


## INSTALLATION INSTRUCTIONS



**MAKE:** Ford  
**MODEL:** F250 / F350  
**YEAR:** 2008-2010  
**ENGINE:** V8-6.4L (td) Power Stroke

**Turbocharger (GT Series)**  
**46-60192**

	Parts Included:	Qty.
	Turbocharger Oil Injector Turbocharger Lifting Tool Up-pipe to Turbo gasket Up-pipe Hardware (M8 x 1.25 x 25 mm) Heat Shield Hardware (M6 x1.0 x 12 mm) Primary Turbo Seal Secondary Turbo Seal O-rings drain seals Oil Feed Seals Coolant Supply/Return seals Low Pressure T/C to High Pressure T/C seal (spare) Low Pressure T/C to High Pressure T/C gasket (spare)	1 1 1 1 6 5 1 1 3 4 4 1 1

**CAUTION:** Allow time for your vehicle to cool down prior to installation. When working on your vehicle proceed with caution. Wear protective safety equipment; eye goggles and gloves to ensure a safe installation. **aFe recommends professional installation on this product. Thoroughly inspect the aFe turbocharger to make sure there is no damage from shipping (if damage is noted, immediately contact aFe customer service).**

**Note:** Installation of the compound turbos will require the A/C system to be discharged and the cab to be removed. Professional installation is highly recommended.

1. Remove the turbocharger inlet pipe and the Exhaust Gas Recirculation (EGR) Oxidation Catalytic Converter pipe from the back of the turbo.
2. Remove the clamp and disconnect the Air Cleaner outlet tube-to-crankcase vent oil separator hose at the vent oil separator.

**Note:** Do not lean on, pull on or use the turbocharger oil supply tube as a handle or damage to the turbocharger oil supply tube may occur.

**Note:** Use a back-up wrench to prevent the fittings from turning.

3. Remove the two (2) turbocharger oil supply tube banjo bolts and sealing washers. Discard the sealing washers.
4. Remove the bolt and the turbocharger oil supply tube.
5. Remove and discard the O-ring seal.
6. Disconnect the turbocharger actuator electrical connector and pin-type retainer.
7. Remove the two (2) coolant lines banjo bolts. Discard the sealing washers.
8. Remove the four (4) bolts for the turbocharger crossover tube and the front fuel cooler bracket.
9. Remove the five (5) bolts and the turbocharger heat shield.
10. Remove the two (2) bolts and hold downs for the turbocharger.
11. Install the supplied turbocharger lifting tool using the two (2) supplied bolts (bolts are located in the holes on the supplied aFe turbocharger). Tighten to 20 Nm (15 ft-lb).

**Note:** Failure to use the turbocharger lifting bracket during removal, handling or installation of the turbocharger could result in a low- pressure to high-pressure turbocharger seal failure.

**Note:** Make sure the turbocharger assembly is kept level to the engine during removal or installation. Failure to follow these instructions may result in damage to the high-pressure oil drain tube.

**Note:** Use care when removing the turbocharger. The crossover tube should not be removed. The seals in the crossover tube are one-time-use seals and must be installed new.

12. Using a heavy-duty floor crane, remove the turbocharger assembly.
13. Remove the turbocharger oil drain tubes.
14. Remove the high-pressure oil drain tube.
15. Remove and discard the two (2) O-ring seals.
16. Remove the turbocharger crossover tube.
17. Remove the turbocharger tube.

18. Remove the nut and disconnect the turbocharger actuator linkage.
19. Remove the three (3) bolts and the turbocharger actuator.
20. Remove the turbocharger actuator insulator.
21. Remove the turbo charger lifting tool.

**Note:** Failure to use the turbocharger lifting bracket during removal, handling or installation of the turbocharger could result in a low-pressure to high-pressure turbocharger seal failure.

22. Install the turbocharger lifting tool and two (2) bolts on the aFe turbocharger. Tighten to 20 Nm (15 ft-lb).
23. Position the turbocharger actuator insulator.
24. Install the turbocharger actuator and three (3) bolts. Tighten to 19 Nm (14 ft-lb).
25. Position the turbocharger actuator linkage and install the nut. Tighten to 8 Nm (6 ft-lb).

**Note:** Lubricate the seal with clean engine oil prior to assembly.

26. Install the turbocharger tube.
27. Install the turbocharger crossover tube.

**Note:** Lubricate the low-pressure oil drain tube with clean engine oil prior to installing.

**Note:** Install the low-pressure drain tube with the taper side down.

28. Install the low-pressure turbocharger oil drain tube in the turbocharger.

**Note:** Install two (2) new supplied O-ring seals and lubricate with clean engine oil prior to installing the tube.

29. Install the turbocharger high-pressure oil drain tube.

**Note:** Failure to use the turbocharger lifting bracket during removal, handling or installation of the turbocharger could result in a low-pressure to high-pressure turbocharger seal failure.

**Note:** Make sure the turbocharger assembly is kept level to the engine during removal or installation. Failure to follow these instructions may result in damage to the high-pressure oil drain tube.

30. Using a heavy-duty floor crane, install the turbocharger assembly.
31. Remove the two (2) bolts and the turbocharger lifting tool. **DO NOT** reinstall the two (2) bolts (the two (2) bolt holes remain open on the turbocharger).
32. Install the two (2) turbocharger hold downs and the bolts. Tighten to 201 Nm (148 ft-lb).
33. Position the turbocharger heat shield and install the five (5) supplied M6 x1.0 x 12 mm bolts. Tighten to 11 Nm (8 ft-lb).
34. Position the front fuel cooler bracket. Install the 4 bolts for the turbocharger crossover tube. Tighten to 31 Nm (23 ft-lb).
35. Install the two (2) banjo bolts with the four (4) supplied sealing washers. Tighten to 25 Nm (18 ft-lb).
36. Connect the turbocharger actuator electrical connector and pin-type retainer.

**Note:** Install a new O-ring seal and apply clean engine oil.

37. Position the turbocharger oil supply tube and install the bolt. Tighten to 13 Nm (10 ft-lb).
38. Pre-lubricate the oil inlet holes of the turbocharger assembly with the supplied oil injector and spin the compressor wheel several times to coat the bearings with oil.

**Note:** Only use banjo bolts with a green hex head. The green-headed bolts do not contain a check valve. When viewed from the inner end, the correct bolt will appear open. Failure to install the correct banjo bolt may result in damage to the turbochargers.

**Note:** Use a back-up wrench to prevent the fittings from turning.

39. Install the four (4) supplied sealing washers and the two (2) oil supply tube banjo bolts on the turbocharger oil supply fittings. Tighten to 25 Nm (18 ft-lb).
40. Verify that the turbocharger oil supply tube does not contact the turbocharger actuator linkage.
41. Install the air cleaner outlet tube and tighten the clamp. Tighten to 5 Nm (4 ft-lb).

**Note:** Install a new clamp prior to connecting the hose.

42. Connect the air cleaner outlet tube-to-crankcase vent oil separator hose to the vent oil separator and tighten the clamp.
43. Install the turbocharger inlet pipe using the six (6) supplied M8 x 1.25 x 25 mm hardware and the supplied Up-pipe to Turbo gasket.
44. Install the exhaust gas recirculation (EGR) oxidation catalytic converter pipe using the factory hardware.
45. Reinstall the body and have the A/C system serviced.
46. Your installation is now complete. Start the vehicle and verify again that all connections are secure and that you have no leaks. Let idle for 5-15 mins. to allow the aFe turbocharger to properly lubricate before driving.