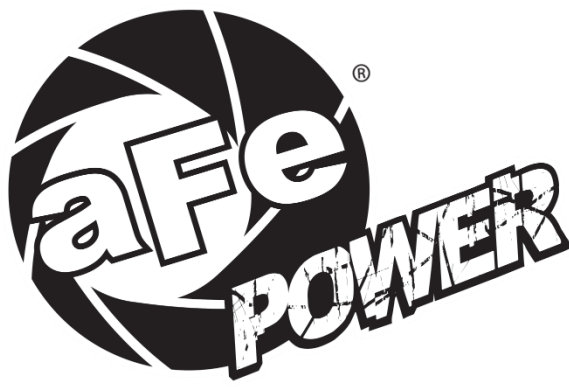




advanced FLOW engineering

Instruction Manual P/N: 46-80008

BladeRunner – Transmission Oil Cooler Kit

Make: Ford	Model: F-150	Year: 2015-2020
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Engine: V6-2.7L (tt)
Engine: V6-3.5L (tt)
Engine: V8-5.0L

***Fitment Note:** For models equipped with 6R80 or 10R80 automatic transmissions only.



- Please read the entire instruction manual before proceeding.
- Ensure all components listed are present.
- For technical support please call 951-493-7185.
- Ensure you have all necessary tools before proceeding.
- Do not attempt to work on your vehicle when the engine is hot.
- Retain factory parts for future use.

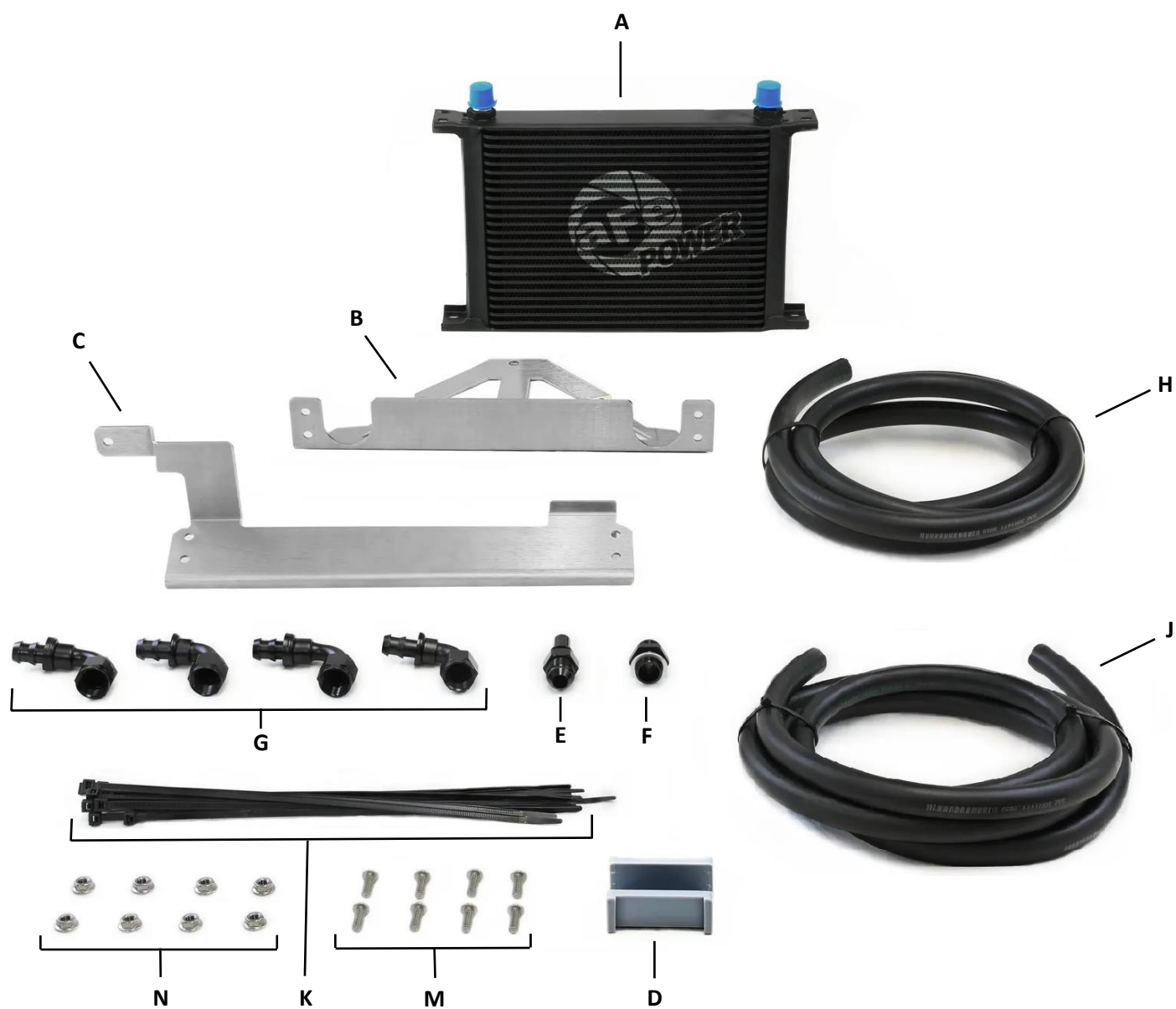
Label	Qty.	UoM	Description	Part Number
A	1	ea.	Oil Cooler: 46-80004	05-60934
B	1	ea.	Bracket, Upper Mount: 46-80008	05-61446
C	1	ea.	Bracket, Lower Mount: 46-80008	05-61447
D	1	ea.	Grommet, TPU: 46-80008 (Color may vary)	03-50832
E	1	ea.	Fitting, 10R80 Trans to -8AN Male, Blk	05-61262
F	1	ea.	Fitting, M18x1.5 to -8AN Male, Blk	05-60935
G	4	ea.	Fitting, 1/2" Push-On to AN -8 (90 Deg) Blk	05-60683B
H	100	in.	Hose, Fuel: Gates 1/2" 50psi	05-60558
J	100	in.	Hose, Fuel: Gates 1/2" 50psi	05-60558
K	14	ea.	Ties, Nylon Cable: 12", 50 lb. Black	05-60167
M	8	ea.	M6 x 20mm Screw, Button Head	03-50241
N	8	ea.	M6 Hex Nut	03-50059

Installation will require the following tools:

10mm socket, trim removal tool, 10mm wrench, small picks, Ratchet, 3" extension, 6" extension, 7/8 wrench, 1" Wrench, 1-3/16 wrench, 15mm socket, wire cutters, 4mm allen

NOTE: Grilles will vary based on sub model and model year, so some images may not match your vehicle, however, the process is the same.

Warranty Information available at <https://afepower.com/contact#warranty>



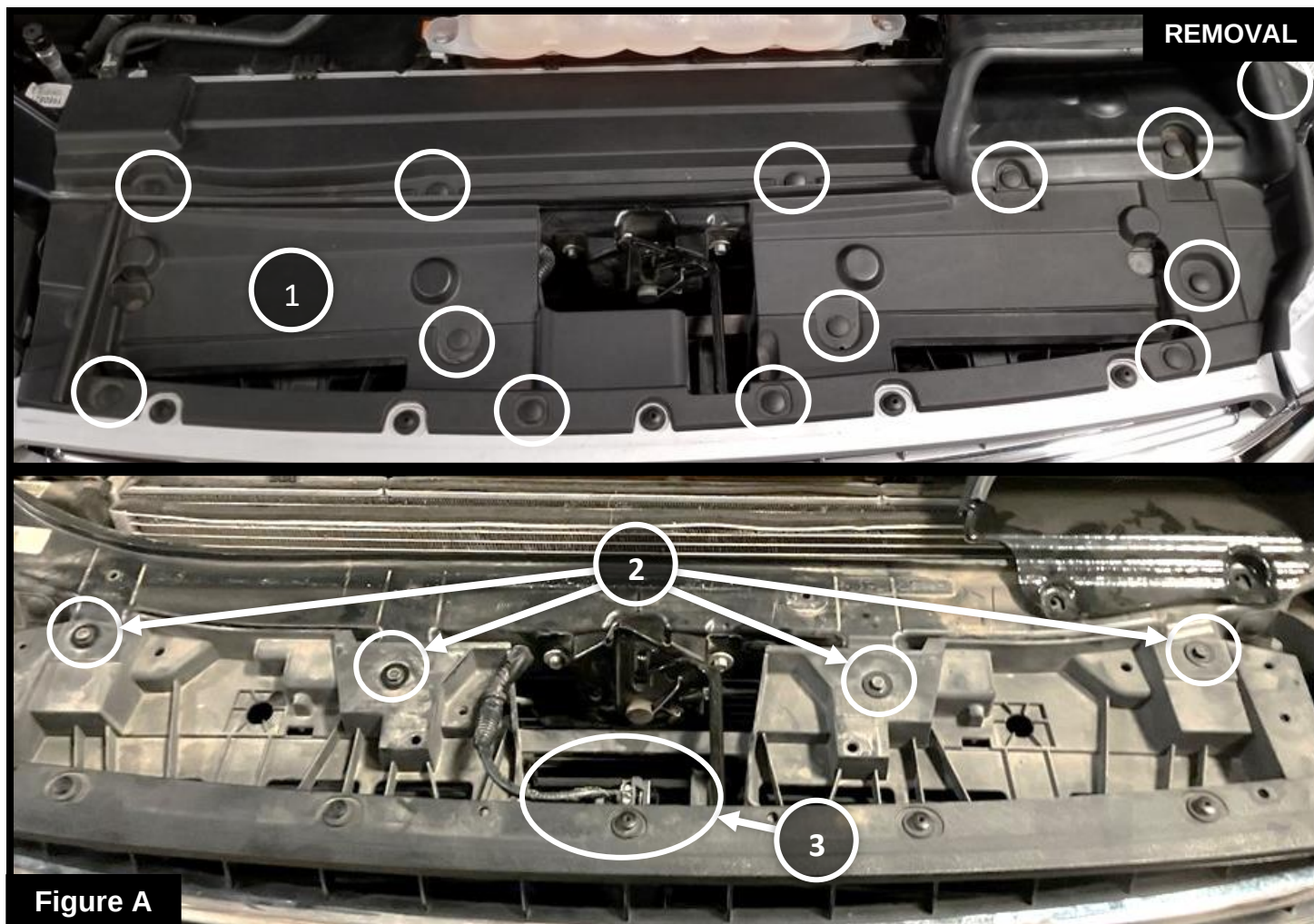


Figure A

Refer to Figure A for Steps 1-4

Step 1: If equipped with a plastic shroud (Top Image), locate (13) plastic clips on top of plastic shroud. Carefully pry the pins out to remove and then set aside. Save all parts for reinstallation.

Step 2: Remove the plastic shroud. Set it aside for reinstallation. (1)

Step 3: Remove the four (4) bolts that attach the factory grille assembly to the core support (Bottom Image). Save for reinstallation. (2)

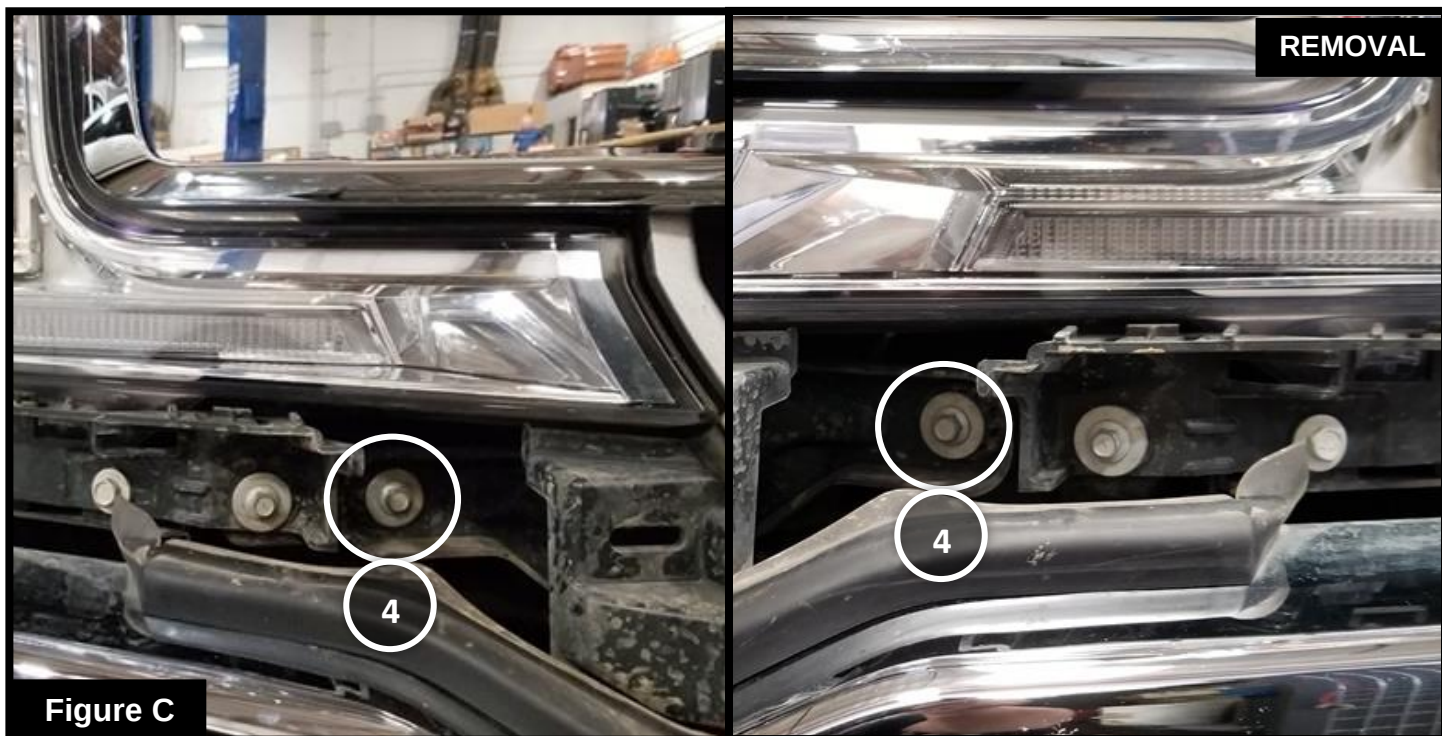
Step 4: Located near the hood latch, disconnect the two (2) electrical connectors and the Forward-Facing Camera (FFC) washer hose connection (if equipped). (3)



Refer to Figure B for Steps 5-6

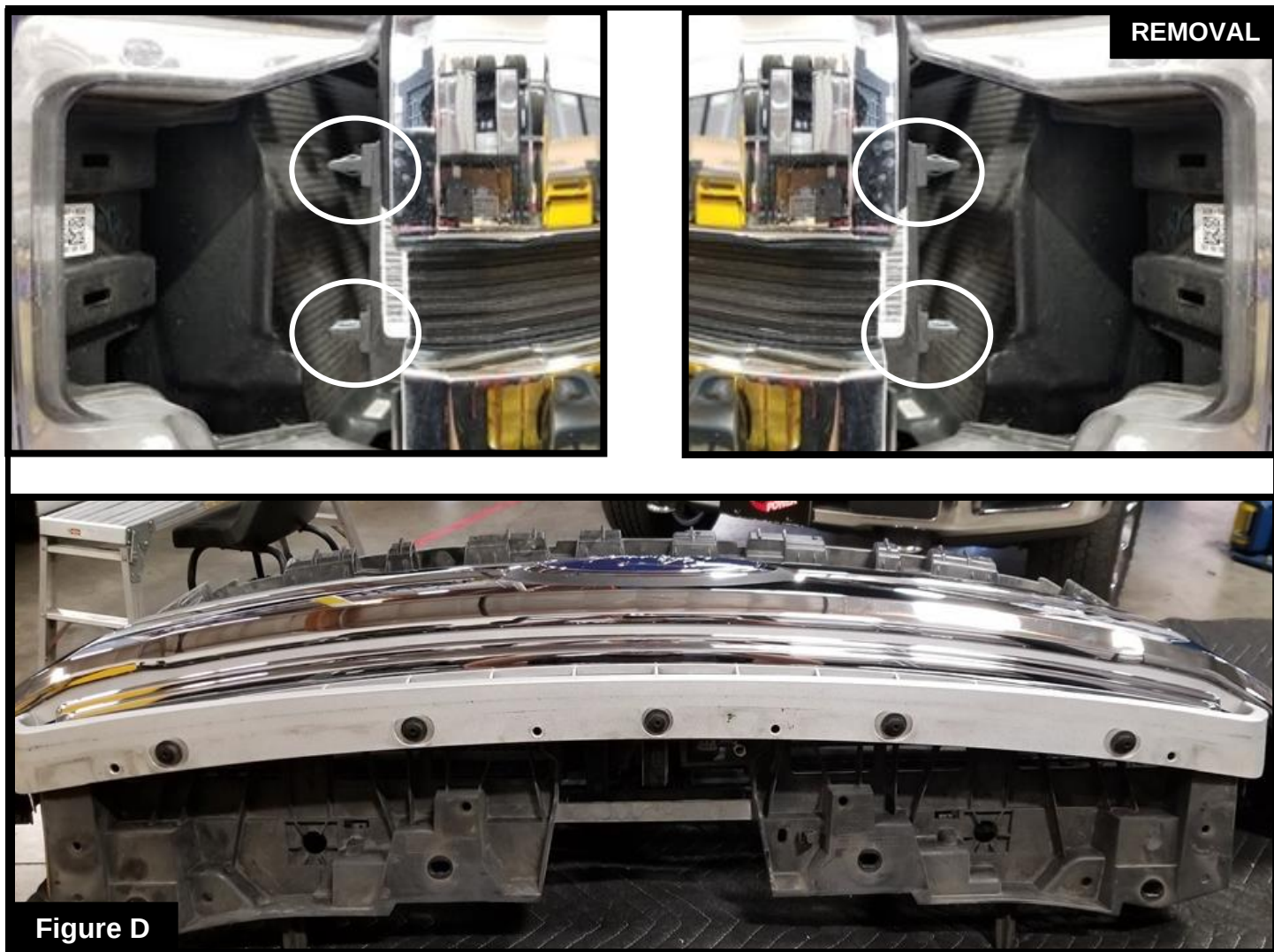
Step 5: If equipped, disconnect the wheel arch moldings. Remove the screw, located nearest the front of the truck in the wheel well. Pull on the wheel arch moldings carefully until it comes off the two bottom tabs. Be careful not to break them.

Step 6: Starting on the passenger side, pull on the plastic bumper cap fascia till it disconnects from the fender. After the passenger side is disconnected, move to the driver's side and disconnect it from the fender on that side. When both sides are disconnected, pull on the plastic bumper cap fascia until it disconnects from the grille and carefully remove it.



Refer to Figure C for Step 7

Step 7: Remove the one (1) bolt located on each side of the grille. Save for reinstallation. (4)



Refer to Figure D for Steps 8-9

Note: To prevent scratching painted parts, use protective covering between the grille and a flat surface.

Step 8: Disconnect the clips (located near the headlights) behind the grille by pulling gently.

Step 9: Remove the grille and active shutter assembly from the truck.

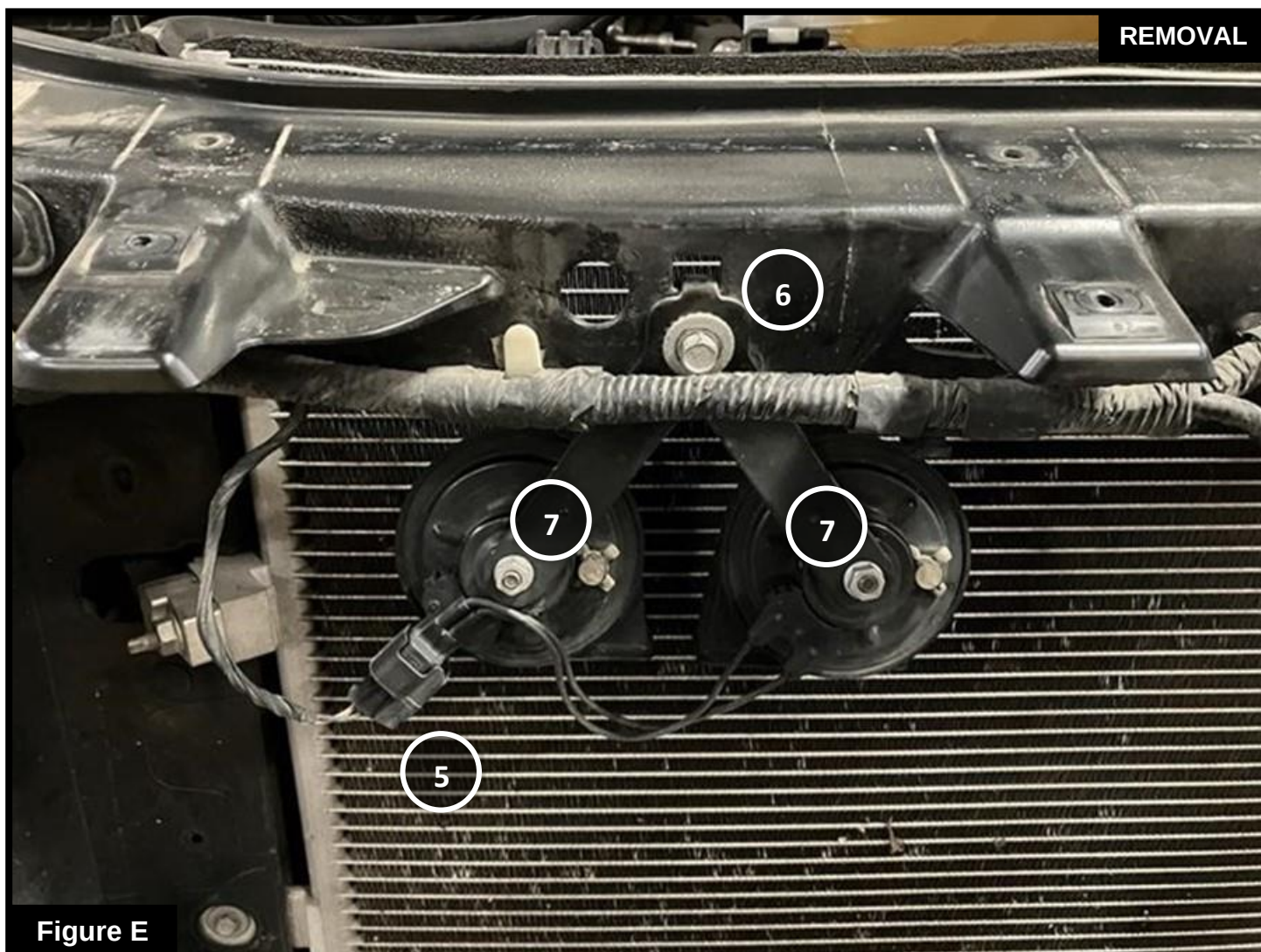


Figure E

Refer to Figure E for Steps 10-12

Step 10: Disconnect the electrical connector for the horn. (5)

Step 11: Remove the one (1) screw securing the horn bracket assembly to the core support. (6)

Step 12: Remove the two (2) nuts securing the horn units to the bracket. (7)

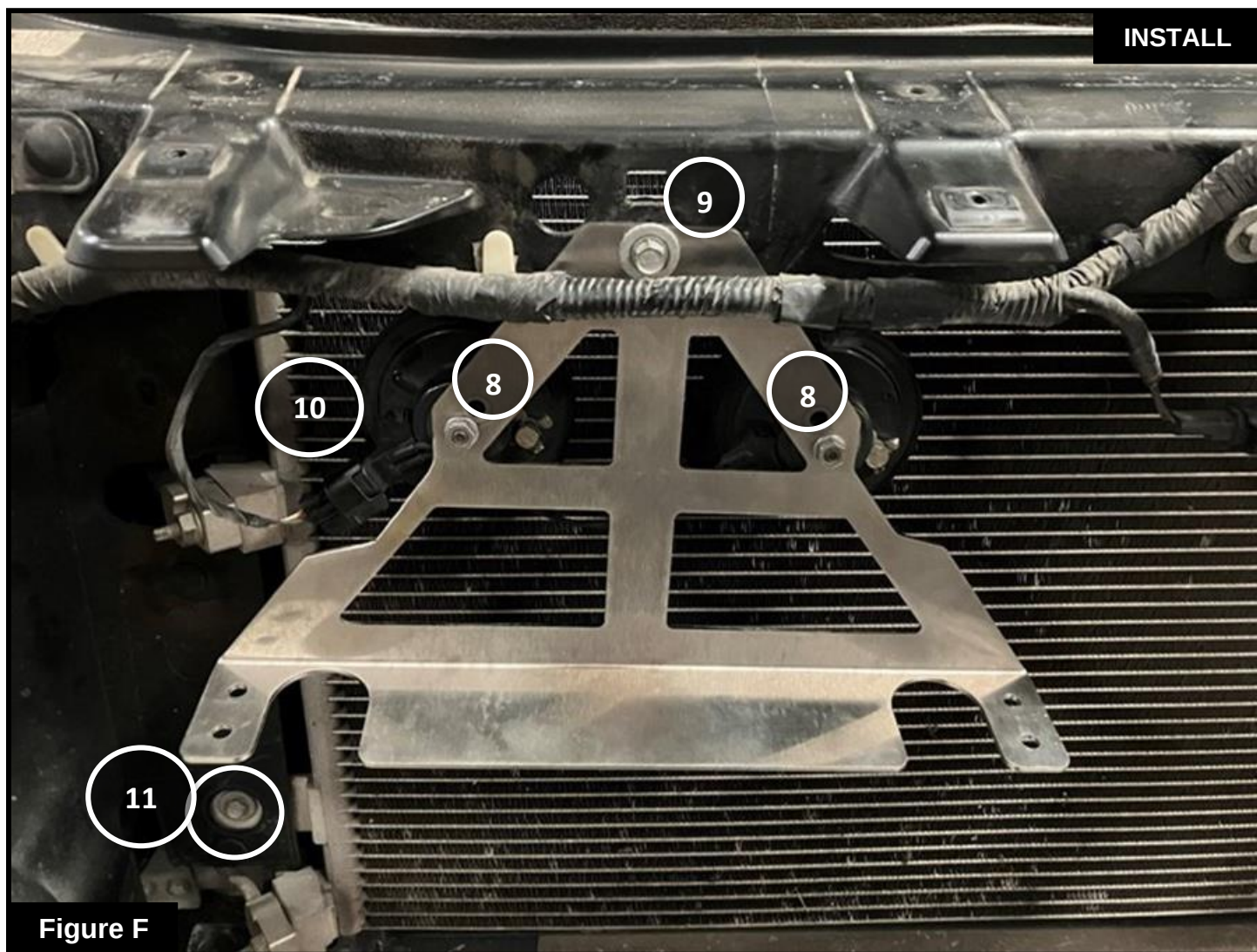


Figure F

Refer to Figure F for Steps 13-16

Step 13: Reinstall the horns to the new aFe POWER upper bracket as shown using the two (2) nuts removed previously. (8)

Step 14: Loosely install the bracket assembly to the core support using the stock bolt removed previously (do not tighten). (9)

Step 15: Reconnect the electrical connector to the horn assembly. (10)

Step 16: Remove the screw for the condenser located on the bottom left side. (11)

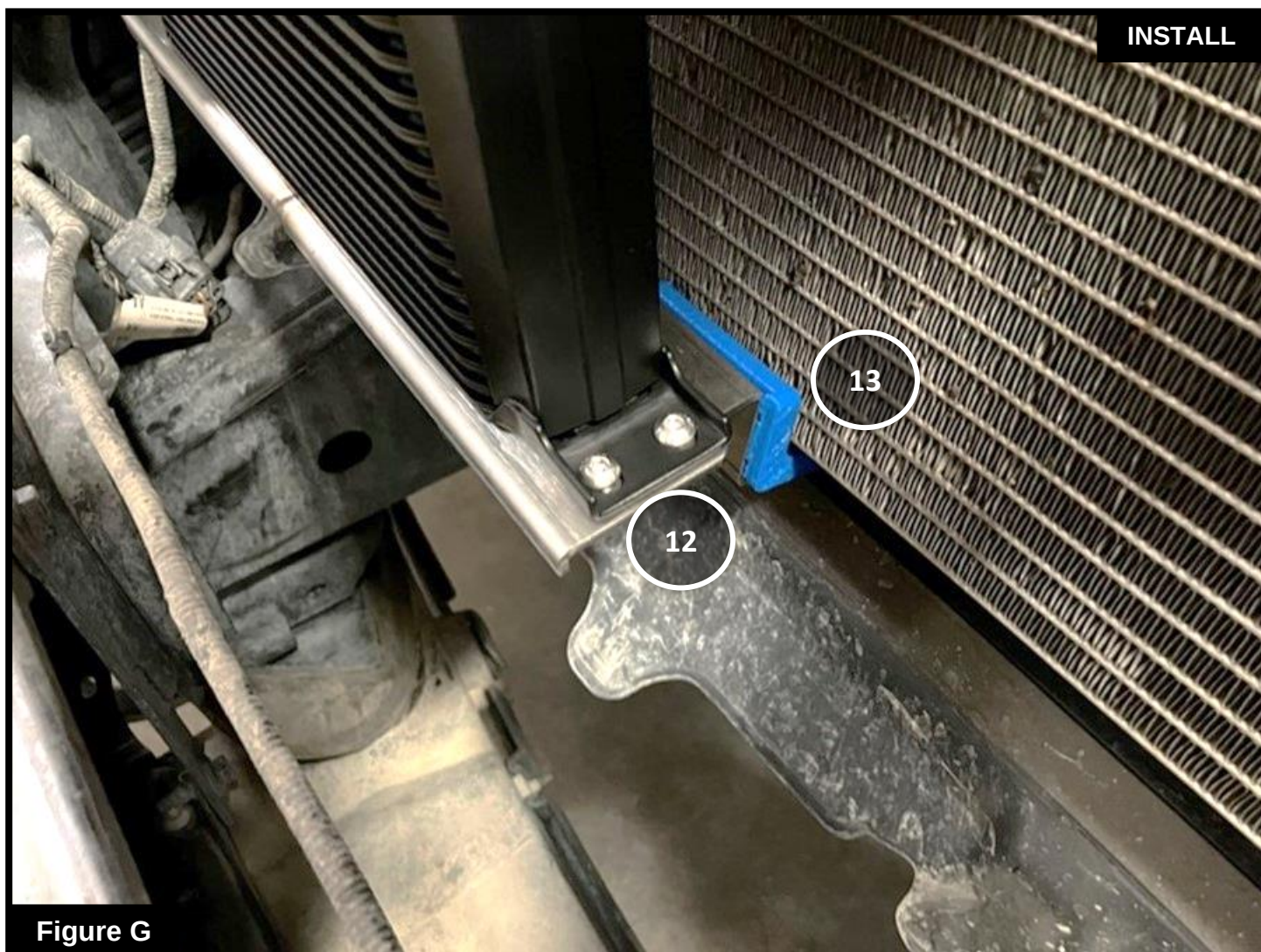


Figure G

Refer to Figure G for Steps 17-19

Step 17: Fasten the lower oil cooler bracket to the oil cooler using four (4) of the screws and nuts provided. Make sure the logo is facing forward. (12)

Step 18: Install the provided grommet onto the bracket as shown (shown in blue, but color may vary).

Step 19: Install the oil cooler assembly into the vehicle so that the grommet clips under the condenser. (13)

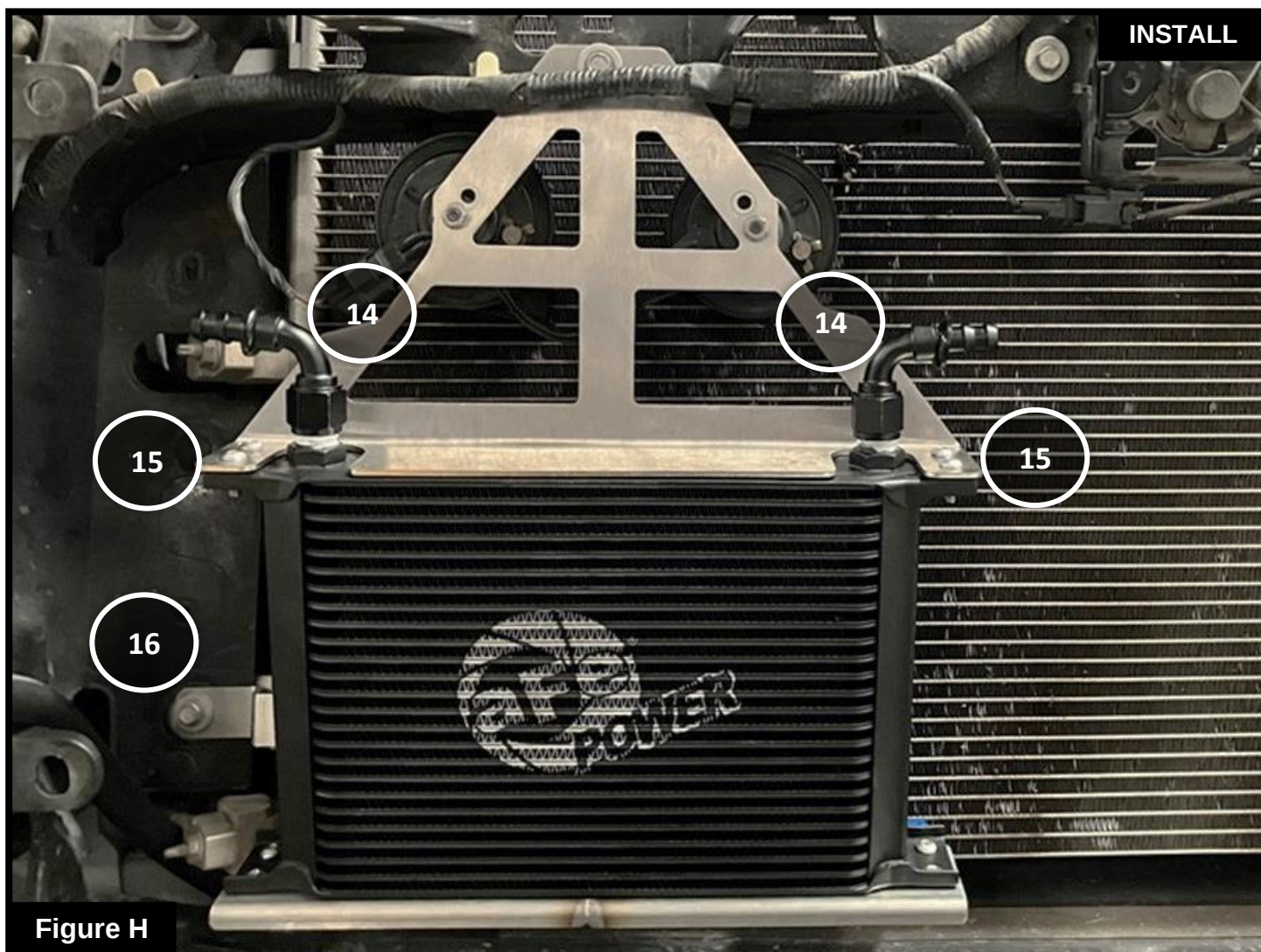


Figure H

Refer to Figure H for Steps 20-24

- Step 20: Remove the blue protective caps from the oil cooler, and apply teflon tape to both of the fittings.
- Step 21: Install two (2) of the provided AN-8 90-Degree Push Lock Fittings onto the AN fittings of the supplied aFe Transmission Oil Cooler, with each end of the barbed fittings facing outwards from the center of the cooler. (14)
- Step 22: Install the oil cooler assembly to the upper bracket using four (4) of the included screws and nuts provided. (15)
- Step 23: Secure the lower oil cooler bracket to the lower left side of the condenser using the stock bolt that was previously removed. (16)
- Step 24: Tighten all mounting hardware at this time.

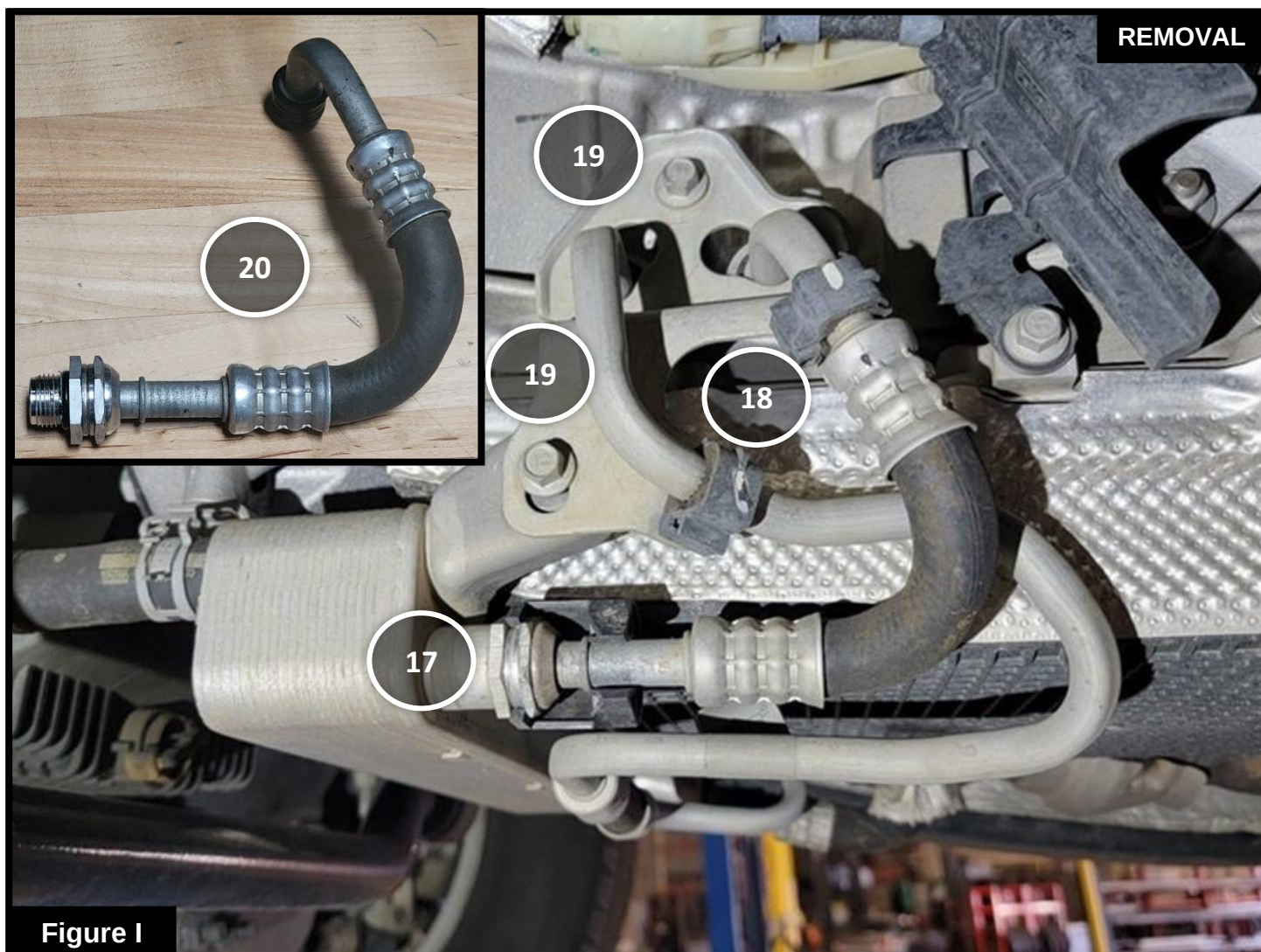


Figure I

Refer to Figure I for Steps 25-29

Note: Locate the stock oil cooler lines on the driver's side of the transmission. Prepare an oil drain bucket to catch the oil that will drain during the next step.

Step 25: Remove the plastic retainer from the lower side of the stock oil cooler line.

Step 26: Disconnect the hose from the oil cooler by unthreading the large hex fitting from the oil cooler. Allow the oil to drain into the bucket previously prepared. (17)

Step 27: Unclip the two (2) plastic retainers holding the oil cooler lines to the bracket. (18)

Step 28: Using a 10mm wrench, remove the two (2) bolts that hold the retaining bracket to the transmission. (19)

Step 29: Remove the rearward hose and bracket from the side of the transmission. (20)

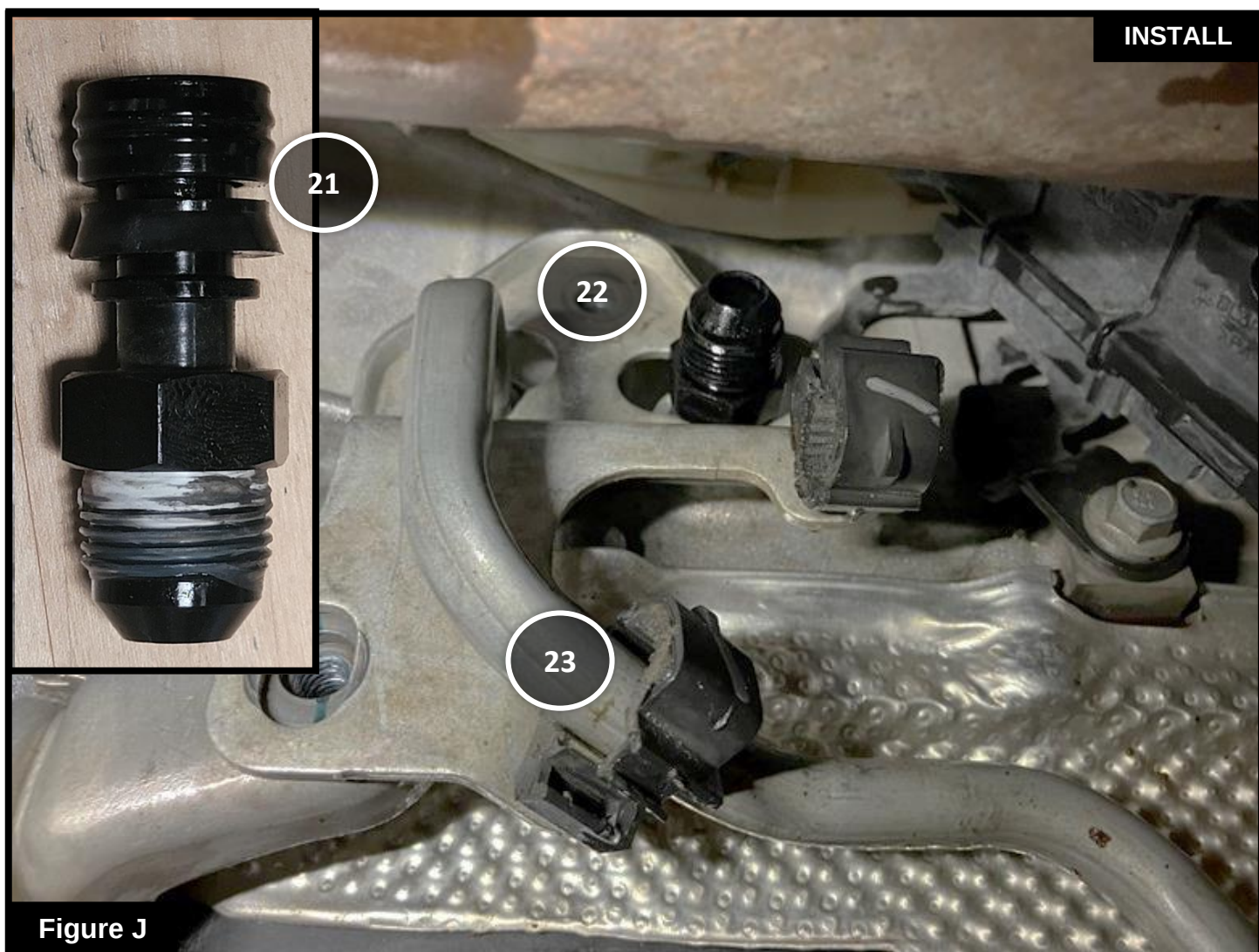


Figure J

Refer to Figure J for Step 30-33

Step 30: Remove the two (2) rubber seals from the end of the stock cooler hose and transfer them over to the new transmission side fitting as shown. (21)

Step 31: Install the new fitting assembly into the retaining bracket.

Step 32: Reinstall the retaining bracket and fitting onto the side of the transmission using the factory hardware. Make sure the remaining metal hardline is also in place as shown. (22)

Step 33: Clip the metal line back into the plastic retainer. (23)



Figure K

Refer to Figure K for Step 34

Step 34: Install the oil cooler line fitting and crush washer into the oil cooler as shown. Tighten the fitting in place. (24)

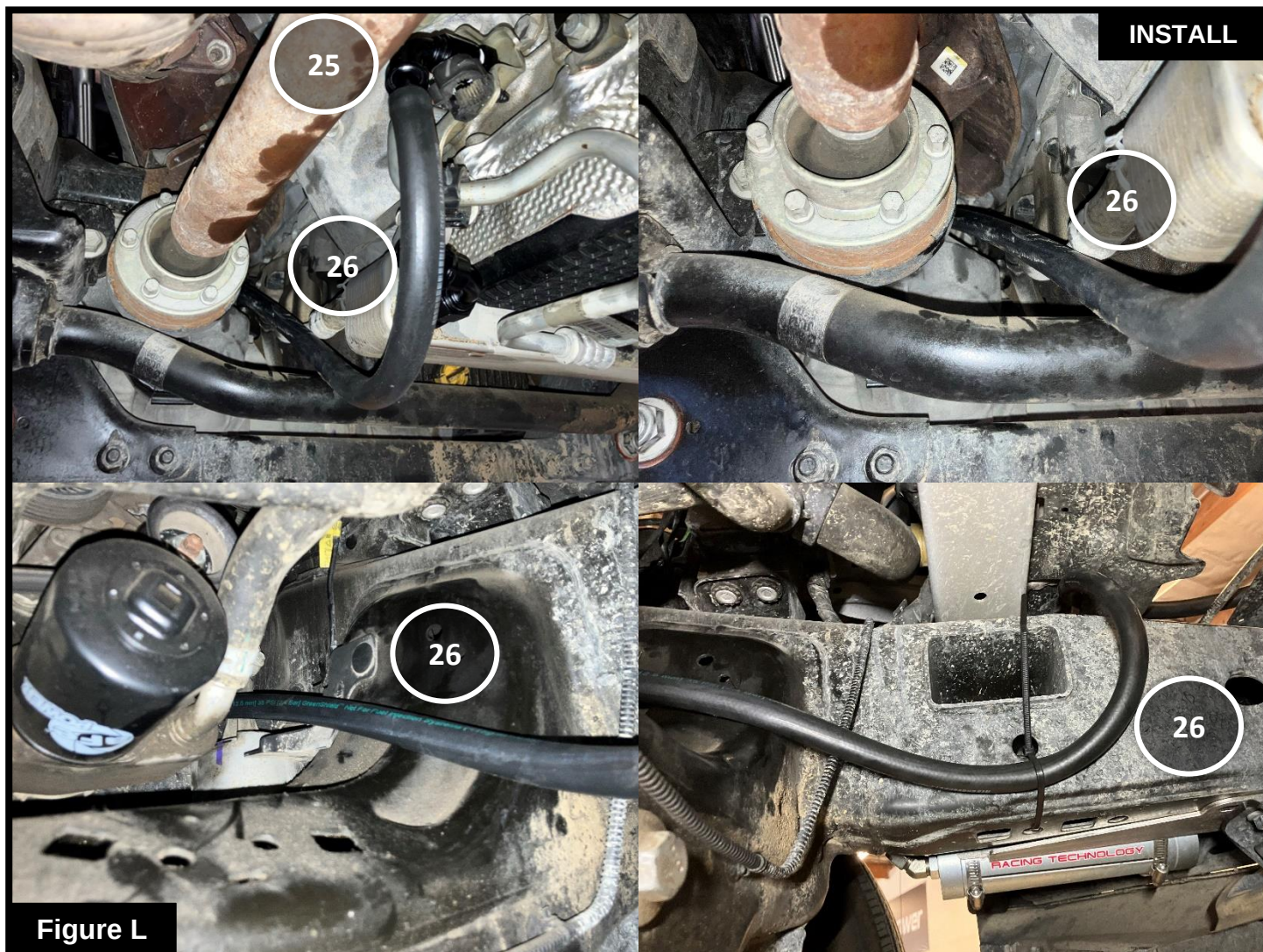


Figure L

Refer to Figure L for Step 35-37

Step 35: Install one (1) of the provided AN-8 90-Degree Push Lock Fittings onto the transmission line fitting. (25)

Step 36: Lubricate the end of the supplied 1/2" Oil Cooler Hose with a small amount of oil and press it onto the AN-8 90-Degree Push Lock Fitting mounted to transmission until it's tightly seated at the base of the fitting (no clamp required).

Step 37: Route the hose up to the front of the vehicle (optional routing path shown above) and secure it using zip ties as necessary. (26)

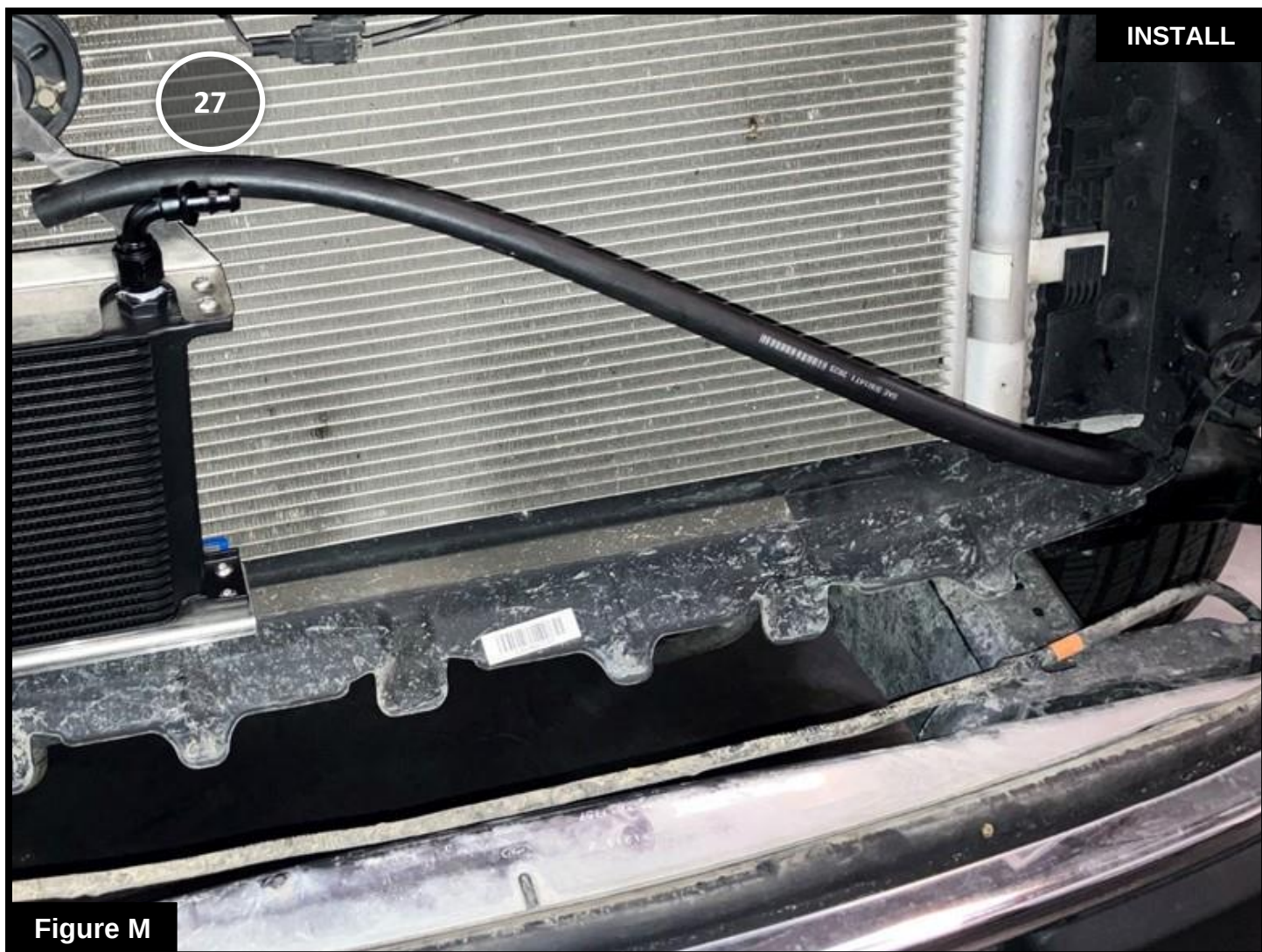


Figure M

Refer to Figure M for Steps 38-39

Step 38: The hose route from the transmission line fitting should route up to the front of the truck on the driver's side and reach the new aFe POWER Transmission Oil Cooler as shown.

Step 39: With the hose securely attached and routed, trim the hose to length as shown. (27)



Figure N

Refer to Figure N for Steps 40-42

Step 40: Install one (1) of the provided AN-8 90-Degree Push Lock Fittings onto the new fitting previously installed in the factory oil cooler. (28)

Step 41: Lubricate the end of the supplied 1/2" Oil Cooler Hose with a small amount of oil and press it onto the AN-8 90-Degree Push Lock Fitting mounted to factory oil cooler until it's tightly seated at the base of the fitting (no clamp required).

Step 42: Route the hose up to the front of the vehicle (optional routing path shown above) and secure it using zip ties as necessary. (29)

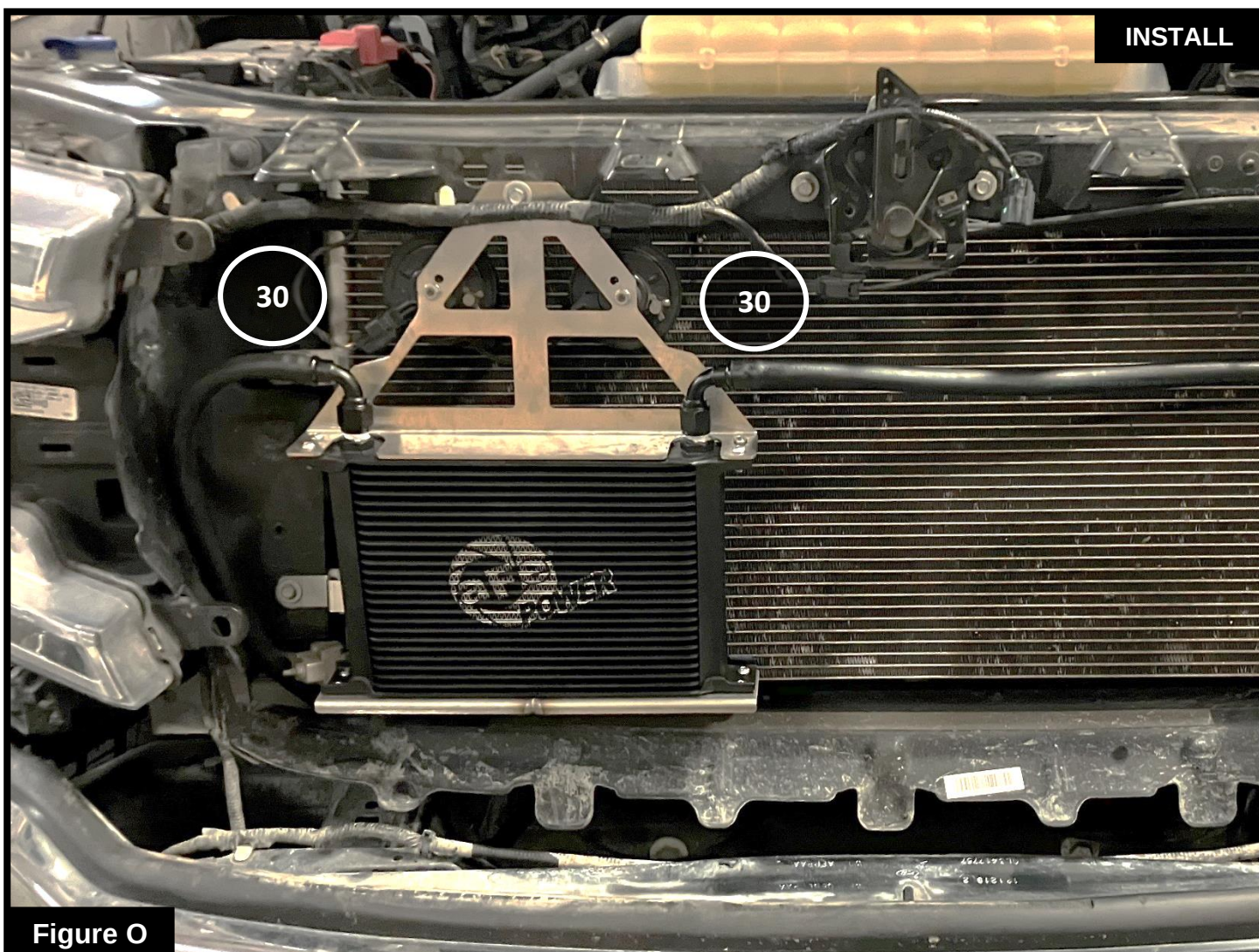


Figure O

Refer to Figure P for Steps 43-46

Step 43: The hose route from the factory oil cooler fitting should route up to the front of the truck on the passenger's side and reach the new aFe POWER Transmission Oil Cooler as shown.

Step 44: With the hose securely attached and routed, trim the hose to length as shown. (30)

Step 45: Lubricate the ends of the each supplied 1/2" Oil Cooler Hose with a small amount of oil and press both hoses onto the corresponding AN-8 90-Degree Push Lock Fitting until they are tightly seated at the base of the fittings (no clamps required).

Step 46: Verify that all connections are tightly seated and all mounting hardware is tight at this time.



Figure P

Refer to Figure P for Step 47-51

Step 47: Start the vehicle and ensure there are no leaks while the vehicle is running.

Step 48: Reinstall the grille and trim on the vehicle following the reverse order of steps 1-9.

Step 49: Test drive the vehicle.

Step 50: Use the proper procedure to check the transmission fluid level, top off if needed.

Step 51: Install is now complete!

Note: Be sure to check all connections after 50-100 miles.



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