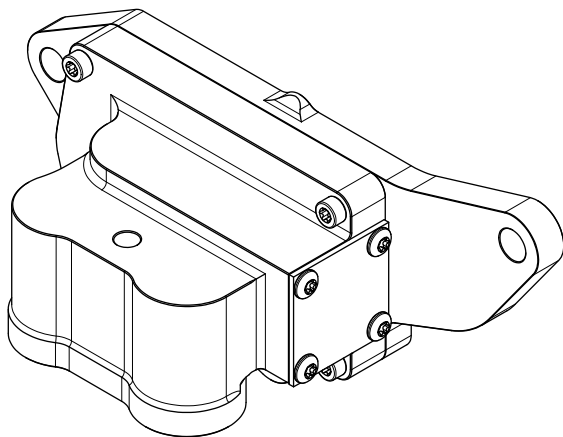




**OIL COOLER ADAPTER WITH
THERMOSTAT FOR BMW N20, N26,
N51, N52, N53, N54, N55, S55**

PART NO. EBW-101

MADE IN USA

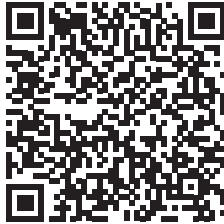


**Important: Please read these instructions in their entirety
prior to installation.**

For contact information, visit www.improvedracing.com
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PARTS CHECK

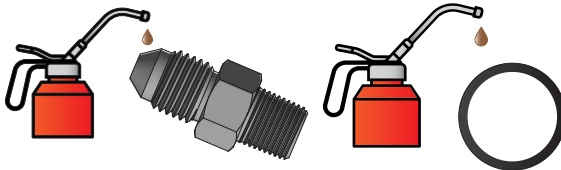
- Visit the website product page to confirm vehicle application and confirm all parts have arrived by checking the images (Tap the QR code when viewing this manual on your phone, PC or tablet):



INSTALLATION INSTRUCTIONS

BEFORE YOU BEGIN

- ⚠ WARNING: NEVER work under a vehicle supported only by a jack.**
- ⚠ WARNING: NEVER cap / plug the oil ports on the adapter.**
- ⚠ WARNING: Capped / plugged oil ports block oil flow in the engine and may result in catastrophic engine damage.**
- 💡 Use a union to loop the lines or create a new line to join the ports if servicing or removing the oil cooler from the vehicle.
- ⚠ WARNING: Only qualified mechanics should install this part.**
- ⚠ WARNING: Improper installation may result in severe engine damage.**
- 💡 Lubricate threads and flares on fittings for a reliable seal.
- 💡 Lubricate every O-ring to prevent damage and ensure a leak-free seal.
- ⚠ Never secure lines to moving components.**
- 💡 Use zip-ties and P-clamps to stop oil lines from rubbing against the exhaust, engine, suspension components and chassis.
- 💡 Use aluminum tools to avoid damaging fittings.



REMOVING THE FACTORY ADAPTER

1. Open the hood and confirm engine parts are cool to the touch.
2. Remove any parts that block access to the oil filter, oil cooler adapter, and oil cooler lines.
3. Place some rags under the oil cooler adapter.
4. Disconnect the factory lines.
5. Remove the O-rings from the lines and discard.
6. Wrap the lines in a rag to stop oil from dripping into the engine bay and move the lines aside.
7. Use an E12 socket to remove all three oil cooler adapter screws.
8. Remove the gasket from the oil filter housing and discard.
9. Clean the gasket area.

INSTALLING THE NEW ADAPTER

1. Install the new factory gasket included with the kit in the oil filter housing.
2. Use a 12 mm tool to install the adapter on the oil filter housing using all three M8 flange screws.
3. Torque the screws to 14 lb-ft (19 N-m).

REINSTALLING THE FACTORY LINES

1. Use a 1 inch tool to install the factory line adapter fittings into the oil cooler adapter.
2. Torque the adapter fittings between 20 lb-ft (27 N-m) to 25 lb-ft (33 N-m).
3. Install the new O-rings included with the kit onto the factory lines.
4. Insert the factory lines into the adapter fittings.
5. Install the screw that fastens the lines to the adapter:
 - a. The M8 screw is for factory lines secured at the bottom.
 - b. The long M6 screw is for factory lines secured at the top.
6. Torque the screw according to the line style below:
 - a. 14 lb-ft (19 N-m) for the M8 screw inserted from the bottom.
 - b. 70 lb-in (8 N-m) for the M6 screw inserted from the top.

7. Confirm the O-rings have completely inserted into the factory line adapter fittings.

INSTALLING AFTERMARKET OIL COOLERS

1. Remove the factory oil cooler and oil cooler lines.
 - a. Block or unionize engine coolant lines when removing factory water-to-oil coolers.
2. Install the aftermarket oil cooler.
3. Install the adapter fittings into the oil cooler adapter.
4. Torque the fittings between 20 lb-ft (27 N-m) to 25 lb-ft (33 N-m).
5. Connect the system lines and torque the hose fittings to the adapter and oil cooler according to the steps below for your line size:
 - a. Hand tighten the fittings.
 - b. Mark the flats as shown in Figure 1.
 - c. Tighten according to the Figure 2.

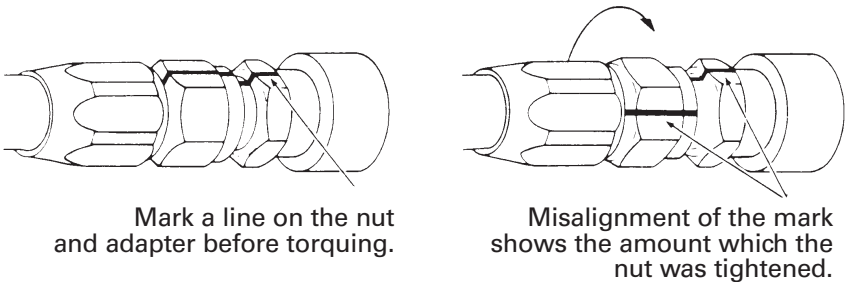


Figure 1 - Marking the Fittings for Correct Tightening

Size	Number of Hex Flat Rotations
-8	1.25 to 1.75
-10	1.25 to 1.75
-12	1 to 1.5

Figure 2 - Hex Flat Rotations vs Line Size

COMPLETING THE INSTALLATION

1. Check the engine oil level and add oil if necessary.
2. Check the engine coolant level and add coolant if necessary.
-  3. Refer to the factory service manual.
3. Confirm all spilled fluids are wiped up, especially if oil or coolant got on the serpentine belt.
4. Prime the oiling system according to the factory service manual.
5. Start the engine and inspect for leaks.
-  6. Confirm oil pressure is stable and reading the correct value.
6. Turn off the engine.
7. Confirm oil and coolant levels are within spec.
8. Reinstall any remaining parts that blocked access during installation.

 Installation is now complete. Thank you for purchasing an Improved Racing product!