



BMW F8x Upgraded Oil Cooler Thermostat Housing Installation Instructions



Proper service and repair procedures are vital to the safe, reliable operation of all motor vehicles as well as the personal safety of those performing the repairs. Standard safety procedures and precautions (including use of safety goggles and proper tools and equipment) should be followed at all times to eliminate the possibility of personal injury or improper service which could damage the vehicle or compromise its safety.

INSTALLATION NOTES

- **RH** refers to the *passenger side* of the vehicle.
- **LH** refers to the *driver side* of the vehicle.
- Always use the proper torque specifications.
- If applicable to this installation, torque specifications will be listed throughout the document and at the end as well.
- Please read all of these instructions and familiarize yourself with the complete process **BEFORE** you begin.

GENERAL PREPARATION AND SAFETY INFORMATION

Turner Motorsport cares about your health and safety, please read the following safety information. This information pertains to automotive service in general, and while it may not pertain to every job you do, please remember and share these important safety tips.

- Park your car in a safe, well lit, level area.
- Shut the engine off and remove the key from the ignition switch.
- Make sure any remote start devices are properly disabled.
- **ALWAYS** wear safety glasses.
- Make sure the parking brake is applied until the vehicle is safely lifted and supported.
- Whether lifting a vehicle using an automotive lift or a hydraulic jack, be sure and utilize the factory specified lift points.
- Lifting a vehicle in an incorrect location can cause damage to the suspension/running gear.
- **ALWAYS** support the vehicle with jack stands.
- **ALWAYS** read and follow all safety information and warnings for the equipment you are using.



NEVER get underneath a vehicle that is supported only by a jack, and **ALWAYS** make sure that the vehicle is securely supported on jack stands.

OIL COOLER THERMOSTAT HOUSING INSTALLATION

Step 1:

Lift up to pop the engine cover free from the mounting studs and remove it from the engine.



Step 2: Trim Removal Tool, 10mm Socket & Ratchet

Remove the push rivet (arrow), loosen the nuts (highlighted in **RED**) 90 degrees to unlock them, then remove each rain tray from the vehicle.



OIL COOLER THERMOSTAT HOUSING INSTALLATION

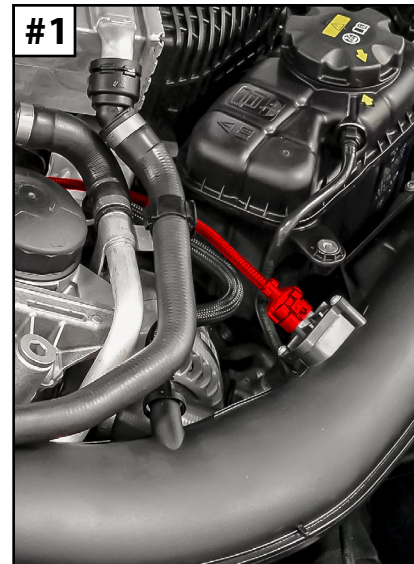
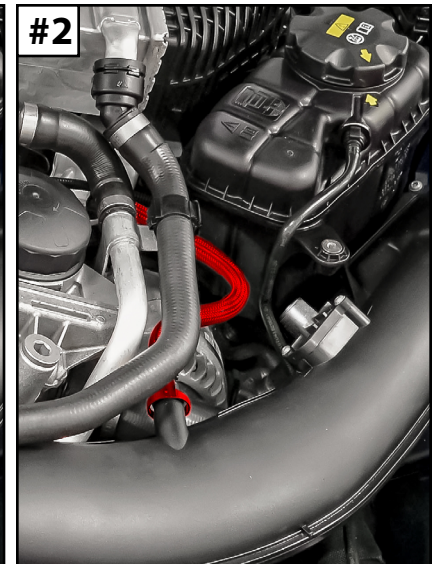
Step 3: 13mm Socket & Ratchet

Remove the eight screws (**RED** circles) and pull the carbon brace free from the rubber weather strips and remove it from the vehicle.



Step 4:

Disconnect the MAF connector (highlighted in **RED** in **Photo #1**) from the LH airbox, then depress the retaining tabs and disconnect the vacuum line (highlighted in **RED** in **Photo #2**).



OIL COOLER THERMOSTAT HOUSING INSTALLATION

Step 5: 6mm Socket & Ratchet

Loosen the hose clamp (arrow) then lift up to pop the air box free from the mounting grommets and remove it from the vehicle.

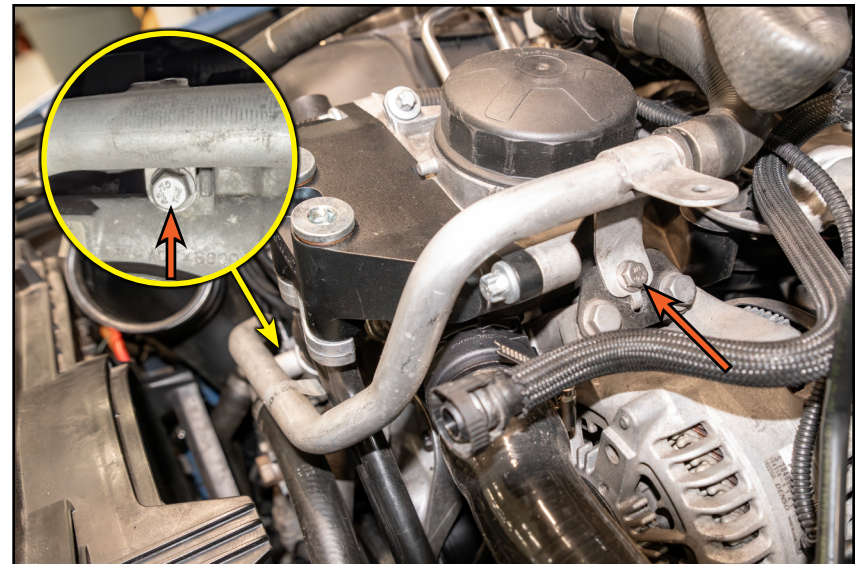


Step 6: 10mm Socket & Ratchet

Remove the two screws (arrows) and carefully move the metal coolant line away from the oil cooler thermostat housing.



These instructions show removal of our prototype oil cooler thermostat housing, however removal of the stock housing is the same process.



OIL COOLER THERMOSTAT HOUSING INSTALLATION

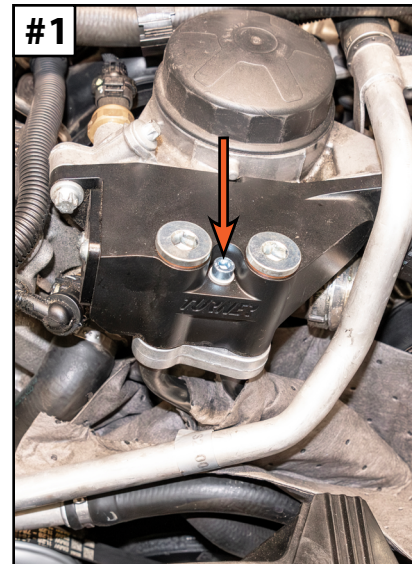
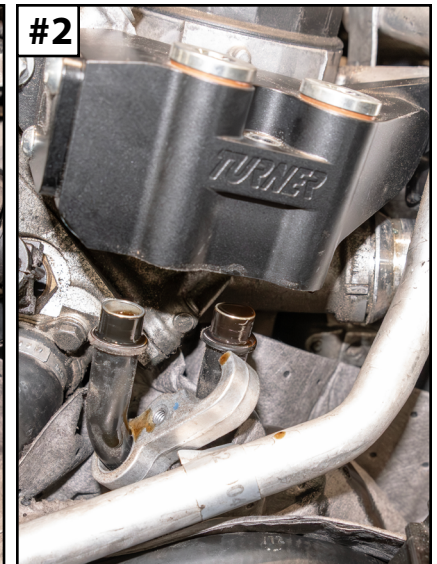
Step 7: Pinch-Off Pliers

Pinch-off the upper radiator hose (as shown in **Photo #1**), then release the retaining clip (arrow in **Photo #2**) and pull the hose (highlighted in **RED** in **Photo #2**) off of the oil filter housing.



Step 8: T30 Torx Socket & Ratchet

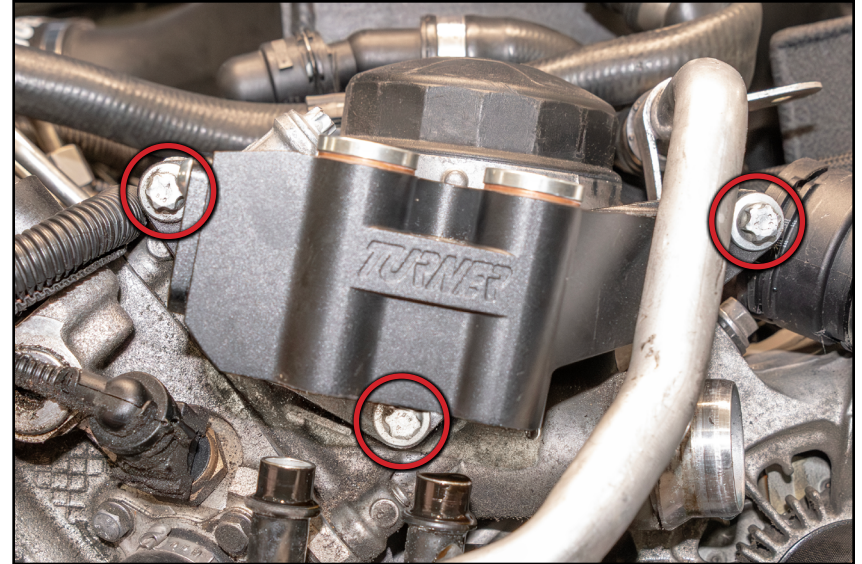
Loosen the screw (arrow in **Photo #1**) and carefully pull the oil cooler lines free from the bottom of the oil cooler thermostat housing (as shown in **Photo #2**).



OIL COOLER THERMOSTAT HOUSING INSTALLATION

Step 9: E12 Torx Socket & Ratchet

Remove the three screws (circled in **RED**) and carefully guide the oil cooler thermostat housing free from the engine.



Step 10: 4mm Hex (Allen) Socket & Ratchet

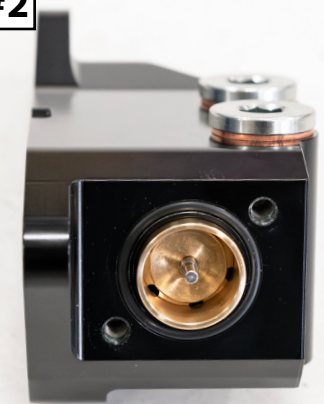
Remove the two screws (arrows) and pull the thermostat cover plate free from the new oil cooler thermostat housing.



OIL COOLER THERMOSTAT HOUSING INSTALLATION

Step 11:

Install the spring onto the thermostat (as shown in **Photo #1**), then install the thermostat into the housing (as shown in **Photo #2**).

#1**#2**

Step 12: 4mm Hex (Allen) Socket & Ratchet

Apply a drop of blue threadlocker to the threads of the screws, then reinstall the cover plate and secure it in place with the screws (arrows), tightening until snug.



If you purchased the AN oil line adapter kit:
Proceed to the next page.

If you are retaining the stock oil cooler lines:
Skip ahead to [Page 10](#).



OIL COOLER THERMOSTAT HOUSING INSTALLATION

Step 13:

Install the two O-rings (arrows in **Photo #1**) onto the adapters, then slide the adapters into the new clamping plate (as shown in **Photo #2**).

#1**#2**

Step 14: 5mm Hex (Allen) Socket & Torque Wrench

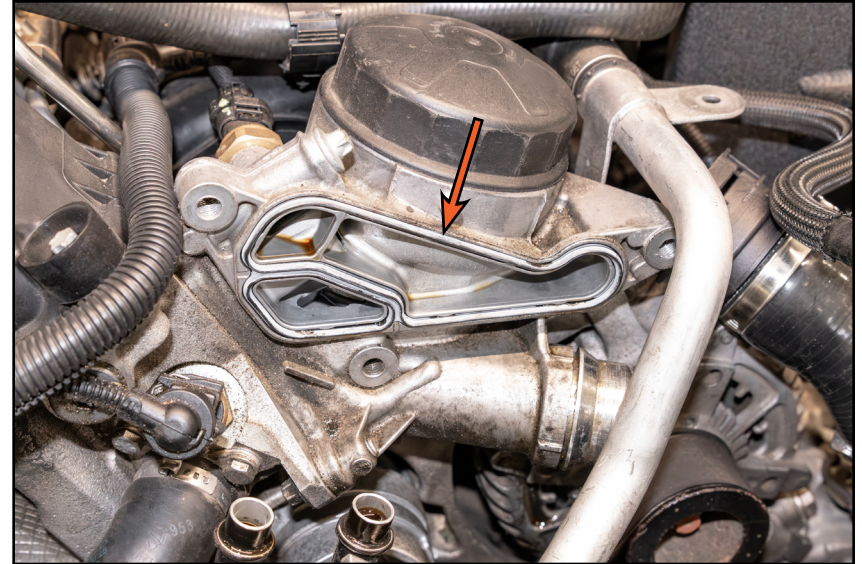
Slide the adapters into the ports in the bottom of the housing and secure it with the provided M8 screw (arrow). Torque the screw to 8 Nm (6 Ft-lbs).



OIL COOLER THERMOSTAT HOUSING INSTALLATION

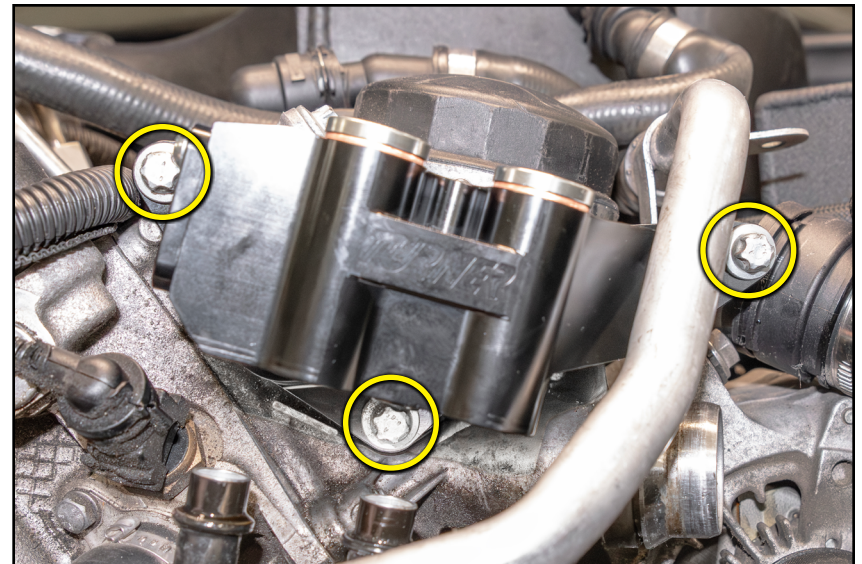
Step 15:

Clean the mounting surface on the oil filter housing, then replace the gasket (arrow) with the replacement provided in the kit.



Step 16: E12 Torx Socket & Torque Wrench

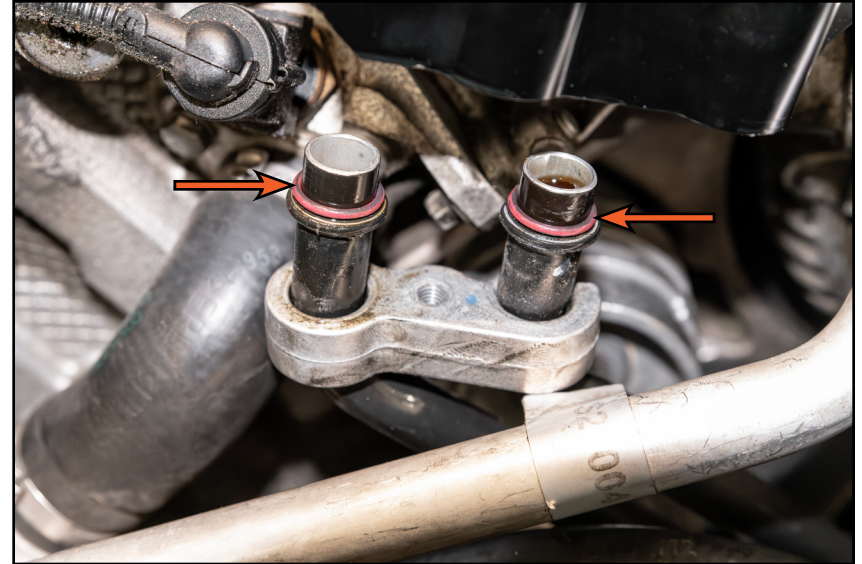
Install the new oil cooler thermostat housing and secure it in place with the screws (circled in **YELLOW**), torquing them to 16 Nm (12 Ft-lbs).



OIL COOLER THERMOSTAT HOUSING INSTALLATION

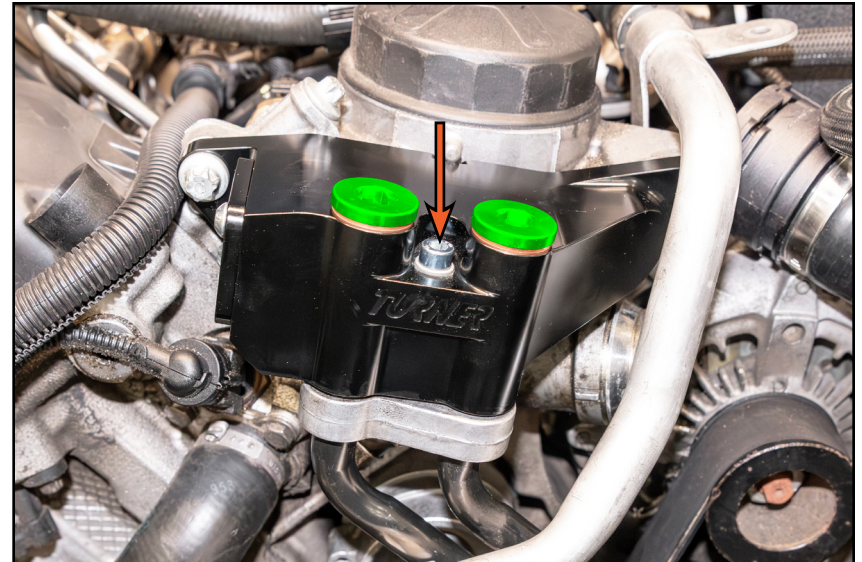
Step 17:

Inspect the O-rings (arrows) to ensure they are properly installed onto the oil cooler lines and in good condition, and replace them if needed. (Replacement O-rings are available for purchase [HERE](#))



Step 18: 5mm, 10mm Hex (Allen) Socket & Torque Wrench

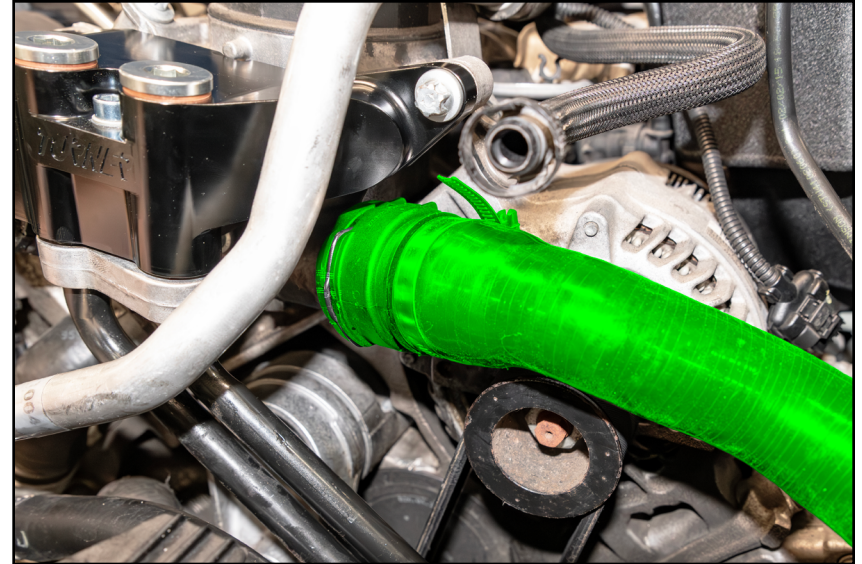
Slide the oil cooler lines into the ports in the bottom of the housing and secure it with the provided M6 screw (arrow). Torque the screw to 8 Nm (6 Ft-lbs), then torque the thermostat caps (highlighted in **GREEN**) to 25 Nm (18 Ft-lbs).



OIL COOLER THERMOSTAT HOUSING INSTALLATION

Step 19:

Reinstall the coolant hose (highlighted in **GREEN**), ensuring the retaining clip snaps back into place.



Step 20: 10mm Socket & Ratchet

Reinstall the metal coolant line and reinstall the two screws (arrows).

- ☐ Reinstall the intake system
- ☐ Reinstall the carbon brace
- ☐ Reinstall the rain trays and engine cover
- ☐ Check the coolant and oil level, refilling as needed.



Congratulations, Your installation is complete!

Your Oil Cooler Thermostat Housing installation is complete!



These instructions are provided as a courtesy by Turner Motorsport

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