



Oil Cooler Thermostat Upgrade for 2005-2013 (C6) Chevrolet Corvette

Part No. EC6-610

Made in USA



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

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Applications


- 2005-2013 (C6) Chevrolet Corvette (All models and trims)

Parts List

ITEM	QTY	PART #	DESCRIPTION
1	1	EGM-112	Oil cooler thermostat
2	1	EC6-600-01	Oil line, 90° fitting engine IN, 45° fitting cooler OUT
3	1	EC6-600-02	Oil line, 90° fitting engine OUT, 45° fitting cooler IN
4	4	OM-08-10	-8AN ORB to -10AN male adapter fitting
5	1	HTD-1006	Push-in zip-tie
6	2	HTD-1003	Zip tie

Installation Instructions

- **Typical Installation Time:** 2-4 hours

 **WARNING:** These products should only be installed by a qualified mechanic. Improper installation could result in severe engine damage.

Section 1: Preparing for Installation

1. Raise the front of the vehicle and support with approved automotive frame stands, lift, or ramps.

 **WARNING:** NEVER work under a vehicle supported only by a jack.

2. Remove any underbody panels necessary to access the factory oil cooling system.
3. Open the hood. Tape the leading edge of the hood and the edges of the fender panels with masking or painter's tape to protect them from damage during removal of the front bumper cover.
4. To remove the front bumper cover, first remove the fasteners shown in Figure 1:
 - (4) 7 mm bumper cover screws under the nose of the hood (blue)
 - (10) 7 mm or T-15 screws and/or push clips securing the fender liners (5 per side) (green)
 - (5) 7 mm screws securing the lower front edge of the bumper cover

(red)

- (4) 10 mm nuts securing the inside of the fenders (2 per side) (magenta)
- (2) 10 mm nuts securing the rear of the lower bumper cover (orange)



Tip: Removing the front wheels makes this step easier.

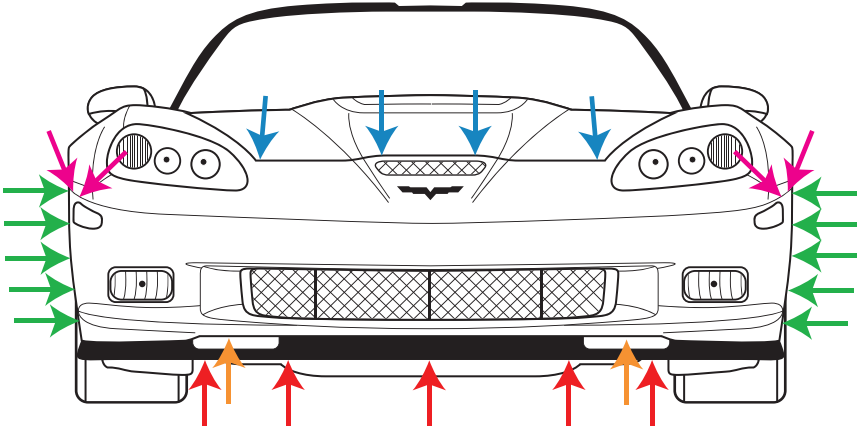


Figure 1 - Locations of Fasteners Securing the Front Bumper Cover

5. Disconnect all indicator and fog light wiring harness connectors.
6. Remove the (4) push clips (2 per side) securing the radiator shroud, shown in Figure 2 (Page 4).
7. Carefully remove the front bumper cover. The top edges of the bumper cover, near the headlights, are secured by a clip and need to be “popped” out of place.

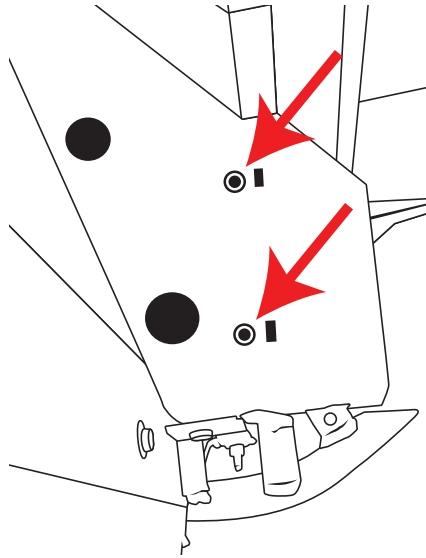


Figure 2 - Remove the (4) Push-Pins Securing the Radiator Shroud to the Bumper Cover

Section 2: Removing the Factory Oil Cooler Lines (Z06, Z51, and Grand Turing Models Only)

💡 Tip: Place a drain pan under the line fittings and oil cooler.

1. Cut and remove the zip-tie securing the factory oil lines to the radiator shroud.
2. Starting with the lower oil cooler line, pry-off the retaining clip from the hard-line fitting using a small flat-head screwdriver. Repeat for the upper oil cooler line.
3. Remove the lower oil cooler line from the oil cooler and allow the oil to drain. Remove the upper oil cooler line.

4. Remove the two M6 screws securing the factory oil cooler adapter, located above the oil filter, with a 10 mm wrench.

💡 Note: The rear screw must be removed first to allow the front screw to clear the catalytic converter during removal.


5. Using a long-reach ratchet extension (at least 12") with a deep-well 13 mm socket, remove the screw securing the oil lines to the engine block.
6. Carefully pull the factory oil cooler adapter and oil line assembly out towards the rear of the vehicle.

7. Remove the two oil cooler line adapter fittings from the factory oil cooler.

Section 3: Installing the Improved Racing Oil Cooler Thermostat

1. Install the OM-08-10 adapter fittings into the EGM-112 oil cooler adapter. **DO NOT** overtighten.

 **Tip:** Lubricate the adapter fitting O-rings with motor oil to prevent O-ring damage.

 **Tip:** Use aluminum -AN fitting wrenches to avoid damaging the fittings.

2. Install the provided NPT plug into the Improved Racing oil cooler adapter sensor port using a 3/16" hex key. A sensor may also be installed in this port instead. **DO NOT** overtighten.
3. The wiring harness must be relocated to provide adequate clearance for the new oil lines. Loosen the screw securing the knock sensor to the block and remove the bracket securing the wiring harness to the block. Relocate the bracket to the screw hole directly above it, where the ground strap is secured, as shown in Figure 3. Reorient the knock sensor as shown in Figure 3 and retighten the screw.

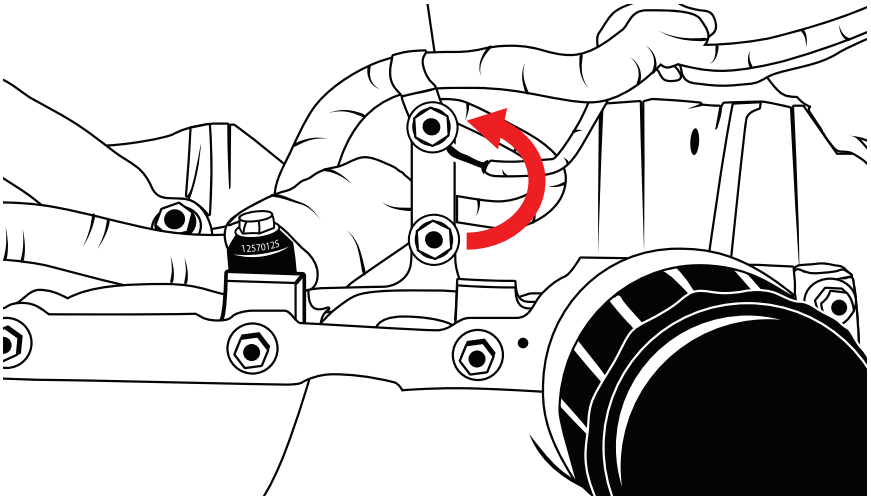


Figure 3 - Relocate the Wiring Harness and Orient the Knock Sensor as Shown

4. Route the oil lines between the subframe and engine block, following the same path as the factory oil lines. The two 90° fittings should be on the oil cooler adapter side. The lines will be connected as shown in Figure 4.

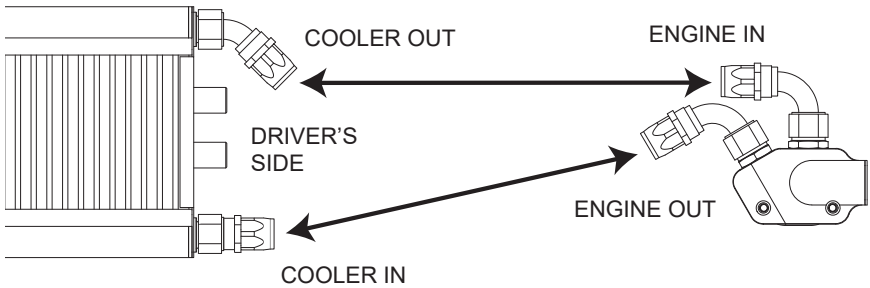


Figure 4 - Oil Line Connection Diagram

5. Orient the 90° hose end fittings as shown in Figure 5 and tighten both hose ends to the oil cooler adapter.

Tip: Use aluminum -AN fitting wrenches to avoid damaging the fittings.

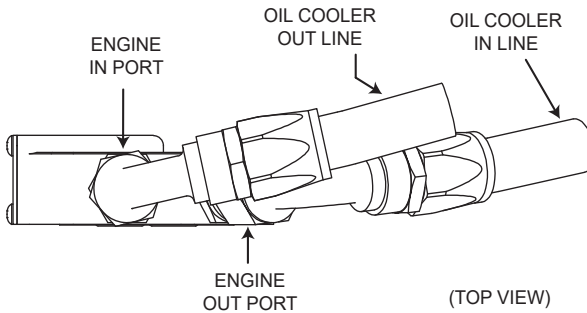


Figure 5 - Oil Cooler Adapter Line Fitting Orientation

6. Install the oil cooler adapter and gasket onto the oil pan using a 5 mm hex key and M6 socket screws. Torque the screws to a maximum of 10 lb-ft (13.6 N-m)

Tip: Shorten a 5 mm hex key to clear the factory catalytic converter and ease installation.

7. Install the two OM-08-10 AN adapter fittings provided into the factory oil cooler. To avoid damaging the cooler, DO NOT overtighten.

Tip: Lubricate the adapter fitting O-rings with motor oil to prevent O-ring damage.

Tip: Use aluminum -AN fitting wrenches to avoid damaging the fittings.

8. Connect the oil lines to the oil cooler as shown in Figure 4. DO NOT overtighten.

Tip: Use aluminum -AN fitting wrenches to avoid damaging the fittings.

 **Caution:** Ensure that no fittings loosen during this step.

9. Insert the new push-in zip tie to the radiator shroud and secure the hoses in place. Use the extra zip tie to fasten the oil lines together where appropriate. Ensure that the hoses clear the accessory drive.
10. Top off the oil level.
11. Remove the vehicle's fuel pump fuse, located in the passenger side engine bay fuse box, and crank the engine over multiple times in five-second intervals to prime the oil system.
12. Replace the fuse removed in Step 16, start the engine, and check for leaks.
 - a. Once the oil pressure stabilizes, ensure there are no oil leaks from the oil cooler adapter, fitting junctions, or the oil cooler.
13. Turn off the engine. Check the oil level and top off as necessary.
14. Reinstall the front bumper cover and all related components removed in the *Preparing for Installation* section.
15. After 30 miles of driving, check again for leaks and retighten any fittings if necessary.

Congratulations! The installation is now complete.