



INSTALLATION GUIDE

2022+ Subaru WRX Performance Oil Cooler

SKU: MMOC-WRX-22

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RESOURCES & CONTACT

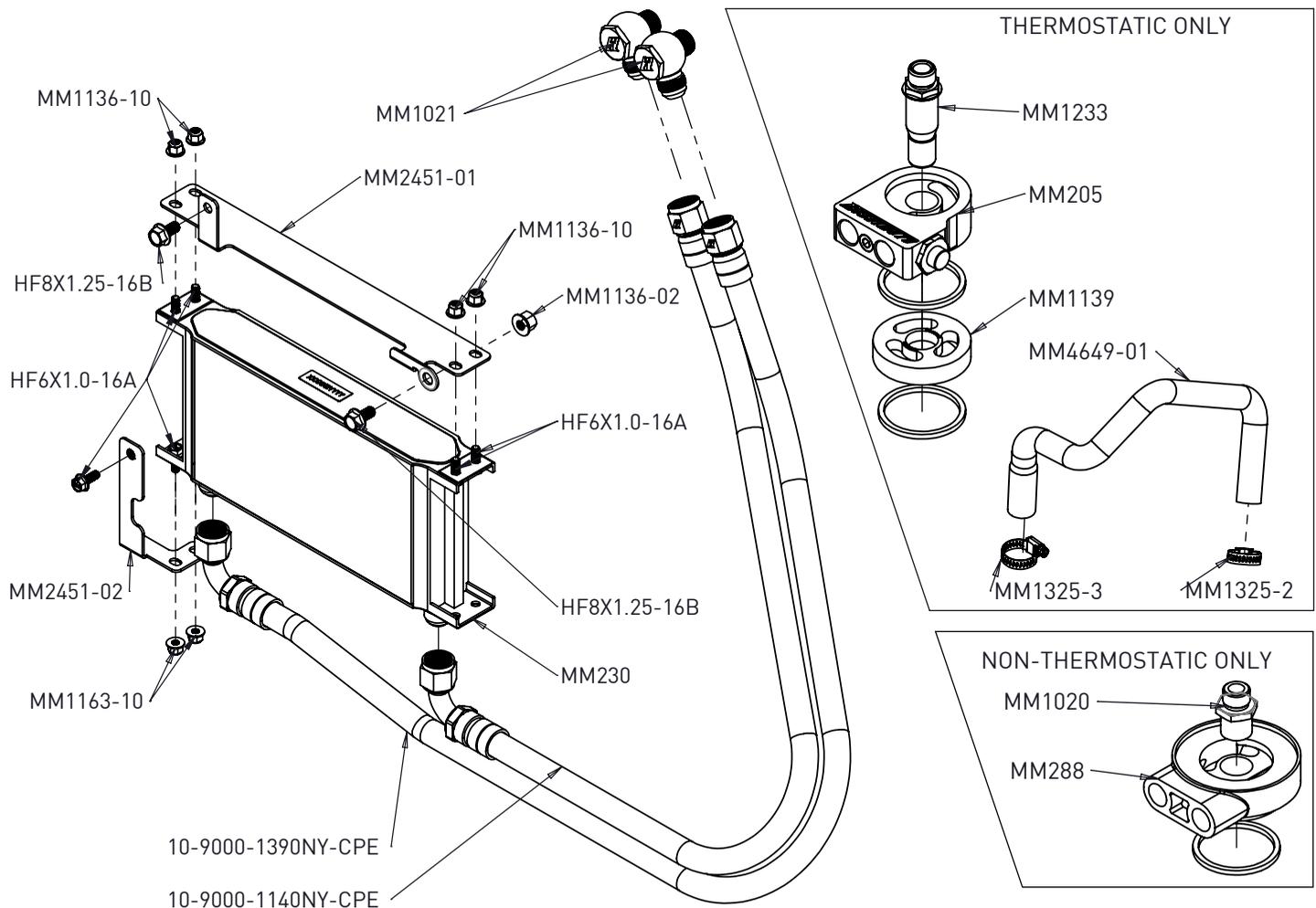
-  **CALL 1-877-GOMISHI**
CUSTOMER SERVICE HOURS: MON-FRI 8:30AM-5:00PM EST
-  **MISHIMOTO**
-  **GOMISHIMOTO**
-  **MISHIMOTO**
-  **WEBSITE**
WWW.MISHIMOTO.COM
-  **ENGINEERING BLOG**
WWW.MISHIMOTO.COM/ENGINEERING

PARTS BREAKDOWN

| PART NUMBER | DESCRIPTION | QTY |
|-------------------|---------------------|------|
| MM230 | 19 ROW OIL COOLER | 1 |
| 10-900-1390NY-CPE | OIL LINE 1 | 1 |
| 10-900-1140NY-CPE | OIL LINE 2 | 1 |
| MM2451-01 | BRACKET 1 | 1 |
| MM2451-02 | BRACKET 2 | 1 |
| MM1263-04 | WEATHER STRIPPING | 70mm |
| MM1021 | 10AN BANJO BOLTS | 2 |
| MM1163-02 | M8X1.25 LOCKING NUT | 1 |
| MM1163-10 | M6X1.0 LOCKING NUT | 6 |
| HF8X1.25-16B | M8X1.25 16MM BOLT | 2 |

PARTS BREAKDOWN

| PART NUMBER | DESCRIPTION | QTY |
|-------------|---|-----|
| HF6X1.0-16A | M6X1.0 16MM BOLT | 7 |
| MM4649-01 | COOLANT BYPASS HOSE | 1 |
| MM1325-2 | 12-20MM WORM GEAR CLAMP | 1 |
| MM1325-3 | 16-25MM WORM GEAR CLAMP | 1 |
| MM1233 | M20 SANDWICH PLATE ADAPTER | 1 |
| MM1139 | SANDWICH PLATE SPACER | 1 |
| MM205 | FRONT MOUNTED THERMOSTATIC OIL SANDWICH PLATE | 1 |
| MM288 | SANDWICH PLATE ADAPTER | 1 |
| MM1020 | M20 THREAD ADAPTER | 1 |



IMPORTANT SAFETY INFORMATION

- › Mishimoto recommends you use safety glasses and protective gloves during the installation of our products
- › Raise vehicle only on jack stands or on a vehicle lift
- › Allow vehicle to cool completely prior to attempting installation
- › Do not run the engine or drive the vehicle while overheating; serious damage can occur
- › Please dispose of any liquids properly
- › Mishimoto is not responsible for any vehicle damage or personal injury due to installation errors, misuse, or removal of Mishimoto products
- › If you need any assistance while installing our products, reach out to our Customer Service Team at 1-877-GOMISHI

REQUIRED TOOLS

| | |
|-----------------------------|--|
| -10AN WRENCH (OR 1" WRENCH) | TORQUE WRENCH |
| POP-CLIP TOOL | OIL FILTER REMOVAL TOOL |
| 10MM WRENCH | (STRAP WRENCH OR FILTER-SPECIFIC SOCKET ADAPTER) |
| 13MM WRENCH | PICK TOOL |
| 27MM WRENCH | EXTRA OIL FILTER (OPTIONAL BUT SUGGESTED) |
| NEEDLE-NOSE PLIERS | EXTRA OIL (0W-20 IS SUGGESTED BY SUBARU) (1 QUART IF NOT CHANGING OIL, 5-6 QUARTS IF CHANGING OIL) |
| SQUARE-NOSE PLIERS | EXTRA COOLANT |
| 7MM SOCKET | |
| 10MM SOCKET | |
| 13MM SOCKET | |
| 24MM SOCKET | |
| 27MM SOCKET | |
| 1/4"-DRIVE RATCHET | |
| 1/2"-DRIVE RATCHET | |

INSTALL TIME: 2-4 HOURS

DIFFICULTY: 

DISCLAIMERS:

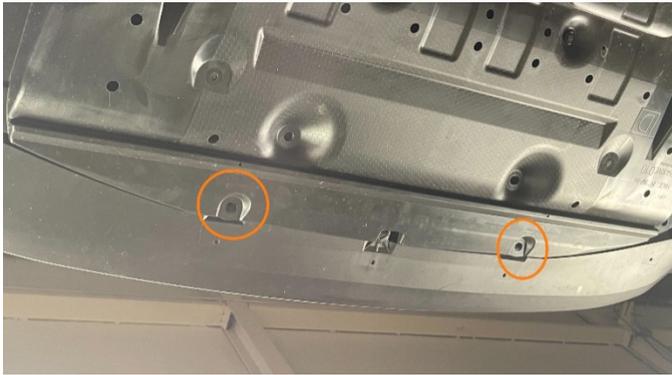
- › Raise vehicle only on jack stands or on a vehicle lift.
- › Allow vehicle to cool completely prior to attempting installation
- › Do not run the engine or drive the vehicle while overheating; serious damage can occur
- › Please dispose of any liquids properly
- › Mishimoto is not responsible for any vehicle damage or personal injury due to installation errors, misuse, or removal of Mishimoto products.

INSTALLATION INSTRUCTIONS

- 01.** Setup the vehicle on a vehicle lift or raise the front of the vehicle on jack stands. Refer to the vehicle manual for safe lifting points if you are unsure.
- 02.** Drain the engine oil only if planning to perform an oil change as part of the process.
- 03.** If installing the thermostatic oil cooler, it may be beneficial to drain the coolant out of the radiator to avoid spilling when installing the bypass hose.
- 04.** From underneath the vehicle, remove 10x push clips holding the bumper to the vehicle.



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05. Remove the 2x pop clips for the bumper in each front wheel well (4x total) by pushing in the center until a click is heard. Then pull the pop clip out from the outer edge.



06. Remove the 5x pop clips, and 6x 10mm bolts at the top of the bumper and remove the black metal trim piece on top of the bumper.



[Second image on top right]



07. Pull the bumper from the fender on each side by pulling the bumper outwards. Repeat for other side of the vehicle. Then, pull the bumper away from the vehicle just enough to remove the fog light electrical connectors on each side. Then pull the bumper away from the vehicle. It may be beneficial to have a second person to help handle the bumper removal.

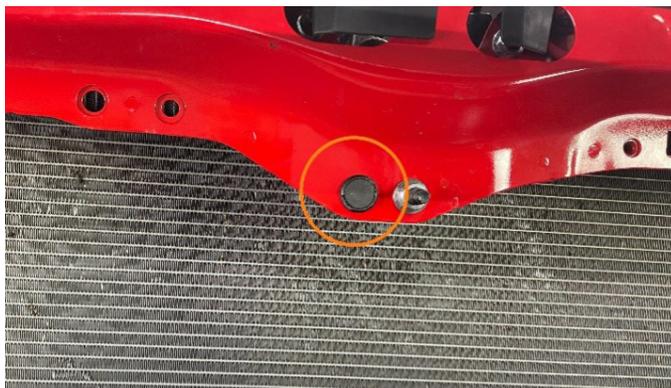


08. Remove the 2X push clips that secure the upper radiator duct to the vehicle. Remove the duct from the blue clips that secure the duct on each side and remove from the vehicle.



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09. Remove this pop clip from the center of the radiator support.



10. Install the two oil cooler brackets onto the oil cooler with the 6X included M6 locking nuts and bolts. The brackets are both slotted; however, we suggest installing the brackets with the bolts in the middle of the slot adjustment. The bolts and nuts can be installed from either direction.



11. Prepare one of the included M8 bolts and install the oil cooler. Use the m8 bolt to hang the oil cooler from the factory hole (Bolt #1 in picture). Leave this bolt loose. Then, install the included M6 bolt through the core support and into the lower oil cooler bracket (bolt #2). Leave this bolt loose for now.

12. Use the included M8 bolt and nut and install in the last hole. This bolt is a tight fit and might need to be threaded through the factory sheet metal to get it through the hole. Once all three bolts are installed, tighten all 3 bolts. Make sure there is proper clearance between the corner of the oil cooler and the A/C drier. If there is not at least 3-4mm of clearance, remove the oil cooler and adjust the brackets to move the cooler toward the center of the vehicle.



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13. NON-THERMOSTATIC ONLY: Remove the oil filter and lightly lubricate the O-ring on the bottom of the Mishimoto sandwich plate with engine oil before install. Install the included M20 adapter and sandwich plate. Do not tighten the M20 adapter yet.



14. THERMOSTATIC ONLY: Remove the oil filter and then remove the 24mm center bolt holding the oil filter assembly to the engine. Remove the clamps and coolant hoses attached to the oil filter housing and remove from the vehicle.

14A. Install the included bypass hose. The enlarged end of the hose goes on the front of the engine and the smaller side of the hose goes on the side of the engine (next to the battery). Install the hose with the included clamps (12-20mm clamp goes on the small end of the hose and 16-25mm clamp goes on the large end of the hose) and tighten the clamps with a flathead screwdriver or 7mm socket.

14B. Lubricate the O-rings on the bottom of the spacer and sandwich plate with engine oil. Install the spacer, sandwich plate, and center bolt onto the oil filter housing but do not tighten. **Note:** It may be helpful to disconnect the oil pressure sensor in front of the motor to gain better access to the end of the hose. (Images on top right)

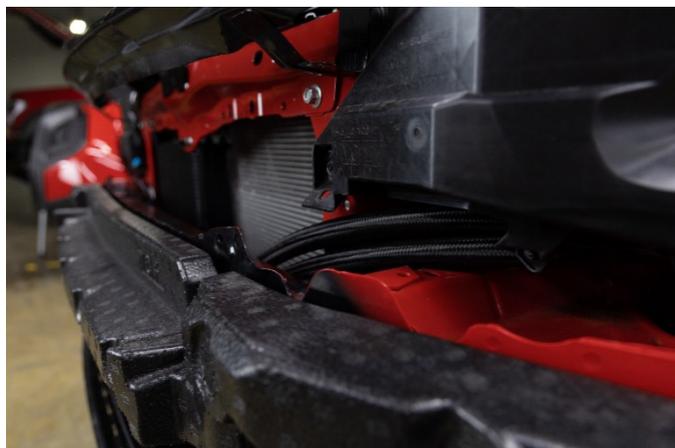


15. Take the included piece of weather stripping and use a flathead screwdriver to open it up. Place the weather stripping next to the A/C line as shown in the picture below. Use pliers to clamp the weather stripping onto the body sheet metal.



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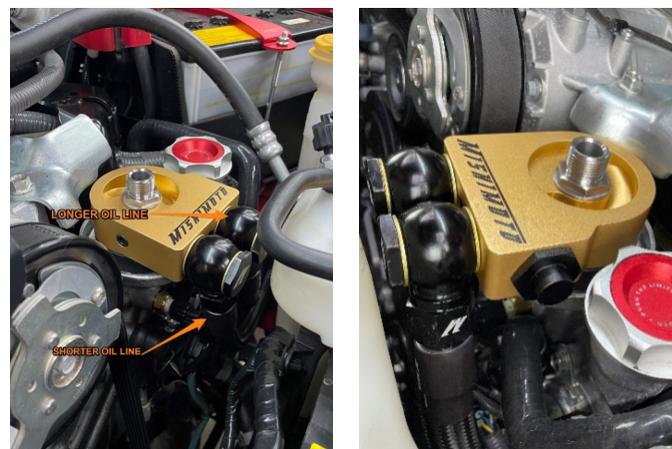
16. Take the shorter of the two oil lines and install the 90-degree fitting onto the oil cooler fitting closer to the center of the vehicle. Route the line underneath the headlight, around the core support and underneath the A/C line next to the weather stripping. The line should end up right next to the oil filter housing. Repeat with the longer oil line. Do not fully tighten the oil lines onto the oil cooler yet.



17. Install the oil lines onto the banjo bolts and then install the banjo bolts onto the sandwich plate. The shorter of the two lines goes to the passenger side of the sandwich plate and the longer line goes to the driver's side.

18. Tighten both banjo bolts with a 27mm wrench until fully seated and tighten all 4X oil line fittings. Make sure that all the oil lines are oriented so they are not touching or rubbing on anything. Pay special attention to the oil lines near the weather stripping. The lines should

pass underneath the A/C line without touching it. Tighten the center bolt to 25 lb.-ft. **Note:** It may be necessary to remove the sandwich plate from the oil filter housing to get the banjo bolts started and then reinstall the sandwich plate with the center bolt.



19. Fill the engine with oil if drained in step 2, then install the oil filter. **Note:** The oil filter will protrude past the sandwich plate, however, the seal will still be fully seated on the sandwich plate.

20. To ensure the oil cooler is filled with oil, press the throttle pedal fully to its stop and crank the engine for approximately 5 seconds. This will circulate oil through the cooler and filter without firing the engine (if the engine fires, turn off immediately).

21. Check for leaks, paying special attention to the banjo bolts and oil line fittings. Top off the coolant if necessary (thermostatic kit). Then, start the engine and check for leaks again.

22. Reinstall the upper radiator shroud and front bumper.

23. Start the vehicle and let it idle up to operating temperature. Shut the engine off then check the oil level. The engine will need about 0.75 quarts of extra oil with the oil cooler kit. We suggest starting by adding 0.5 quarts and adjusting from there to reach the proper oil level on the dipstick.

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DISPOSAL INSTRUCTIONS

- › Do not dispose of any product as unsorted municipal waste. Use separate collection facilities. Contact your local authority for information regarding the collection systems available.
- › Never improperly dispose of any coolant, oil, or other chemicals.

WARRANTY INFORMATION



- › All claims must be accompanied with a picture of the Mishimoto product showing the issue for which the claim is being submitted.
- › Mishimoto asks that the customer inspect their purchased item for any damage immediately upon arrival.
- › Any product deemed dead on arrival (DOA) must be claimed within 14 business days of delivery. Claims outside of this time frame will not be covered under the Mishimoto Lifetime Warranty.
- › This warranty does not include payment and/or reimbursement of the cost of labor in connection with the removal of any product returned pursuant to the warranty policy or in connection with the installation of any replacement items provided under the warranty policy.
- › Mishimoto has the right to refuse a claim at any time.

- › When Mishimoto accepts a claim, Mishimoto retains full discretion to choose if it will: (i) repair or replace purchaser's original Mishimoto product; (ii) replace purchaser's original Mishimoto product with the most current available model; or (iii) provide the purchaser with a gift card redeemable on [Mishimoto.com](https://www.mishimoto.com) in the amount of the original purchase price of the original Mishimoto product. The provision of a replacement of a Mishimoto product is subject to availability and Mishimoto retains the right to substitute any warranty claim item with a comparable item or credit at any time.
- › If Mishimoto determines that it will provide a replacement item in connection with a claim under this warranty policy, and such item is out of stock, Mishimoto will place the customer on backorder and ship the replacement product to the purchaser once it becomes available.
- › Mishimoto is not liable for incorrect shipments in connection with a claim if a claim form is completed incorrectly, or if a model number is not included in a claim.
- › If you have a vehicle equipped with an automatic transmission, please make sure to specify this within the text box on the claim form. Mishimoto is not responsible for incorrect replacement shipments if transmission type is not indicated.



WARNING
Cancer and
Reproductive Harm
www.P65Warnings.ca.gov

This product can expose you to chemicals which are known to the state of California to cause cancer. For more information visit: www.p65warnings.ca.gov