

#### **PARTS INCLUDED**

- 1PC Mishimoto Radiator
- 1PC Magnetic Drain Plug
- **2PC** Transmission Cooler Fittings
- **1PC** M6 x 1.0 16mm Bolt
- **3PC** M6 x 1.0 14mm Bolts
- 4PC M6 x 1.0 12mm Bolts
- **3PC** M6 Flat Washers

#### **TOOLS NEEDED**

8mm Socket

10mm Socket

13mm Socket

10mm Wrench

T30 Torx

1/4" Drive Ratchet & Extension

Flathead Screwdriver

Pop Clip Removal Tool

**Hose Clamp Compression Tool** 

### INSTALL TIME 3.5 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.

#### **INSTALL PROCEDURE**

 Remove the top shroud covering the radiator. (4x pop-clips)



 Four bolts hold up the front grille. Unscrew those bolts and lift the front grille from the vehicle. (4x 10mm bolts)



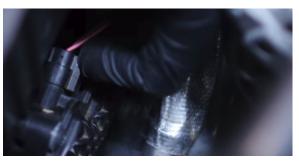
3. Remove the bolt holding the airbox in place. (1x 13mm bolt)



- 4. Separate the top portion of the airbox from the bottom. (8mm screws or plastic clips)
- 5. Separate the intake hose from the airbox. (1x worm gear clamp)
- 6. Disconnect the electrical harness adjacent to the airbox. To disconnect the harness, depress the black tab at the center.

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- 7. Lift the airbox up and out of the vehicle.
- 8. Disconnect the AC condenser lines from the radiator and frame. (1x 10mm bolt, 1x pop-clip)



9. Separate the front shrouding on the driver side of the radiator. (3x pop-clips, 1x 10mm bolt)



10. Feed a hose past the driver side of the radiator. Then, attach the one end to the radiator drain valve.



- 11. Place a bucket underneath the open end of the hose. Loosen the drain plug using a 16mm wrench and completely drain the system. Remove the filler cap to expedite the draining process.
- 12. Remove the front shrouding on the passenger side of the radiator. (3x pop-clips, 1x 10mm bolt)
- 13. Free the intake's ram air scoop. (1x 13mm bolt, 1x pop-clip)



14. Loosen the AC condenser from the plastic bracket on the passenger side. Then, slide the condenser over to separate it from the tabs on the opposite side bracket. Let the condenser rest in place. (3x 13mm bolts)



15. Remove the plastic bracket that was formerly securing the AC condenser on the driver side. (2x 13mm bolts, 2x 10mm bolts, 1x pop-clip)



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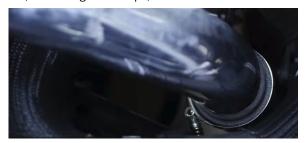
 Remove the driver-side radiator shrouding. (3x pop-clips)



17. Compress the clamp securing the top radiator hose to the radiator, and slide the clamp down the hose. Then, separate the hose from the port on the radiator. (1x spring clamp)



18. Loosen the clamps securing both ends of the hot-side intercooler pipe. Lift the pipe up through the engine bay to remove it.(2x worm gear clamps)



- 19. Compress the clamp securing the bottom radiator hose to the radiator, and slide the clamp down the hose. Then, separate the hose from the port on the radiator. (1x spring clamp)
- 20. Remove the bolts at the back of the radiator that secure the top. (2x 13mm bolts)



21. Two bolts hold the transmission cooler in place.Remove these bolts, along with the mounting bolt connecting the cooler to the radiator.(3x 10mm bolts)



22. Slide the transmission cooler over to get the tabs out from behind the radiator bracket.



23. Pull the rubber bushings off the radiator brackets.



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24. Compress the clamp that secures the smaller hose to the top port on the radiator and separate the hose from the port. (1x spring clamp)



- 25. Remove the passenger-side radiator shrouding. (2x pop-clips)
- 26. Separate the fan shroud from the radiator, and lift out the front portion of the fan shroud. (4x T30 Torx screws)



- 27. Lift the radiator out of the engine bay.
- 28. Empty any access coolant out of the radiator.
- 29. Transfer the rubber isolator bushings from the stock radiator to the Mishimoto one.



30. Lower the Mishimoto Radiator into the engine bay. Watch for the AC lines and be sure to engage the rubber isolator bushings on the bottom with the crash bar. For older models, connect the

- intake transmission cooler after the radiator is lowered in.
- 31. Slide the transmission cooler tabs into the brackets on the radiator.
- 32. Secure the transmission cooler to the radiator using the original hardware. (2x 10mm bolts)
- 33. Attach the bottom clip that holds part of the cooler line. (1x 10mm bolt)
- 34. Install the top isolator bushings you removed earlier from the stock radiator onto the Mishimoto radiator.
- 35. Secure the top of the radiator to the frame with the original hardware. (2x 13 mm bolts)
- 36. Reinstall both support brackets that hold the AC condenser. (2x 13mm bolts)
- 37. Secure the AC condenser to the brackets. (2x 13mm bolts)
- 38. Reinstall the shrouding that goes over the power-steering lines. (3x pop-clips)
- 39. Use the provided hardware from your kit to install the plastic fan shrouding to the back of the radiator. (4x 10mm bolts)
- 40. Install the lower radiator hose to the Mishimoto radiator. (1x spring clamp)
- 41. Next, install the upper radiator hose to the Mishimoto radiator. (1x spring clamp)
- 42. Install the smaller radiator hose to the top valve port. (1x worm gear clamp)
- 43. Reinstall the passenger-side shrouding. (3x pop-clips, 1x 10mm bolt)
- 44. Reinstall the driver-side shrouding. (3x pop-clips, 1x 10mm bolt)
- 45. Reinstall the hot-side intercooler pipe. Feed the pipe in at an angle, under the AC and electrical lines, before repositioning it to connect to the correct ports. (2x worm gear clamps)
- 46. Secure the top and back of the intake ram air scoop. (1x 13mm bolt, 1x pop-clip)
- 47. Secure the AC condenser line to the hot-side pipe. (1x 10mm bolt)
- 48. Set the other AC condenser line on the top of the radiator. (1x pop-clip)

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- 49. Lower the airbox into its original position and secure it with the original bolt. (1x 13mm bolt)
- 50. Reconnect the electrical harness for the airbox.
- 51. Reinstall the top of the airbox and connect the filter to the intake hose.(1x worm gear clamp, 2x 8mm crews or plastic clips)
- 52. Reinstall the grille. (4x 10mm bolts)
- 53. Reinstall the top shroud that covers the radiator. (4x pop-clips)
- 54. Fill the cooling system with premixed, manufacturer-approved coolant, 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 put the fan on low. Monitor the engine temperature and coolant level in the reservoir. Add coolant as needed to maintain 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 before continuing. Once the vehicle is fully warmed up and the coolant level has stabilized, allow the vehicle to cool off completely, and then top off the coolant level. Coolant level should be checked once more after putting in some miles.

Congratulations! You have finished installing the Mishimoto 2013+ Dodge 6.7L Cummins Performance Aluminum Radiator.