

# INSTALLATION GUIDE

Oil Cooler Kit Fits 2022+ BRZ/GR86

**SKU: MMOC-BRZ-22** 

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## **RESOURCES & CONTACT**



CALL 1-877-GOMISHI

CUSTOMER SERVICE HOURS: MON-FRI 8:30AM-5:00PM EST



**MISHIMOTO** 



**GOMISHIMOTO** 



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WEBSITE WWW.MISHIMOTO.COM



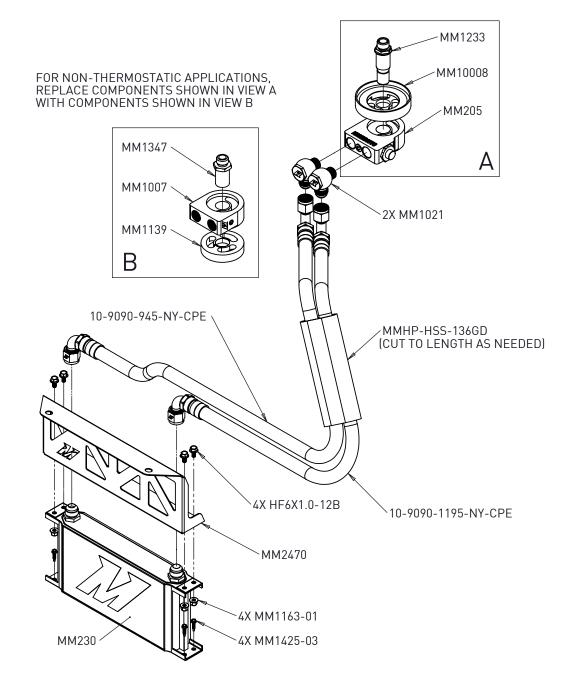
ENGINEERING BLOG
WWW.MISHIMOTO.COM/ENGINEERING



PARTS BREAKDOWN			
PART NUMBER	DESCRIPTION	QTY	
MM230	19 Row Oil Cooler	1	
MM2470	Bracket	1	
HF6X1.0-12B	M6 Hex Head Flanged Bolt	4	
MM1163-01	M6 Flanged Lock Nut	4	
MM1425-03	Drilling Screw	4	

PARTS BREAKDOWN			
PART NUMBER	DESCRIPTION	QTY	
MM205	Front Mounted Thermostatic Sandwich Plate	1	
MM10008	Cup	1	
MM1233	M20 Center Bolt	1	
MM1021	10an Banjo Fitting	2	
10-9090-1195-NY-CPE	Hose 1	1	

PARTS BREAKDOWN			
PART NUMBER	DESCRIPTION	QTY	
10-9090-945-NY-CPE	Hose 2	1	
MM1007	Non-Thermostatic Sandwich Plate	1	
MM1139	Sandwich Plate Spacer	1	
MM1347	M20 Center Bolt	1	
MMHP-HSS-136GD	Heat Shielding Sleeve	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**

Trim Tool

Small Screwdriver

Channel Locks

Heavy Duty Scissors

10mm Wrench

1" or 10B AN Wrench

1/4" Ratchet

1/2" Ratchet

8mm Socket

10mm Socket

24mm Deep Socket

27mm Deep Socket

#### **INSTALL TIME 4 HOURS**



#### INSTALLATION INSTRUCTIONS

Note: To avoid potential injury, wait for the engine to cool off before beginning installation.

- \*The front wheels have been removed for illustration purposes but are not required to be removed for installation.
- 01. Remove the 4 pop clips. The top 3 can be removed by pushing the center of the clip in with a small screwdriver and then pry the whole clip out using a trim tool. The bottom ones are normal pop clips. Repeat on the other side of the vehicle.



**02.** Pull back the liner and unplug the side marker light plug. Repeat on the other side of the vehicle.



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**03.** Using a trim tool, remove the 13 pop clips. Pay attention to which clips are used where.



**04.** Using a 10mm socket, remove the 5 bolts and use a trim tool to remove the 2 pop clips. Remove the black metal/rubber trim piece.



05. Reach around the back of the bumper here and pull straight out and away from the vehicle until the bumper pops free. Work up toward the headlight, releasing all the clips. Repeat for the other side and remove the bumper from the vehicle.



**06.** Using a 10mm socket, remove the 2 bolts then remove the intake duct.



**07.** Using a trim tool, remove the 6 pop clips then remove the cowl piece.



08. Using a 10mm socket, remove the 3 bolts (A), loosen the hose clamp on the inlet pipe near the throttle body, remove the intake hose from the throttle body, and disconnect the MAF sensor plug. Remove the intake assembly from the vehicle.



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**09.** Using a 10mm socket and wrench, install the 19-row oil cooler to the bracket as shown using the provided M6 bolts and nuts.



10. Install hose 1 and 2 onto the oil cooler in the orientation shown.
Thread the AN fittings on the oil cooler by hand first, then tighten using a 1" wrench or a 10B AN wrench.



11. Insert the assembly under the front crash bar (bracket side up) and rotate the bracket up around the back so the bracket flange lays on top. Line up the mounting holes on the bracket with the holes on the crash bar. The pop clips removed in step 7 can be used to secure it temporarily.



12. The 4 provided self-tapping screws can be used to fasten the oil cooler to the plastic reinforcement piece if a more secure installation is required.



**13.** Feed the oil cooler lines under the crash bar and under the driver-side headlight as shown.



- 14. Remove the oil filter.
- 15. If using the non-thermostatic sandwich plate, proceed to step 16. If using the thermostatic sandwich plate, skip to step 17. \*Note: the non-thermostatic setup is recommended for racing use only.

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16. Place the sandwich plate spacer on top of the oil stock oil cooler with the O-ring facing down, then place the non-thermostatic sandwich plate on top of the spacer. Thread the M20 center bolt onto the stock center bolt and tighten it to OEM torque spec using a 27mm deep socket. Skip to step 21.



17. Using a 24mm deep socket, remove the stock center bolt.



**18.** Use channel locks to loosen the 2 clamps and disconnect the coolant hoses from the tubings at the 2 location shown. Remove the stock oil cooler.



**19.** Loop the remaining coolant hose back to the other pipe and secure it with the hose clamp.



20. Place the thermostatic sandwich plate over the oil filter housing O-ring side down then place the cup over top of the plate as shown. Thread the longer M20 center bolt into the housing and tighten using a 27mm deep socket.



21. Cut the heat shielding sleeve into roughly two 1ft lengths, wrap one piece over each of the lines and slide them down the line to the position shown to protect the headlight area.



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22. Install the two 10AN banjo fittings onto the sandwich plate and tighten using a 27mm socket. Thread the lines onto the banjo fittings by hand, then tighten using a 1" wrench or a 10B AN wrench.



23. This step is optional but recommended to prevent the engine from running dry on the first startup. Remove the left side AN fitting and push the outlet hose of a fluid transfer pump into the fitting. Use the pump to prefill the oil cooler and lines with engine oil until you see it come out of the hole in the sandwich plate. Once filled, remove the hose, and reinstall the AN line and the oil filter.

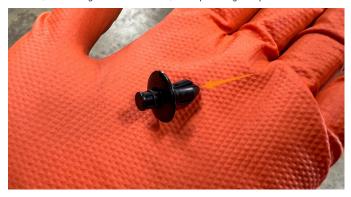


24. Reinstall the stock airbox and inlet pipe.

**25.** Reinstall the cowling piece using the 6 pop clips. The oil cooler bracket should be sandwiched between the crash bar and the cowl as shown.



- 26. Reinstall the intake duct from step 6.
- 27. Reinstall the bumper. Be sure to plug the side marker lights back in. The fender liner pop clips are installed by first pushing the pin out, installing into the vehicle, then pushing the pin back in.



- 28. Start the vehicle and check for leaks.
- 29. Check the oil level and add as needed.

Congratulations! You have finished your installation.



#### **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 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.



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