

2011+ CHEVROLET/GMC 6.6L DURAMAX ALUMINUM RADIATOR PARTS LIST AND INSTALLATION GUIDE



PARTS INCLUDED

- 1PC | ALUMINUM RADIATOR
- 1PC | MAGNETIC DRAIN PLUG W/ DOWTY SEAL
- MOUNTING HARDWARE

TOOLS NEEDED

- | | |
|------------------------------|--------------------------------|
| FLATHEAD SCREWDRIVER | HOSE CLAMP TOOL |
| PHILLIPS SCREWDRIVER | POP-CLIP PLIERS |
| 10MM SOCKET | 1/2" DRIVE RATCHET |
| 13MM SOCKET | 1 1/4" SOCKET |
| 11MM SOCKET | DRAIN PAN OR BUCKET |
| NEEDLENOSE OR LINEMAN PLIERS | HOSE PICK TOOL |
| 1/4" DRIVE RATCHET | GM-APPROVED COOLANT |
| 1/4" DRIVE 6" EXTENSION | GM-APPROVED TRANSMISSION FLUID |
| RATCHET WRENCHES | |

INSTALL TIME **4+ HOURS**

INSTALL DIFFICULTY

DISCLAIMER

- Raise vehicle only on jack stands or on a vehicle lift.
- Allow vehicle to cool completely prior to attempting installation.
- Do not run the engine or drive the vehicle while overheating; serious damage can occur.
- Please dispose of any liquids properly.
- Mishimoto is not responsible for any vehicle damage or personal injury due to installation errors, misuse, or removal of Mishimoto products.
- Mishimoto suggests that a trained professional install all Mishimoto products.

CAUTION

Never work on the cooling system when it is hot. The coolant temperature in the radiator can be considerably higher than boiling, and the system may be under pressure. Opening a cooling system that is hot or under pressure can result in serious injury. Always wait until the system has cooled completely before servicing it in any way.

NOTE

This installation requires transferring the original transmission fittings from the original radiator to the Mishimoto radiator. On high-mileage vehicles or vehicles that have operated on roadways salted during the winter, these fittings may become stuck. These transmission fittings and hoses are known to become worn and/or corroded, which can cause leaks. Be sure to check the condition of these components before removing your radiator, and replace them as needed. The radiator is a heavy component. It may be necessary to have an assistant when removing and installing this component.

INSTALL PROCEDURE

01. Remove the 10 pop-clips that attach the air diversion plate to the radiator support. Then remove the air diversion plate.
NOTE: Not applicable to all models. (10x pop-clips)



02. Disconnect the two electrical connections from the air intake box. To release the connector, depress the locking tab and pull the connector apart.
03. Loosen the clamp that attaches the intake boot to the air intake box, and remove the two screws from the corners of the intake box. (2x Phillips screws)

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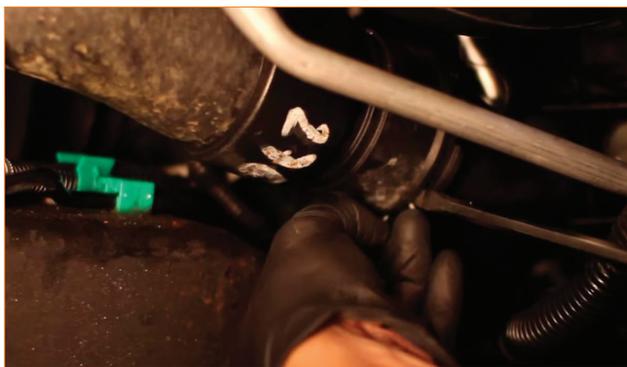
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04. Remove the intake boot from the box, then slide the upper section of the box out of the mounting tabs. Remove the upper section of the box from the vehicle.
05. Remove the air filter.
06. Remove the lower section of the intake box by pulling upward.
07. Remove the passenger-side fender liner to access the lower radiator hose. Remove the five pop-clips and six screws that attach the fender liner to the vehicle. Pull down the fender liner, and disconnect the wiring harness from the fender liner by prying it free. Remove the fender liner from the vehicle. (5x pop-clips, 6x 7mm screws)



08. Place a drain pan beneath the lower radiator hose. Remove the quick-disconnect clip from the lower radiator hose where it attaches to the radiator. Slowly slide the radiator hose off the radiator. There is a lot of coolant in this system, so work slowly and have additional buckets ready to capture all the coolant. (1x quick-disconnect clip)



09. Remove the upper radiator hose by squeezing the clamp and sliding it up the hose. Then slide the hose off the radiator inlet. Tuck the hose back and tie it out of the way. This hose should be empty, but there may be some residual coolant.



10. Remove the coolant overflow hose from the radiator, and tuck it out of the way.



11. Remove the three tree-clips that secure the battery cable to the upper fan shroud. (3x tree-clips)
12. Disconnect and remove the connector for the transmission control module on the upper fan shroud. To do this, pull back on the latch, then slide the connector off the module.



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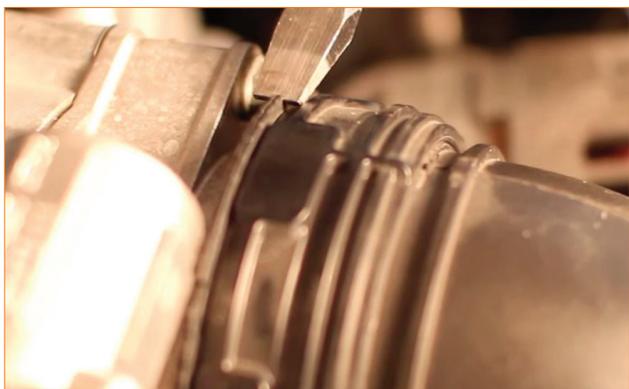
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13. Remove the six pop-clips from the upper fan shroud. There are two along the upper edge of the shroud and two on each side, where the upper and lower portions of the shroud are joined. (6x pop-clips)
14. Unlock the clip for the AC line and move the line out of the way.



15. Remove the upper fan shroud by lifting it straight up.
16. Disconnect the lower fan shroud from the radiator tabs by pulling it up and away from the radiator on each side. Leave the shroud in the engine bay.
17. Loosen the clamp for the hot-side intake pipe at the intercooler, and remove the intake pipe. (1x 11mm nut)
18. Remove the cold-side induction pipe from the intercooler by releasing the locking ring at the edge of the pipe, using a flathead screwdriver to turn the ring. The pipe will disengage and can then be removed from the intercooler. The position of the locking ring and confined space that the pipe occupies can make removal difficult. It may be helpful to have a friend hold the locking ring in position while you remove the hose.



19. Position an oil drain pan beneath the radiator, where the transmission lines are attached. Remove both transmission lines by pulling back the dust boot and using a pick or similar tool to remove the E-clips from the fitting. The clips are quite small and easy to lose, so be very careful here. Once the clips are removed, the lines can be pulled out of the fittings. (2x E-clips)



20. Remove the four bolts that secure the radiator to the intercooler. (4x 13mm bolts)
21. Remove the radiator from the vehicle by tilting it back slightly and lifting straight up. This radiator is heavy, so it's a good idea to have a friend help you. Take care to avoid bending the fins on the intercooler.
22. Drain any remaining coolant from the old radiator.
23. Using a 1 1/4" socket, remove the transmission fittings from the original radiator. Install these fittings on the Mishimoto radiator, or install new fittings.
24. Tighten the drain plug on the Mishimoto radiator.
25. Install the Mishimoto radiator. This radiator is heavy, so get a friend to help.
26. Secure the radiator to the intercooler using the four original bolts. (4x 13mm bolts)
27. Install the lower fan shroud on the Mishimoto radiator by lifting it upward and sliding it into the tabs on the radiator.
28. Install the transmission lines and secure them with E-clips. Tug on the transmission lines to make sure they are fully seated and locked in, then install the dust boots over the fittings. (2x E-clips)

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29. Connect the cold-side pipe to the intercooler, and engage the locking ring.
30. Connect the hot-side pipe to the intercooler, and tighten the clamp. (1x 11mm clamp)
31. Install the upper fan shroud, and secure it with the six original pop-clips. (6x pop-clips)
32. Slide the AC line back into place, and secure it with the clip.
33. Reconnect the transmission control module by sliding the connector onto the module, and then locking it with the lever.
34. Secure the battery cable onto the fan shroud using the three original tree-clips. (3x tree-clips)
35. Install the coolant reservoir hose and upper radiator hose. Secure them with the original clamps.
36. Install the lower radiator hose. Secure the quick-disconnect fitting with the original clip. (1x quick-disconnect clip)
37. Install the passenger-side fender liner. Connect the wiring harness to the fender liner using the integrated tree-clips. Move the fender liner into place, and secure it with the original hardware. (5x pop-clips, 6x 7mm screws)
38. Install the lower section of the air intake box by aligning the pins and pushing it into place. Then install the air filter.
39. Slide the upper section of the intake box into the intake boot, but do not tighten the clamp yet.
40. Slide the upper section of the air intake box into the locking tabs. Secure the box with two Phillips screws, and tighten the clamp on the intake boot. (2x Phillips screws)
41. Install the two electrical connectors that you removed earlier. They should make an audible click when fully seated.
42. Install the air diversion plate, and secure it with pop-clips. (10x pop-clips)
43. Fill the system with premixed, GM-approved coolant through the reservoir cap, start the engine, and allow it to idle with the cap off. Turn the heater-control valve on the vehicle's HVAC unit to full hot, and set the fan to low speed. Monitor the engine temperature and coolant level in the reservoir. Add coolant

as needed to maintain a proper level in the reservoir, and check your connections for leaks. If the vehicle begins to overheat or coolant starts to overflow from the reservoir, shut off the engine and allow it to cool completely before continuing.

44. Restart the engine. Once it has warmed up to operating temperature, park it on level ground and check the level and condition of the transmission fluid. Top off as needed with GM-approved transmission fluid. Refer to your owner's manual for instructions on checking the transmission fluid level if you are unsure.
45. Test drive the vehicle and monitor engine temperatures. If the vehicle begins to overheat, air may still be trapped in the system. Shut off the engine and wait for the vehicle to cool off, then repeat the bleeding procedure above. Remember that the cooling system is under pressure; never open it while the vehicle is hot.

Congrats! You just finished installing the 2011+ Chevrolet/GMC 6.6L Duramax Aluminum Radiator.



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