



advanced FLOW engineering

Instruction Manual P/N: 46-52131

BladeRunner – Street Series Radiator

Make: Ford

Model: F-250/350

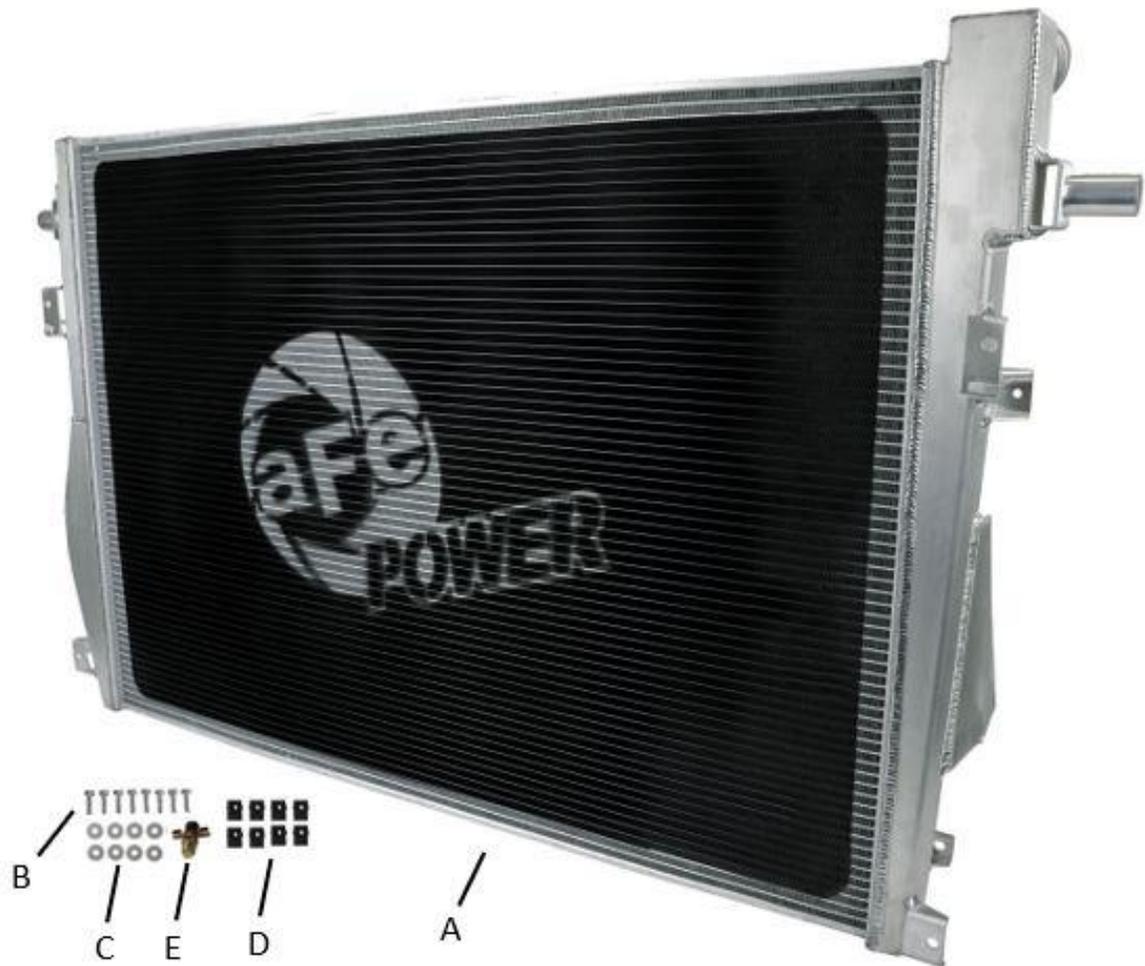
Year: 2011-2016

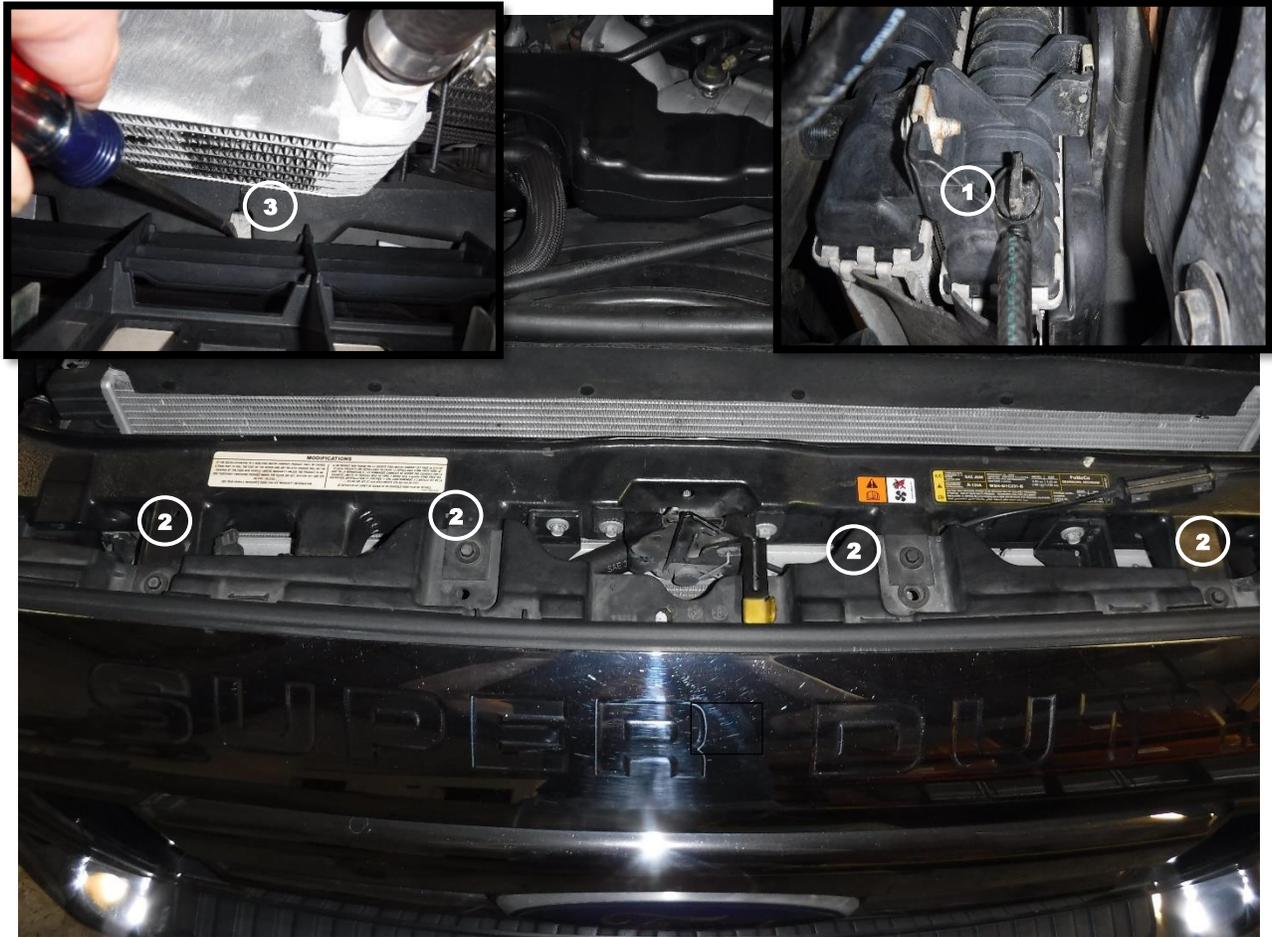
Engine: V8-6.7L (td)



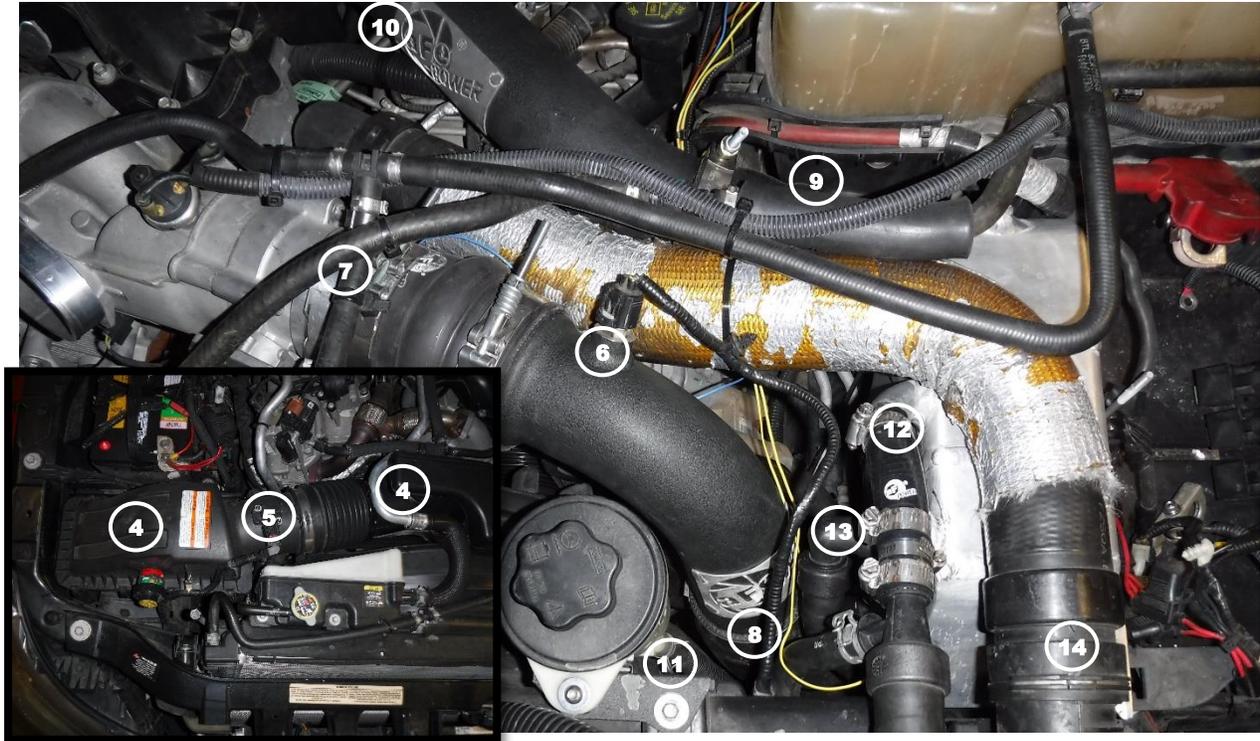
- Please read the entire instruction manual before proceeding.
- Ensure all components listed are present.
- If you are missing any of the components, call customer support at 951-493-7100.
- Ensure you have all necessary tools before proceeding.
- Ensure that your vehicle is cooled off before proceeding.
- Retain factory parts for future use.

Label	Qty.	UoM	Description	Part Number
A	1	Ea.	Radiator, Tube and Fin: 46-52131	05-60985
B	8	Ea.	Screw, Hex Hd: M6x1.0x30	03-50127
C	8	Ea.	Washer, Fender: 1/4" (1" OD)	03-50074
D	8	Ea.	Clip Nut, M6	03-50414
E	1	Ea.	Valve, Drain	03-50579

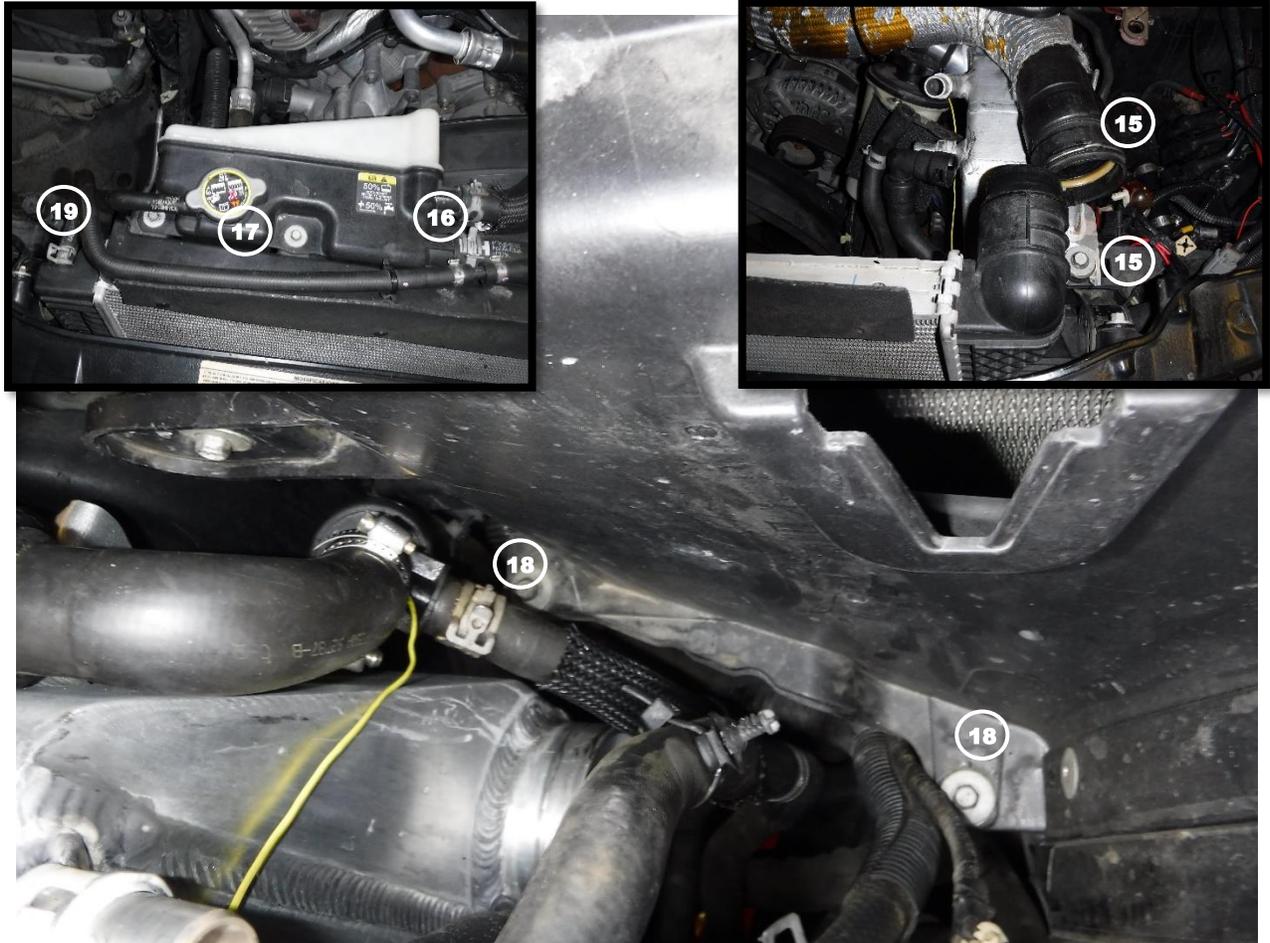




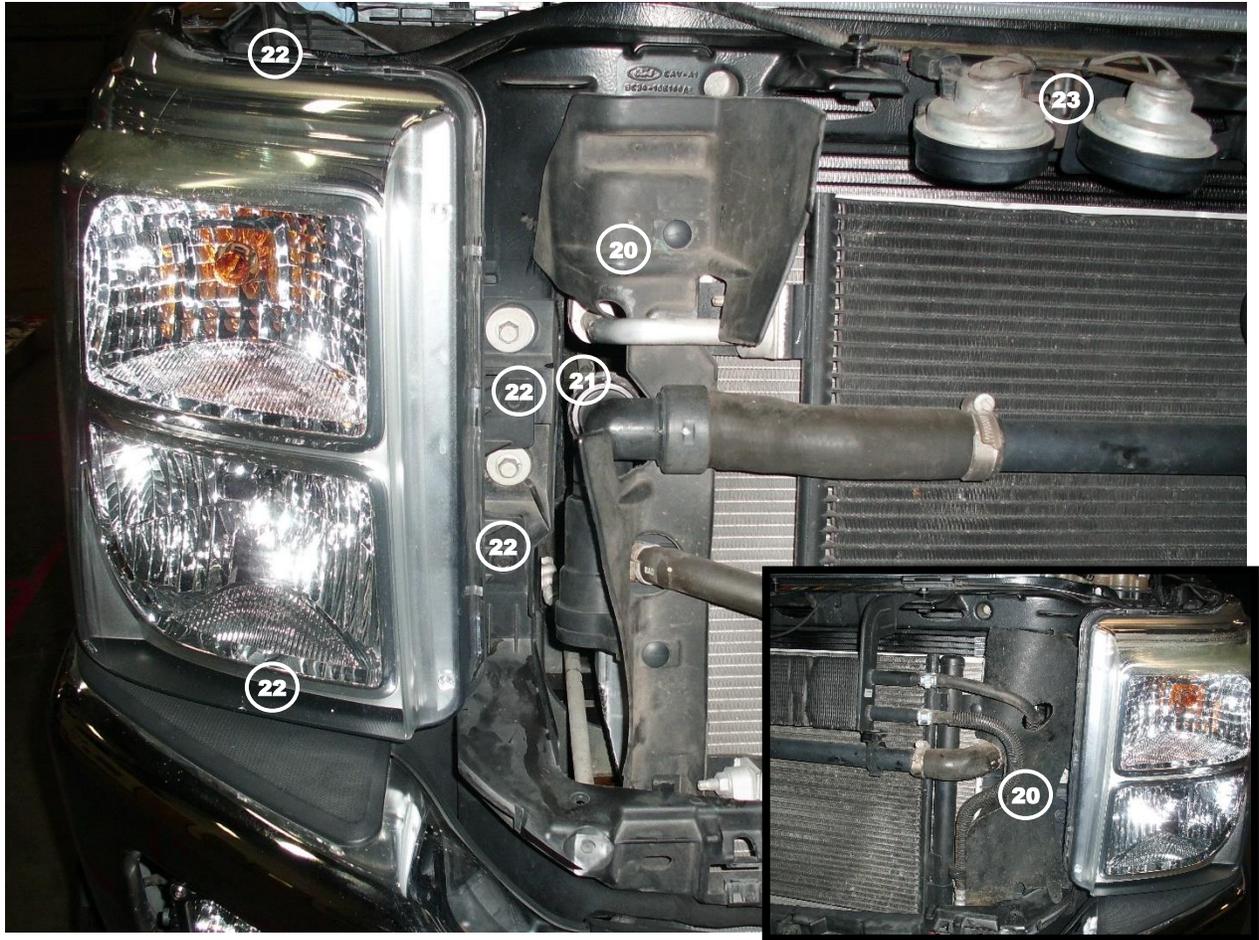
1. Park vehicle on level ground and engage the parking brake.
2. Disconnect both negative battery cables.
3. Disconnect both batteries and remove the driver's side battery from the vehicle.
4. Open the petcock and begin draining the coolant from both primary and secondary radiator systems ①
5. Remove the radiator caps and drain the remainder of coolant from the systems.
6. Remove the four (4) screws securing the grille to the upper support ②
7. Depress the five (5) clips securing the bottom of the grille to the vehicle and remove the grille from the vehicle ③



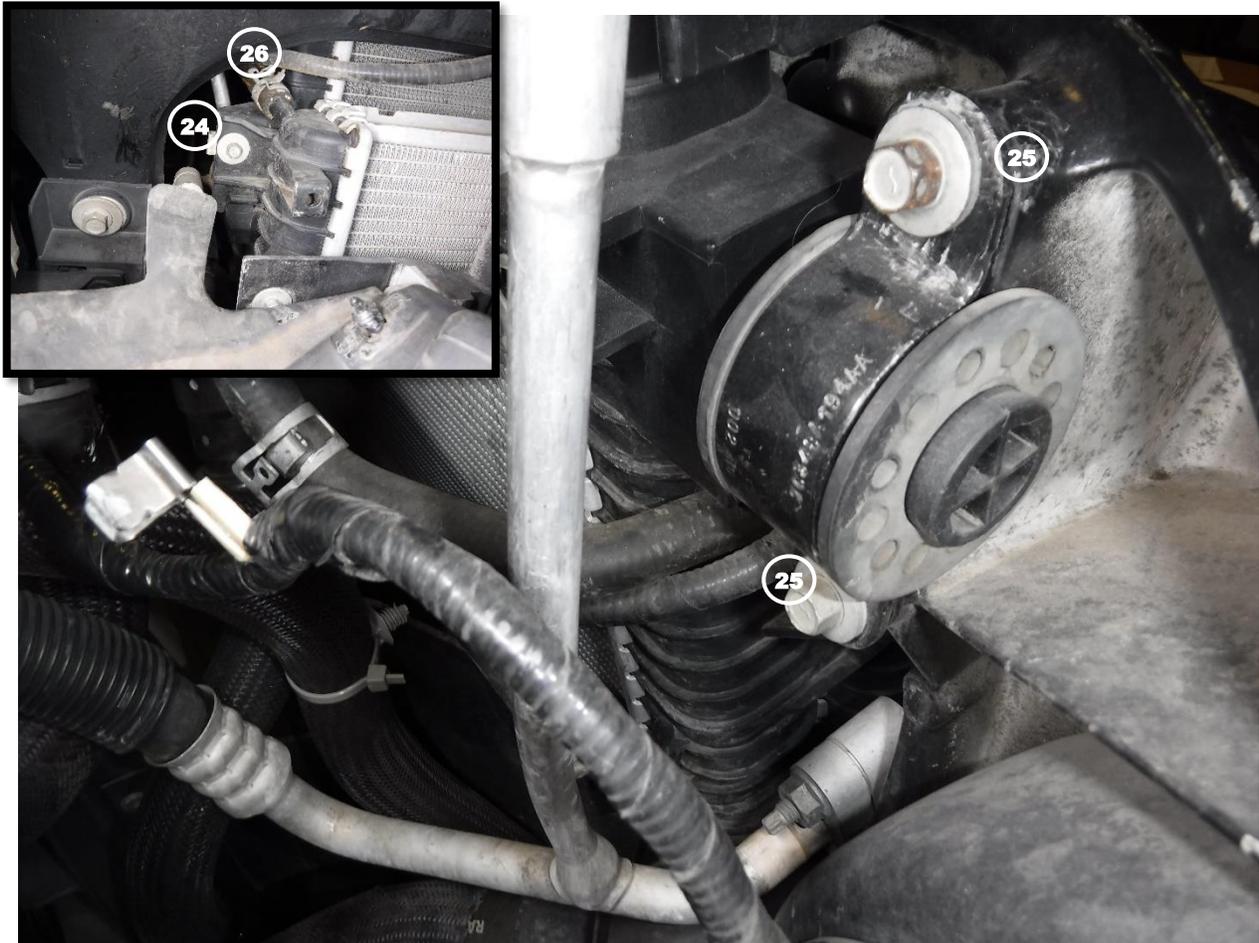
8. Remove the two (2) screws securing the air intake box and loosen the clamps on the intake tube (4) Disconnect the Mass Air Flow Sensor (MAF) and remove the air intake box and intake tube from the vehicle (5)
9. Disconnect the temperature sensor from the cold side charge pipe (6) remove the spring clip securing the cold side charge pipe to the engine inlet (7) then loosen the clamp securing it to the intercooler (8) Remove the cold side charge pipe from the vehicle.
10. Loosen the clamp securing the hot side charge pipe to the intercooler (9) lift the retaining clip all the way around the turbo side of the charge pipe (10) then remove the charge pipe from the vehicle.
11. Remove the screw securing the power steering reservoir to the fan shroud, lift out of its slot and set it to the side (11)
12. Remove the coolant hose connecting the intercooler degas bottle to the intercooler (12)
13. Depress the tabs on the remaining coolant hose on the intercooler and disconnect it (13)
14. Remove the spring clips retaining the upper radiator hose, then disconnect the hose from the radiator (14)



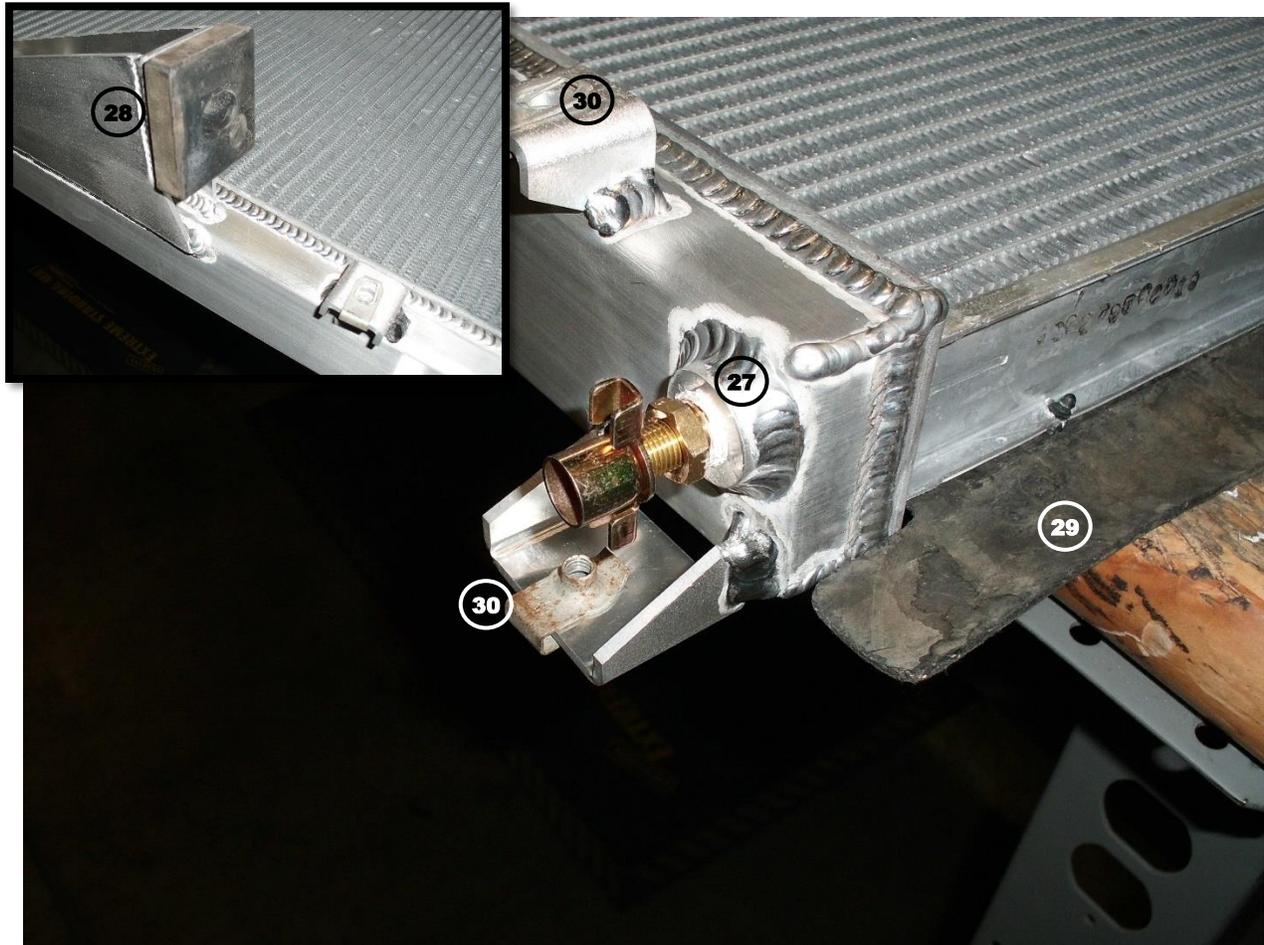
15. Remove the two (2) screws securing the intercooler into the vehicle, then remove it from the vehicle (15)
16. Disconnect the remaining upper hose from the intercooler degas bottle and disconnect (16)
17. Remove the two (2) screws securing the intercooler degas bottle to the fan shroud, then remove it from the vehicle (17)
18. Disconnect the two (2) lower hoses from the intercooler degas bottle and disconnect.
19. Remove the six (6) screws from the upper fan shroud, then remove it from the vehicle (18)
20. Remove the spring clips retaining the lower radiator hose, then disconnect the hose from the radiator.
21. Disconnect the overflow hose on the passenger side of the primary radiator (19)



22. Remove the two (2) rubber air deflectors to expose the secondary radiator and headlight mounting screws (20)
23. Remove the spring clip retaining the upper radiator on the secondary radiator hose, then disconnect the hose (21)
24. Remove the four (4) screws securing each headlight to the vehicle (22) Disconnect the wiring harness from the headlights and remove the headlights from the vehicle.
25. Remove the screw securing the horns to the radiator core support, disconnect the electrical connection, and remove the horns from the vehicle (23)
26. Remove the two (2) screws securing the hood latch assembly to the radiator core support and move the hood latch assembly to the side.
27. Remove the two (2) screws securing the power steering cooler to the radiator core support and move the cooler to the side.



28. Remove the four (4) screws securing the secondary radiator to the primary radiator (24)
29. Remove the four (4) screws securing the primary radiator upper mount brackets to the radiator core support and remove the brackets from the vehicle (25)
30. Remove the six (6) screws securing the radiator core support and remove the radiator core support from the vehicle.
31. Remove the two (2) screws securing the lower fan shroud to the primary radiator.
32. Release the lower fan shroud from the hooks connecting it to the primary radiator.
33. Disconnect the overflow hose on the passenger side of the secondary radiator (26)
34. Release the secondary radiator from the hooks connecting it to the primary radiator.
35. Lift the primary radiator straight up and out of the vehicle.



Note: Be sure to use thread sealant on the supplied drain valve to prevent any leaking.

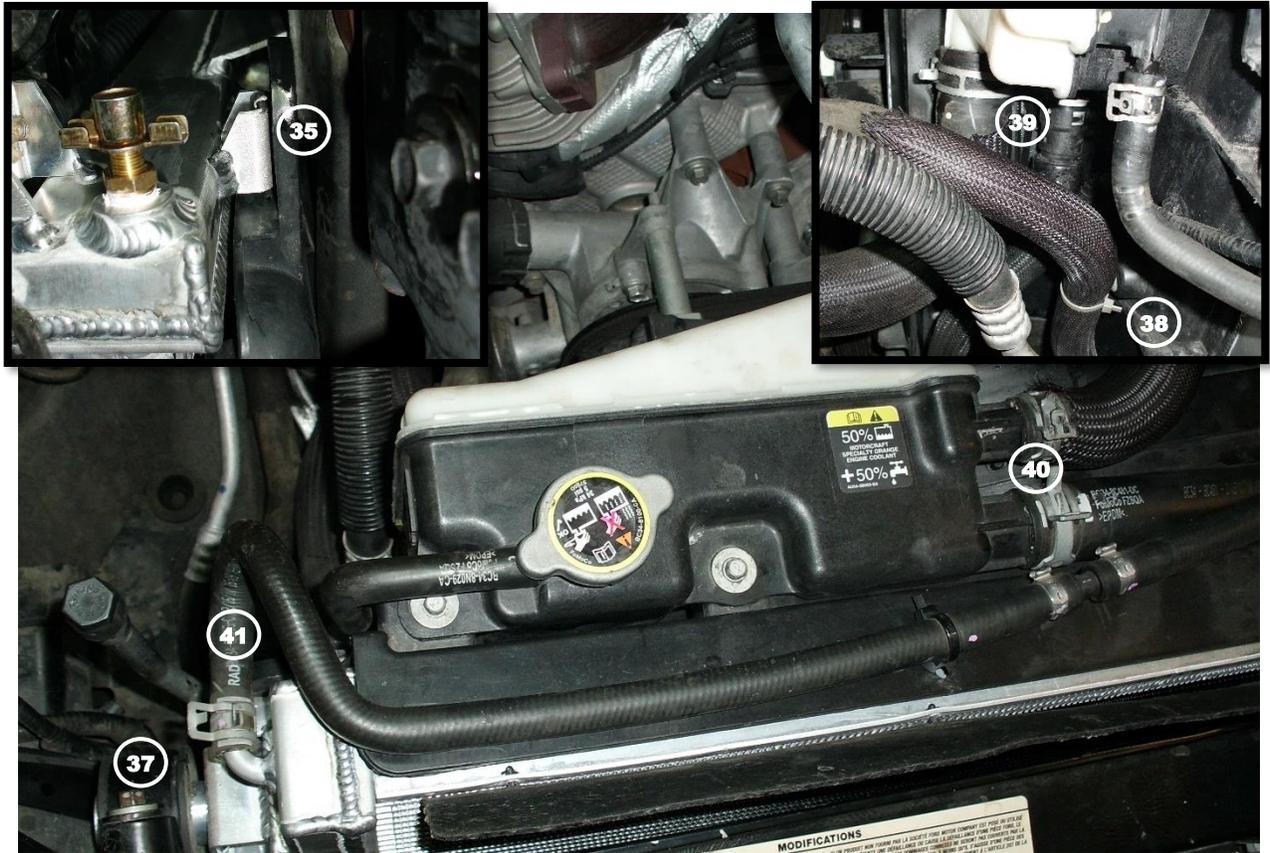
36. Install the drain valve onto the threaded port on the bottom of the aFe radiator (27)
37. Transfer the upper and lower rubber grommets from the factory radiator onto the aFe radiator (28)
38. Transfer the lower rubber air deflectors from the factory radiator onto the aFe radiator (29)
39. Install the supplied clip nuts onto the aFe radiator (30) be sure to install them in the same orientation as on the factory radiator.



40. Install the aFe radiator onto the vehicle's lower mounting pins, ensuring the pins are positioned inside the grommets inside the radiator correctly.
41. Install the secondary radiator into the mounting hooks on the front of the aFe radiator and secure it to the aFe radiator using the supplied screws and washers (31)

Note: Be sure to lubricate the O-rings with grease to prevent them from tearing during installation.

42. Install the factory spring clip onto the upper secondary radiator hose connection then install the hose (32) ensure the spring clip snaps all the way into place all the way around.
43. Install the factory spring clip onto the lower aFe radiator hose connection then install the hose (33) ensure the spring clip snaps into place all the way around.
44. Transfer the upper rubber air deflectors from the factory radiator to the aFe radiator (34)



45. Install the lower fan shroud into the lower mounting hooks on the back of the aFe radiator (35)
46. Reinstall the core support into the vehicle and secure it using the factory hardware (36)
47. Reinstall the factory radiator mounting brackets over the upper mounting bushings and secure it to the core support using the factory hardware (37)
48. Install the upper fan shroud into the upper mounting hooks on the back of the aFe radiator, and secure to the lower fan shroud using the factory screws (38)
49. Secure the upper and lower fan shrouds to the aFe radiator using the supplied screws and washers.
50. Reconnect the lower hoses to the secondary degas bottle (39)
51. Secure secondary degas bottle onto the upper fan shroud using the factory hardware, then connect the upper coolant hoses to it (40)
52. Reinstall primary and secondary overflow hoses onto the radiators (41)



53. Reinstall the intercooler into the vehicle (42) secure it using the factory hardware.

54. Reconnect the intercooler coolant lines to the intercooler (43)

Note: Be sure to lubricate the O-rings with grease to prevent them from tearing during installation.

55. Install the factory spring clip onto the upper primary radiator hose connection then install the hose (44) ensure the spring clip snaps all the way into place all the way around.

56. Install the factory spring clip onto the hot side charge pipe, connect it to the turbo, then to the intercooler (45) Ensure the spring clip snaps all the way into place all the way around.

57. Install the factory spring clip onto the cold side charge pipe adaptor, connect it to the intercooler, then the engine inlet (46) Ensure the spring clip snaps into place all the way around. Reconnect temperature sensor into the cold side charge pipe.

58. Reinstall the power steering reservoir into its mount (47) and secure it to the upper fan shroud using the factory hardware.



59. Reinstall the hood latch onto the core support (48) secure it using the factory hardware.
60. Install the power steering cooler onto the core support (49) secure it using the factory hardware.
61. Reinstall the horns onto the core support (50) secure them using the factory hardware.
62. Reinstall the headlights into the vehicle, secure them using the factory hardware.
63. Reinstall the air box and intake tube into the vehicle (51) and reconnect MAF sensor.
64. Reinstall the grille into the vehicle, secure it using the factory hardware (52)
65. Reinstall the battery into the vehicle and connect the battery cables for both batteries (53)



66. Use the proper coolant refill procedure to be sure that all the air gets out of the system when refilling the coolant for both reservoirs.
67. Fill the coolant expansion tank to the max line for both reservoirs ⑤④
68. Use the proper procedure to check the transmission fluid level, top off if needed.
69. Test drive the vehicle.
70. Let the vehicle cool down then check coolant level, top off coolant for both reservoirs if needed.
71. Install is now complete!

Note: Be sure to check all connections after 50-100 miles.

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