



INSTALLATION INSTRUCTIONS

MAKE: BMW

MODEL: M3 (E46)

YEAR: 2001 - 2006

ENGINE: L6-3.2L S54

Catalytic Converter Replacement

47-46304



Parts Included:

- (P/N: 05-144580) Converter, Front (x1)
- (P/N: 05-144581) Converter, Rear (x1)

Hardware Included:

- (P/N: 05-40116) Heat Shield Adhesive (x2)
- (P/N: 05-46202) Gasket, 3-Hole (x6)
- (P/N: 05-46048) Gasket, Ring (x2)
- (P/N: 05-43066) 2.135" Flange (x1)
- (P/N: 06-00152) Warranty Card (x1)

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

- Step 1:** (Read Instructions prior to installation). Secure vehicle on jack stands (refer to your manual for specified jack stand positions).
- Step 2:** Remove the plastic valve (wire) cover. You will need to remove the oil filter cap when pulling the cover off but immediately re-install the oil filler cap once the cover is removed. (It is recommended that you take a photo of the routing of the o2 sensor and EGT wire to help when re-installing).
- Step 3:** Drain coolant.
- Step 4:** Remove coolant overflow tank.
- Step 5:** Remove coolant overflow hose from the coolant return pipe. Coolant will spill out so place rags over the factory manifold heat shields.
- Step 6:** Remove EGR valve from the side of the block.
- Step 7:** Remove heat shields.
- Step 8:** Remove the center brace and cross brace secured to the chassis under the exhaust system.
- Step 9:** Remove exhaust system.
- Step 10:** Take some masking tape and label each o2 sensor so you know which order they go back. THIS IS CRUCIAL, IF THE O2 SENSORS ARE NOT IN THE RIGHT ORDER, THE VEHICLE WILL GO INTO LIMP MODE AND RUN VERY POORLY.
- Step 11:** Now from under the hood, mark each o2 sensor plug to mating to the wire harness (Use masking tape and label) and unplug. ONCE AGAIN, IF THESE GET MIXED UP, THE CAR WILL RUN POORLY.
- Step 12:** Remove the (x4) o2 sensors and EGT sensor from the OE exhaust manifold.
- Step 13:** Remove the (x18) copper nuts securing the OE exhaust manifolds to the cylinder head.
- Step 14:** Remove OE exhaust manifolds.
- Step 15:** Install the (x4) o2 sensors in the correct order and locations on the aFe Power manifolds.



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- Step 16:** Install the aFe Power DFC manifolds catalytic converters on the cylinder head using the supplied gaskets and (x18) copper nuts and tighten.
- Step 17:** Install the EGT sensor back into the manifolds.
- Step 18:** Re-route and plug the sensor plugs back on the wire harness. Refer to your marking to make sure order is correct. Route the o2 sensor wires under the chassis heat shields to keep away from the exhaust heat. This can be accomplished by adding slack to the o2 sensor wires.
- Step 19:** Using the supplied heat adhesive tape, wrap the o2 sensor wires where it is exposed near the catalytic converter.
- Step 20:** Install the supplied flange to the manifold (The one that does not have a flange welded to it at the collector) and install the supplied 3-hole gaskets (x6) and gasket rings (x2).
- Step 21:** Using the original nuts, bolts and washers install the exhaust system back onto the vehicle.
- Step 22:** Install the center brace and cross brace back on the chassis.
- Step 23:** Install the EGR valve back on the block.
- Step 24:** Install the coolant overflow back on the chassis and coolant return pipe.
- Step 25:** Using the photo for a reference, route the wires back on the valve cover and install the plastic wire cover.
- Step 26:** Add coolant until it is at the correct level (Refer to your owner's manual for the correct level and coolant type).
- Step 27:** Re-check all your work.
- Step 28:** Remove vehicle off jack stands.

NOTE: It is normal for the aFe DFC to emit smoke for the first few minutes upon initial start-up.