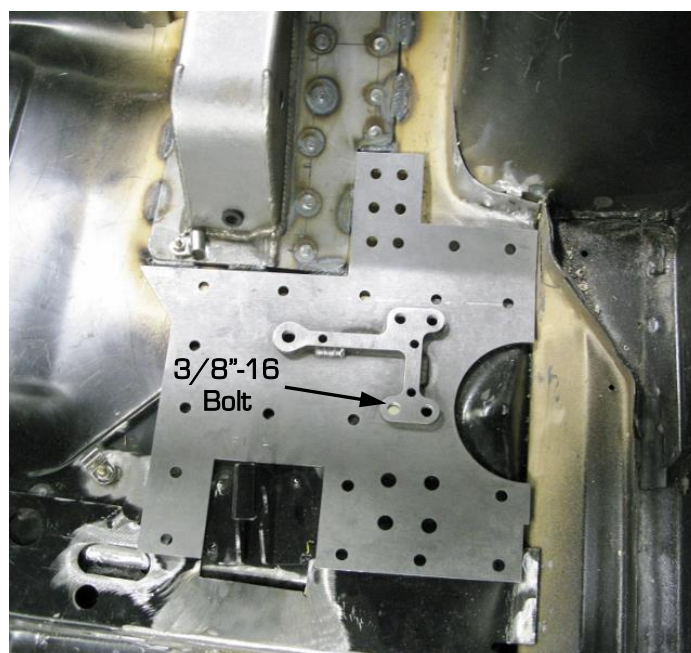


Figure 6 – Position Leaf Spring Floor Doubler

17. Install 2 more of the 3/8"-16 x 1"L bolts into the 2 holes that you drilled in step 15. **NOTE:** The outside edge of the doubler plate may need to be trimmed to sit square to the pinch weld of the rocker panel. You may also need to open up the half circle in the doubler plate due to vehicle variation. If you have the DSE QUADRAlink installed, you may need to trim the doubler plate around the area of the upper link pocket.
18. Once the doubler plate has been trimmed as needed, tighten the 3/8" bolts in the doubler plates as well as the DSE pockets so that it is secured in position. Transfer punch the remaining 7 holes from the doubler plate into the floor pan from inside the vehicle.
19. Remove the DSE pocket assemblies and floor pan doublers. Drill the 6 holes for the provided 3/8"-16 bolts. There is also one hole location that needs to be drilled for the provided 7/16"-14 bolt (Figure 7).

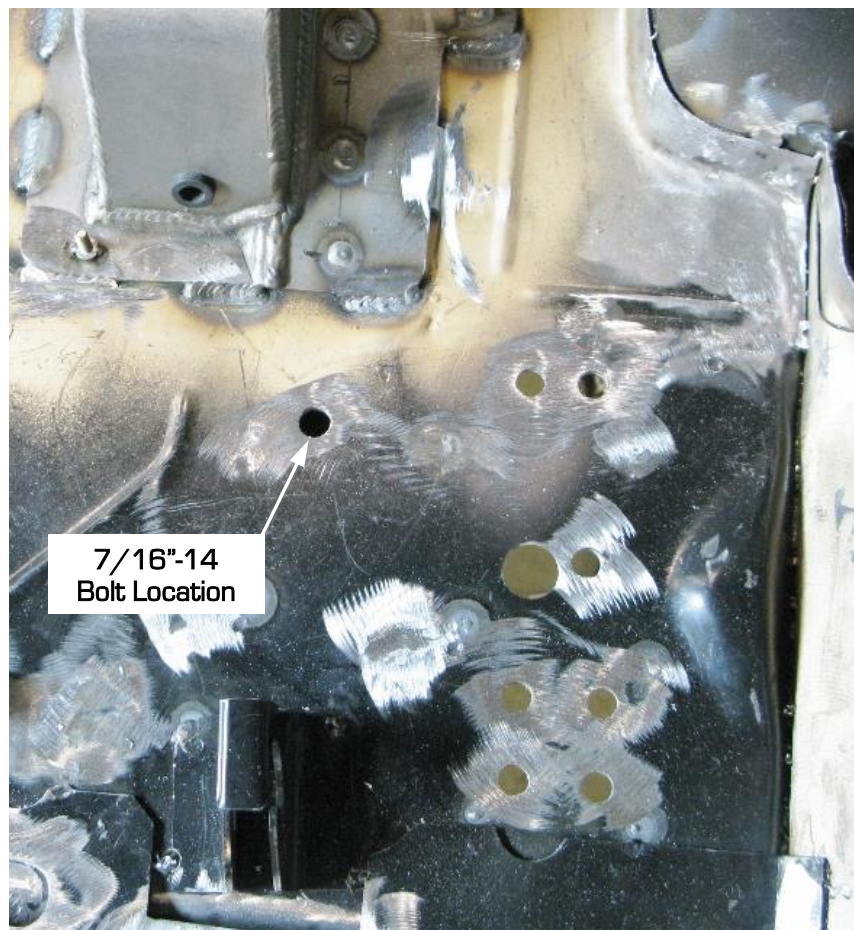


Figure 7 – Drill Remaining Holes

20. Once the holes are drilled, DSE recommends chamfering the holes on both sides of the floor pan so that the DSE pocket assemblies and floor pan doublers sit flat against the floor pan. Grind the area of the floor pan around the doubler plate inside the vehicle for welding.
21. Bolt the floor pan doublers and the DSE pocket assemblies back into the vehicle using the stock bolts as well as 8 of the provided 3/8"-16 x 1"L bolts and washers. 4 of them will install into the nut plate from the inside of the vehicle and the other 4 will bolt into the nut plate from underneath the vehicle (Figure 8 on the next page). Do not torque the bolts at this time.
22. Repeat steps 16-21 for the opposite side of the vehicle.

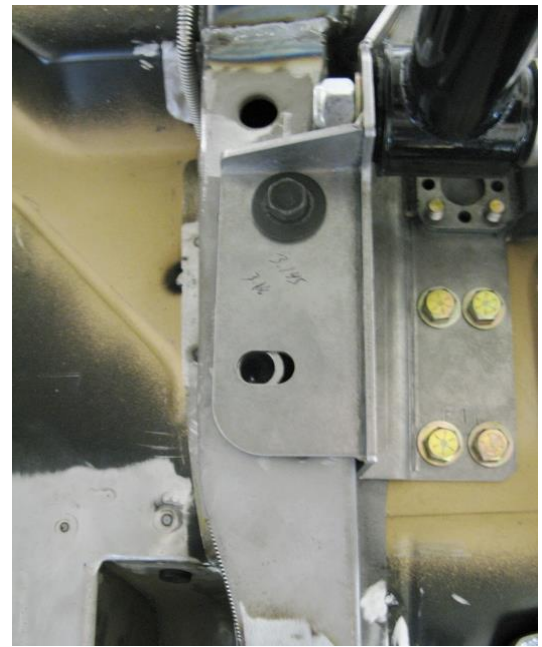
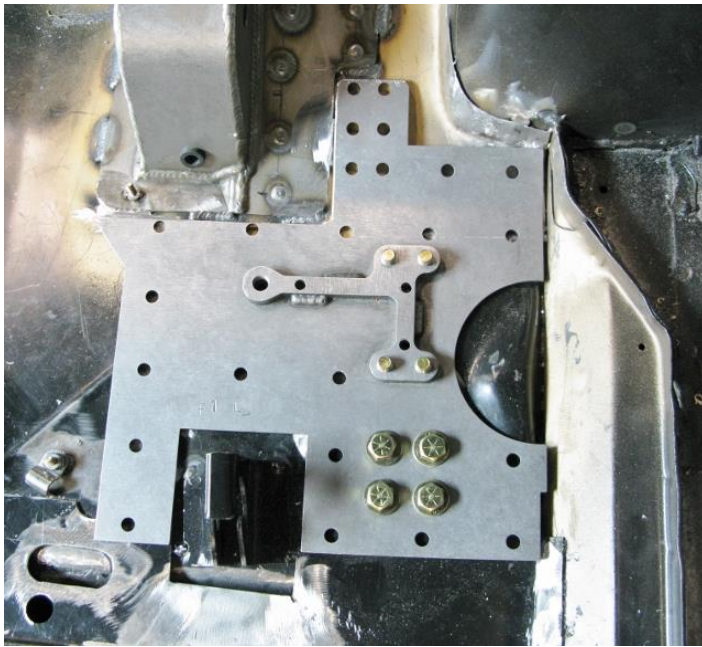


Figure 8 – Install the Spring Pocket and Floor Pan Doubler

23. Using the open slot in the DSE pocket assembly, mark the bottom of the frame rail as this slot will need to be opened up in the frame rail for the crush tube to pass through the bottom of the frame rail.
24. Remove the DSE pocket assembly and open the slot in the bottom of the frame rail for the crush tube (Figure 9).



Figure 9 – Modify Frame Rail

25. Position the frame rail crush tube in the frame rail and install the DSE pocket assembly into the vehicle. The DSE pockets will hold the crush tube in place so that it won't fall out. Install the 7/16"-14 x 4-1/4"L bolt through the bottom of the frame rail into the floor pan doubler (Figure 10 on the next page). If the bolt will not thread into the doubler plate, you may need to open up the bottom frame rail hole until the bolt will thread into the plate.

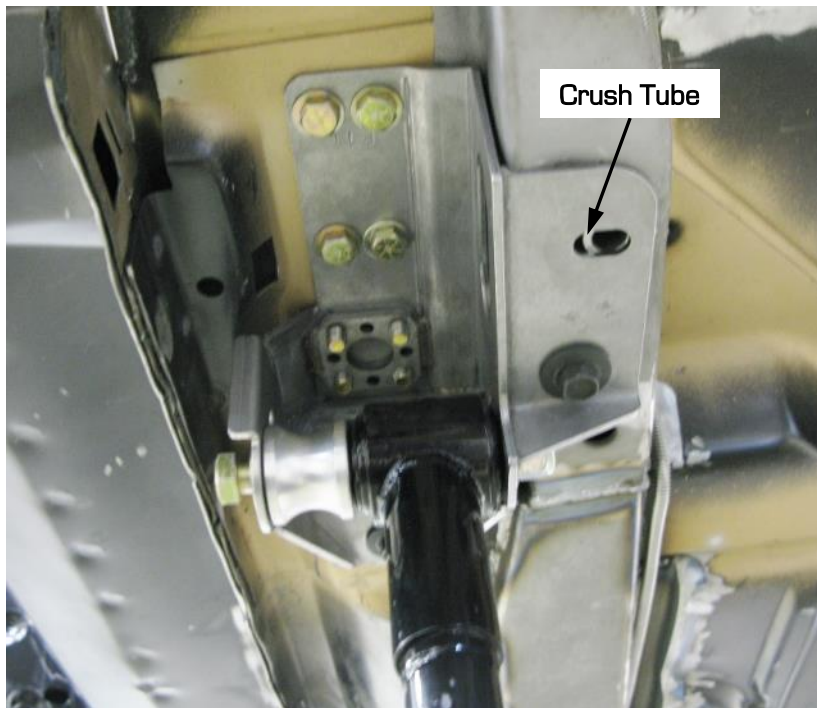


Figure 10 – Frame Rail Crush Tube

26. Install the provided 3/8"-16 x 1"L hex head bolts and the 7/16"-14 x 4-1/4"L hex head bolts. Tack weld the doubler plate to the floor pan (Figure 11).

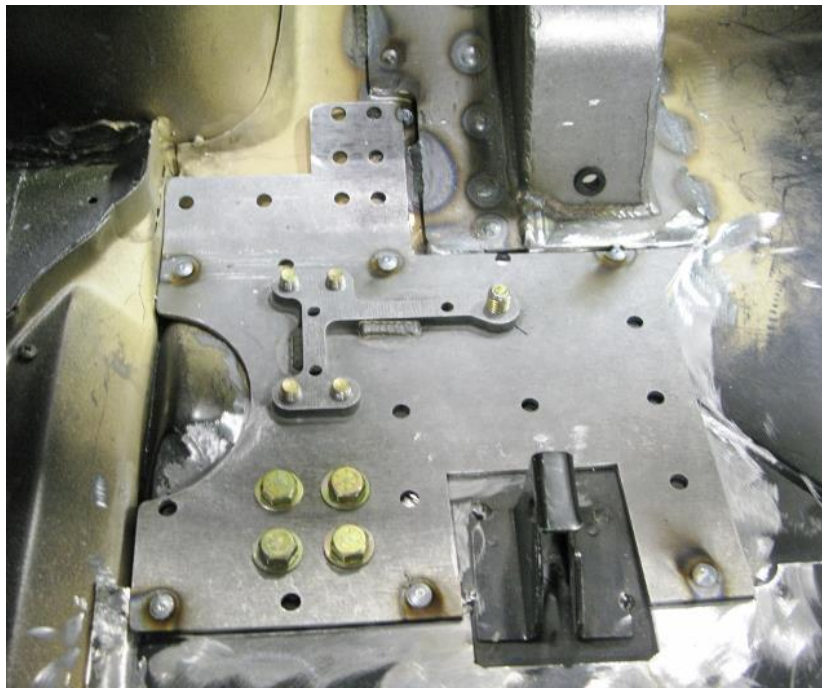


Figure 11 – Tack Weld Doubler Plate

27. Repeat steps 23-26 for the opposite side of the vehicle.
28. Mark around the perimeter of the floor pan doubler plate to stitch weld it to the floor. DSE recommends a 2" long stitch weld with a 1" gap between welds, mark the floor doubler plate accordingly.

29. Stitch weld the perimeter of the floor pan doubler plate and plug weld the pre-drilled holes to the floor pan (Figure 12). If you have installed the DSE QUADRALink you can weld the area between the upper link pocket and the floor pan doubler together. **NOTE:** You may need to adjust the rear of the doubler at the bend to fit correctly due to floor pan variation.

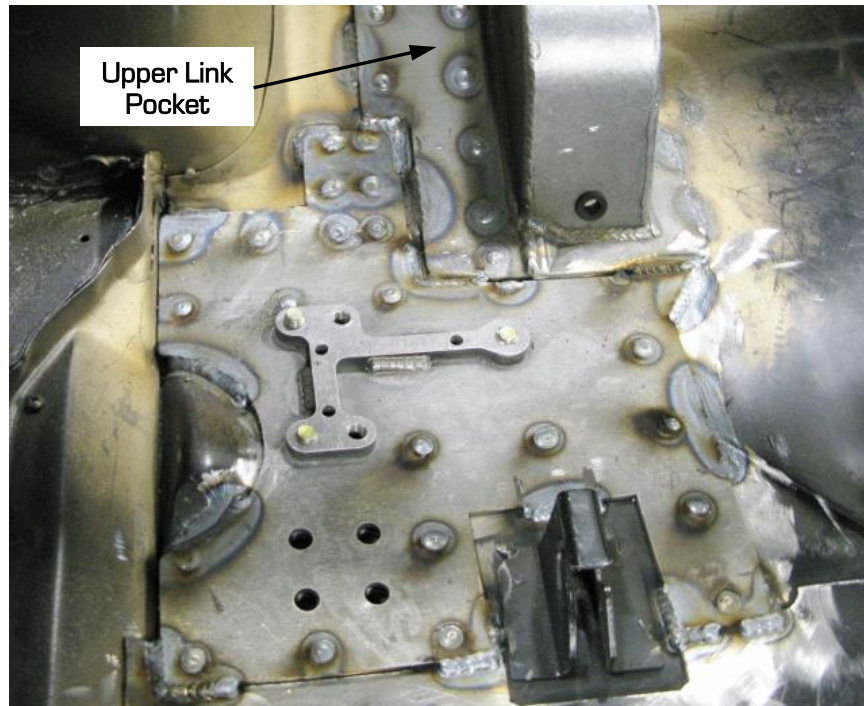


Figure 12 - Weld Floor Doubler Plate

30. Repeat steps 28 and 29 for the opposite side of the vehicle. Grind the welds smooth for a clean finish (Figure 13).

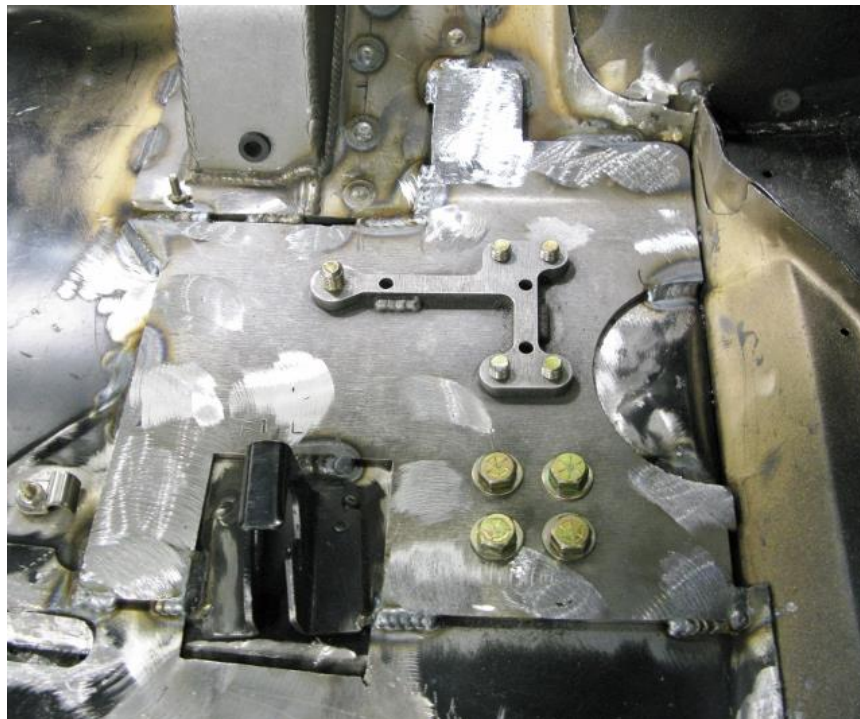


Figure 13 - Grind Welds Smooth

31. Next, remove the DSE pocket assemblies. **NOTE:** You will need to install either your leaf springs or your DSE Swivel Links into the DSE pocket assemblies before you install them into the vehicle. The bottom hole in the DSE pocket is 1" lower than the stock hole location.
32. Install the DSE pocket assemblies into the vehicle. Torque the 3/8"-16 x 1"L hex head bolts to 45 ft-lbs and the 7/16"-14 x 4-1/4"L hex head bolts to 65 ft-lbs.
33. Once the rear suspension is re-installed, and the vehicle is resting on all four tires, check that the rear axle is positioned correctly in the vehicle. It should be centered from side to side, and the wheelbase should be correct on both sides of the vehicle at 108.0".
34. Once the rear suspension is loaded with the weight of the vehicle, torque the front 1/2"-13 leaf spring eye bolts and rear shackle bolts to 90 ft-lbs. Torque the 9/16"-18 Swivel-Link bolts to 120 ft-lbs.
35. Re-install the rear interior panels, carpet padding, carpet, seats and any additional interior panels that were removed for the installation process. Re-connect the negative battery cable.
36. Check all rear clearances before driving the vehicle and make sure all hardware is tightened and has been installed with the correct torque settings.

If you have any questions before or during the installation of this product please contact Detroit Speed Inc. at tech@detroitsspeed.com or 704.662.3272

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