



INSTALLATION GUIDE

Performance Front Mount Intercooler Kit, Fits 2022+ Subaru WRX
SKU: MMINT-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

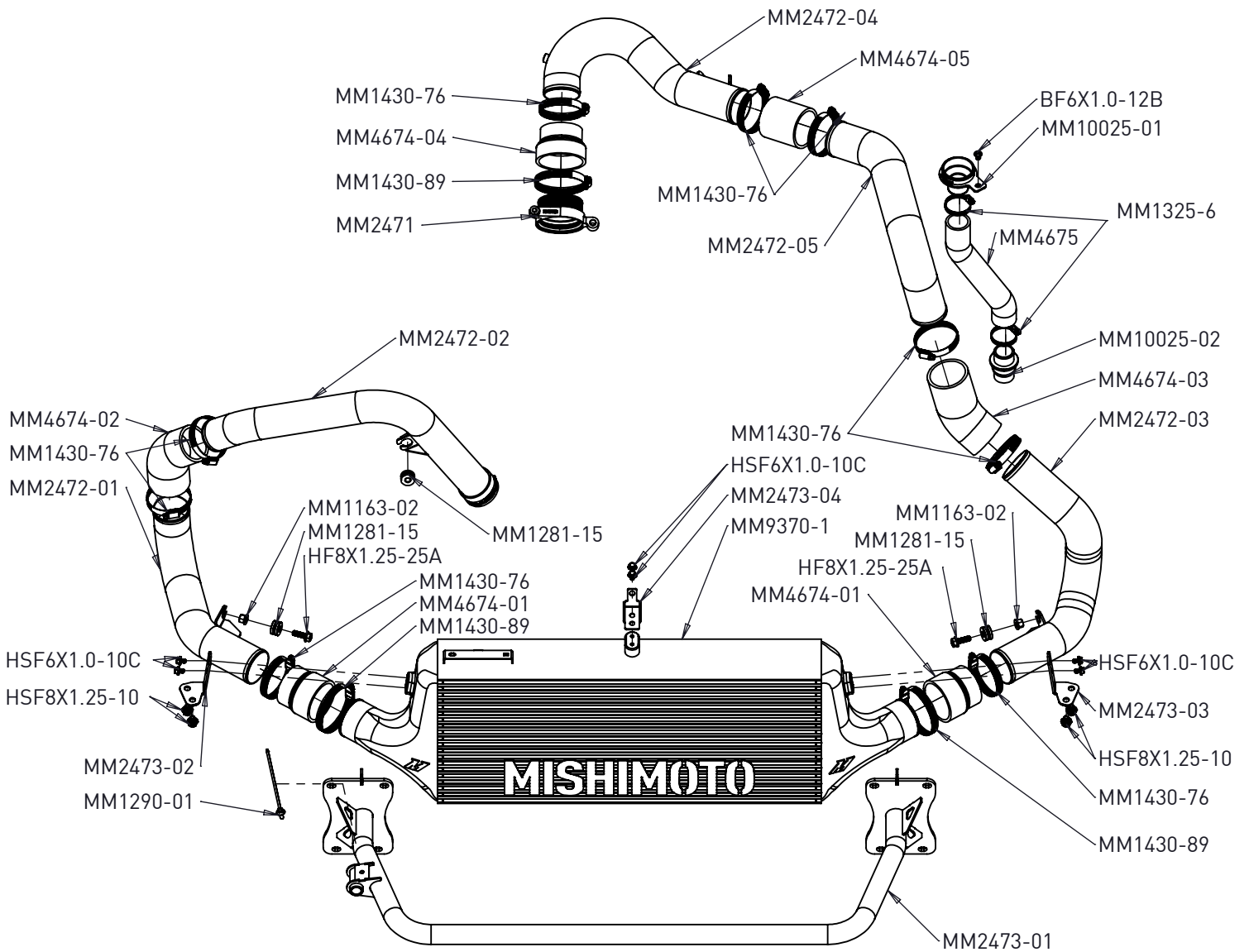
PART NUMBER	DESCRIPTION	QTY
MM9370-1	INTERCOOLER	1
MM2473-01	CRASH BAR	1
MM2473-02	BRACKET 1	1
MM2473-03	BRACKET 2	1
MM2473-04	BRACKET 3	1
MM2472-01	PIPE 1	1
MM2472-02	PIPE 2	1
MM2472-03	PIPE 3	1
MM2472-04	PIPE 4	1
MM2472-05	PIPE 5	1
MM4674-01	COUPLER 1	2
MM4674-02	COUPLER 2	1
MM4674-03	COUPLER 3	1
MM4674-04	COUPLER 4	1
MM4674-05	COUPLER 5	1

PARTS BREAKDOWN

PART NUMBER	DESCRIPTION	QTY
MM4675	HOSE	1
MM2471	ADAPTER	1
MM10025-01	WASHER FLUID UPPER ADAPTER	1
MM10025-02	WASHER FLUID LOWER ADAPTER	1
MM1290-01	TREE CLIP ZIP TIE	1
MM1281-15	GROMMET	3
MM1430-76	52-76MM HD WORM GEAR CLAMP	9
MM1430-89	65-89MM HD WORM GEAR CLAMP	3
MM1325-6	30-45MM WORM GEAR CLAMP	2
HSF6X1.0-10C	10MM M6 BOLT	6
BF6X1.0-12B	12MM M6 BOLT	1
HSF8X1.25-10	10MM M8 BOLT	4
HF8X1.25-25A	25MM M8 BOLT	2
MM1163-02	M8 LOCK NUT	2
MM1280-02*	FOAM STRIP	1

*NOT SHOWN

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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

PHILLIPS HEAD SCREWDRIVER	1/4" 8MM SOCKET
FLATHEAD SCREWDRIVER	1/4" 10MM SOCKET
LONG PICK TOOLS	10MM WRENCH
SHORT PICK TOOLS	12MM WRENCH
DIAGONAL WIRE CUTTERS	13MM WRENCH
NEEDLE NOSE PLIERS	4MM ALLEN KEY
3/8" RATCHETING WRENCH	2.5MM ALLEN KEY
3/8" EXTENSIONS (3" AND 6")	FLOOR JACK AND JACK STANDS (2) OR VEHICLE LIFT (RECOMMENDED)
3/8" DRIVE 10MM SOCKET	STANDS (2) OR VEHICLE LIFT (RECOMMENDED)
3/8" DRIVE 12MM SOCKET	SILICONE LUBRICANT (RECOMMENDED)
3/8" DRIVE 12MM DEEP SOCKET	(RECOMMENDED)
3/8" DRIVE 13MM SOCKET	(RECOMMENDED)
3/8" AND 1/4" DRIVE TORQUE WRENCH	DREMEL TOOL WITH CUTOFF WHEEL (STOCK INTAKE ONLY)
1/4" DRIVE NUT DRIVER	PAINTER'S TAPE
1/4" DRIVE RATCHETING WRENCH	(RECOMMENDED)
1/4" 7MM SOCKET	

INSTALL TIME: 2-3 HOURS

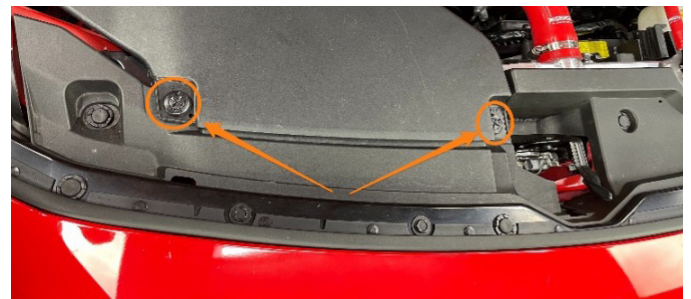
INSTALL DIFFICULTY: 

INSTALLATION INSTRUCTIONS

NOTE: The silicone couplers are designed to fit tightly on the charge pipes to increase reliability. We suggest using a lubricant such as silicone lubricant or hairspray to allow easy installation.

NOTE: When installing the included grommets onto the charge pipes, first remove the metal insert from the bracket, install the rubber grommet, and then reinstall the metal insert.

1. Disconnect the 10mm negative battery terminal. This installation involves working around the battery. It is suggested to remove the negative battery terminal to avoid an accidental short.
2. Jack the front of the vehicle up (or put the vehicle on a vehicle lift) to allow for easy access to the bottom of the front bumper. This installation can be done without lifting the front of the vehicle, however, access to the bottom of the bumper and wheel wells will allow for a quicker and easier installation process.
3. Remove the 2x Pop clips that secure the air intake duct to the radiator cover and remove them from the vehicle.



4. Remove the 4x 12mm bolts securing the top mount intercooler to the vehicle.



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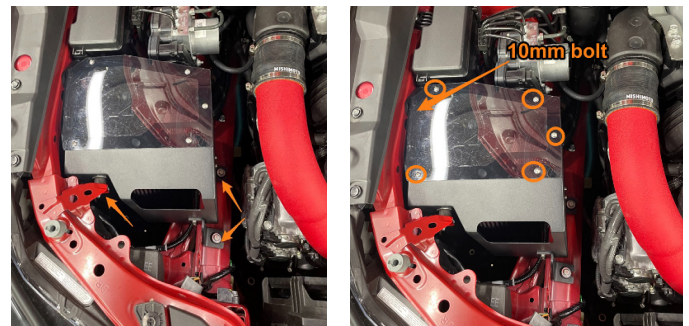
5. Using a flathead screwdriver or pick tool, release the spring clip that secures the two sections of the charge pipe. Push the intercooler assembly towards the rear of the vehicle to separate it from the charge pipe and remove it from the vehicle. Remove the 2x 12mm bolts holding the passenger side intercooler bracket from the vehicle and remove the bracket from the vehicle.



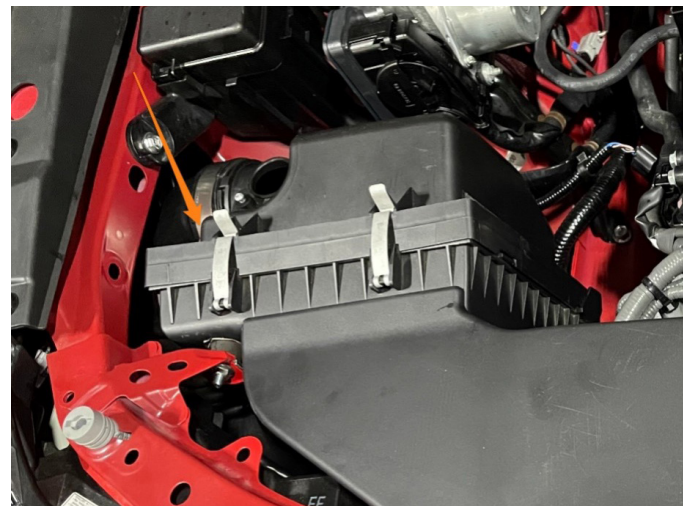
6. Remove the 1x 12mm bolt securing the lower charge pipe to the engine and save for the installation of the new intercooler charge pipe. Then, using a long pick tool or flathead screwdriver, remove the spring clip holding the charge pipe to the turbo outlet and pull up on the charge pipe to remove it from the vehicle. It may be helpful to remove the passenger-side radiator fan for easier access to the charge pipe clip. There are 2x 10mm bolts and 3x electrical connectors securing the fan to the radiator. We suggest covering the turbo outlet after this step to prevent any bolts or other debris from falling into the turbo.



7. **For Mishimoto Intake:** Remove the intake box. Remove the 2x 10mm bolts securing the intake box to the frame rail and the 1x 10mm nut securing the front intake box to the bracket. Remove the 5x screws securing the airbox cover to the airbox with a 2.5mm Allen key. Loosen the 1x 10mm bolt on the inside of the intake box and remove the box from the vehicle.



8. **For Factory Intake:** Disconnect the Mass airflow sensor electrical connector and loosen the 8mm clamp securing the intake tube to the mass air flow sensor housing. Remove the 2x 10mm bolts that secure the intake box to the frame rail (see photo in step 7 for location). Remove the intake box from the vehicle.



9. Remove the 2x push-in clips, 3x pop-clips, and 6x 10mm bolts holding the bumper bracket to the bumper support and remove the bumper bracket from the vehicle. **(Image on next page)**

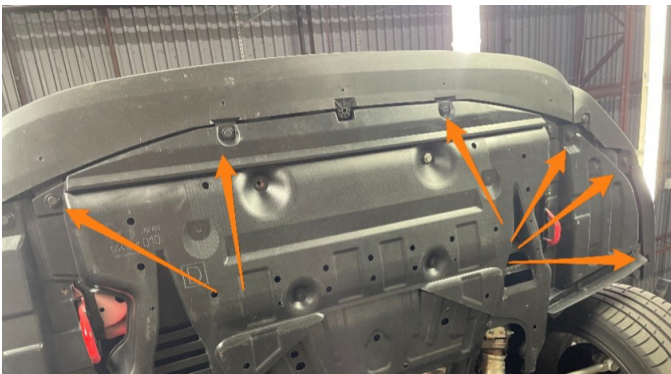
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10. Remove the 2x (4x total) push-in clips from the bumper in each wheel well.



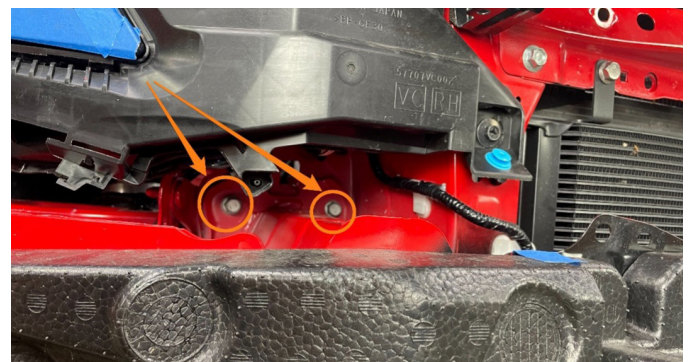
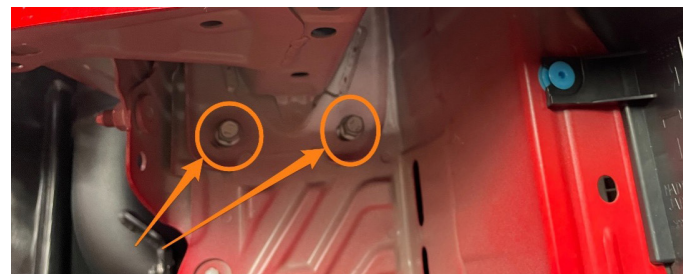
11. Remove the 8x pop clips holding the undertray and wheel well liners to the bumper.



12. Gently pull the corners of the bumper away from the fender and pull the bumper away from the vehicle. Remember to disconnect the fog lights on each side of the vehicle (on the inside of the bumper) before fully pulling the bumper away from the vehicle. This step is significantly easier with two people. At this point, we suggest putting painter's tape at the edge of the headlight where the bumper meets the headlight to prevent scratches upon reinstallation.

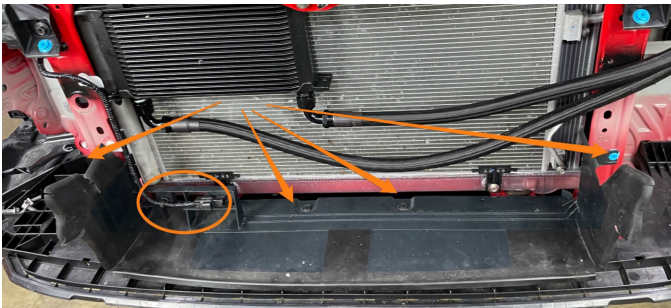
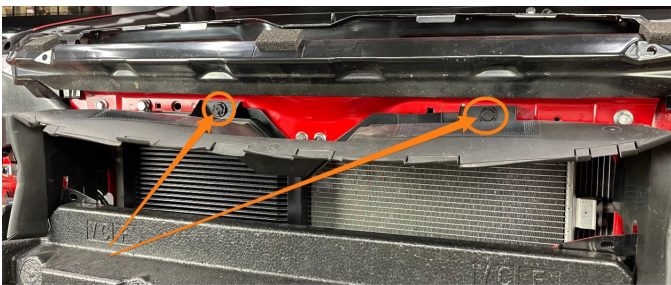


13. Remove the 8x 12mm bolts securing the factory crash bar to the frame of the vehicle and remove the crash bar from the vehicle. On each side of the crash bar, there are 2x bolts on top of the crash bar and 2x bolts on the bottom side of the crash bar.



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14. Remove both the upper and lower radiator shroud. Remove 2x pop clips from the top radiator shroud and pull the radiator shroud out by detaching the shroud from the blue clips on each side. Remove the 2x pop clips securing the lower shroud to the vehicle. Using needle nose pliers, detach the ambient temperature sensor and wiring from the lower shroud. Detach the lower shroud from the 2x blue clips on each side and remove it from the vehicle.

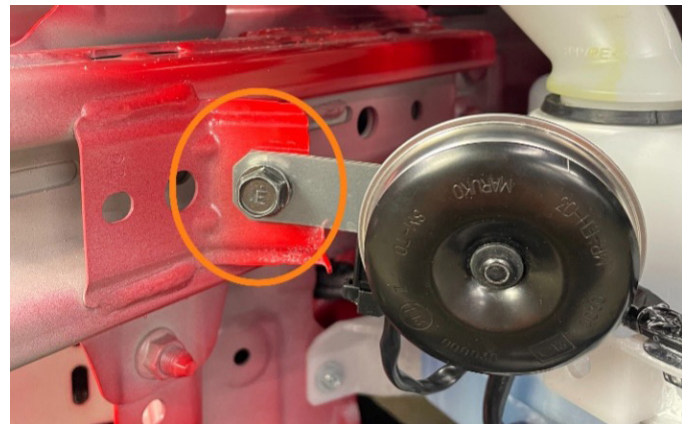


15. Follow the wiring for the ambient temperature sensor underneath the headlight and in front of where the intake box is located. Detach all the wiring clips that secure the wiring harness to the vehicle, including disconnecting the passenger side horn connector. Reroute the harness underneath the headlight and reconnect the horn wiring. Drape the rest of the harness towards the front of the car, to be secured in a later step.

[Second image on top right]



16. Remove the driver's side horn assembly by removing the 1x 12mm bolt and disconnecting the electrical connector.

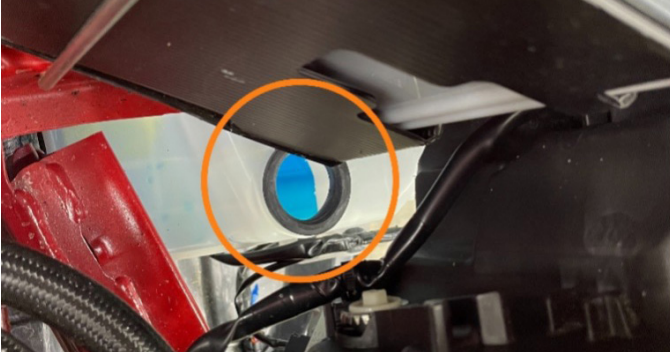


17. Using a Phillips head screwdriver, remove the black clip holding the windshield washer reservoir fill tube to the core support. Pull up on the washer reservoir to remove. Make sure to replace the rubber grommet that fits between the fill tube and the reservoir.

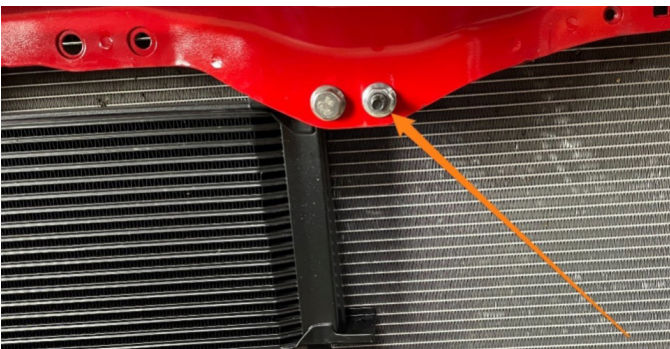
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18. Remove the 1x 12mm nut in the center of the core support. Save this nut for later.



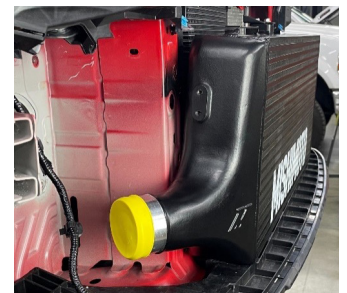
19. Using 2x included 10mm long M6 bolts, attach the upper intercooler bracket (MM2473-04) to the top of the intercooler as shown. Leave the bolts just loose enough to be able to adjust the bracket in further steps.



20. If you are running the Mishimoto or similar oil cooler kit, it may be necessary to zip-tie the oil cooler lines to each other and the core support to ensure that there is enough room to allow the intercooler core to be mounted. There is enough room to sneak the -10AN lines behind the intercooler.



21. Mount the intercooler to the chassis using the nut removed in step 18. Temporarily tighten the nut while pushing upward on the intercooler to not allow the weight of the intercooler to be supported by the plastic splitter underneath it.



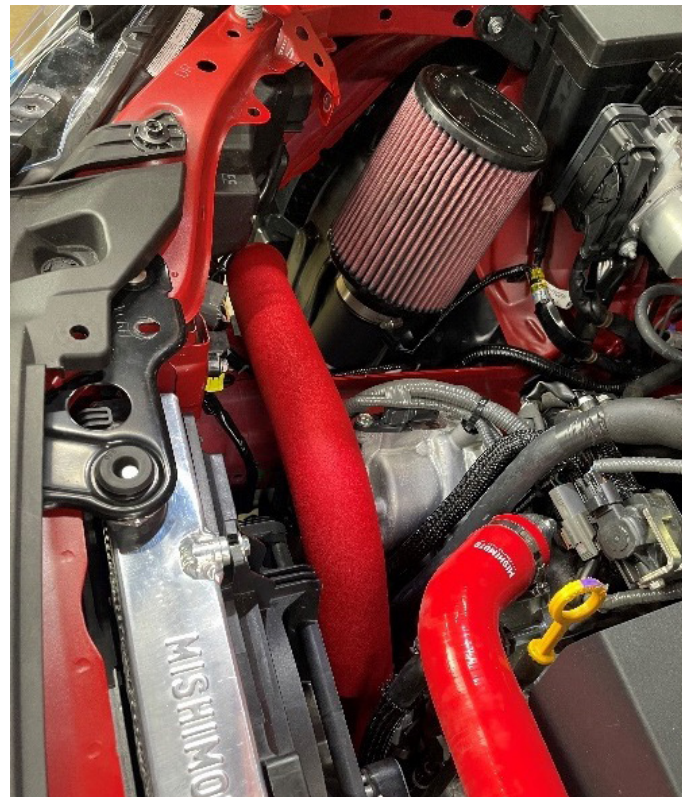
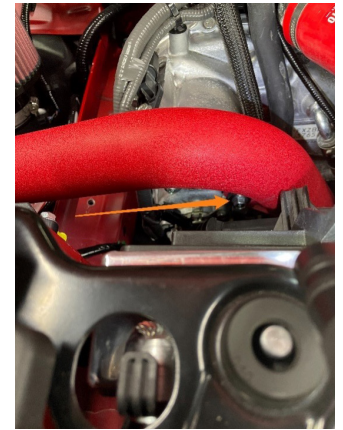
22. Mount the crash bar to the vehicle using the factory 12mm bolts. Use the hangers on the crash bar to mount to the vehicle and hold it up while installing the factory bolts. Install all 8x 12mm bolts but leave them loose enough to allow adjustment within the slotted holes on the crash bar.

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23. Install the two side intercooler brackets (MM2473-02 and MM2473-03) to the crash bar and intercooler. For each bracket, use the included black M8 10mm long bolts to fasten the bracket to the crash bar and M6 10mm long bolts to fasten the brackets to the intercooler. It may be necessary to loosen the 12mm nut holding the upper intercooler bracket to the core support to allow enough adjustment to get all the other bolts to line up. Once all the bolts have been installed, adjust the crash bar so that the crash bar is centered in the slotted holes, and tighten all 8x 12mm bolts to 32Nm. Then, tighten the 2x 13mm M8 bolts, 6x (2x on each side bracket and 2x on the top bracket) 10mm M6 bolts, and 1x 12mm nut securing the top intercooler bracket to the core support. During this process, push up the bottom of the intercooler to make sure that it is not resting on the plastic splitter below. In addition, make sure the intercooler core is centered and level with the crash bar and vehicle.

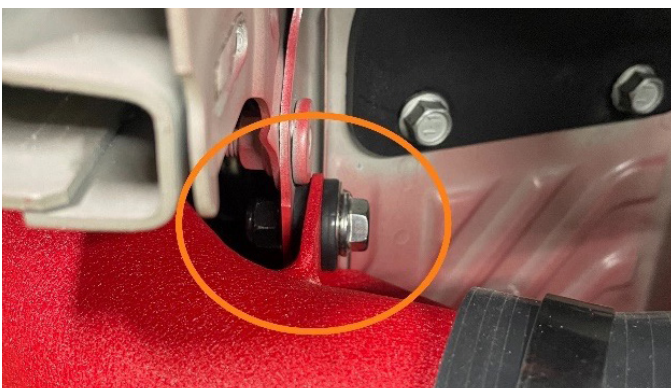
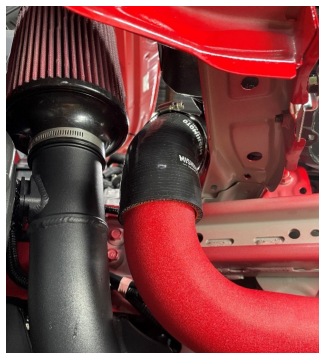


24. Install one of the included grommets (MM1281-15) in the bracket of the turbo outlet pipe (MM2472-02) as shown. Lightly lubricate the O-ring on the inside of the inlet of the pipe (on the turbo side) and ensure that the circlip is fully seated in its slot. Push the quick connection onto the outlet of the turbo until an audible click is heard. Then, install the factory M8 bolt through the grommet and bracket on the charge pipe into the hole in the motor. Leave the bolt slightly loose so that the pipe can be adjusted in later steps.



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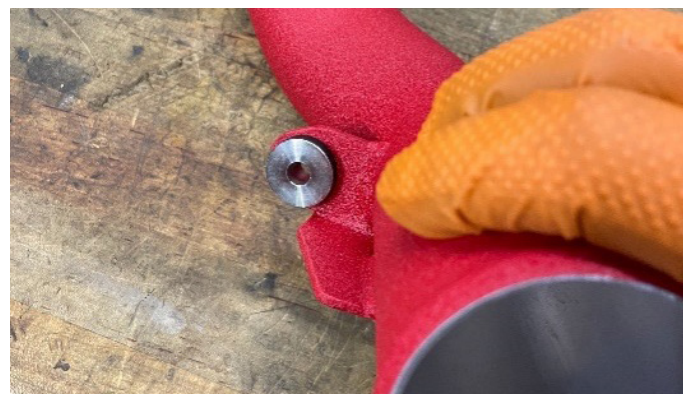
25. Prepare the second pipe (MM2472-01, intercooler inlet pipe) by installing the grommet into the bracket. Then install one of the two straight adapter couplers (MM4674-01) onto the pipe, on the side closer to the bracket. Put the coupler all the way onto the pipe, so that the end of the pipe and the end of the coupler are in the same plane. Install the 2.25" to 2.5" angled adapter silicone (MM4674-02) onto the turbo outlet pipe, with the 2.5" side facing toward the ground. Pre-install (but do not tighten) 2x 52-76mm worm gear clamps onto the angled coupler, and pre-install 1x 52-76mm and 1x 65-89mm worm gear clamp on the straight coupler on the pipe. Install the intercooler inlet pipe onto the turbo outlet pipe and line the other side up with the intercooler core. The bracket and grommet on the pipe should be aligned with a hole in the body, with the rubber side of the grommet touching the car. Install 1x included M8 25mm bolt through the grommet and body of the vehicle and secure with an included M8 lock nut. Align the pipe with the intercooler inlet and slide the straight adapter coupler onto the intercooler inlet. It may be necessary to use a small amount of silicone lubricant to allow it to slide on the intercooler inlet easily. Position but do not tighten the worm gear clamps.



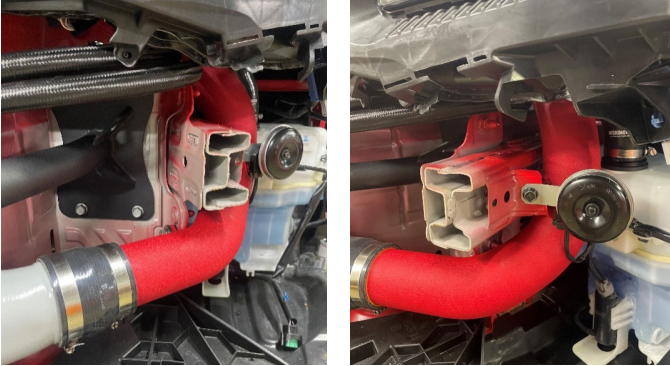
26. In preparation for installing the cold side charge pipes, install the throttle body adapter (MM2471) onto the throttle body with the factory bolts. Make sure that the adapter is put onto the throttle body evenly to prevent pinching the O-ring. Torque to 16Nm. Install the silicone adapter (MM4674-04) onto the throttle body with 1x 65-89mm worm gear clamp on the adapter side.



27. Install one of the provided grommets (MM1281-15) into the intercooler outlet pipe (MM2472-03) as shown. Pre-install the straight silicone adapter (MM4674-01) onto the pipe along with a 52-76mm (on the bracket side) and a 65-89mm worm gear clamp on the inlet side. Install the charge pipe onto the vehicle and secure it to the vehicle body with the included M8 25mm long bolt and lock nut. Then, slide the straight silicone adapter onto the intercooler outlet and put the worm gear clamps in place, but do not fully tighten. (Other 2 images on next page)



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28. Install the 45-degree 2.5" silicone coupler (MM4674-03) on the end of the intercooler outlet pipe. The side with the shorter straight section should be on the intercooler outlet pipe (MM2472-03). Pre-install 2x 52-76mm worm gear clamps onto the coupler and then install the next charge pipe (this is the only charge pipe without any bracket.) Refer to the pictures and exploded view for orientation.



29. Install the straight 2.5" coupler (MM4674-05) onto the end of the pipe from step 28, along with 2x 52-76mm worm gear clamps. Install the final charge pipe (MM2472-04) as shown. Make sure that the hole in the bracket lines up with the intercooler bracket and install the factory bolt to secure the charge pipe. Make sure to pre-install the final 52-76mm worm gear clamp. Do not fully tighten the bolt to allow adjustment in further steps.



30. Review the positions of all 5 charge pipes and make any adjustments necessary to make sure that all the charge pipes are fully seated into the silicone couplers and none of the charge pipes are rubbing on anything. Pay special attention to making sure that the charge pipe over the A/C line and the battery to make sure that the charge pipe cannot contact the positive battery terminal or A/C lines. This kit is designed to give ample clearance for the battery while still allowing for plenty of clearance between the charge pipe and the hood. Then, tighten all the brackets (12mm bolt for the turbo

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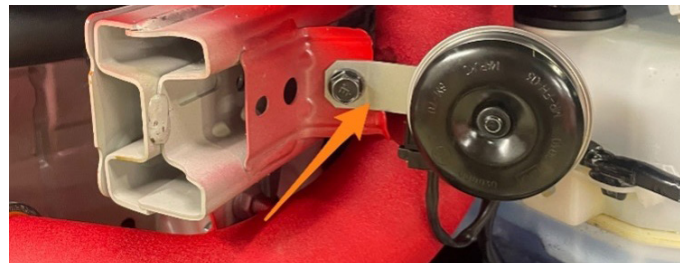
outlet pipe, 2x 13mm bolts and nuts for the intercooler inlet and outlet pipes, and 12mm bolt for the throttle body charge pipe.) Then go through all the charge pipes and fully tighten all 12 worm gear clamps. It should not be necessary to bend the A/C line to allow clearance. Review all the crash bar and intercooler bolts to make sure everything is tight and adjusted properly.



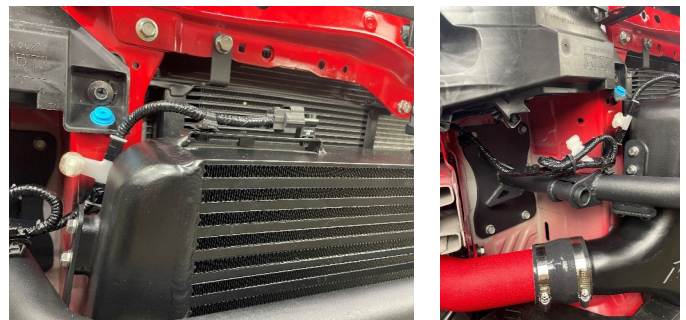
31. Install the windshield washer reservoir lower adapter (10025-02) into the windshield washer reservoir. It may be necessary to lubricate the part to easily get the adapter into the rubber grommet. Then, install the silicone adapter tube (MM4675) onto the adapter with one of the included small worm gear clamps (MM1325-6). The side with the shorter straight section should be on the washer reservoir side. Then, install the upper adapter (10025-01) into the silicone tube and secure it with the other included small worm gear clamp (MM1326-6). Adjust the tube and adapters and use the included M6 button head flange bolt (BF6X1.0-12B) to secure the part to the vehicle using the hole next to the hood latch cable clip. It may be necessary to temporarily move the hood latch cable and rotate the cable clip 180 degrees to achieve better fitment. (Third image on right)



32. Tighten the 2x MM1325-6 worm gear clamps and install the factory washer fluid reservoir cap onto the Mishimoto adapter. Reinstall the driver's side horn with the factory 12mm bolt. It will be necessary to bend the horn bracket away from the charge pipe so that they do not rub on each other.

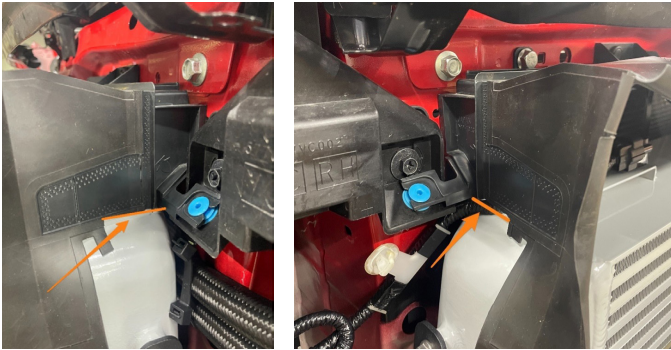


33. Install the ambient temperature sensor in the bracket on the top of the intercooler core. Then, take the included tree clip zip tie and install it in the top hole in the bracket for the tow hook receiver in the crash bar. Take the excess wiring harness for the ambient temperature sensor and secure it to the crash bar with the tree clip zip tie.



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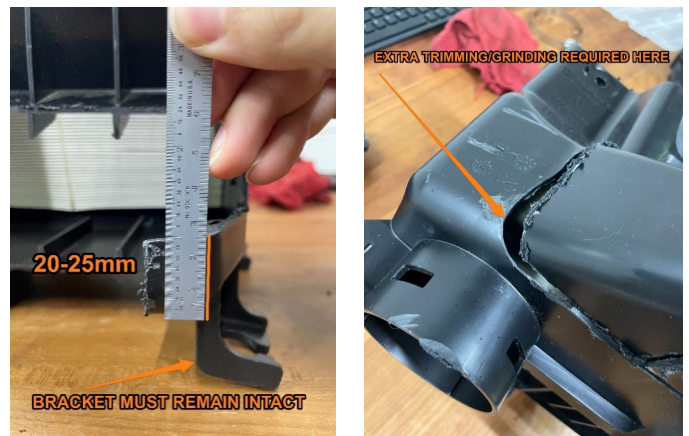
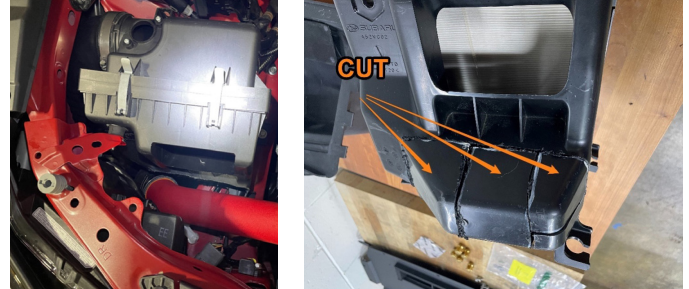
34. Optional: Trim the side flaps on the upper radiator shroud. So that they are flush with the side brackets. Refer to the pictures below for the trim line. Reinstall the upper radiator shroud with the factory push clips.



34. For Mishimoto Intake: Place the included foam strip in the location shown and reinstall the intake box. It may be necessary to adjust the position of the clamp so that the clamp or the tail of the clamp does not touch the airbox. Installation of the airbox should be the reverse of removal.



35. For Factory Intake: The factory intake box requires significant trimming to fit with the intercooler kit. We suggest starting by using a Dremel and cutting wheel to make the major cuts, and then moving to a sanding wheel for the remainder of the trimming. Use the guide and measurements in the provided pictures to make the cuts. After trimming the intake box and confirming fitment with the charge pipe, clean out any debris from the intake box and install the airbox for final installation. Do not forget to reinstall the mass airflow sensor electrical connection.



36. Reinstall the factory bumper cover and intake air duct. Reconnect the negative battery terminal. If preferred, the top mount intercooler bracket for the passenger side can be fully removed if it has not already, as it is no longer 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](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