

## INSTALLATION INSTRUCTIONS

MAKE: Ford

MODEL: Diesel Trucks YEAR: 2011-2016 ENGINE: V8-6.7L (td)

## Cold Side Intercooler Tube 46-20149-B (Black)



## Parts Included:

- Intercooler Tube (x1)
- Couplings (x2)
- Clamps (x4)
- Screw (x1)
- 0 Ring (x1)
- Adapter (x1)

## **Tools Needed:**

- 8mm, 10mm & 11mm sockets
- Allen Wrench set
- Pick
- Flat head screw driver
- Pliers

**CAUTION:** 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. aFe recommends professional installation on our products.

- **1.**Park vehicle on level ground and engage parking brake.
- **2.**Remove the bolt securing the coolant over flow hose to the fan shroud, using a 10mm socket and push the hoses out of the way, to give youself more room to remove the intercooler tube.
- **3.**Loosen clamp connecting the cold side intercooler tube to the plastic throttle valve adapter, using an 11mm socket.
- **4.**Use a small screwdriver to remove the wire retaining clip connecting the plastic adapter to the engine, then remove the plastic adapter from the vehicle.
- **5.**Loosen the clamp at the other end of the cold side intercooler tube using an 11mm socket.
- **6.**Pull the intercooler tube off of the intercooler and disconnect the temperature sensor and wire harness from the tube and remove the tube from the vehicle.
- **7.**Remove the temperarture sensor from the stock intercooler tube by lifting the tab gently with a screw driver and twisting the sensor counter closkwise 1/4 turn then pull sensor out of the tube.
- **8.**Install the sensor from the previous step onto the aFe intercooler tube and twist clock-wise untill the small tab locks into place.
- **9.**Unbolt the power steering resivore from the fan shroud using an 8mm socket, move the power steering resivore out of the factory mounting location and place it to the side for now.
- **10.**Install the factory retaining clip, from step 4 and the supplied O-ring onto the aFe aluminum adapter, then install the adapter onto the intake of the engine.

**Note:** Use a small amount of grease on the o-ring when installing the adapter onto the engine.

- **11.**Place one of the small clamps and the longer side of the 90° coupling onto the intercooler tube, then install the 2nd clamp onto outlet of the intercooler.
- **12.**Install one of the large clamps onto the adapter, the 2nd large clamp onto the larger opening of the intercooler tube along with the final coupling.
- **13.**Pluge the connector into the sensor from step 6, then install the aFe intercooler tube into the vehicle.
- **14.** Make sure the bead on the coupling is resting in the groove on the outlet of the intercooler and the tube is not touching any metal surfaces then tighten up all of the clamps, using an 11mm socket.
- **15.**Install the supplied bracket into the factory mounting location of the power steering resivore using the factory hardware, then install power steering resivore onto the bracket and bolt down using the supplied 6mm bolt and washer with an allen wrench.

**Note:** The factory clamp on the power steering hose may need to be rotated to clear the intercooler tube **16.**Install the hoses and bolt removed from step 2.

**17.**Install is now complete.