



# INSTALLATION INSTRUCTIONS

MAKE: Dodge  
 MODEL: RAM 2500/3500  
 YEAR: 2003-2007  
 ENGINE: L6-5.9L (td) Cummins

## BladeRunner Exhaust Manifold 46-40012 (Ductile Iron)



### Parts Included:

- Exhaust Manifold (1)
- Channel Bracket (1)
- Water line bracket (1)
- M8x1.25x25mm Bolt (1)
- Socket head plug 1/8" NPT (2)
- M10x1.50x37mm Stud (4)
- M10x1.50 Flange Nut (4)

### 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

**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 and air intake tube from the vehicle.
3. Remove turbo from the vehicle by disconnecting the exhaust down-pipe, turbo outlet, oil supply line, oil return line, electrical connection (if applicable), and the four nuts holding the turbo to the stock exhaust manifold.

**Note:** It may make it easier to get the turbo out for you to jack the motor up on the passenger side.

4. Disconnect the water line bracket nearest the firewall, under the exhaust manifold, using a 15mm socket. Cut the bracket 2" from the water line.
5. Remove the stock exhaust manifold by removing four nuts on the heat shield using a 15mm socket and the twelve manifold bolts using a 13mm socket.
6. Prepare the mating surfaces on the head and the turbo for a better seal.
7. Install the two supplied M10x1.50x37 studs into the tapped holes in the turbo flange on the new aFe exhaust manifold.
8. Install the aFe Exhaust Manifold using the twelve factory bolts, twelve factory spacers, and six exhaust manifold gaskets.

**\*aFe recommends replacement of old gaskets (not supplied).** Apply anti-seize to the bolts before installing. Tighten the bolts by using the recommend factory torque procedure as shown. **Tighten to 32 ft./lbs.**



9. Install the supplied waterline bracket to the factory water line using the supplied M8x1.25x25 bolt and the factory hardware.
10. Install the supplied 1/8 NPT plugs into the exhaust manifold.
11. Replace the stock studs in the turbo with the supplied M10x1.50x37mm studs.
12. Reinstall the turbo with the supplied flange nuts. Tighten using a 15mm wrench and socket.
13. Install the factory heat shield over the aFe exhaust manifold using the factory hardware and a 15mm socket.
14. Reinstall the exhaust down-pipe, turbo outlet, oil supply line, oil return line, and the electrical connection (if applicable) using the factory hardware.

**Note:** aFe recommends replacement of old gaskets (not supplied).

15. Reinstall the air intake tube and air filter housing.
16. Reconnect the batteries. Your installation is now complete. Thank you for choosing aFe Power.

**\*Note:** Retighten all connections after approximately 100-200 miles. **Place enclosed CARB EO sticker on or near the device on a smooth/clean surface. EO identification label is required to pass the smog test inspection.**

**\*Note:** Factory gaskets part numbers:

Exhaust manifold gasket: 513589AA Turbo flange gasket: 3949530