



## advanced FLOW engineering

Manual P/N: 46-52001

Make: Jeep Model: Wrangler JK Year: 2007-2018 Engine: V-6 3.8L / 3.6L



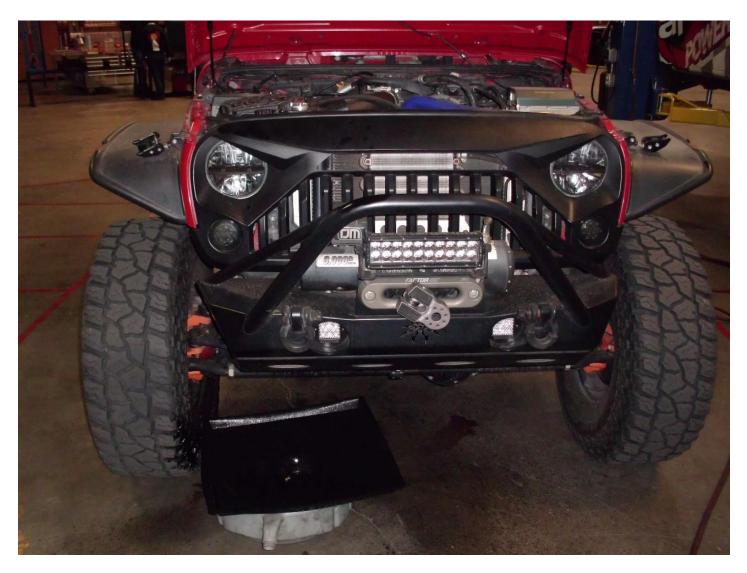
- Please read the entire instruction manual before proceeding.
- Ensure all components listed are present.
- Ensure you have all necessary tools before proceeding.
- Do not attempt to work on your vehicle when the engine is hot.
- Disconnect the negative battery terminal before proceeding.
- Retain factory parts for future use.

Label	Qty.	Description	Part Number
А	1	Radiator, Tube & Fin	05-60873
В	1	Screw, Hex Hd: M6x1x12	03-50032
С	12	Screw, Hex Hd: M6x1x16	03-50052
D	13	Washer, M6	03-50070
E	1	Tubing, PCV Clear	03-50583
F	1	Trim, Rubber Edge: 1/16"	05-00149

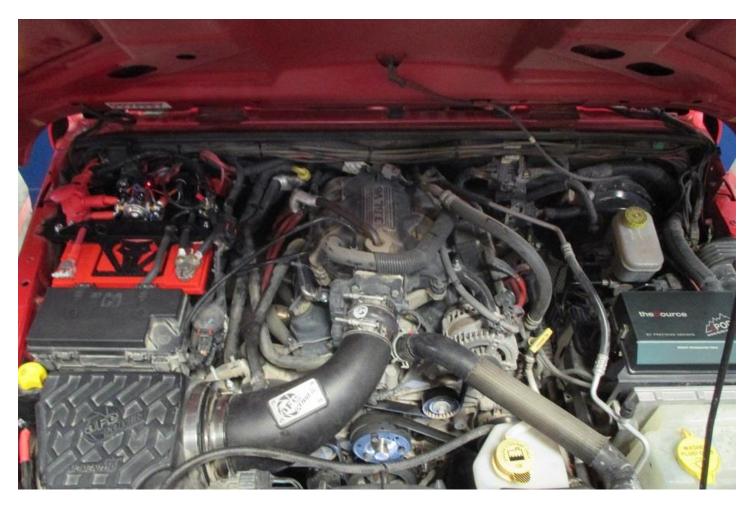
**Tools Needed:** Screwdrivers, long extension, ratchet, 8mm socket, 10mm socket, 11mm socket, 13mm socket, 15mm socket, 10mm wrench, 14mm wrench, thread sealant, pliers, panel popper.

## aFe are proud to offer a high quality product at the industries most competitive pricing!



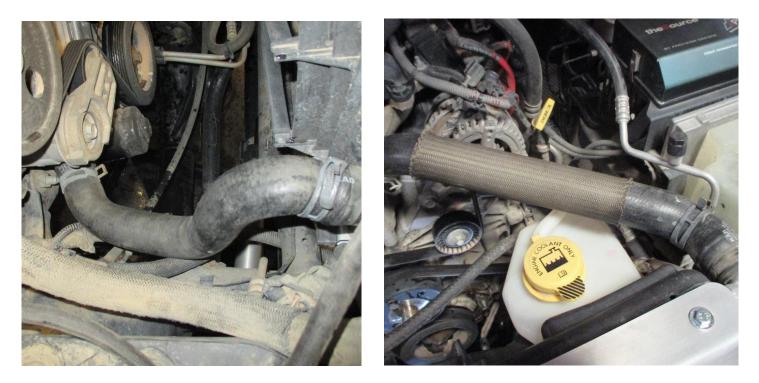


- 1. Park vehicle on level ground and engage the parking brake.
- 2. Open the hood.
- Disconnect negative battery cable.
  Locate the petcock on your radiator.
- Open the petcock and begin draining coolant into a drain pan.
  Remove radiator cap and drain remainder of coolant from system.



## Note: If there is an aftermarket winch on the vehicle, the front bumper and winch may need to be removed in order to remove the grille.

- 7. Remove the six (6) clips securing the grille to the vehicle.
- 8. Disconnect the front turn signals from the grille then, remove the grille.
- 9. Remove the four (4) clips securing the plastic radiator cover to the vehicle.
- 10. Disconnect the air temperature sensor and the breather hose from the intake tube.
- 11. Remove the intake tube and air box lid from the vehicle.

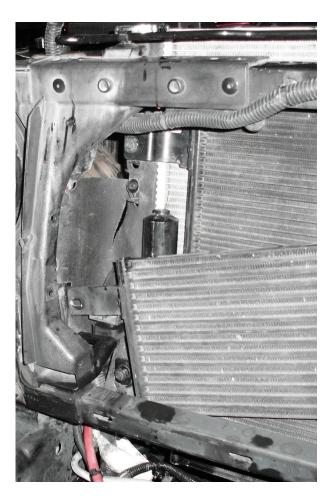


12. Using pliers to squeeze the hose clamps, slide the radiator hose clamps back down the hose.

13. Remove both radiator hoses from the vehicle.

14. Disconnect the overflow hose from the radiator and remove the overflow bottle from the vehicle.

15. Disconnect the large radiator fan connector from the engine harness.





- 16. Remove the two (2) bolts that secure the radiator to the vehicle using a 10mm socket.
- 17. Remove the bolt securing the A/C lines to the side of the radiator behind the driver side headlight using an 8mm socket.
- 18. Remove the two (2) clips securing the rubber air deflectors to the core support on both sides using a panel popper.
- 19. Remove the five (5) bolts securing the A/C condenser and transmission cooler to the front of the radiator using an 8mm socket.
- 20. Carefully lift the radiator from the vehicle.

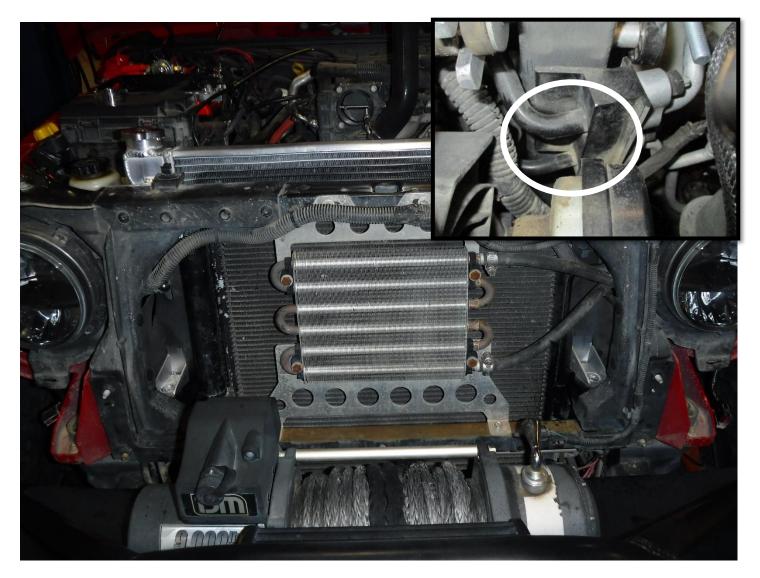


- 21. Transfer the grommets from the front mounting pins on the factory radiator to the supplied aFe radiator.
- 22. Transfer the top mount grommets from the factory radiator to the aFe radiator.
- 23. Transfer the rubber air deflectors from the factory radiator to the aFe radiator.

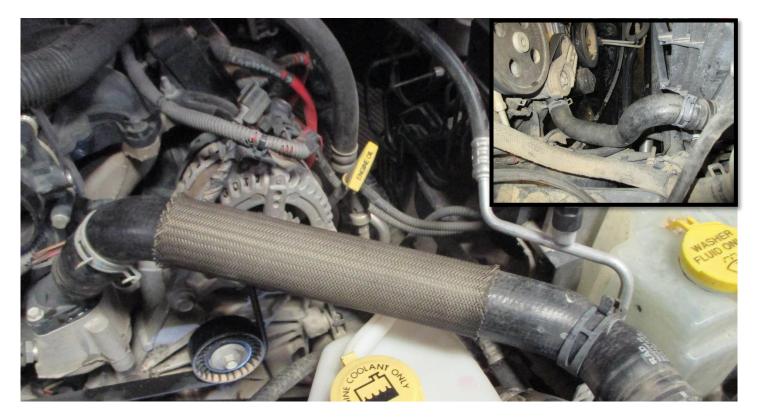




- 24. Remove the two (2) bolts securing the fan assembly to the factory radiator, using an 8mm socket. Separate the fan assembly from the radiator.
- 25. Mark fan assembly to trim the bottom of it to be flush with the sides of the fan assembly (approximately ¼"), see photos above.
- 26. Trim the fan assembly.
- 27. Test fit the fan assembly onto the aFe radiator to make sure enough plastic was trimmed off.
- 28. Install the supplied rubber trim onto the bottom of the fan assembly and trim excess if needed.



- 29. Install the aFe radiator into the vehicle. Do not position it into the mounting location yet.
- 30. Mount the A/C condenser and transmission cooler onto the front of the radiator with five (5) of the supplied M6 x 1.0 x 16mm bolts and M6 washers. Tighten using a 10mm socket.
- 31. Slide the factory mounting bolts into the top mounting grommets on the aFe radiator and tighten the radiator to the core support using a 10mm socket.
- 32. Use the supplied M6 x 1.0 x 12mm bolt with an M6 washer to mount the A/C lines to side of the aFe radiator behind the driver side headlight. Tighten using a 10mm socket.
- 33. Secure the front air deflectors to the core support using the factory clips.
- 34. Install the fan assembly into the vehicle and tighten using two (2) of the M6 x 1.0 x 16mm bolts and M6 washers with a 10mm socket.
- 35. Reconnect the electric fan connector to the engine harness.



36. Install the overflow bottle back into the vehicle and connect the overflow hose to the aFe radiator. 37. Install the factory hoses and clamps into the vehicle.

38. Using pliers to squeeze the hose clamps, slide the radiator hose clamps back into place.



- 39. Install the intake system back into the vehicle.
- 40. Reconnect the temperature sensor and breather hose.
- 41. Be sure the petcock is closed by turning the t-handle clock-wise. Install the supplied clear hose onto the end of the petcock and tuck out of the way.
- 42. Reconnect negative battery cable.
- 43. Use the proper Chrysler coolant refill procedure to be sure that all the air gets out of the system when refilling the coolant.
- 44. Top off coolant in the radiator and fill overflow bottle to the max line and install the supplied radiator cap.
- 45. Install the grille onto the vehicle and reconnect the front turn signals.
- 46. Secure the grille with the factory clips.

## Install winch and front bumper if they were removed.

- 47. Test drive vehicle.
- 48. Let vehicle cool down then check coolant levels, top off if needed.
  - Install is now complete!