



 **MISHIMOTO**

INSTALLATION GUIDE

**2011-2016 FORD 6.7L POWERSTROKE PERFORMANCE DIESEL
TRANSMISSION COOLER (OEM TC BYPASS) | SKU: MMTC-F2D-11X**

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RESOURCES & CONTACT



CALL 1-877-GOMISHI

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



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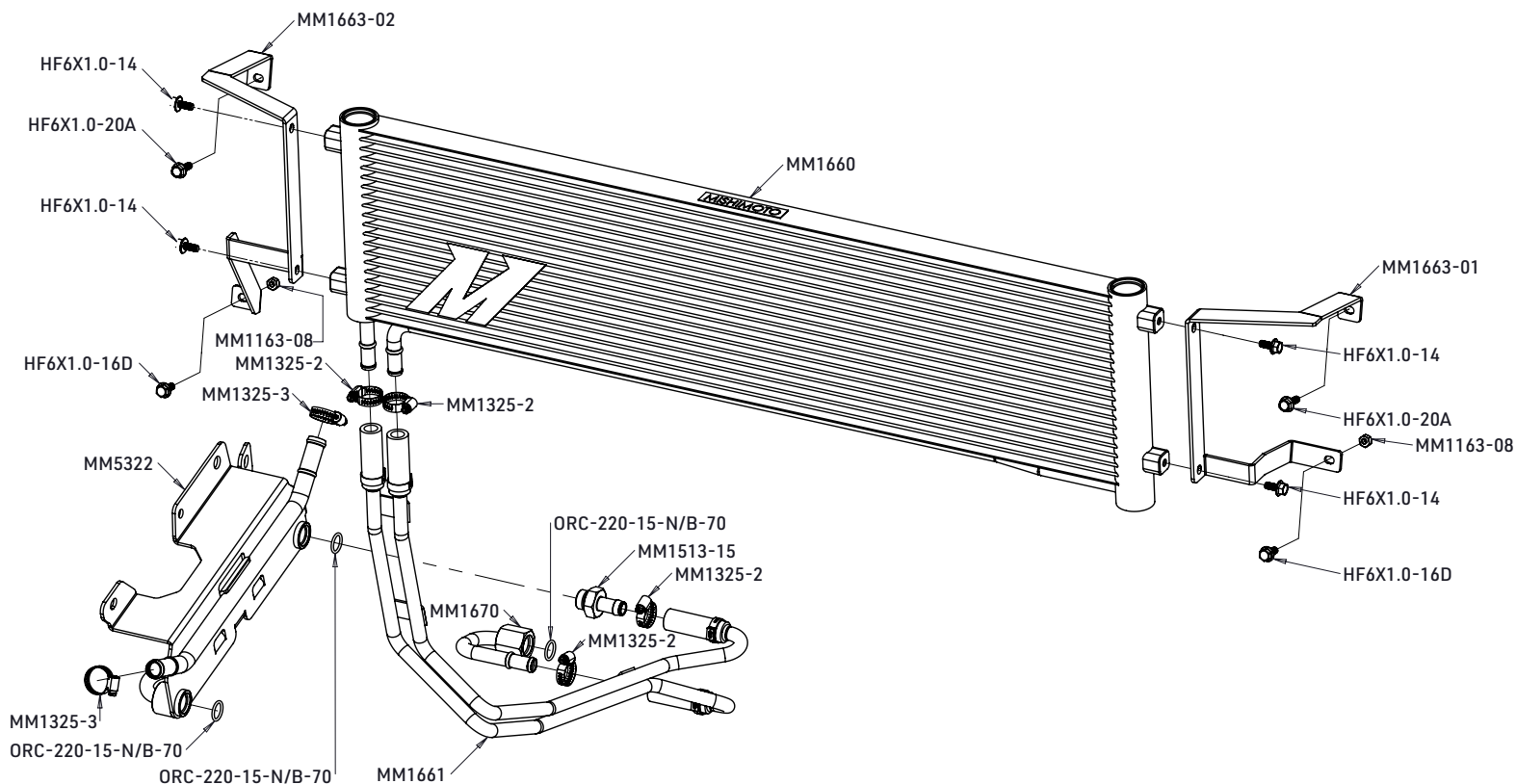
WEBSITE

WWW.MISHIMOTO.COM



ENGINEERING BLOG

WWW.MISHIMOTO.COM/ENGINEERING



PARTS BREAKDOWN

PART NUMBER	DESCRIPTION	QTY
MM1660	TRANSMISSION COOLER	1
MM1661	LINE ASSEMBLY	1
MM1663-01	BRACKET 1	1
MM1663-02	BRACKET 2	1
MM1670	LINE ADAPTER	1
MM1513-15	FITTING	1
MM5322	COOLER BYPASS	1
ORC-220-15-N/B-70	O-RING	3

PARTS BREAKDOWN

MM1325-2	12-20MM WORM GEAR CLAMP	4
MM1325-3	16-25MM WORM GEAR CLAMP	2
HF6X1.0-14	M6 HEX HEAD FLANGED BOLT	4
HF6X1.0-20A	M6 HEX HEAD FLANGED BOLT	2
HF6X1.0-16D	M6 HEX HEAD FLANGED BOLT	2
MM1163-08	LOCKING NUT	2

IMPORTANT SAFETY INFORMATION

- › Mishimoto recommends you use safety glasses and protective gloves during the install of their 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

INSTALLATION TIME 4 HOURS

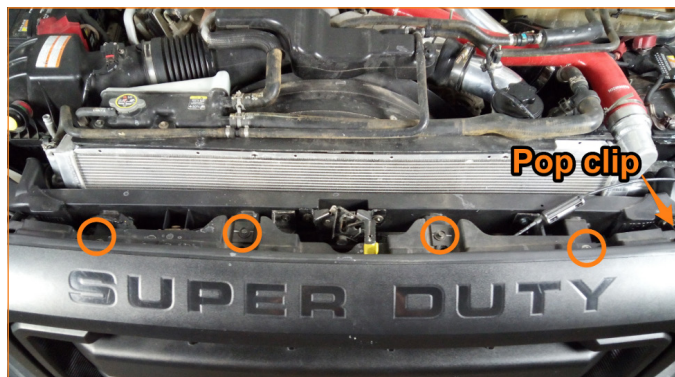
INSTALLATION DIFFICULTY 

TOOLS NEEDED

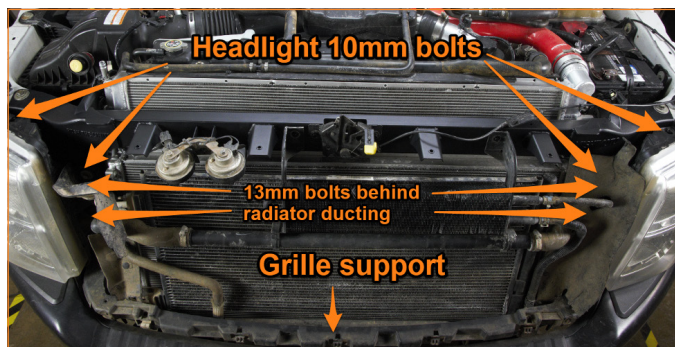
7 MM SOCKET	HOSE PICK
10 MM SOCKET	CONTAINER FOR TRANSMISSION FLUID
13 MM SOCKET	CONTAINER FOR COOLANT
1/4 IN RATCHET AND EXTENSION	COOLANT VACUUM FILL TOOL (OPTIONAL).
10 MM WRENCH	2X HOSE PINCHING TOOL (OPTIONAL)
1 IN WRENCH	SAFETY GLASSES
1-1/16 IN WRENCH	GLOVES
PANEL TOOL	
ANGLE GRINDER	
ADJUSTABLE WRENCH	

INSTALLATION INSTRUCTIONS

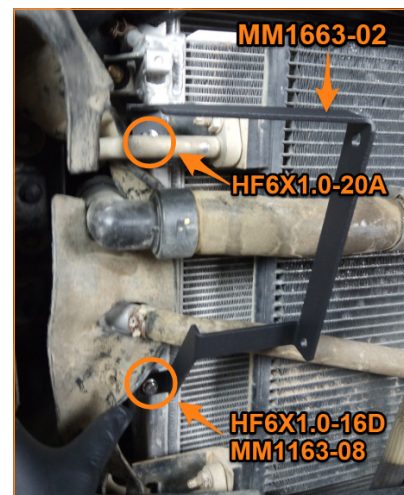
01. Remove the front grille. (4x 10mm bolts and 1x pop clip) once bolts are removed pull outward on the grille to unseat it from the grille support.



02. Remove the headlights, then remove the grille support. (6x 10mm bolts and 4x 13mm bolts)

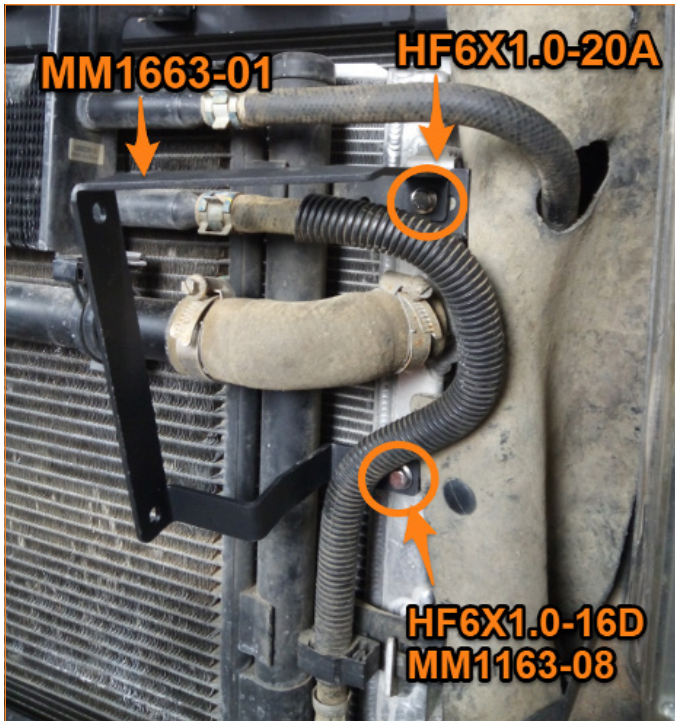


03. Attach the MM1663-02 bracket to secondary radiator using the provided hardware. (1x HF6X1.0-20A, 1x HF6X1.0-16D, and 1x MM1163-08)



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FOLLOWING PAGE

04. Attach the MM1663-01 bracket to secondary radiator using the provided hardware. (1x HF6X1.0-20A, 1x HF6X1.0-16D, and 1x MM1163-08)



05. Install the transmission cooler to brackets using the provided hardware. (4x HF6X1.0-14)



6. If you are not using hose pinching tools, make sure to drain the coolant into a bucket.

7. If you are using hose pinching tools, clamp them on the coolant lines.



8. Using a 7mm socket, loosen the worm-gear clamps securing the coolant hoses to the stock liquid-to-liquid transmission cooler. Once loosened, remove the hoses.

Tip: You may need to use a hose pick tool to remove the coolant hoses from the liquid-to-liquid transmission cooler. If you do, be careful not to rip the ends of the hoses, or you will need to replace them.



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9. Coolant will still be inside the cooler, so be sure to position a bucket underneath to catch the spilling coolant.

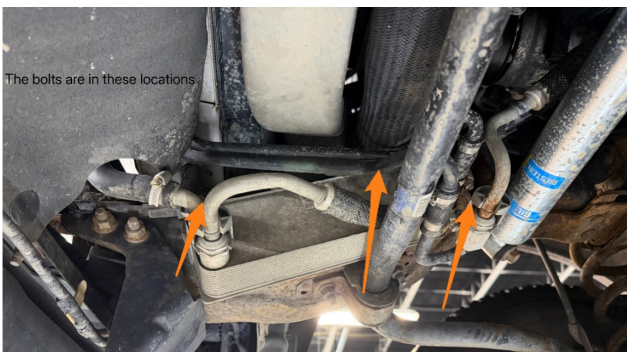
10. Locate the transmission cooler line fitting on the side of the liquid-to-liquid transmission cooler, closest to the cab of the truck, and remove the plastic gray retaining clip.

11. Use a 1-inch wrench to unscrew the transmission line fitting from the liquid-to-liquid transmission cooler. Position a separate container under the transmission cooler to prevent cross-contamination between coolant and transmission fluid.

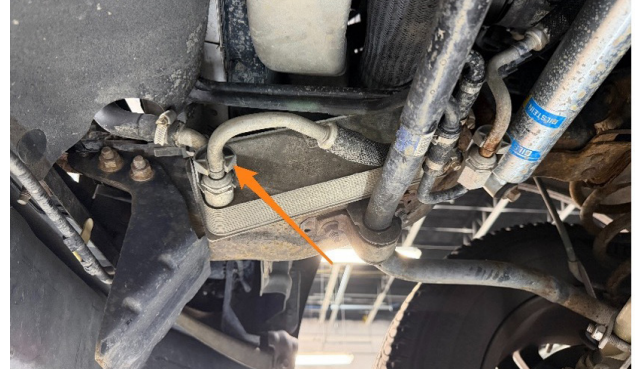


12. Using a 13 mm socket, start to unscrew the 3 bolts securing the liquid-to-liquid transmission cooler to the frame of the truck.

Tip: Leave one bolt slightly in to keep the liquid-to-liquid transmission cooler from spinning while you unscrew the second transmission cooler line fitting.



13. Before unscrewing the second transmission cooler line fitting, remove the plastic gray retaining clip.



14. Using the 1-inch wrench, unscrew the transmission line fitting from the liquid-to-liquid transmission cooler.

15. If you used the Tip, now unscrew the 13 mm bolts that are holding the liquid-to-liquid transmission cooler in place. Once the bolts are removed, remove the OEM liquid-to-liquid transmission cooler from the truck.

16. Inspect the O-rings on the transmission line fittings for cracking, flat spots, or nicks. If new O-rings are needed, replacements have been supplied.

17. Lubricate the O-ring on the transmission cooler line fitting closest to the cab of the truck, then install the line fitting into the MM1670 adapter. Once the fitting is tightened, reinstall the plastic gray retaining clip.

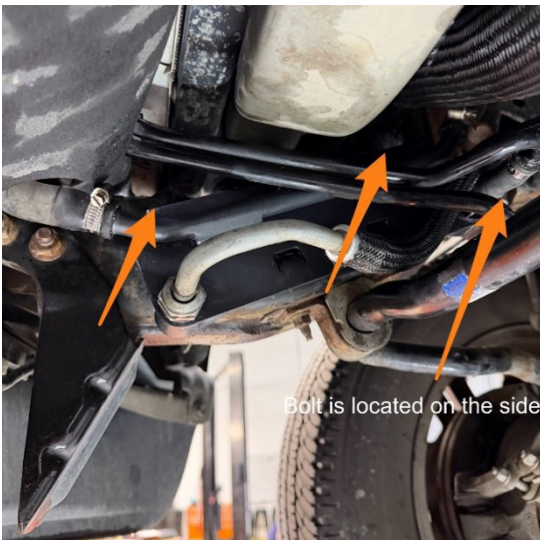


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18. Lubricate the O-ring on MM1513-15 with a light coating of transmission fluid, then install it into the Mishimoto bypass bracket as shown in the image below.



19. Position the Mishimoto bypass bracket against the frame of the truck and secure it in place with the previously removed 13mm bolts.

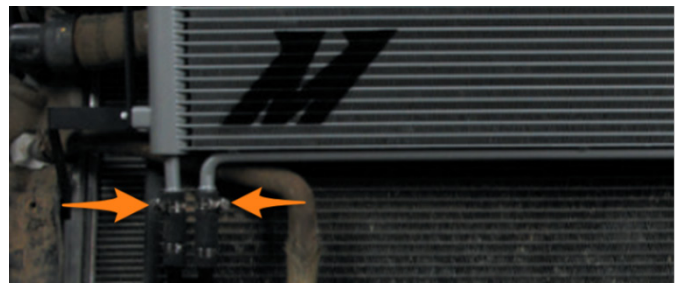


20. Install the coolant hoses to the line on the top of the Mishimoto bypass bracket and secure them in place using the provided worm gear clamps. (2x MM1325-3)

21. You can now remove the hose pinching tools from the coolant lines.



22. Install the MM1661 line assembly and connect it to the MM1513-15 fitting, MM1670 adapter, and the Mishimoto transmission cooler using the provided worm gear clamps. (4x MM1325-2)



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23. Lubricate the O-ring on the remaining transmission cooler line fitting, then install the line fitting into the Mishimoto bypass bracket. Once the fitting is tightened, reinstall the plastic gray retaining clip.



24. Install the MM1513-15 fitting into the stock liquid-to-liquid transmission. Install the stock transmission cooler fitting into the MM1670 adapter. ****Inspect the O-ring on the stock transmission cooler fitting. Replace it with the provided O-ring if it is damaged.****

25. Install the MM1661 line assembly and connect it to the MM1513-15 fitting, MM1670 adapter, and the transmission cooler using the provided worm gear clamps. (4x MM1325-2)

26. Trim the back of the grille support as shown in the above image. This must be done to add clearance around the MM1661 line assembly.

27. Reinstall the grille support.

28. Refill the system with coolant if you drained it completely (optional: use a vacuum fill tool) or just refill it till it is at the proper mark on the reservoir tank if you were able to clamp the coolant hoses.
19 Refill the system with coolant if you drained it completely (optional: use a vacuum fill tool) or just refill it till it is at the proper mark on the reservoir tank if you were able to clamp the coolant hoses.

29. Start the vehicle and check for leaks. Adjust the transmission and coolant fluid levels as needed. If no leaks are present, move on to step 30.

30. Reinstall the headlights.

31. Reinstall the grille.

Congratulations! You have finished your installation.

****For Disposal Instructions and Warranty Information continue to the following page.***

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.



WARNING
Cancer and
Reproductive Harm
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- › 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