

Detroit Speed
Rear Cradle Mounts
2010-15 Camaro
P/N: 041510DS

Replace the weak, compliant factory rear cradle mounts in your 2010-15 Camaro with Detroit Speed’s Solid Rear Cradle Mounts, and completely eliminate undesirable wheel hop, and drivetrain oscillations caused by rear cradle movement. DSE’s Solid Rear Cradle Mounts improve the strength and rigidity of the rear vehicle structure making vehicle handling more precise and predictable. The black anodized aluminum mounts lightly press into the stock rear cradle and are secured with a threaded lock ring.



Figure 1

Item	Part Name	Quantity
1	Rear Position Cradle Mount	2
2	Rear Position Cradle Mount Locking Nut	2
3	Front Position Cradle Mount	2
4	Front Position Cradle Mount Locking Nut	2
5	Instructions	1

Installation Instructions:

1. Safely raise and support the vehicle.
2. Remove the rear wheel and tire assemblies.
3. Mark the positions of the toe link and lower control arm adjuster bolts.
4. Disconnect the brake hoses from the rear upper control arms, and then remove the rear brake calipers and brackets. Use a piece of wire or a tie strap to hang them from the vehicle structure in an out of the way location. Do not let the calipers hang unsupported from the brake hoses.
5. Remove the rear brake rotors.

6. Disconnect the rear parking brake cables.
7. Unplug the rear ABS sensors and unclip the wires from the toe links and rear cradle.
8. Loosen the exhaust clamps behind the catalytic converters and pry off the exhaust hangers on the rear exhaust section. Remove the rear section of the exhaust system.
9. Remove the rear axle hub nuts. If the nuts are staked, unstake the nut collar from the outer CV joint shaft with a hammer and chisel first.
10. Disconnect the rear sway bar end links, remove the sway bar bushing clamp bolts, and remove the rear sway bar.
11. Remove the rear toe links.
12. Remove the rear lower control arms.
13. Remove the rear trailing arms.
14. Use a pry bar to disengage the rear axle inner CV joint clips. Pull the outer CV joints out of the hubs and remove the rear axles.
15. Remove the bolts and nuts attaching the rear spindles to the rear upper control arms and remove the rear spindles.
16. Mark the driveshaft location on the rear axle pinion drive flange and disconnect the driveshaft from the rear axle.
17. Disconnect the rear axle breather hose and remove the rear axle housing from the cradle.
18. Support the rear cradle and remove the four bolts, which attach the cradle mounts to the body structure.
19. Remove the rear cradle.
20. Mark the location of the rear upper control arm bushing bolts and then remove the rear upper control arms from the cradle.
21. Locate a piece of tubing with a maximum OD of 2.9" that fits onto the small cradle mount bushings (Figure 2). Press out the small cradle mount bushings with a hydraulic press (Figure 3).



Figure 2

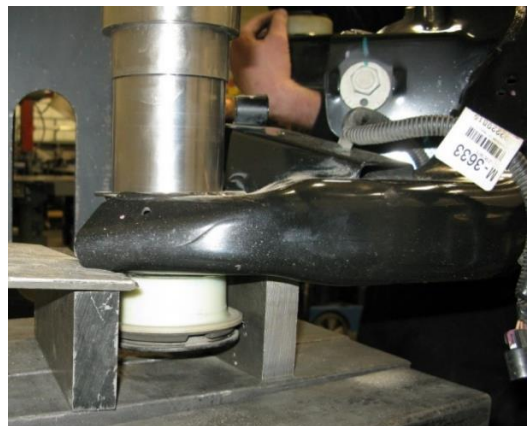


Figure 3

22. Locate a piece of tubing with a maximum OD of 3.7" that fits onto the large cradle mount bushings. Press out the large cradle mount bushings with a hydraulic press (Figure 4).

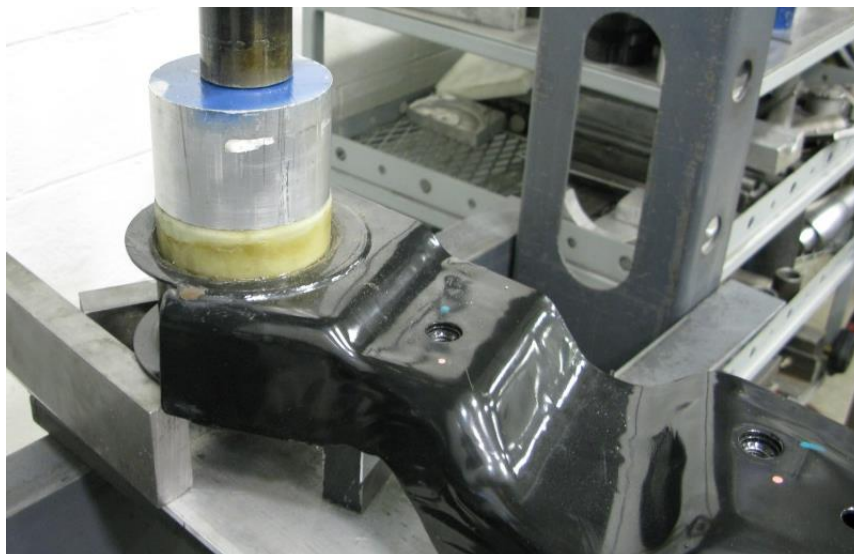


Figure 4

23. Straighten out the flanges around the cradle mount bores with a crescent wrench or suitable tool if they were bent when the original bushings were pressed out.

24. Coat the OD of the large bushings and the ID of the large cradle bores with a high quality grease. Position the bushings in the cradle and align them so the arrows on the bushings point towards the front of the vehicle. Use a straightedge to line them up with each other (Figure 5).



Figure 5

25. Locate a piece of tubing with an ID of about 4.5" and at least 1.75" long as well as a flat plate that is larger than the large DSE cradle bushings. Place the tubing under the cradle bore. Place a sheet of rubber or plastic between the plate and the mount to prevent damaging the finish and press in the large DSE cradle mount bushings (Figure 6).

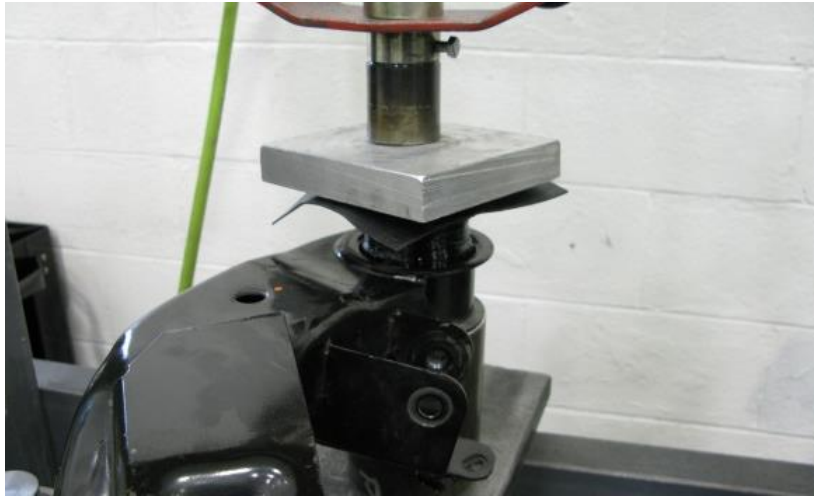


Figure 6

26. Coat the OD of the small bushings and the ID of the small cradle bores with a high quality grease. Position the bushings in the cradle and align the text to face the same direction as the large mounts. Use the alignment marks on the bushings and a straightedge to line them up with each other (Figure 7).



Figure 7

27. Locate a piece of tubing with an ID of about 3.5" and at least 1" long as well as a flat plate that is larger than the small DSE cradle bushings. Place the tubing under the cradle bore. Place a sheet of rubber or plastic between the plate and the mount to prevent damaging the finish and press in the small DSE cradle mount bushings (Figure 8 on the next page).

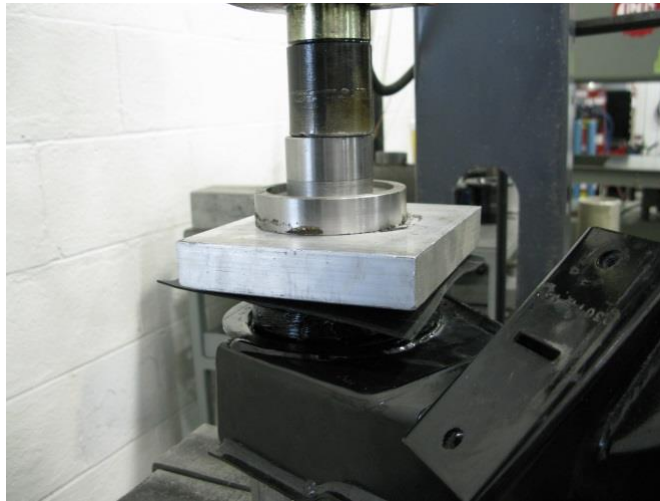


Figure 8

28. Clean any grease off of the threads of the mounts and apply medium strength threadlocker to the cradle mount threads (Figure 9). Install the mount locking rings on the mounts and tighten with suitably sized rod or drill bit (Figure 10).



Figure 9



Figure 10

29. Install the upper control arms on the cradle. Torque the upper control arm to cradle bolts to 59 ft-lbs (80 N-m) and then turn an additional 120°. Torque the upper control arm bushing to cradle bolts to 37 ft-lbs (50 N-m) and then tighten an additional 120°.

30. Position the rear cradle back under the vehicle and align the rear frame mounts to the rear locator sleeves on the body. Install the cradle mount bolts, torque to 74 ft-lbs (100 N-m) and then tighten an additional 110°.

31. Install the rear axle housing into the rear cradle. Torque the mounting bolts to 59 ft-lbs (80 N-m). Reattach the vent tube hose.

32. Reattach the driveshaft in its original orientation to the differential drive flange. On 195/218 mm axles, torque the bolts to 85 ft-lbs (115 N-m). On 250 mm axles, torque the bolts to 118 ft-lbs (160 N-m).

33. Attach the rear spindles to the upper control arms. They will be torqued in a later step.

34. Install the rear axle shafts into the axle housing and then into the spindle drive hubs.

35. Install the rear trailing arms.

36. Tighten the inboard trailing arm bolts to 74 ft-lb (100 N-m). Tighten the outboard trailing arm bolts to 30 ft-lb (40 N-m) and then rotate the bolt an additional 120°.
37. Tighten the upper control arm to spindle bolts to 44 ft-lbs (60 N-m) and then turn an additional 90°.
38. Install the rear lower control arms.
39. Tighten the inner lower control arm to cradle mounting bolts to 85 ft-lb (115 N-m). Tighten the outer lower control arm to knuckle bolts to 30 ft-lbs (40 N-m) and then turn an additional 120°. Tighten the lower shock mount bolts to 59 ft-lb (80 N-m) and then turn an additional 120°.
40. Install the rear toe links.
41. Tighten the inboard toe link bolts to 129 ft-lb (175 N-m). Tighten the outboard toe link to knuckle bolts to 103 ft-lb (140 N-m).
42. Install new rear outer CV joint axle hub nuts and torque to 199 ft-lbs (270 N-m).
43. Install the rear sway bar.
44. Tighten the rear sway bar bushing clamp bolts to 43 ft-lb (58 N-m).
45. Reattach the rear sway bar end links. If the links are mounted inboard of the shocks torque the nuts to 36 ft-lbs (49 N-m). If the links are mounted outboard of the shocks torque to 19 ft-lbs (26 N-m).
46. Install the rear section of the exhaust system.
47. Install the rear ABS sensors.
48. Reconnect the rear parking brake cables.
49. Install the rear brake rotors.
50. Install the rear brake calipers. Reattach the rear brake hoses to the upper control arms.
51. Reinstall the rear wheel and tire assemblies. Refer to the factory service manual for proper wheel torque.
52. Lower the vehicle.
53. It will be necessary to check and adjust the rear wheel alignment.

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