

INSTALLATION INSTRUCTIONS

SUBJECT: ALLISON TRANSMISSION COOLER LINES FOR 2015-16 LML DURAMAX

FPE-2022-77
August, 2022

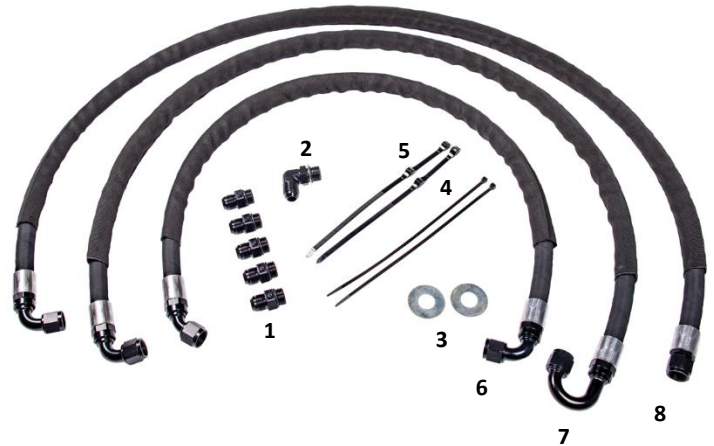
FITMENT: 2015-2016 CHEVY/GMC LML pickup trucks with 6.6L Duramax and Allison Transmission

KIT P/N: FPE-TL-LML-1516

ESTIMATED INSTALLATION TIME: 4 Hours

KIT CONTENTS:

Item	Description	Qty
1	7/8"-14 O-ring to -10AN fitting	5
2	-10AN 90 degree O-ring	1
3	Large OD washer	2
4	Locking cable ties	2
5	Double hose clamps	2
6	Transmission cooler line – (short, 45/90 deg)	1
7	Transmission cooler line – (medium, 180/90 deg)	1
8	Transmission cooler line – (long, Straight/90 deg)	1



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.

INSTALLATION INSTRUCTIONS

NOTE: Allow the coolant system and transmission to cool. Relieve the coolant pressure from the coolant system by removing the coolant cap.

FRONT GRILL AND BUMPER REMOVAL

Remove the engine bay plastic cover panel by removing the plastic expansion fasteners that retain it to the front grill and body.



Remove the front grill retention bolts located along the top of the grill.

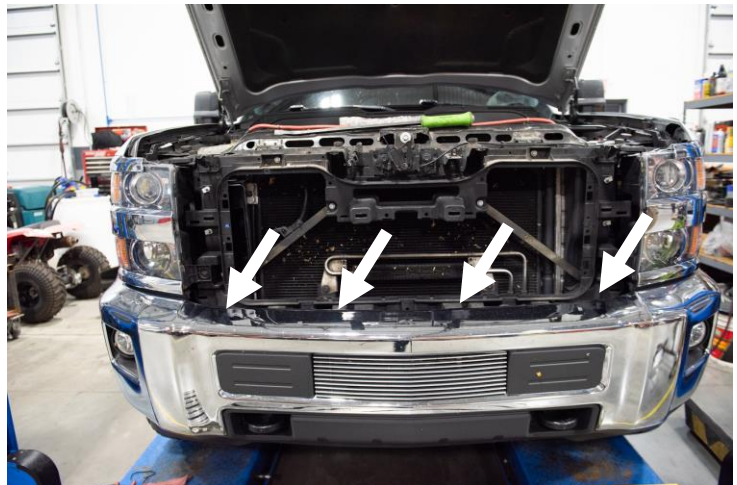


INSTALLATION INSTRUCTIONS

Using a long pry bar, release the lower retaining clips for the front grill.



Remove the front grill. Next remove the front bumper by removing the upper retaining bolts with an 18mm socket.

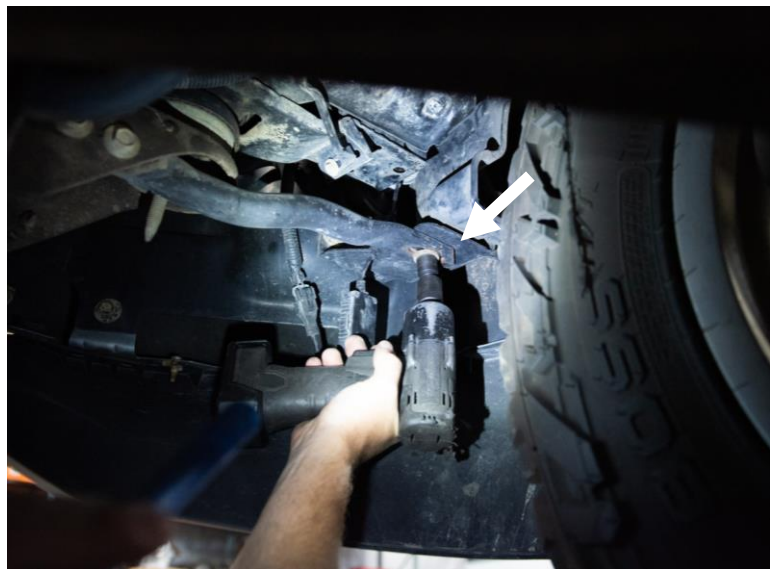


INSTALLATION INSTRUCTIONS

From the underside of the truck, disconnect the harness for the fog lights.



Remove the lower supports for the front bumper from the left and right sides of the vehicle.



Remove the front bumper assembly to provide for clear access to the transmission oil cooler.



INSTALLATION INSTRUCTIONS

Remove the lower engine shroud.



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ENGINE BAY

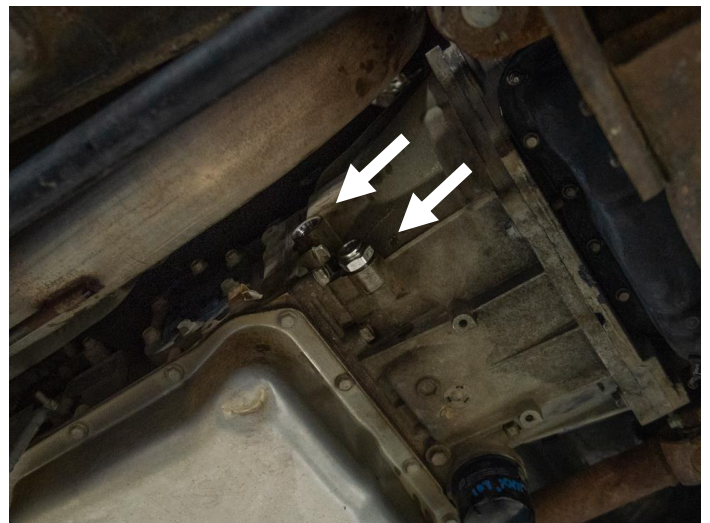
To allow for removal of the existing OE lines and installation of the new lines:

- Remove the passenger side fender liner
- Remove the engine air intake
- Remove the coolant reservoir support brace
- Remove the passenger side CAC pipe



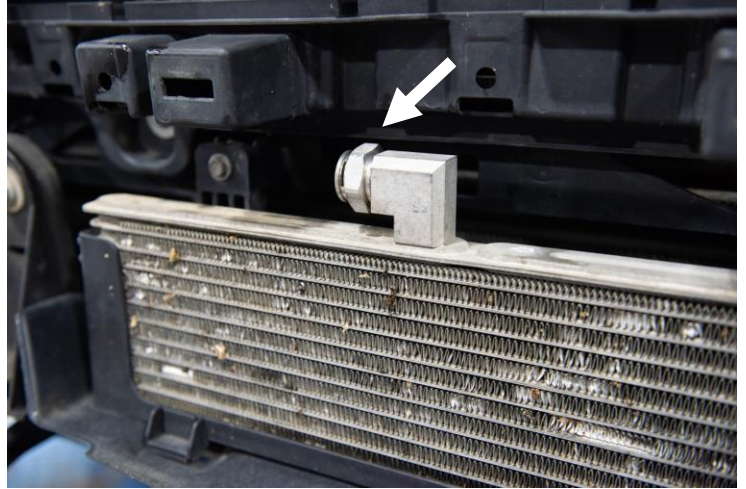
OEM TRANSMISSION LINE REMOVAL

Remove the clips that retain the transmission lines to the transmission, radiator, and transmission cooler with a small pic or screwdriver. Disconnect the OE lines at each location and remove the OE line assemblies from the truck.



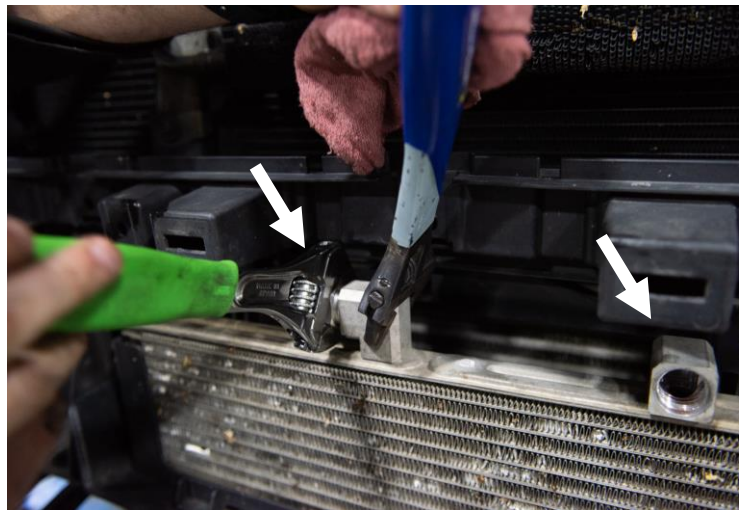
INSTALLATION INSTRUCTIONS

With the OE transmission lines removed from the truck, use a 1 1/8" back up wrench and 1 1/4" socket or wrench to remove the factory fittings from each side of the transmission cooler.



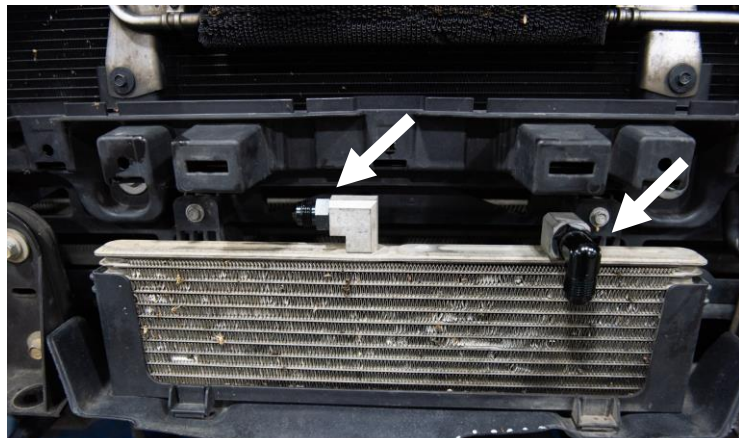
NEW FITTING INSTALLATION

Use a backup wrench when removing the factory fittings from the transmission cooler and when installing the new fittings included with the kit.



Install one of the 7/8"-14 O-ring to -10AN fittings into the left side port of the oil cooler.

Install the 90 degree -10AN O-ring fitting into the right side port of the oil cooler. The fitting should be pointed downwards.

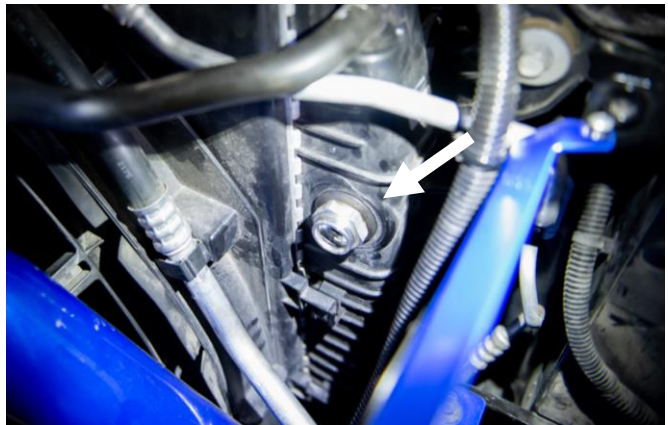


INSTALLATION INSTRUCTIONS

Assemble the large flat washers onto two of the 7/8"-14 O-ring to -10AN fittings.

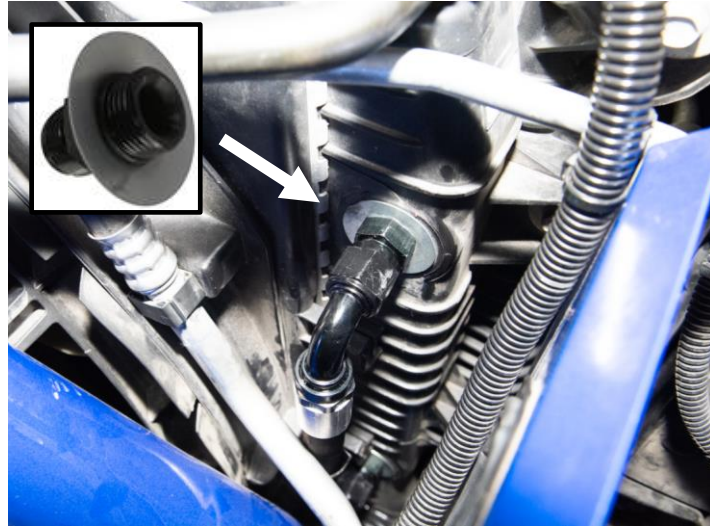
- A. **Remove** the O-ring from the fitting.
- B. Place the large flat washer on the side where you removed the O-ring and **replace** the O-ring onto the fitting with the washer below it.
- C. Install into the radiator, removing and replacing one fitting at a time.

IMPORTANT NOTE: Install and remove ONE FITTING AT A TIME on the radiator, removing both fittings at the same time may result in the internal cooler coming loose on the inside of the tank.



INSTALLATION INSTRUCTIONS

Install the two fittings into the radiator, removing and replacing one fitting at a time.



Remove the two OE fittings from the transmission using a 1 1/4" socket or wrench.



Install two of the 7/8"-14 O-ring to -10AN fittings into the "To Cooler" and "From Cooler" ports on the transmission.



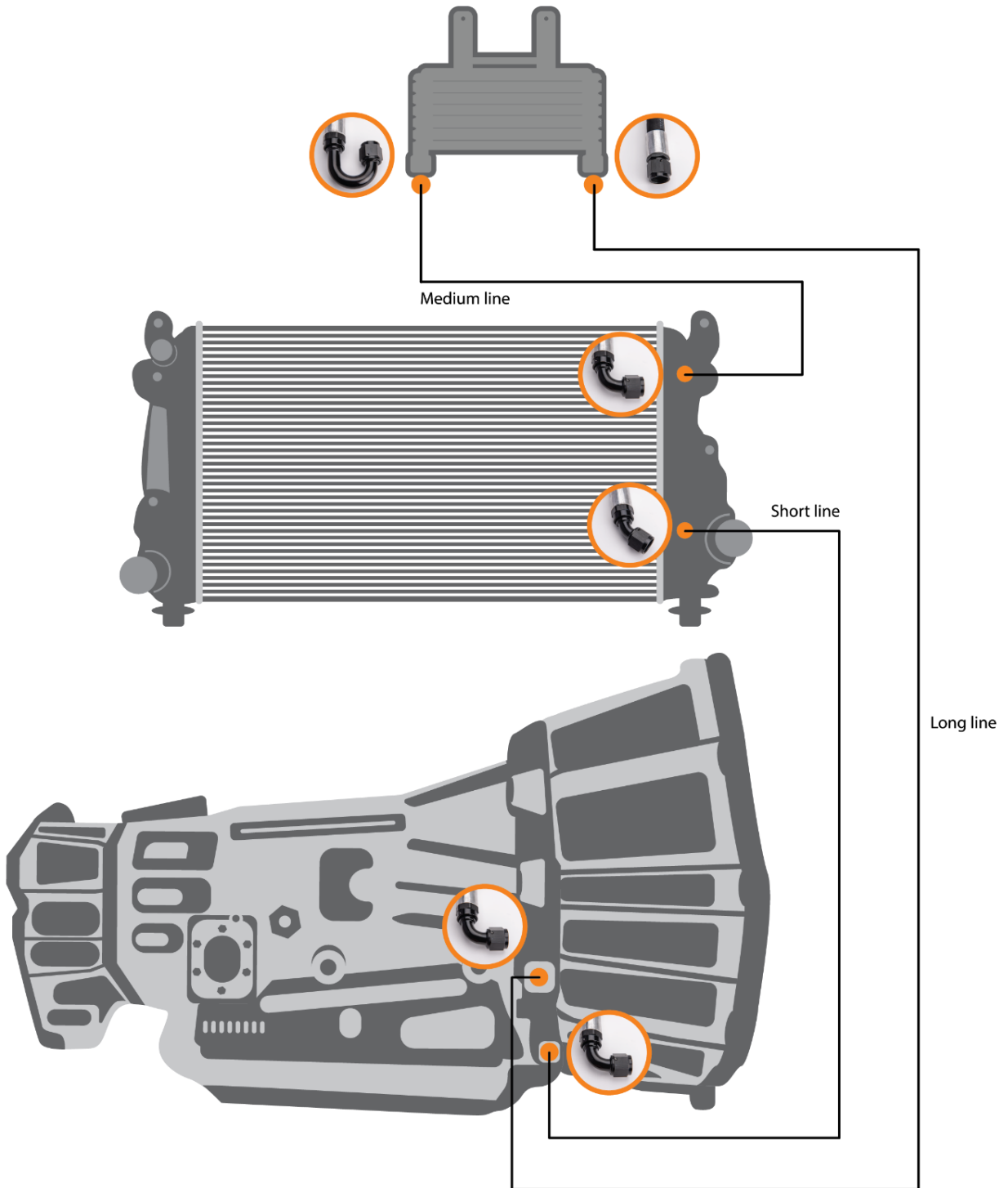
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Mark and trim the plastic shroud below the transmission cooler approximately 3" to allow for additional room to route the new transmission lines.



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ROUTING DIAGRAM



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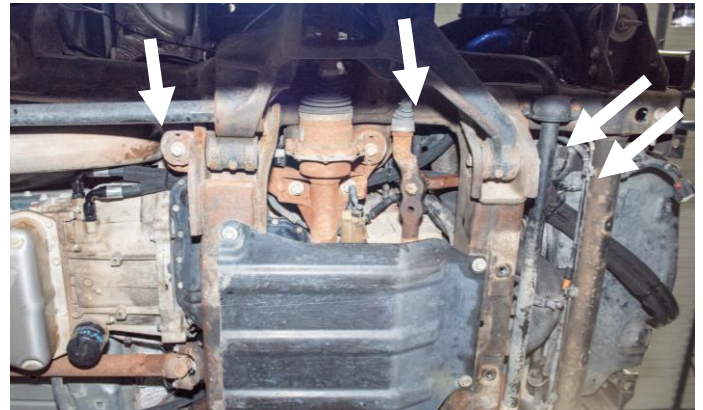
RECOMMENDED LINE ROUTINGS

Route the long and short length lines to the transmission closely alongside the transmission bell housing, above the engine oil pan split line. Use zip ties to retain the hose assemblies.

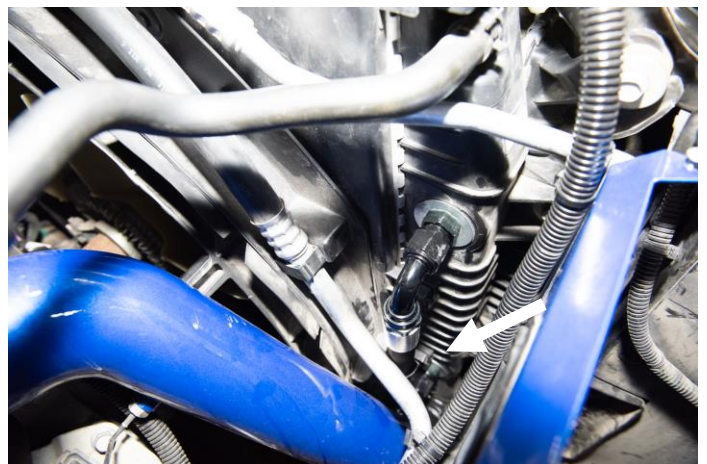


Route the long and short length lines over the main chassis members and suspension anti-roll bar.

Route the lines uniformly along the passenger side of the chassis, just inside the frame rails by approximately 6".



The shortest length line is routed from the transmission "TO COOLER" to the bottom-side radiator fitting. The 45 degree fitting is utilized on the radiator side, aligned slightly downward and toward the center of the chassis.

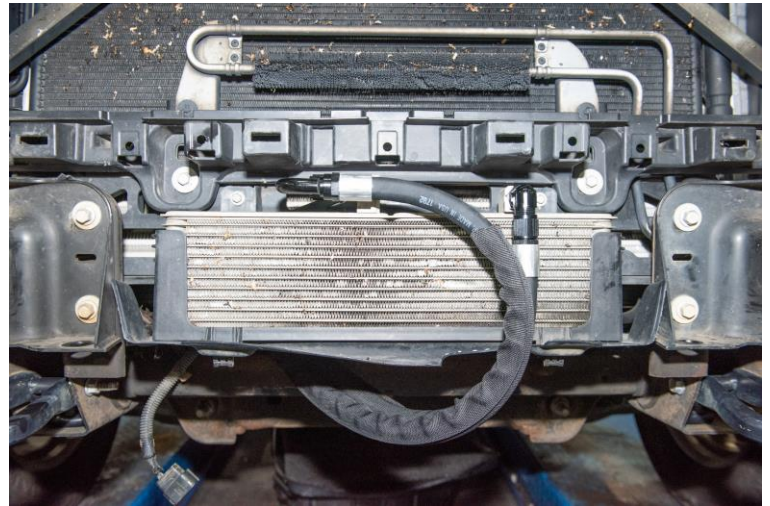


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RECOMMENDED LINE ROUTINGS

The longest line should be routed to the right-hand side (driver side) of the transmission cooler. Route the line behind the grille support bracket and downwards. Both the left and right side lines will route under the radiator.

The medium length line is routed from the left side (passenger side) of transmission cooler to the top-side radiator fitting.



Route the medium and long length lines over the top of the chassis cross-tube together.



Use the double hose clamps provided in the kit to secure the hoses together.

