

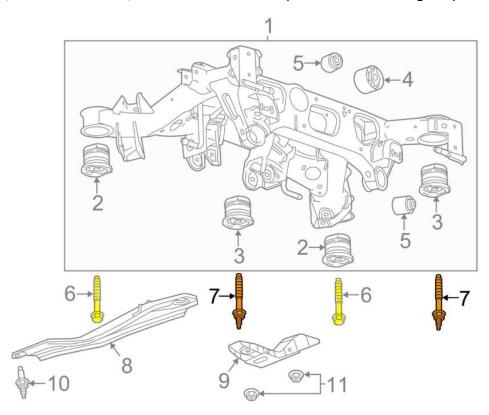
**NOTE:** While this installation can be done with a hydraulic jack and jack stands, it is most easily performed with a 2-post service lift, transmission jack, and a few extra people. At the very minimum, this is a 2-person job and can take 4-8 hours depending on tools and experience.

## **TOOLS REQUIRED:**

- Hydraulic jack and jack stands
- Sawzall
- Wrenches and sockets: 7mm, 13mm, 15mm deep, 18mm deep
- Hammer (dead blow preferably)
- Pry-bar

NOTE: <u>General Motors requires</u> that you replace the front and rear <u>main</u> cradle bolts as they are Torque to Yield bolts also known as *T.A.Y.* fasteners (Torque Angle Yield) or single use fasteners. During development and testing we have not replaced any of these bolts, your mileage may vary.

- Forward, Rear Cradle Bolts: Part # 11547921 (74ftlbs + 90-105 degrees) Shown as #6
- Rearward, Rear Cradle Bolts/Stud: Part # 11611819 (74ftlbs + 90-105 degrees) Shown in #7



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#### **INSTALLATION:**

- 1. Lift vehicle and safely support with jack stands under the rocker as shown. When positioning the jack stands, leave room to remove the cradle braces on the front of the cradle. (IMAGE 1) Make sure the car is high enough to lower the cradle to the ground.
- 2. Remove both rear wheels/tires.
- 3. Using a 15mm socket, remove the brake
  - caliper bolts. Remove the calipers from the brake rotors and hang them in the wheelwell using a piece of wire. (IMAGE 2)
- 4. The exhaust must be removed in order to drop the cradle. Start at the front and unplug the two O2 sensors shown in **IMAGE 3**.
- 5. Remove the six bolts at the front of exhaust using a 15mm socket. (**IMAGE 3**)
- 6. Using a 13mm socket, remove the two bolts that attach the exhaust bracket to the oil pan and the two nuts on the catalytic converters. Remove the bracket. **IMAGE 4**.
- 7. Move to the rear. If you have electric muffler cut-outs, unplug them back by the muffler.
  - Using a 15mm socket, remove the four bolts that attach the rear muffler hangers shown in **IMAGE 5**. Pry the remaining four rubber hangers off the "hooks" and lower the entire exhaust system then set it aside.
- 8. Using a 7mm socket or wrench remove the six small screws on the drivers' side rear quarter panel as shown in **IMAGE 6**.







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- 9. Unplug the emergency brake wires then unclip the harness so that it can drop down with the cradle. (IMAGE 7)
- 10. Using an 18mm socket, remove the three driveshaft bolts at the rear end and let the driveshaft hang. (IMAGE 8)
- 11. If you have a differential cooler, unclip the two cooling lines using a pick. Plug the hoses. (IMAGE 9)
- 12. Place the hydraulic jack under the cradle.
  Using a 15mm socket, remove the two front bolts on the cradle braces as shown in **IMAGE**10. Using an 18mm socket, remove the front main cradle bolts.
- 13. Move to the rear of the cradle and do the same. Use a 15mm socket to remove the cradle braces (one per side) and then the 18mm socket to remove the main rear cradle bolts.
- 14. Begin lowering the jack slowly. Verify that there are no wires, cables, or hoses being pulled. Lower entire assembly all the way to the ground. Remove the springs and set them aside.
- 15. Using a Sawzall with a bi-metal blade, cut the bushings out of the cradle as shown in IMAGE 11







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- 16. The easiest way to accomplish this is to force the blade through the void of the bushing and cut outward taking care not to cut into the cradle itself. Generally, cutting through the outer shell of the bushing will relieve the bushing, allowing you to knock it out with a mallet.
- 17. Once all four bushings are knocked out of the cradle, knock the BMR bushings into place using **IMAGE 12** on the following page as a reference.
- 18. Using a drill with a ½" drill bit, drill out the holes in the factory rear cradle braces as shown in **IMAGE 13** on the next page.
- 19. Lift the cradle back up into position (minus the springs) and insert the factory front bolts along with the front cradle braces. Do not tighten the bolts yet. **NOTE:** It is much easier to install the springs after the cradle is bolted in place.
- 20. On the rear bolts, assemble the provided 12mm x 140mm bolts, ¼" thick stainless spacer washers, flat washers and factor rear cradle braces as shown in **IMAGE 14**. Install the braces and hardware, then snug the bolts. Torque the main bolts to 74ftlbs on the first pass and then an additional 90-105 degrees. The torque the cradle brace to the main cradle stud at 50ftlbs.
- 21. Repeat steps 2-11 in reverse.
- 22. Remove the outer bolt on the lower control arm using an 18mm socket and 15mm wrench. Un-bolt the lower shock bolt using the same wrenches. Lower the control arm and insert the spring. Using a jack, lift the control arm back up into place and re-insert the outer bolt. Torque the main cradle bolts to 74ftlbs on the first pass and then an additional 90-15 degrees.
- 23. Then torque the front and rear cradle brace to chassis bolts to 43 ftlbs.
- 24. Re-insert the lower shock bolt and tighten it to 83 ft/lbs.







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25. Re-install wheels/tires and lower the vehicle.

# IT IS RECOMMENDED THAT YOU HAVE YOUR VEHICLE PROFESIONALLY *REALIGNED* AFTER YOUR INSTALLATION IS COMPLETE.







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