

INSTALLATION INSTRUCTIONS

SUBJECT: 2010-2012 CUMMINS WITH 68RFE REPLACEMENT TRANSMISSION LINE KIT

FPE-2018-07
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FITMENT: 2010–2012 Dodge Cummins with 68 RFE Automatic Transmission and Transmission Cooler

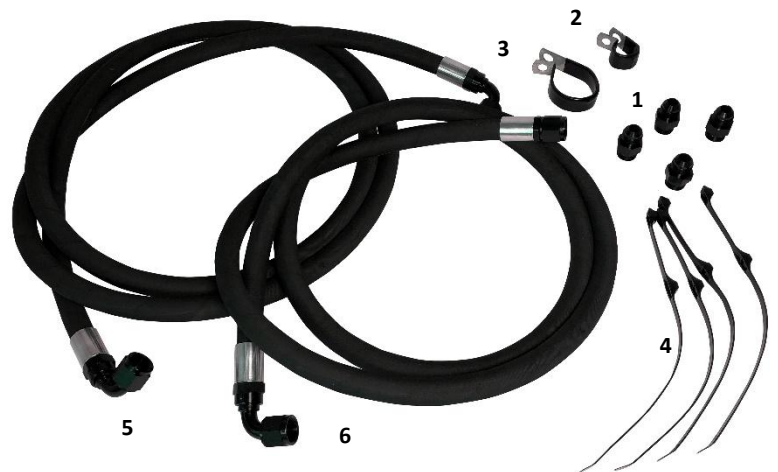
KIT P/N: [FPE-TL-CUMM-1012](#)

EST INSTALL TIME: 1.5 - 2 Hours

TOOLS REQUIRED: 1" open end wrench, 10 mm socket, 13 mm socket, 14 mm socket, small flathead screwdriver, trim tool or pry bar

KIT CONTENTS:

Item	Description	Qty
1	-8AN to 3/4"-16 fittings	4
2	11/16" P-clamp	1
3	1 3/4" P-clamp	1
4	Double Hose Zip Ties	4
5	Transmission cooler line (supply side)	1
6	Transmission cooler line (return side)	1



IMPORTANT NOTES:

It is critical that you **DO NOT** over-torque AN fittings, as damage can occur. Please refer to the last two pages of this document for the torque specifications required for this application.

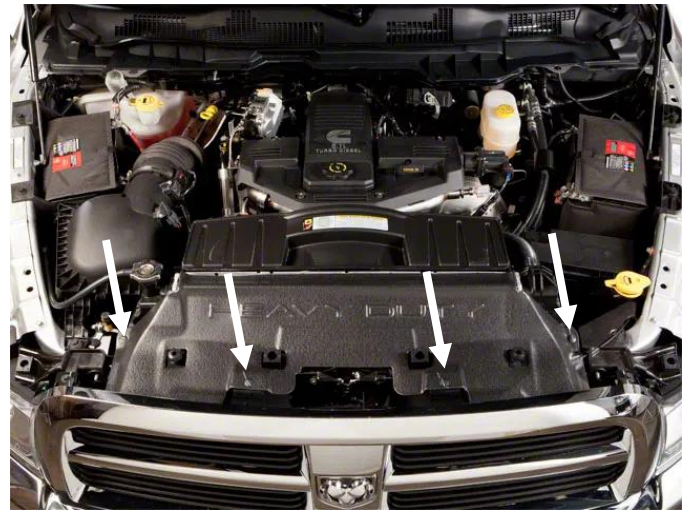
WARNINGS:

- Use of this product may void or nullify the vehicle's factory warranty.
- User assumes sole responsibility for the safe & proper use of the vehicle at all times.
- The purchaser and end user releases, indemnifies, discharges, and holds harmless Fleece Performance Engineering, Inc. from any and all claims, damages, causes of action, injuries, or expenses resulting from or relating to the use or installation of this product that is in violation of the terms and conditions on this page, the product disclaimer, and/or the product installation instructions. Fleece Performance Engineering, Inc. will not be liable for any direct, indirect, consequential, exemplary, punitive, statutory, or incidental damages or fines cause by the use or installation of this product.

PROCEDURE:

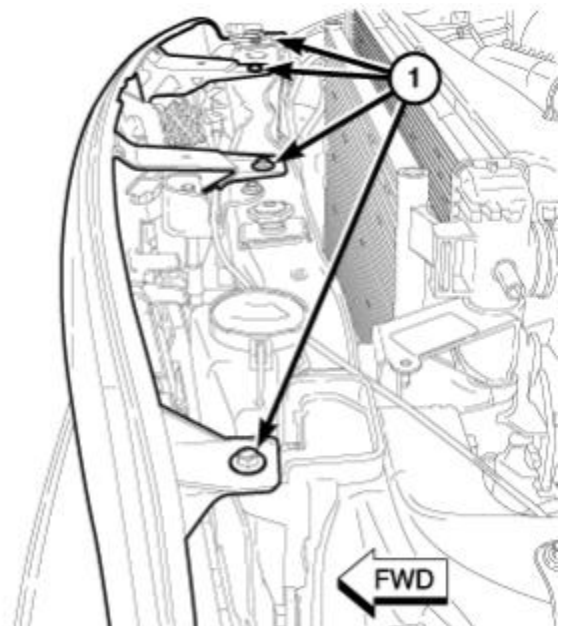
STEP 1: Park the vehicle on a flat and level surface. Disconnect the battery terminals.

STEP 2: Remove the four plastic push pins retaining the shroud above the radiator and transmission cooler.

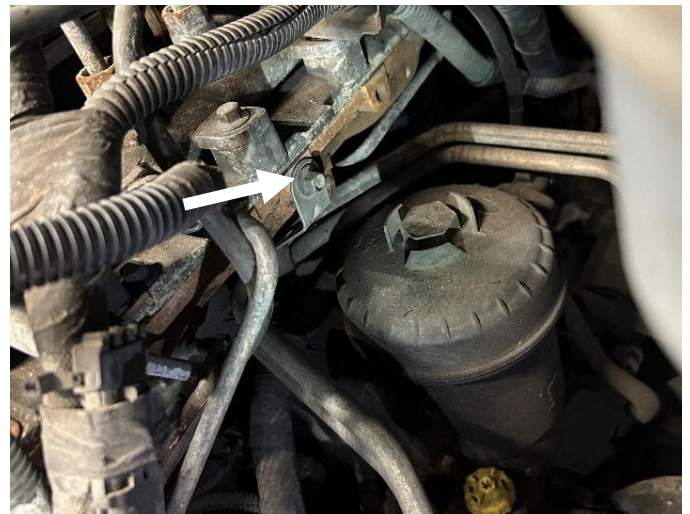


STEP 3: Remove four bolts that retain the front grille to provide access to the transmission cooler using a 10 mm socket.

STEP 4: Using a trim tool or prybar, separate the two spring clips on the bottom of the grille. Release the two lower hooks. Remove the grille.



STEP 5: Remove the bolt on the head above the fuel filter housing that retains the OEM cooling lines using a 13 mm socket.



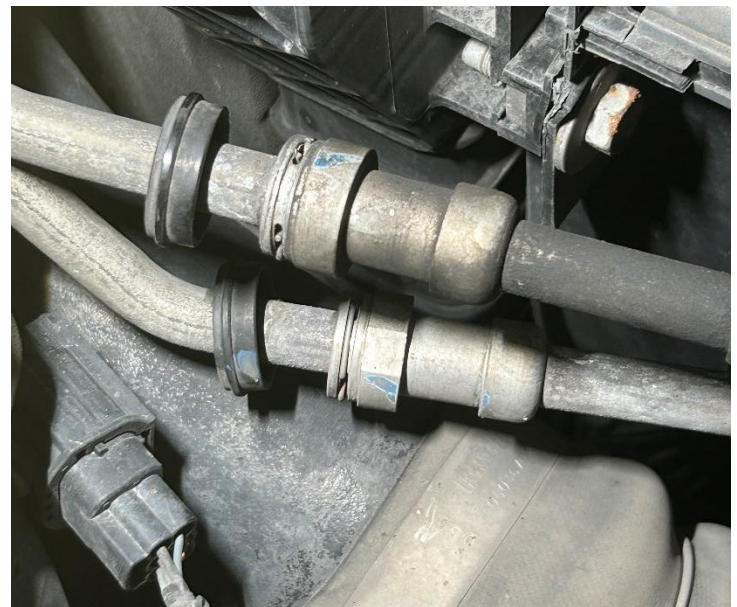
STEP 6: Remove the bolt on the bellhousing that retains the OEM cooling lines using a 14 mm socket.



STEP 7: Remove the c-clip retainers at the heat exchanger and release the retaining caps to free the line from the port.



STEP 8: Remove the c-clip retainers just inside the front of the engine bay on the driver's side. See furthest right arrow on step 4 for reference location.



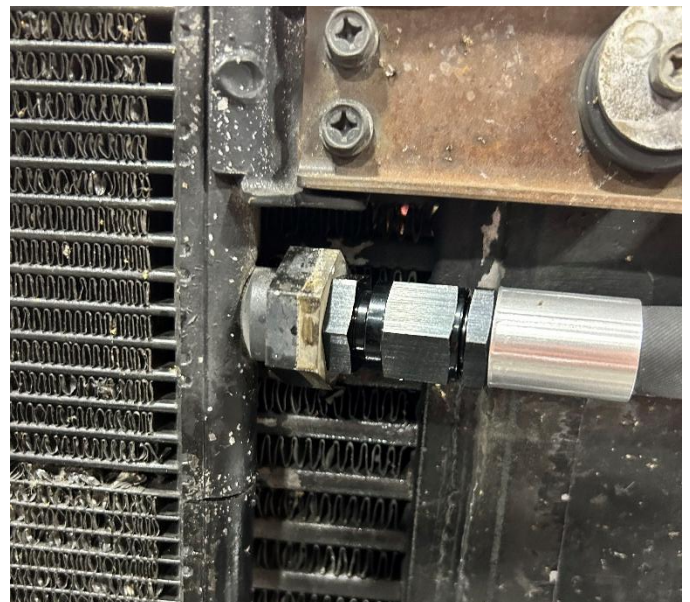
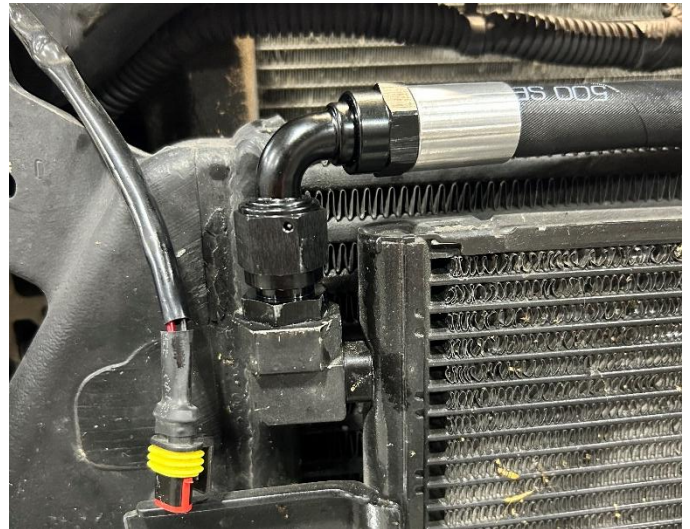
STEP 9: Remove the c-clip retainers at the transmission (2 locations) and release the retaining caps to free the lines from the port.

NOTE: Fluid inside the lines will drain, be prepared to catch the fluid with a bucket or pail.

STEP 10: With both ends of the OEM cooling lines disconnected, manipulate the lines out from the truck. Removal from the bottom is easiest.

STEP 11: Using a 1" wrench, remove the factory fittings from the transmission cooler and replace them with the -8AN to 3/4"-16 fittings (item 1) in two locations.

NOTE: Retain the factory fitting on the transmission cooler with a wrench to prevent any torque into the transmission cooler housing when tightening the cooler line fitting.



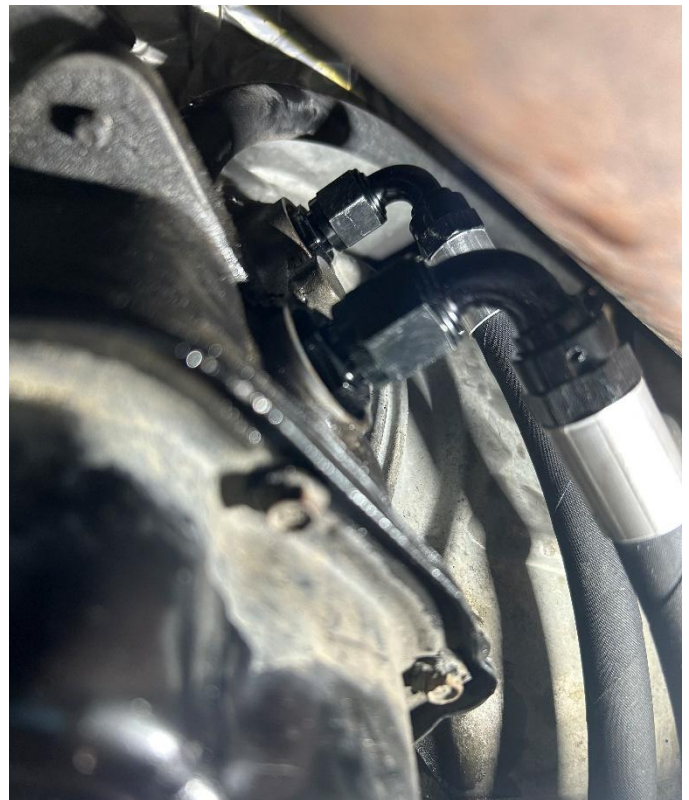
STEP 12: Install the Fleece Performance cooler lines (items 5, 6) along the same path as the factory lines were routed, taking care to ensure the lines are clear of any rotating and sharp objects prior to securing them. Loosely thread the fittings for each line at each connection point.

NOTE: The longer of the two cooler lines will run from the passenger side of the transmission cooler to the lower connection on the transmission. The shorter transmission line will run from the driver's side of the cooler to the upper connection on the transmission.



STEP 13: Using a 1" wrench, remove the factory fittings from the transmission and replace them with the -8AN to 3/4"-16 fittings (item 1) in two locations.

STEP 14: Loosely connect the fittings for the transmission cooler lines. Do not fully tighten.



STEP 15: Using four double-hose zip ties (item 4), space them evenly along the length of the cooler lines. Tighten the ties to retain the hoses together.

STEP 16: Retain both cooler lines to the transmission bell housing using the 1 3/4" p-clamp (item 3). Use the bolt removed in step 6 to mount the p-clamp.



STEP 17: Retain the upper cooler lines to the grill using the 11/16" P-clamp (item 2).

STEP 18: With the cooler lines routed and retained, tighten each of the four cooler line fittings to 270-350 in-lbs. Use a backup wrench on the fitting installed in the housings of the transmission cooler and transmission to prevent over torquing.

STEP 19: Re-install the grille and radiator shroud.

STEP 20: Start engine and verify the installation is leak-free. Check and confirm transmission fluid level is within specification, adjust as necessary with the OEM's approved fluid.



Installation Guidelines for AN Fittings

IMPORTANT NOTES:

DO NOT overtighten AN fittings. Damage can occur, resulting in leaks. Always follow recommended torque specs and torquing procedures as given by the manufacturer.

When connecting an AN fitting to an AN adapter, be sure to use a supporting wrench to keep the adapter from overtightening.

Torque Specs for Aluminum AN Fittings

AN (Army-Navy) Fitting Thread Size Chart				
AN Size	Hose Size	Thread Size	Minimum Torque (in-lbs)	Maximum Torque (in-lbs)
-3	3/16"	3/8-24 SAE	70	105
-4	1/4"	7/16-20 SAE	100	140
-6	3/8"	9/16-18 SAE	150	195
-8	1/2"	3/4-16 SAE	270	350
-10	5/8"	7/8-14 SAE	360	430
-12	3/4"	1-1/16 SAE	460	550
-16	1"	1-5/16 SAE	700	840
-20	1-1/4"	1-5/8 SAE	850	1020



ALTERNATIVE METHOD FOR TORQUING ALUMINUM AN FITTINGS:

If a torque wrench cannot be used in your application, you can also properly torque your AN fittings using the flats method.

1. Tighten the nut until it becomes snug, and the fitting is seated.
2. Use a marker to draw a line between the nut and its connection (see image below)
3. Using two wrenches (one for the nut and the other for the connection), tighten the nut to the amount shown in the chart.

AN Fitting Size	# of Hex Flats Rotations
-4	1 ½ to 1 ¾
-6	1 to 1 ½
-8	1 ¼ to 1 ¾
-10	1 ¼ to 1 ¾
-12	1 to 1 ½
-16	¾ to 1
-20	½ to ¾

Note: Do not exceed the number of hex flat rotations outlined, as damage to the fitting can occur.

