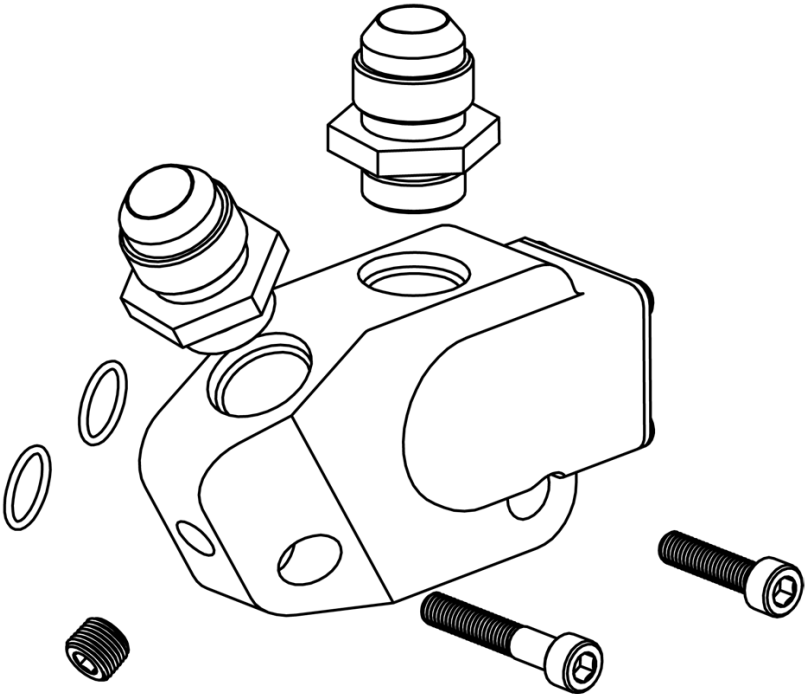




Oil Cooler Thermostat for LS Engines, Rear Sump

**Part Nos. EGM-112, EGM-113,
EGM-122, EGM-123**



**Important: Read these instructions
in their entirety prior to installation.**

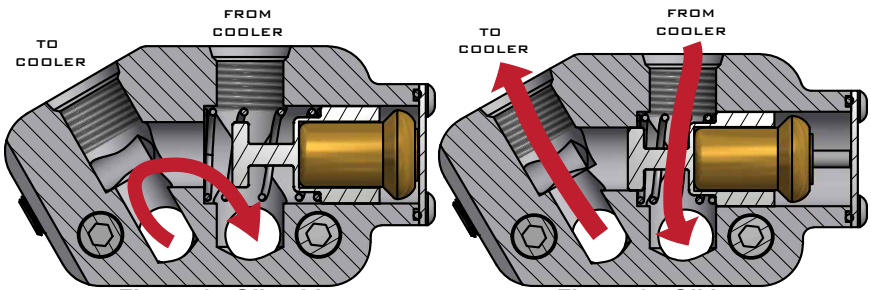
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Applications

- All 1997 and later aluminum GM LS family engines (Gen III & IV) with rear-sump oil pans including LS1/LS6, LS2, LS3, LS7, L76/L92/L93, LQ4/LQ9, LS9, LSA. Also fits all aluminum GM Gen III & IV Vortec V8 engines.
- EGM-122 and EGM-123 are specifically designed to accept the OEM 1997-2004 C5 Corvette oil temperature sensor
- NOT suitable for front-sump oil pans such as the Pontiac GTO or Holden Commodore / Monaro (most 1999-2006 models)
- Iron block LS family engines may require some clerancing around the left rear oil galley plug for proper fitment

Operation

1. The thermostat bypasses the oil cooler until the oil temperature reaches 180° F (EGM-112, EGM-122) or 212° F (EGM-113, EGM-123). Though flow to the cooler is never closed off completely; roughly 90% of the oil will flow through the bypass which offers less resistance to flow than the cooler. This prevents cold oil in the cooler from shocking the system and eliminates air pockets.



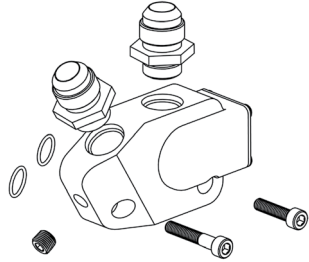
2. At the rated temperature, the bypass valve begins to close, forcing oil through the cooler as illustrated in Figure 2.
 - This allows the oil to reach minimum operating temperatures more quickly and prevents temperatures from dropping below the rated temperature under most operating conditions.
 - Under no circumstances can the thermostat fail in such a way that oil flow to the engine is blocked.
 - Thermostat is re-buildable.

⚠ WARNING: Do NOT under any circumstances cap off the IN & OUT ports on the oil cooler adapter. Capping off those ports will result in

catastrophic engine damage because oil will not circulate! If you need to operate the vehicle without a cooler or heat exchanger, you will need to reinstall the factory oil filter adapter cover or loop the OUT port to the IN port to maintain proper operation of the oiling system.

Parts List

- Thermostatic cooler adapter block (1)
- Viton o-rings (2)
- AN fittings, -10AN or -8AN, with Viton o-rings (2)
- 1/8" NPT sensor port plug, 5mm Allen (1) (EGM-112 and EGM-113 only)
- Oil cooler adapter retaining bolts (2)



Installation Instructions

Preparing for Installation

1. Raise the front of the vehicle and support with approved automotive ramps, a lift, or jack stands.
⚠ Warning: Never work under a vehicle secured only by a jack.
2. Remove the two (2) oil port cover retaining bolts and oil port cover with a 10mm wrench. Be sure to remove the factory gasket as well.
⚠ Caution: Oil may be hot.
 - a. Be sure to position an oil drain pan under the unit as a small amount of oil will drain out.

Installing the Oil Cooler Adapter

1. Prepare the adapter for installation:
 - a. Coat the O-rings on both AN fittings with motor oil and screw the fittings into the oil cooler adapter.
 - b. It is easiest to connect the oil lines to the adapter prior to installation. Assemble and route the oil cooler lines, then connect them to the adapter. The recommended hose end fittings are a 60°, 90° or 120° fitting for the outlet and a 90° fitting for the inlet. Tighten the line fittings to the adapter. Do not over-tighten.
 - c. EGM-112 and EGM-113 only: Wrap the oil temperature or pressure sensor in Teflon tape and install in the adapter but do not over-tighten. If no sensor is used, wrap the provided 1/8" NPT sensor port plug in Teflon tape and install in the adapter with a

5mm Allen key wrench.

- d. EGM-122 and EGM-123 only: Install the C5 Corvette M12x1.50mm oil temp sensor in the sensor port. These sensors typically use a crush washer and no sealant or Teflon tape should be necessary.
2. Clean the oil pan's oil adapter gasket surface thoroughly. Failing to

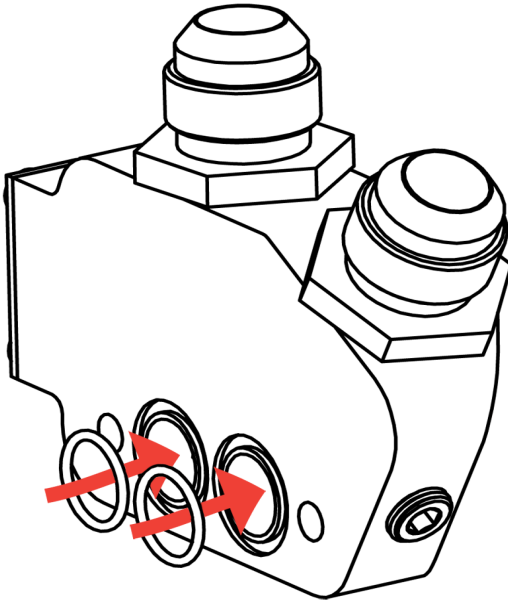


Figure 3 - Insert the O-rings into the adapter's O-ring glands

do so can result in a leak. Coat the two O-rings provided with motor oil or assembly lube then insert them into the adapter's O-ring glands as shown in Figure 3.

3. Use a 5mm Allen key wrench to secure the adapter to the oil pan with the retaining bolts provided as shown in Figure 4.

⚠ Caution: Torque bolts to between 108 in-lbs (9 ft-lbs) and 120 in-lbs (10 ft-lbs). DO NOT OVER-TIGHTEN.

⚠ Caution: Make sure the O-rings do not unseat from the adapter during installation as this will result in an oil leak.

Note: The thermostat may be mounted upside down to provide better clearance in some applications.

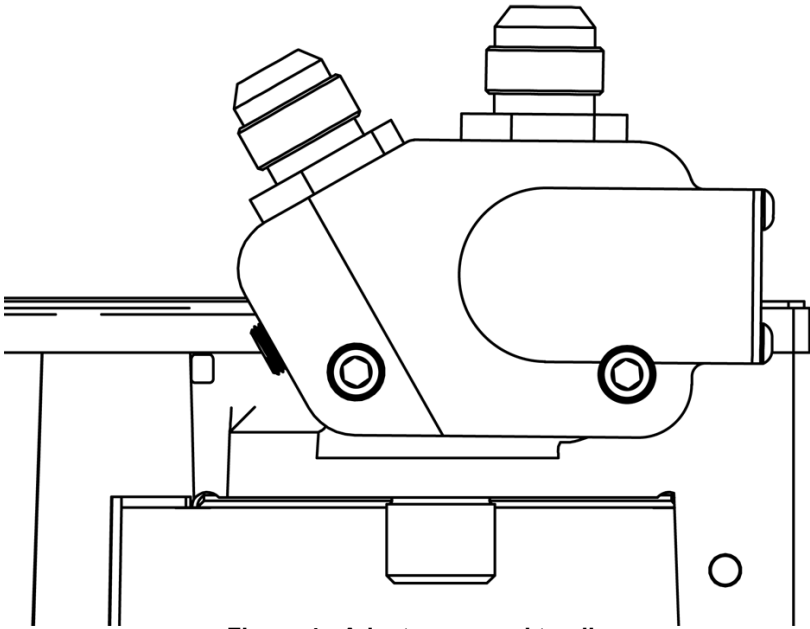


Figure 4 - Adapter secured to oil pan

4. Fill the oil cooler with oil and then connect the oil cooler lines to the cooler. Tighten all fittings.
5. Check and top off the engine's oil level.
6. Remove the fuel pump fuse and crank the engine over for several seconds to build oil pressure.
7. Replace the fuel pump fuse then start the engine and check for leaks.
8. Shut off the engine and top off the engine's oil level once again.
9. Congratulations! Installation is now complete.

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