

MISHIMOTO

INSTALLATION GUIDE

Transmission Cooler, Fits 2013-2020 Ram 1500 (8HP)

SKU: MMTC-RAM-14

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RESOURCES & CONTACT

CALL 1.877.466.4744
CUSTOMER SERVICE HOURS: MON-FRI 9:00AM-7:00PM ET

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ENGINEERING BLOG
WWW.MISHIMOTO.COM/ENGINEERING

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 1.877.466.4744

REQUIRED TOOLS

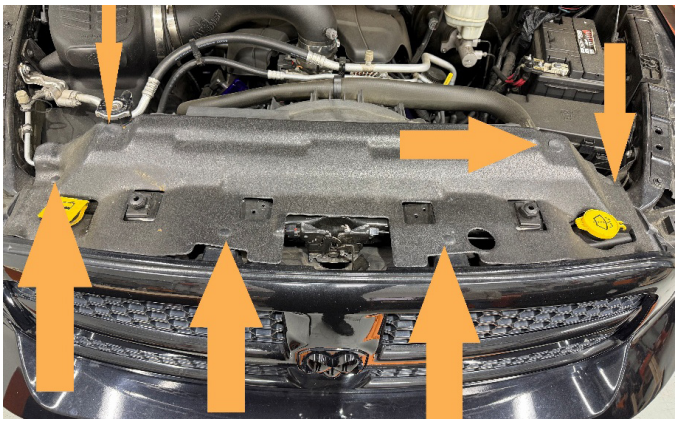
10 MM SOCKET
13 MM SOCKET
8 MM SOCKET
1/4" AND 3/8" DRIVE RATCHET
DRAIN PAN OR RAGS
PICK TOOL
PLASTIC TRIM TOOL
MOPAR 8&9 SPEED ATF TRANSMISSION FLUID
FLUSH CUTTERS

INSTALL TIME: 2 HOURS

INSTALL DIFFICULTY:

INSTALLATION INSTRUCTIONS

1. Using the plastic trim tool, remove the 6 push pins securing the Upper radiator seal cover.



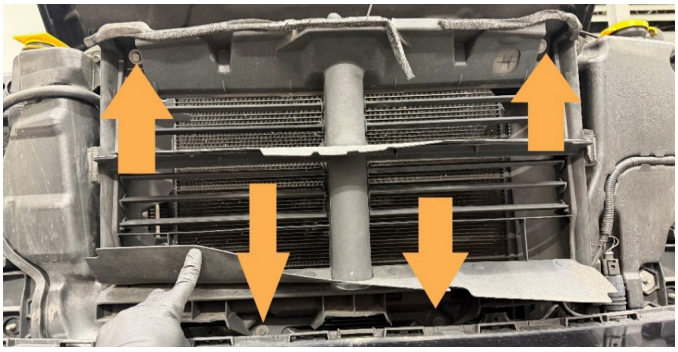
2. Unscrew the 4 upper grille bolts. There are 2X 8mm (outside bolts) and 2X 10mm (middle bolts).

3. Remove the grille by gently pulling the forwards from the bottom corners. There are push clips that hold the lower side of the grille in place.



4. Remove the Active Grille Shutter. There are 2X 13mm bolts on the top left and right. There are also 2X 10mm bolts on the bottom under the plastic cover which you will have to lift up to gain access to the bolts.

Note: Be careful when removing the Active Grille Shutter since there is an electrical connector on the back.



5. Disconnect the electrical connector behind the middle post of the Active Grille Shutter, unclip the wire from the bottom of the frame and remove the shutter.



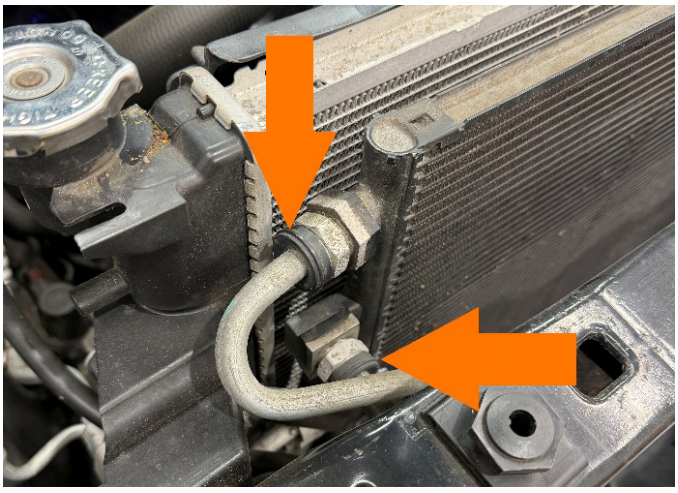
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6. Install the two mounting brackets on the Mishimoto Transmission Cooler. Do not fully tighten the bolts during this step.

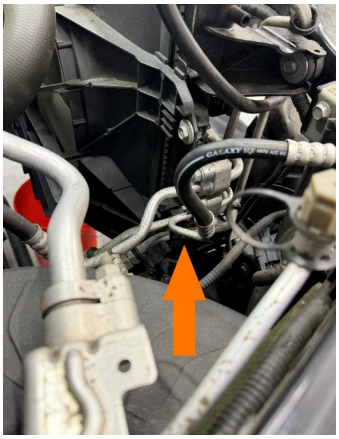



7. Disconnect the OEM transmission cooler lines from the OEM transmission cooler. Use a pick tool to back off the Plastic covers. Once the covers are removed, use the pick tool to remove the metal clip that holds the lines in place. Make sure not to lose the metal clip since it will need to be reinstalled.

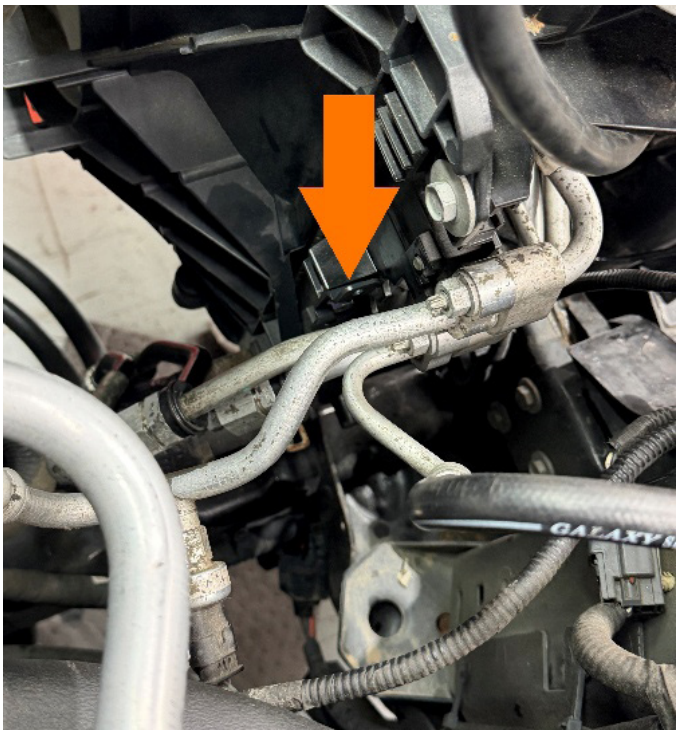
Tip: The lines will leak as soon as they are removed from the fittings so have a drain pan or rags under the vehicle. You can plug the open fittings for now.



8. Unclip the bracket using the pick tool from underneath the clip before unbolting it to make it easier to get the clip off the lines. Using a 10 mm socket, unscrew the bolt holding the bracket to the radiator.

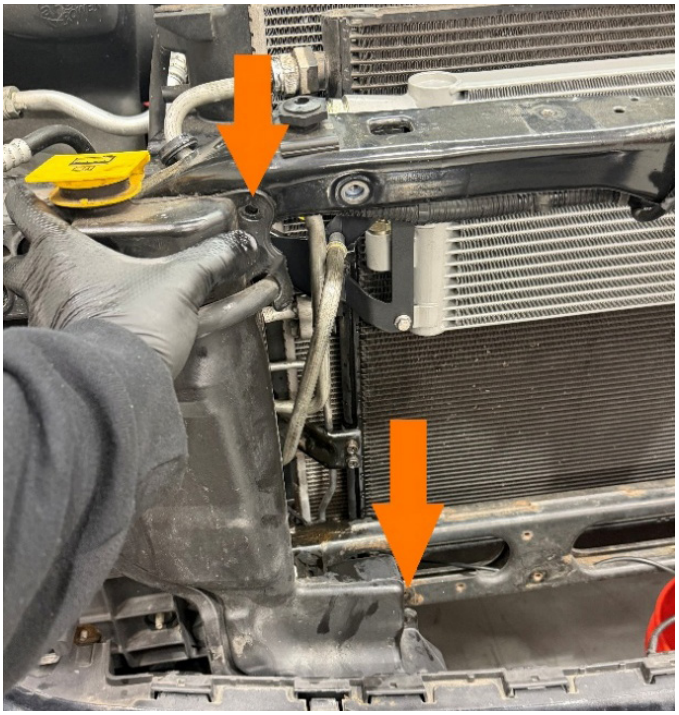



9. Install the Mishimoto line bracket using the supplied 14mm flanged M6 hex bolt. Tighten with a 10mm socket.



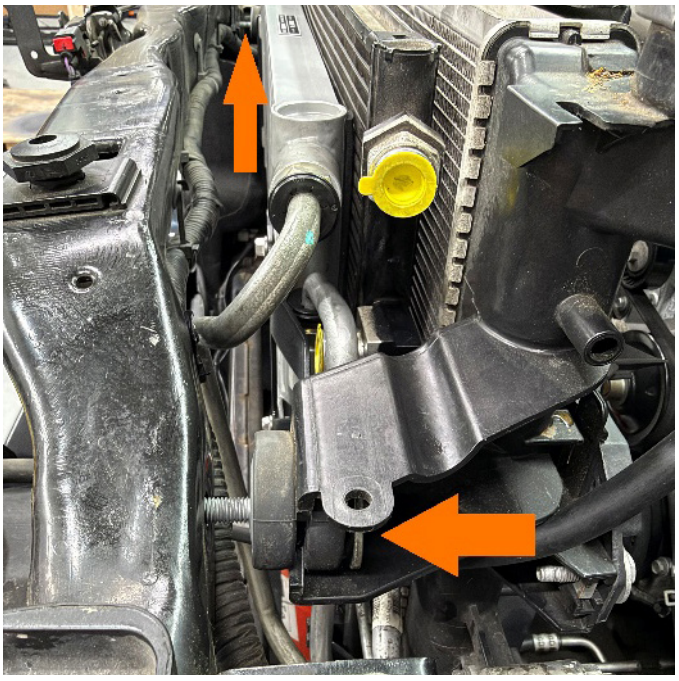
10. Remove the 2X 10mm bolts that secure the coolant jug to the vehicle. Remove the coolant jug. (Image on following page)

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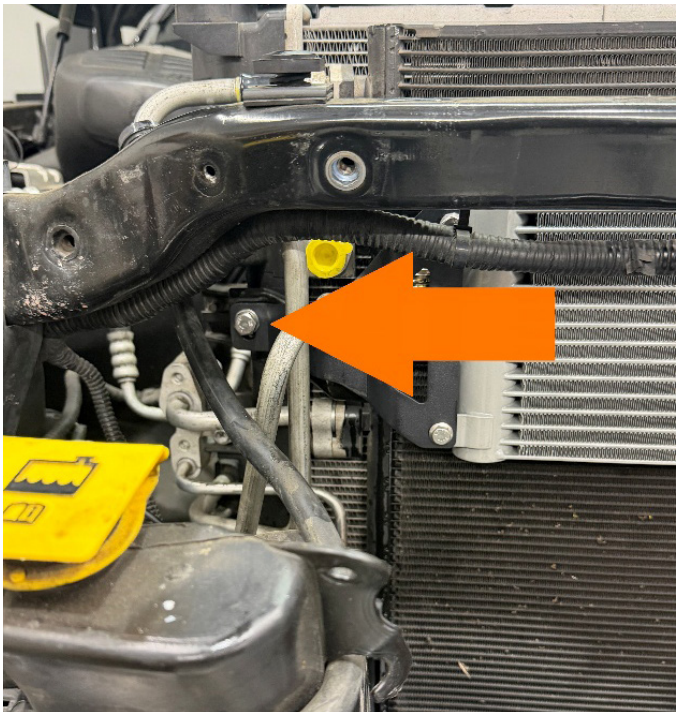


11. Loosen the two upper radiator bolts using a 13mm socket to give space while installing the Mishimoto Transmission Cooler.

Note: The bolts only need to be loosened enough to tilt the top of the radiator backwards about an inch.



12. Using a 13mm socket, Remove the upper bolt that holds the passenger side of the Transmission Cooler and A/C Condenser to the radiator.



13. Before installing the Mishimoto Transmission cooler, have the provided 25mm M8 hex bolt fitted with the lock washer and flat washer to fasten the cooler so it won't fall.

14. Install the Mishimoto transmission cooler on the vehicle. Slide the driver's side bracket into the tab on the radiator first, then install the bolt on the passenger side. Do not fully tighten yet.

Note: If you are bypassing the OEM transmission cooler refer to Appendix 1 in place of steps 17-18.

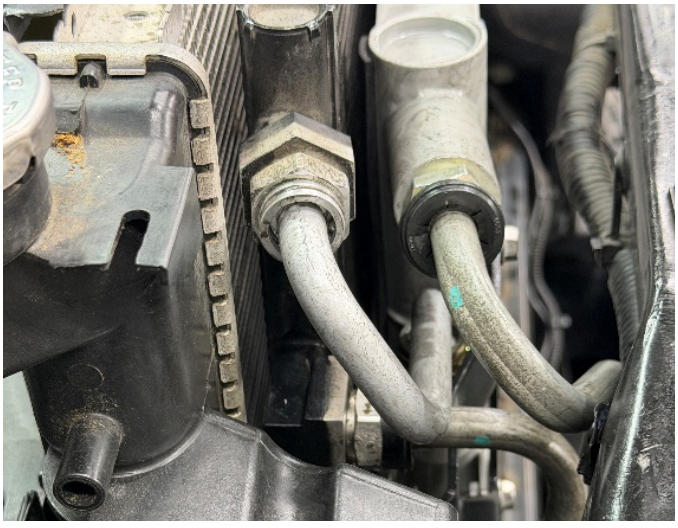
15. Install the jumper line into the lower bung of the Mishimoto transmission cooler and the upper bung of the OEM Cooler. Ensure the line is fully inserted into the quick connections and that the retaining clip is sitting properly. (Image on following page)

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16. Connect the OEM inlet line into the upper bung of the Mishimoto Cooler. See image above. Ensure the line is fully inserted into the fitting and that the retaining clip is sitting properly. The plastic cover should slide over the clip and move freely, if not the metal clip is not sitting correctly.

17. Reinstall the OEM outlet line into the lower bung of the OEM cooler. Ensure the line is fully inserted into the fitting and that the retaining clip is sitting properly. Slide the plastic cover over the clip and ensure it rotates freely.



18. Install the tree clip zip ties on the line bracket installed in step 11. One should go around the bottom line and the other should go around the upper line. Cut the excess zip tie using flush cutters.



19. You can now fully tighten the Transmission cooler mounting bolts.

20. Tilt the Radiator forward against the support frame and tighten the radiator mounting bolts.

21. Re-install the Coolant tank.

22. Re-install the active grille shutter assembly on the vehicle. Be sure to re-connect the harness for the shutter motor and secure the wire in the hooks on the shutter assembly.

23. Reinstall the grille. Making sure the bottom goes in first and clips into place then reinstall the four bolts upper bolts. (2X 8mm and 2X 10mm)

24. Reinstall the upper radiator seal cover with the 6 push pins.

25. Follow the recommended procedure to refill the transmission with fluid. Use Dodge recommended transmission fluid. This process requires an OBDII scan tool.

26. After refilling the transmission start the truck and make sure to check every connection to ensure there are no leaks.

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APPENDIX 1: BYPASS LINE INSTALLATION

This section covers installation of the optional bypass line kit. The purpose of this kit is to bypass the OEM transmission cooler if it is leaking or otherwise damaged.

1. Disconnect the bottom line from the connection inside the engine bay.
2. Install the Mishimoto bypass line into the connection you just took apart.
3. Install the other side of the bypass line into the lower bung of the Mishimoto cooler.
4. Install the OEM inlet line into the upper bung of the Mishimoto transmission cooler.
5. Continue to step 18 of the main installation guide.

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



This product is backed by Mishimoto's Lifetime Limited Warranty. Please visit **mishimoto.com/lifetime-warranty** to see the full warranty.

ACTIVATE YOUR WARRANTY

Scan the QR code to activate your warranty. Every Mishimoto product is covered by our Mishimoto Lifetime Warranty, which also includes accident protection. Registration is easy. Visit: **mishimoto.com/register** and save the receipt for your records.

- 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**



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