



## INSTALLATION INSTRUCTIONS

MAKE: Dodge/RAM  
MODEL: 2500/3500  
YEAR: 2007.5-2018  
ENGINE: L6-6.7L (td) Cummins

### BladeRunner Exhaust Manifold 46-40054 (Ductile Iron)



#### Parts Included:

- Socket head plug 1/8" NPT (2)
- Stud, M10 x 1.5 x 50mm (1)
- Nut, Fig M10 x 1.5 (1)
- Gasket set (1)

#### Tools Needed:

- 7/16 Socket/Wrench
- 8mm Socket/Wrench
- 10mm Socket / Wrench
- 13mm Socket / Wrench
- 15mm Socket / Wrench
- Torque Wrench
- Scraper (Gasket Remover)
- Socket Driver
- Socket Driver Extension
- 5/16 Socket/Nut Driver\
- 3/16 Allen Wrench
- 8mm ball end allen wrench

**CAUTION:** Allow time for your vehicle to cool down prior to installation. When working on or under your vehicle proceed with caution. Engine bays may reach high temperatures and may cause serious burns. Wear protective safety equipment; eye goggles and gloves to ensure a safe installation. aFe Power recommends professional installation on our products.

1. Disconnect both of the battery cables.
  2. Remove air filter housing, air intake tube, and the outlet tube from the vehicle.
  3. Remove the engine cover by removing the 4 bolts that hold it down.
  4. Drain the coolant from radiator.
  5. Remove the EGR crossover tube by removing the (2) V-band clamps and disconnect the electrical plug on the tube. Save gaskets for reinstallation.
  6. Remove the heat shield around the EGR cooler bypass valve.
  7. Remove the EGR cooler bypass valve by removing the (4) bolts and disconnect the electrical plug.
  8. Remove the V-band clamp that secures the EGR cooler to exhaust transfer manifold.
  9. Remove the exhaust transfer manifold.
  10. If equipped, remove the nut holding the transmission dipstick.
  11. Remove the forward coolant tube from the EGR cooler.
  12. Remove the breather hose near the rear coolant tube.
  13. Remove the rear coolant tube from the EGR cooler.
  14. Remove the EGR cooler and the EGR cooler mount.
  15. Remove the delta P tube.
  16. Remove the heat shield from the exhaust manifold (this will not be reused).
  17. Disconnect the exhaust down-pipe, turbo outlet, oil supply line, oil return line, electrical connection and coolant lines from the turbo.
  18. Remove the cab heater tubing bracket from the exhaust manifold.
- \*Note:** The stock manifold and the turbo will come out together.
19. Remove the stock exhaust manifold and the turbo by removing the twelve manifold bolts using a 13mm socket.
  20. Remove the turbo from the stock manifold by removing the 4 nuts.
  21. Remove the stud from the turbo mounting flange and install into the aFe exhaust manifold.
  22. Prepare the mating surfaces on the head and the turbo for a better seal.
  23. Install the stock turbo and the factory gasket on the aFe exhaust manifold.
  24. Install M10x1.5x50mm stud in the lower hole at cylinder number5. The provided M10x1.5 flange nut will be used on the M10x1.5x50mm stud.
  25. Install the aFe Exhaust Manifold using the (11) stock bolts, (11) stock spacers, (1) M10x1.5x30mm bolt and nut, and (6) exhaust manifold gaskets. Apply anti-seize to the bolts before installing. Tighten the bolts by using the recommend factory torque procedure. Tighten to 32 ft./lbs.
  26. Install the supplied 1/8" NPT plugs into the exhaust manifold.
  27. Reinstall all of the stock parts in reverse order of removal (Start at step 18)
  28. Fill the cooling system and bleed all the air out.
  29. Reconnect the batteries. Your installation is now complete. Thank you for choosing aFe Power.

**\*Note:** Retighten all connections after approximately 100-200 miles.