

CERTAIN 2021 - 2026 MODEL YEAR BRONCO NON-RAPTOR VARIANTS — ENGINE COMPARTMENT WIRE HARNESS REPAIR

SERVICE PROCEDURE

IMPORTANT! The Service Technician Specialty Training (STST) Competency 10 certification requirement in the U.S. market became effective for repair orders opened on or after August 31, 2024. The Field Service Action (FSA) repair will be rejected and the claim will not be paid if the repairing technician is not certified in STST Competency 10 FSA. See Electronic Field Communication (EFC)15936 for more details.

NOTE: When purchasing the convolute tubing make sure it is pre-split and the continuous **operating temperature** specifications are between -40°F (-40°C) and 250°F+ (125°C).

NOTE: There are two inspections and potential repairs to be done.

- Mirror harness is to be done with the vehicle on the ground.
- Engine harness is to be done with the vehicle on a lift.

Parts Table (See Figure 1)			
Description	Quantity	Length	Diameter
Convolute tubing (1)	2	3.5 in (8.89 cm)	1.25 in (3.175 cm)
Convolute tubing (2)	2	2.5 in (6.35 cm)	1.25 in (3.175 cm)
Convolute tubing (3)	1	5.5 in (13.97 cm)	1.25 in (3.175 cm)
Convolute tubing (4)	1	10 in (25.4 cm)	1 in (2.54 cm)
Convolute tubing (5)	4	5 in (12.7 cm)	0.5 in (1.27 cm)
Coroplast® tape (6)	1	1 roll	N/A
Wire harness tie strap retainer (7)	4		N/A





FIGURE 1

MIRROR WIRE HARNESS INSPECTION AND REPAIR

NOTE: For 2021 – 2025 Bronco non-Raptor variants built **before** January 15, 2025.

- Convolute tubing will **not** be installed on the mirror harness.

ENGINE HARNESS INSPECTION AND REPAIR

NOTE: For 2025 – 2026 Bronco non-Raptor variants built **on** or **after** January 15, 2025.

- Only cut 1 Piece 3.5 in (8.89 cm) length -1.25in (3.175 cm) diameter convolute tubing.

1. Using a cutting tool, cut the convolute tube into sections. Refer to the Parts Table on Page 1, and See Figure 1.



2. Remove the fasteners and position the degas bottle aside. See Figure 2.

- Torque: 44 lb.in (5 Nm)

NOTE: Do not disconnect the coolant tubes.



FIGURE 2



NOTE: First perform Steps 3-12 on the Right Hand (RH) side of the vehicle. Step 13 will then direct you back to Steps 4-7 and 11-12 to perform the procedures on the Left Hand (LH) side

3. Disconnect the three retainers on the wire harness. Discard retainer (3). See Figure 3.

- (1) - Retainer
- (2) - Retainer is located under the wire harness pigtail.
- (3) - Retainer is one time use.

NOTE: RH side shown.



FIGURE 3



NOTICE: Use caution, if damage to the wire harness occurs during the next step, side view mirror replacement will be required.

4. Carefully move the wire harness from under the fender. Pull the wire harness between the hood hinge and the fender until it is accessible. See Figure 4.

(1) - Reposition the wire harness from under the fender.

5. Starting at retainer (1), inspect the harness for broken wires or signs of chafing. See Figures 3 and 4.

NOTE: RH side shown, LH side similar.

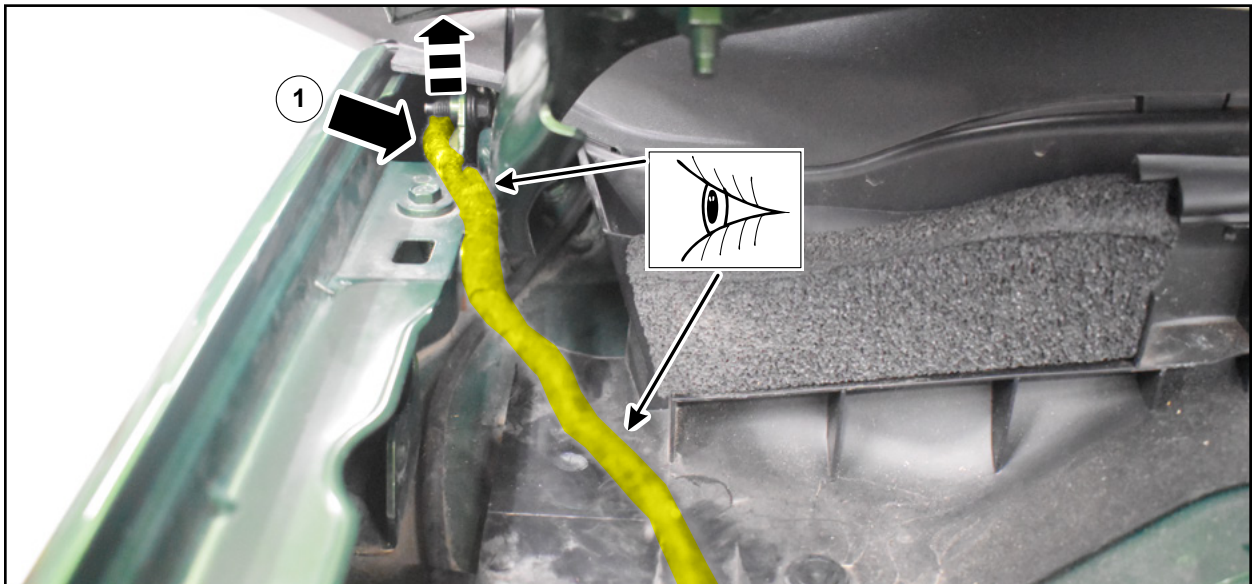


FIGURE 4



6. Does the wire harness have any broken wires or signs of chafing present?

Yes:

Scenario 1 - If a wire is broken or chafing is present, repair the wire(s). Follow the Professional Technician System (PTS) www.fordtechservice.dealerconnection.com/ procedures under Wiring Tab>005 Connector Repair Procedures. Once completed, proceed to Step 7.

Scenario 2 - If the coaxial cable is damaged, you must contact the Special Service Support Center (SSSC). Once completed, proceed to Step 7.

No - Proceed to Step 7.

NOTE: A cutting tool will be required to cut the Coroplast® tape.

7. Using the Coroplast® tape, wrap the exposed area of the harness from Step 4 all the way back to the pigtail (retainer 2 from Figure 3). Make sure to fully cover the wires and that there will be enough clearance to put the wire harness back in between the fender and the hood hinge. See Figure 5.

NOTE: Convolute tubing will NOT be used on this section of the harness.

(1) - Coroplast® tape.

(2) - Wire harness.

NOTE: RH side shown, LH side similar.

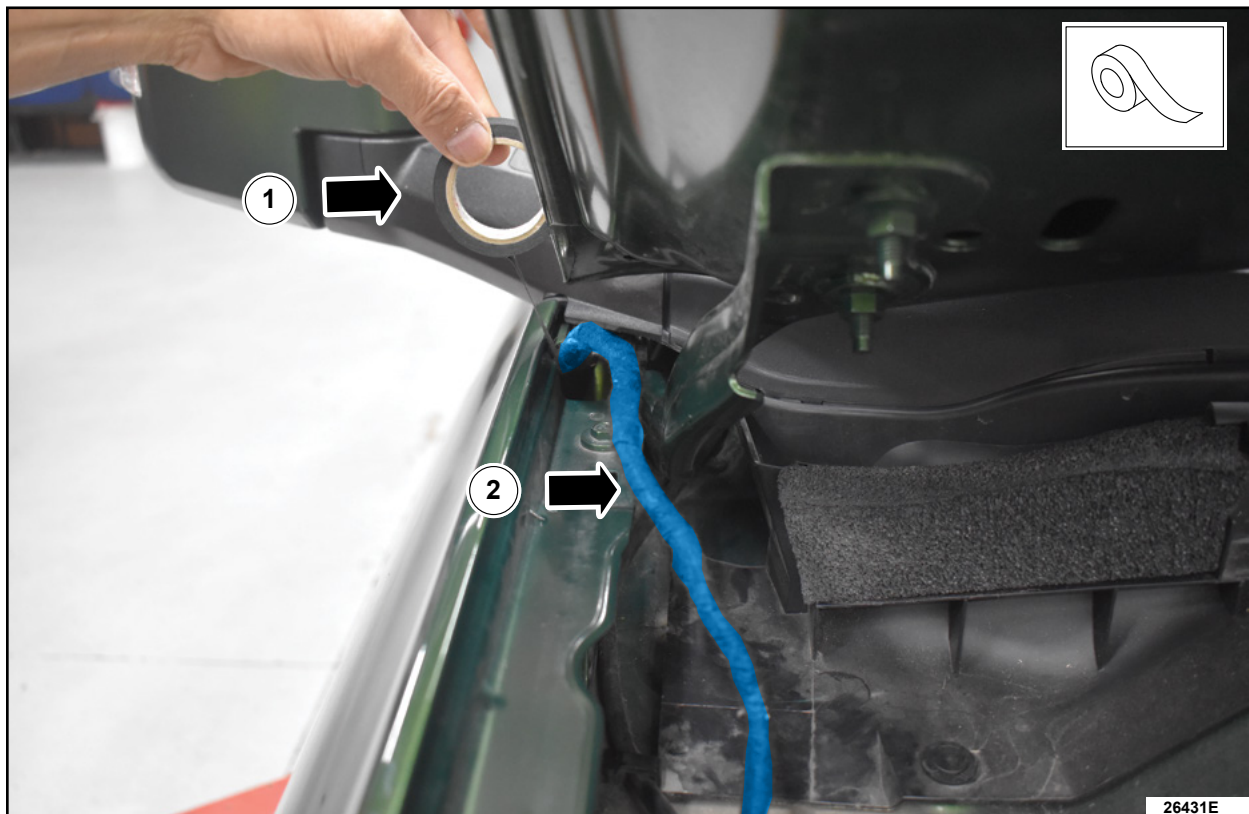


FIGURE 5



NOTE: For Bronco non-Raptor variants:

- Vehicles built **before** January 15, 2025 require convolute tubing. Proceed to Step 8.
- Vehicles built **on** or **after** January 15, 2025 convolute tubing is already installed, skip Steps 8 and 9.

8. Using 2 pieces of 5 in (12.7 cm) convolute tubing, put one on each side of retainer (1). See Figures 3 and 6.

(1) Retainer 1

NOTE: RH side shown.

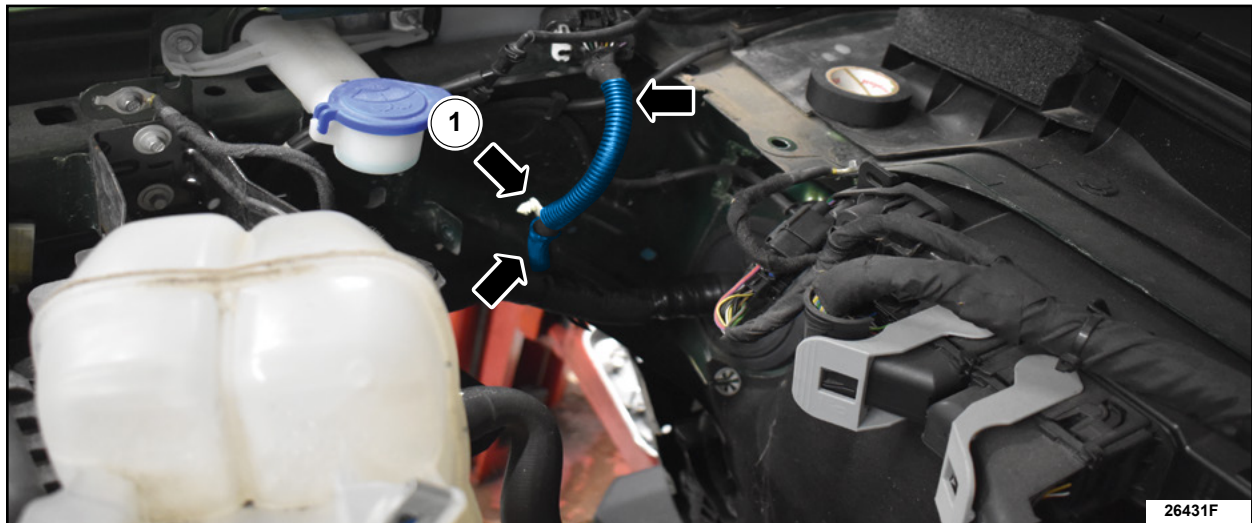


FIGURE 6

9. Using the Coroplast® tape, wrap the tape around the previously applied convolute tubing.

10. Put retainers (1) and (2) back in place. See Figure 3.

NOTICE: Use caution, if damage to the wire harness occurs during the next step, side view mirror replacement will be required.

11. **Gently** reverse the procedure from Step 4, to guide the wire harness back between the fender and the hood hinge.

NOTE: The first pre-drilled hole is replacing the one time use retainer from Figure 3.

12. Using 2 of the wire harness tie strap retainers, affix the wire harness to the 2 pre-drilled holes located on the hood hinge. Using a cutting tool, cut the excess length from the wire harness strap retainers. See Figure 7.

NOTE: Convoluted tubing will **NOT** be installed on the LH side wire harness.

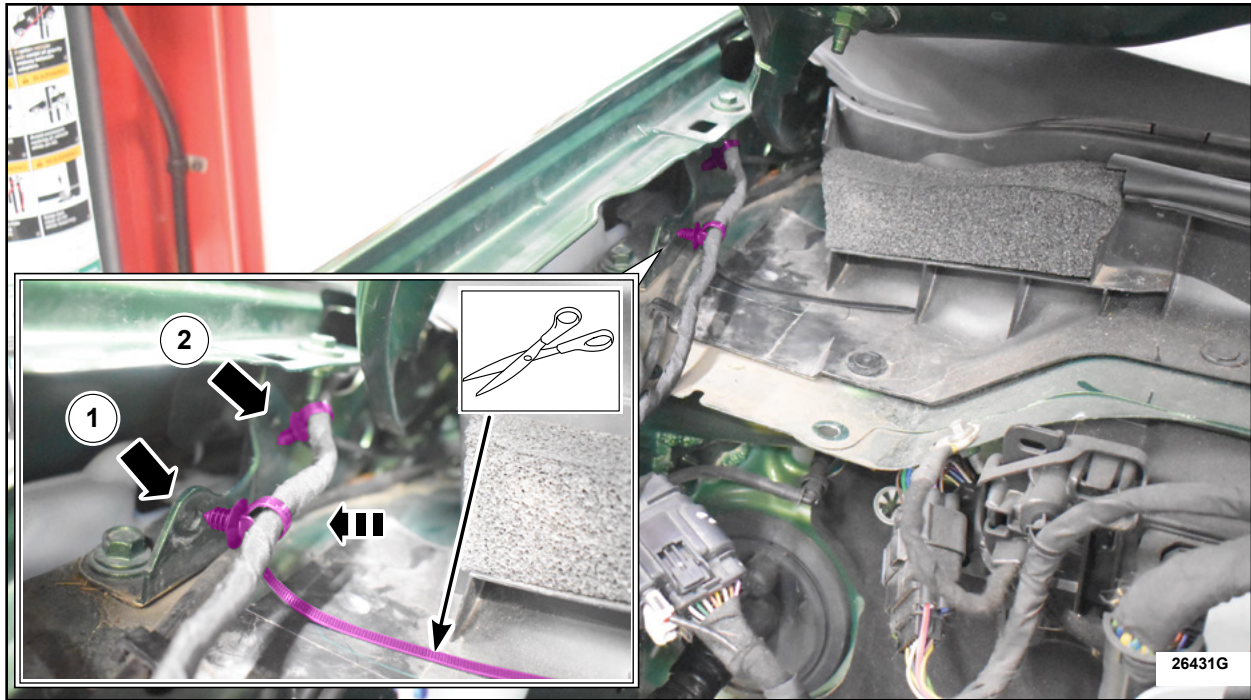


FIGURE 7

13. Repeat Steps 4-7 and 11-12 for the LH side of the vehicle. Proceed to Step 14.



ENGINE WIRE HARNESS INSPECTION AND REPAIR

NOTE: For Bronco non-Raptor variants:

- Vehicles built **on** or **after** Jan 15, 2025 - Only cut 1 Piece 3.5 in (8.89 cm) length -1.25in (3.175 cm) diameter convolute tubing."

14. Remove the front RH side fender splash guard. Follow the Workshop Manual (WSM) procedures in Section 501-02.

15. Remove the 3 retainers to reposition the harness into view. See Figure 8.

- (1) retainer
- (2) retainer
- (3) retainer

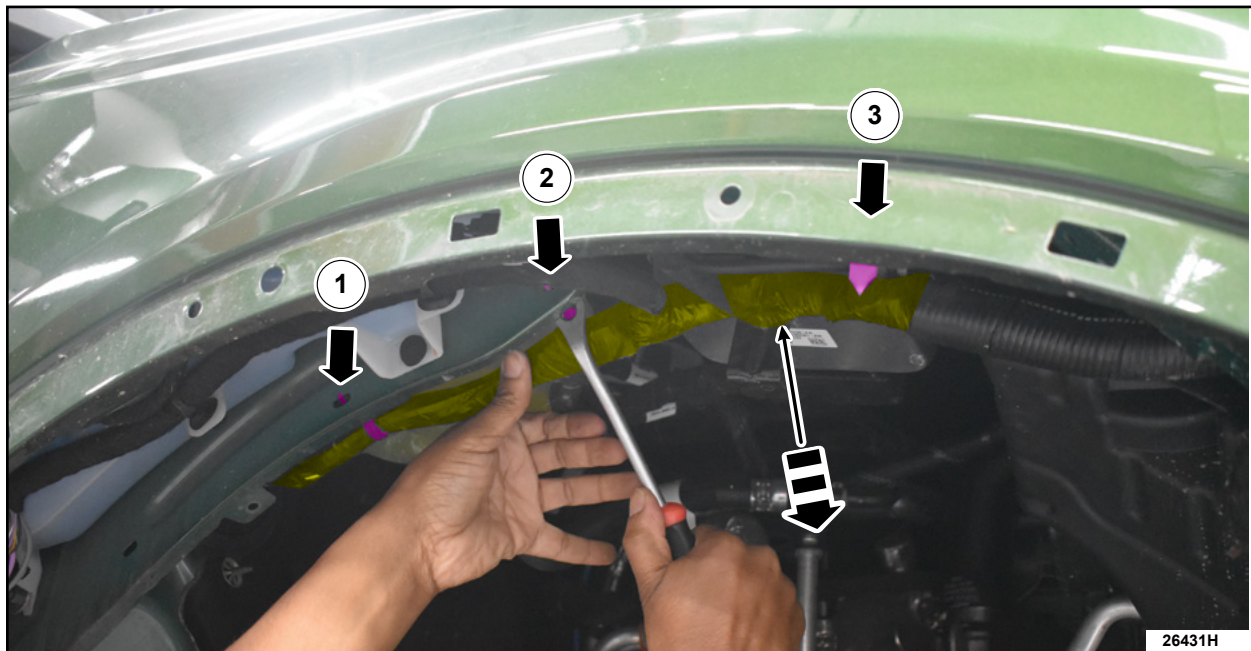


FIGURE 8

16. Starting behind retainer (1) and ending after retainer (3). Inspect the harness for broken wires or signs of chafing. See Figure 8.



17. Starting at retainer (2), inspect the portion of the harness that goes up past the degas bottle.
See Figure 9.

- (1) retainer
(2) retainer

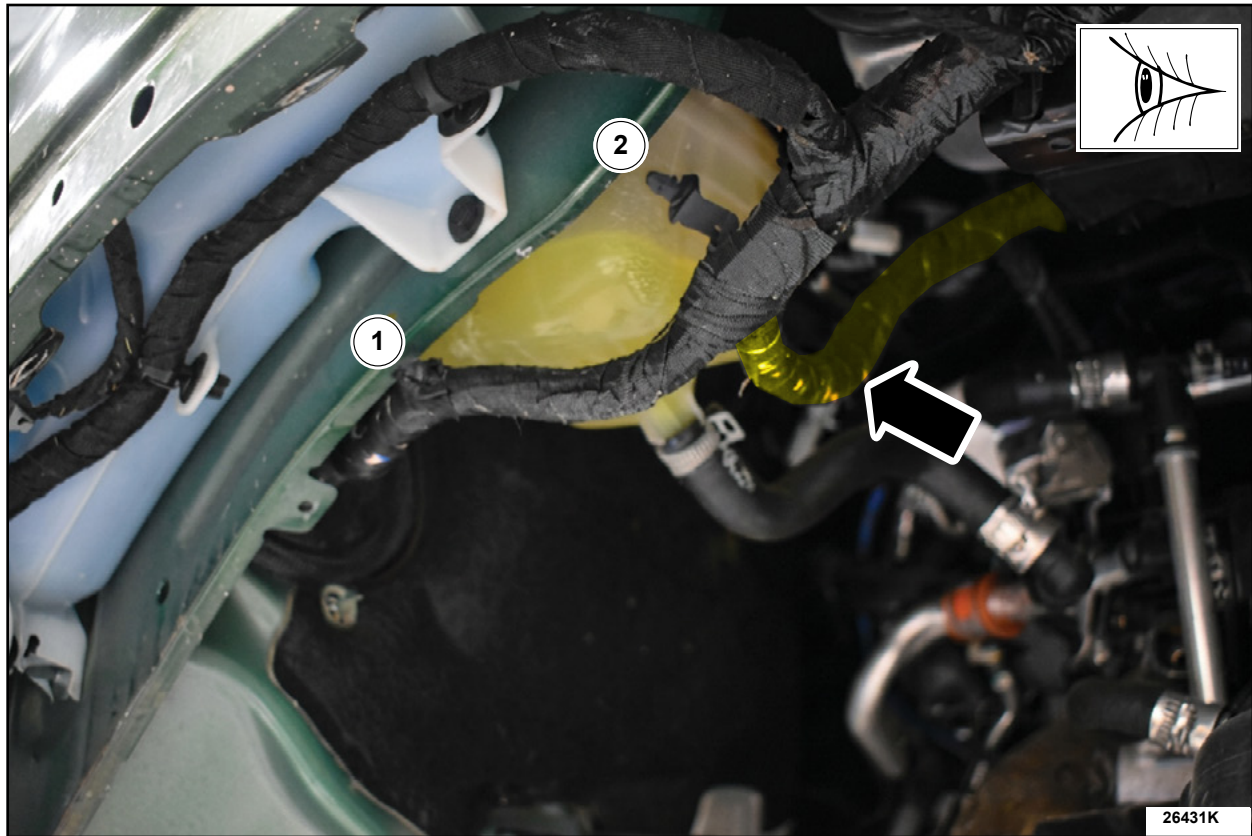


FIGURE 9

18. Does the wire harness have any broken wires or signs of chafing present?

- Yes - If a wire is broken or chafing is present, repair the wire(s). Follow the Professional Technician System (PTS) www.fordtechservice.dealerconnection.com/ procedures under Wiring Tab>005 Connector Repair Procedures.
Once completed, proceed to Step 19.
- No - Proceed to Step 19.



NOTE: For Bronco non-Raptor variants built **on** or **after** January 15, 2025:

- Vehicles built **on** or **after** Jan 15, 2025 - Only install 1 piece of 3.5 in (8.89 cm) tubing in location (1) on the wire harness. See Figure 10.

NOTE: For Bronco non-Raptor variants built **before** January 15, 2025:

- Vehicles built before Jan 15, 2025 - All six pieces are required for this repair. See Figure 10.

19. Install the convolute tubing over the inspected areas of the wire harness, then secure it in place using Coroplast® tape. See Figure 10.

- (1) 3.5 in (8.89 cm)
- (2) 5.5 in (13.97 cm)
- (3) 10 in (25.4 cm)
- (4) 2.5 in (6.35 cm)
- (5) 2.5 in (6.35 cm)
- (6) 3.5 in (8.89 cm)

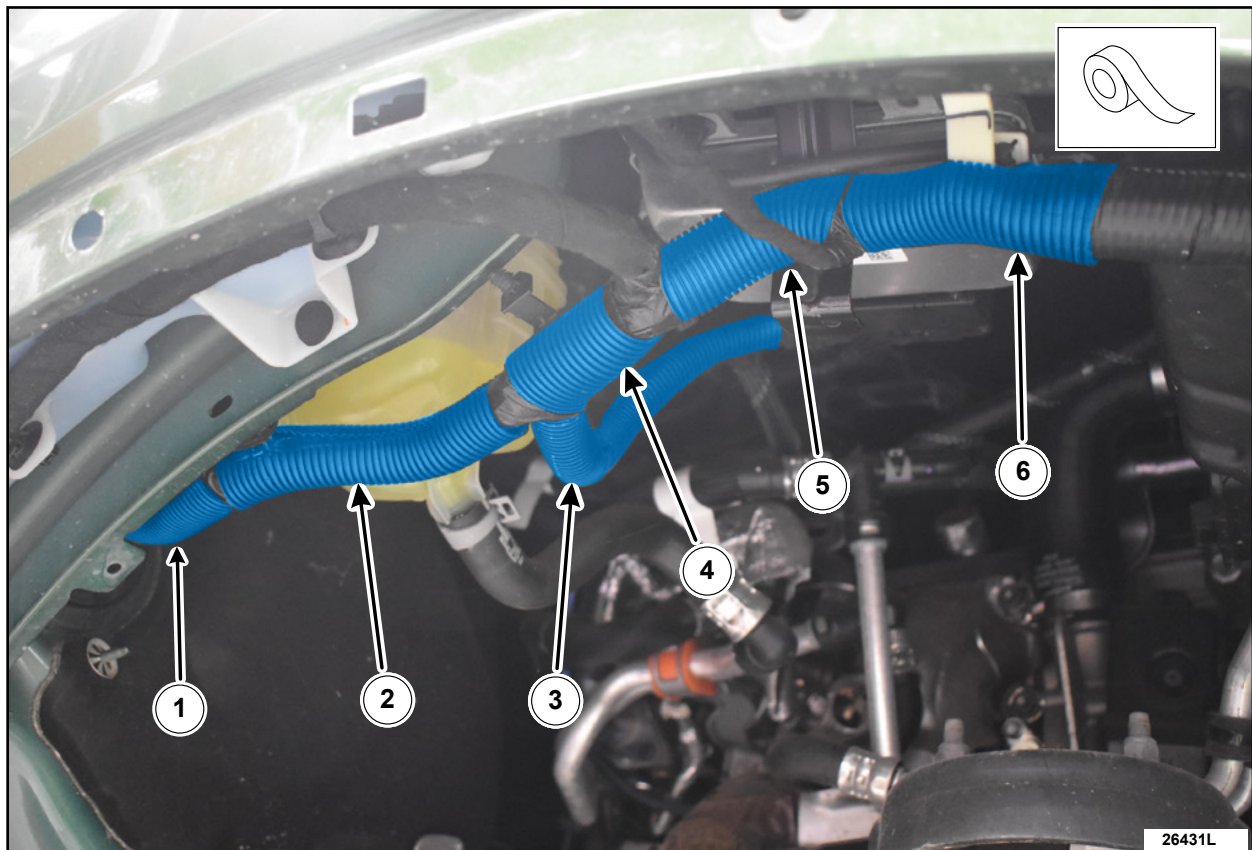


FIGURE 10

20. Reconnect the 3 retainers from Step 15. See Figure 8.

21. Install the front RH side fender splash guard by reversing the procedures in WSM Section 501-02.

22. Install the degas bottle by reversing the procedures in Step 2. See Figure 2.

23. This completes this FSA.

