2011+ FORD 6.7L POWERSTROKE ALUMINUM PRIMARY RADIATOR

PARTS LIST AND INSTALLATION GUIDE

PARTS LIST

1PC | MISHIMOTO RADIATOR

1PC | MAGNETIC DRAIN PLUG W/DOWTY OIL SEAL

4PC | M6 X 1.0 X 16MM BOLTS

12PC | BLACK PLASTIC TREE CLIPS

TOOLS NEEDED

8MM RATCHET WRENCH 10MM RATCHET WRENCH 1/4" DRIVE RATCHET 1/4" DRIVE 6" EXTENSION 9/32" SOCKET 8MM SOCKET 10MM SOCKET 13MM DEEP SOCKET 3/8" DRIVE RATCHET 3/8" DRIVE 6" EXTENSION
PICK
NEEDLE-NOSE PLIERS
POP-CLIP PLIERS
FUNNEL
FORD-APPROVED COOLANT

DIFFICULTY LEVEL: 4/5
INSTALL TIME: 4 HOURS

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.

INSTALLATION INSTRUCTIONS

01 | REMOVING THE STOCK SECONDARY RADIATOR

1. Remove the pop clip that secures the plastic driver-side vent to the front of the grille. $\{1x \text{ pop clip}\}$



- 2. Remove the four 10mm bolts from the top of the grille.
- 3. Unseat and remove the grille from the front of the truck.
- **4.** Remove the four 10mm bolts that secure the headlight assembly to the truck. Do this for each headlight. Proceed to disconnect the wiring harnesses on the back of each assembly and remove the headlights. (Total of 8x 10mm bolts)



5. Remove the lower grille bracket. Remove 1x pop clip, 4x 13mm bolts (two on each side), and 2x 10mm bolts (one on each side). Unclip the bracket by pulling outward on the tabs located on the upper part of the mount.



- **6.** You are now ready to drain the secondary radiator. Remove the pop clip holding the rubber shroud in place (1x pop clip). TIP: If you have spare 1/4" hose lying around, attach it to the drain plug nipple. This will make clean-up much easier.
- **7.** Loosen the drain plug. Be sure to have an empty bucket or drain pan handy.
- **8.** You can now drain the primary radiator. You will need a couple buckets or drain pans, as this radiator holds a significant amount of coolant
- **9.** Remove the bolts to the bracket for the transmission cooler. (2x 10mm bolts)

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01

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INSTALL ATION GUIDE

10. Undo the hood release cable using a pick tool. [Note: The pick tool will allow you to undo the tabs located on the side of the black plastic cable housing]



- 11. Remove the cable tie. (1x cable tie)
- 12. Remove the hood light switch. (1x 10mm bolt)



- 13. Remove the radiator stays. (4x 10mm bolts)
- **14.** Remove the two 13mm bolts on top of the radiator support. (one on each side)
- 15. Disconnect the horn assembly.
- **16.** You may now remove the upper radiator support. To do this, you will need to lift up on both sides and rotate the support outward from the radiator mounts.
- $\bf 17.$ Remove the pop clips securing the black rubber flap onto the front of the truck. (2x pop clips)
- 18. Loosen the worm-gear clamp on the crossover pipe.
- 19. Remove the two clips for the quick disconnects on the secondary radiator. Note: Your pick tool will help to pull these small metal brackets outward. Have a bucket handy, as there is sure to be residual fluid in the cooling system.
- **20.** Wrap the transmission cooler in a shirt or towel and disconnect the crossover pipe. You can let the pipe rest on the bumper for the time

being.

- **21.** Undo the line tie that holds the transmission cooler line onto the front of the AC condenser.
- **22.** Remove the two remaining pop clips holding the rubber flap on the passenger side of the secondary radiator.
- 23. Remove the bolts holding the AC condenser to the secondary radiator. [2x 8mm bolts]
- **24.** Using pliers, remove the hose clamp and hose from the front of the secondary radiator.
- **25.** Unseat the AC condenser and rest it on the bumper. (Tip: Lay a towel or mat on the bumper for protection.)
- 26. Remove the passenger-side rubber flap.
- 27. Using pliers, disconnect the three remaining hoses on the back of the secondary radiator (there are two on the passenger side and one on the driver's side).
- **28.** Remove the bolts holding the secondary radiator to the primary radiator (4x 8mm bolts).
- **29.** You may now remove the secondary radiator from the truck. (Note: This is a large radiator, so we recommend having someone help you to remove it.)

02 | REMOVING THE STOCK PRIMARY RADIATOR

1. Remove the overflow hose from the radiator.



- 2. Remove the clip and lower radiator hose using your pick tool.
- 3. Unclip the hose from the primary radiator.
- 4. Remove the fan shroud bolts (4x 8mm bolts).
- 5. Unseat both sides of the fan shroud from the back of the primary radiator.
- **6.** You may now remove the primary radiator from the truck. (Note: This radiator is even larger than the secondary radiator. We recommend having someone help you remove it from the truck)

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02

2011+ FORD 6.7L POWERSTROKE ALUMINUM PRIMARY RADIATOR

INSTALLATION GUIDE

03 INSTALLING THE MISHIMOTO PRIMARY RADIATOR

- 1. Swap the two rubber grommets located on the top of the stock radiator to the Mishimoto radiator.
- **2.** Swap the two lower grommets from the stock radiator to the Mishimoto radiator.
- **3.** Swap the eight nut-clips from the stock radiator to the Mishimoto radiator. There are four on each side.
- **4.** Remove the six pop clips and rubber hood gasket from the stock radiator and install onto the Mishimoto radiator. (Note: The stock pop clips have a tendency to break, so please use the provided hardware.)
- **5.** You may now place the Mishimoto primary radiator into the truck.
- 6. Reseat the fan shroud onto the radiator.
- 7. Reinstall the bolts for the fan shroud. (4x 8mm bolts)
- **8.** Reinstall the upper and lower radiator hose. [Note: Before connecting the hoses, clamp the quick-connect brackets down. You will hear a click when the hoses are installed correctly.]
- 9. Reinstall the overflow hose.
- 10. Reinstall the secondary radiator.
- 11. Reinstall the secondary radiator mounting bolts. [4x 8mm bolts]
- 12. Reinstall the three secondary radiator hoses.
- 13. Reinstall the passenger-side rubber gasket.
- 14. Reinstall the bolts for the AC condenser. (2x 8mm bolts)
- **15.** Reinstall the radiator hose that goes to the secondary radiator thermostat housing.
- 16. Reinstall the crossover pipe.
- 17. Reinstall the clamp on the crossover pipe.
- **18.** Refasten the transmission cooler line and reattach the driver-side rubber flap. [2x pop clips]
- **19.** Route the horn harness so that it is resting on top of the secondary radiator. This will avoid the need to fish the connection out later on.
- 20. Reinstall the upper radiator support.
- 21. Reconnect the horn harness.
- 22. Reinstall the upper radiator support bolts. (2x 13mm bolts)
- 23. Reinstall the radiator stays. (2x 10mm bolts)
- 24. Reinstall the hoodlight switch. (1x 10mm bolt)
- 25. Reinstall the transmission cooler hold-down bolts. (2x 10mm bolts)
- 26. Reinstall the hood release cable and mounting clip
- 27. Reinstall the hood release mounting bracket.
- **28.** Reinstall the lower grille bracket. (4x 13mm bolts, 2x 10mm bolts) Be sure that the mounting clips are properly secured.
- 29. Reinstall the headlights.

- **30.** Reinstall the front grille. (1x pop clip, 4x 10mm bolts).
- **31.** Refill the coolant system with a 50/50 mixture of coolant and distilled water
- 32. Refill the secondary radiator with a 50/50 mix as well.
- **33.** Once the system is filled, turn the heat on high and start the truck. Bring the truck up to operating temperature and check for any leaks. Top off the coolant if needed.
- **34.** You have now successfully installed the Mishimoto 2011+ Ford 6.7L Powerstroke Aluminum Primary Radiator. Enjoy!