

# 2013+ SCION FR-S AND SUBARU BRZ DIRECT-FIT OIL COOLER

## PARTS LIST AND INSTALLATION GUIDE

### PARTS LIST

- 1PC | MISHIMOTO OIL COOLER
- 1PC | MISHIMOTO OIL COOLER BRACKET
- 2PC | MISHIMOTO BRAIDED-STEEL OIL LINES
- 2PC | MISHIMOTO BANJO FITTINGS
- 1PC | MISHIMOTO SANDWICH PLATE
- 1PC | MISHIMOTO EXCESS OIL CATCH
- 1PC | MISHIMOTO OIL FILTER HOUSING SPACER
- 1PC | MISHIMOTO OIL FILTER CENTER BOLT
- 4PC | MISHIMOTO 10MM BOLTS
- 4PC | MISHIMOTO 10MM LOCK NUTS
- 4PC | MISHIMOTO SELF-TAPPING SCREWS

### TOOLS NEEDED

- |                        |                      |
|------------------------|----------------------|
| 1/2" DRIVE RATCHET     | FLATHEAD SCREWDRIVER |
| 3/8" DRIVE RATCHET     | PHILIPS SCREWDRIVER  |
| 3/8" RATCHET EXTENSION | POP-CLIP PLIERS      |
| 1/2" RATCHET EXTENSION | OIL FUNNEL           |
| 10MM SOCKET            | OIL                  |
| 27MM SOCKET            |                      |

### DISCLAIMER

- Please dispose of any liquids properly.
- Allow vehicle to cool completely prior to attempting installation.
- Mishimoto Performance (MP) is not responsible for any vehicle damage or personal injury due to installation errors, misuse, or removal of MP products.
- MP always suggests that a trained professional install all MP products.
- Do not run the engine or drive the vehicle while overheating. Serious damage may occur.
- Raise vehicle only on jack stands or on a vehicle lift.
- See specific instructions regarding sandwich plate installation on last page.

### INSTALLATION INSTRUCTIONS

#### 01 | REMOVING THE OEM AIRBOX AND FRONT BUMPER

1. Disconnect the negative battery terminal.



2. Disconnect the mass airflow sensor and remove the factory airbox.
3. Disconnect and remove the induction hose from the factory airbox.
4. Remove the two pop clips and five 10mm bolts from the top of the front bumper. Then remove the front bumper gasket.



5. Remove the four pop clips from the inside of the fender on each side of the car. One pop clip is behind the corner marker light.
6. Remove the corner marker light by pulling on the top corner of the light. Then unplug the electrical connector for the corner marker.
7. Remove the hidden pop clip on each side of the car from behind the corner markers.
8. Remove the front splash shield by removing the three 10mm bolts and nine pop clips that hold the splash shield onto the car.
9. Disconnect the two electrical connectors for the fog lights.
10. Remove the front bumper.
11. Remove the front air dam that is secured by six pop clips.

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# 01

# 2013+ SCION FR-S AND SUBARU BRZ DIRECT-FIT OIL COOLER

## INSTALLATION GUIDE

### 02 | INSTALLING THE MISHIMOTO DIRECT-FIT OIL COOLER

1. Assemble the mounting bracket to the Mishimoto oil cooler using the supplied hardware set.
2. Install the oil cooler lines onto the oil cooler. Make sure to leave the lines loose so adjustments can be made.



3. Install the Mishimoto oil cooler and feed the oil lines into the engine compartment.
4. Install the front air dam with the six pop clips. Make sure to use the two center pop clips to secure the oil cooler bracket to the front crash bar.



5. Install the optional self-tapping screws into the bottom of the oil cooler and secure it to the plastic under tray.

6. Remove the oil filter to install the Mishimoto sandwich plate spacer. Make sure to lubricate the O-ring with oil to create a proper seal.



7. Install the Mishimoto sandwich plate. Make sure to lubricate the O-ring with oil to create a proper seal.
8. Install the Mishimoto excess oil catch. Make sure to lubricate the O-ring with oil to create a proper seal.
9. Install the center bolt for the oil filter. Hand-thread the center bolt first, and then torque down the 27mm bolt to 30ft-lb.



10. Install the oil lines onto the sandwich plate. Tighten down all the oil line fittings.



11. Reinstall the oil filter.

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# 02

# 2013+ SCION FR-S AND SUBARU BRZ DIRECT-FIT OIL COOLER

## INSTALLATION GUIDE

### 03 | REINSTALLING THE OEM AIR BOX AND FRONT BUMPER

1. Reinstall the factory air box.



2. Reconnect the mass airflow sensor.
3. Reinstall the front bumper.
4. Reconnect the electrical connectors for the fog lights.



5. Reinstall the front splash shield with the three 10mm bolts and nine pop clips.
6. Reinstall the pop clips behind the corner markers, and then reinstall the corner markers.



7. Reinstall the four pop clips on the inside of the fender on each side of the car.
8. Reinstall the front bumper gasket with two pop clips and five 10mm bolts.
9. Refill the oil system to compensate for the addition of the oil cooler. This oil cooler kit will add .65 quarts to the total capacity.



10. Start the vehicle and check for any leaks.



11. You have now successfully installed the Mishimoto Direct-Fit Oil Cooler for the 2013+ Scion FR-S and Subaru BRZ. Enjoy!

See specific instructions for installing the sandwich plate →

# 03

# 2013+ SCION FR-S AND SUBARU BRZ DIRECT-FIT OIL COOLER

## INSTALLATION GUIDE

### SANDWICH PLATE

#### 01 | ASSEMBLING 1/8" NPT PLUGS

1. Inspect components to ensure that male and female port threads and sealing surfaces are clean and dry and free of burrs, nicks, and scratches, and/or foreign material.

2. Apply Teflon® tape (or sealant) 1.5-2 full turns in clockwise direction when viewed from the pipe-thread end. Leave the first two threads without any Teflon® to avoid contamination.



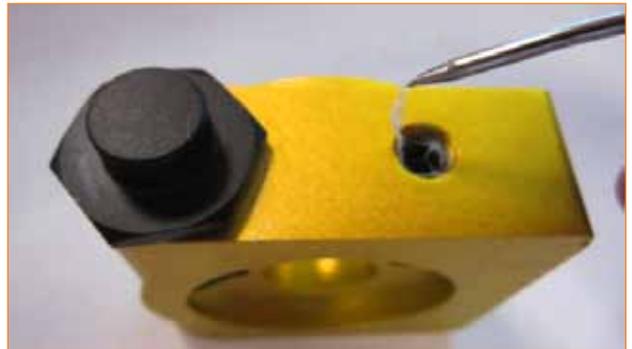
3. Screw plug into port until it is "finger tight."



4. Wrench tighten the plug 2-3 full turns. (1/8" npt only)



5. Remove any excess Teflon® after tightening.



Cleaning



6. Notice that no Teflon® tape is inside the npt port area.