

CERTAIN 2022 - 2026 MODEL YEAR BRONCO RAPTOR — 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 wire harness is to be done with the vehicle on the ground.
- Engine wire harness is to be done with the vehicle on a lift.

Parts Table (See Figure 1)			
Description	Quantity	Length	Diameter
Wire harness tie strap retainer (1)	4	N/A	N/A
Convolute tubing (2)	2	5.5in (13.97cm)	1.25in (3.175cm)
Convolute tubing (3)	2	3.5in (8.89cm)	1.25in (3.175cm)
Convolute tubing (4)	1	6in (15.24cm)	1in (2.54cm)
Convolute tubing (5)	1	4in (10.16cm)	1in (2.54cm)
Convolute tubing (6)	2	5in (12.7cm)	.5in (1.27cm)
Coroplast® tape (7)	1	1 roll	N/A





FIGURE 1

MIRROR WIRE HARNESS INSPECTION AND REPAIR

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.

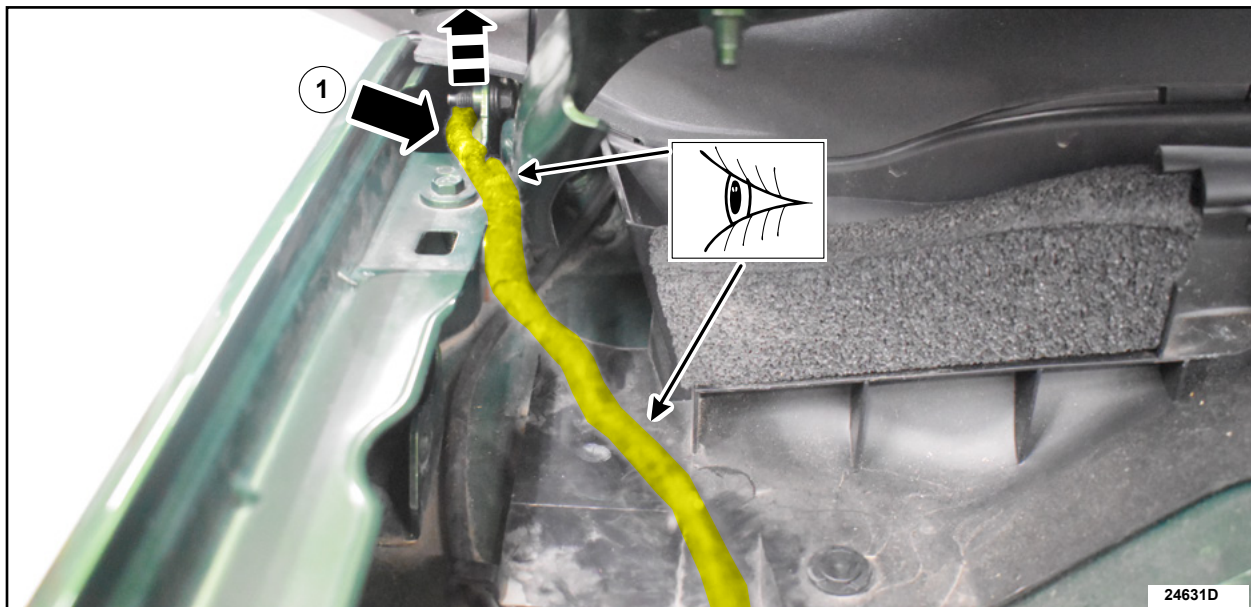


FIGURE 4



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.

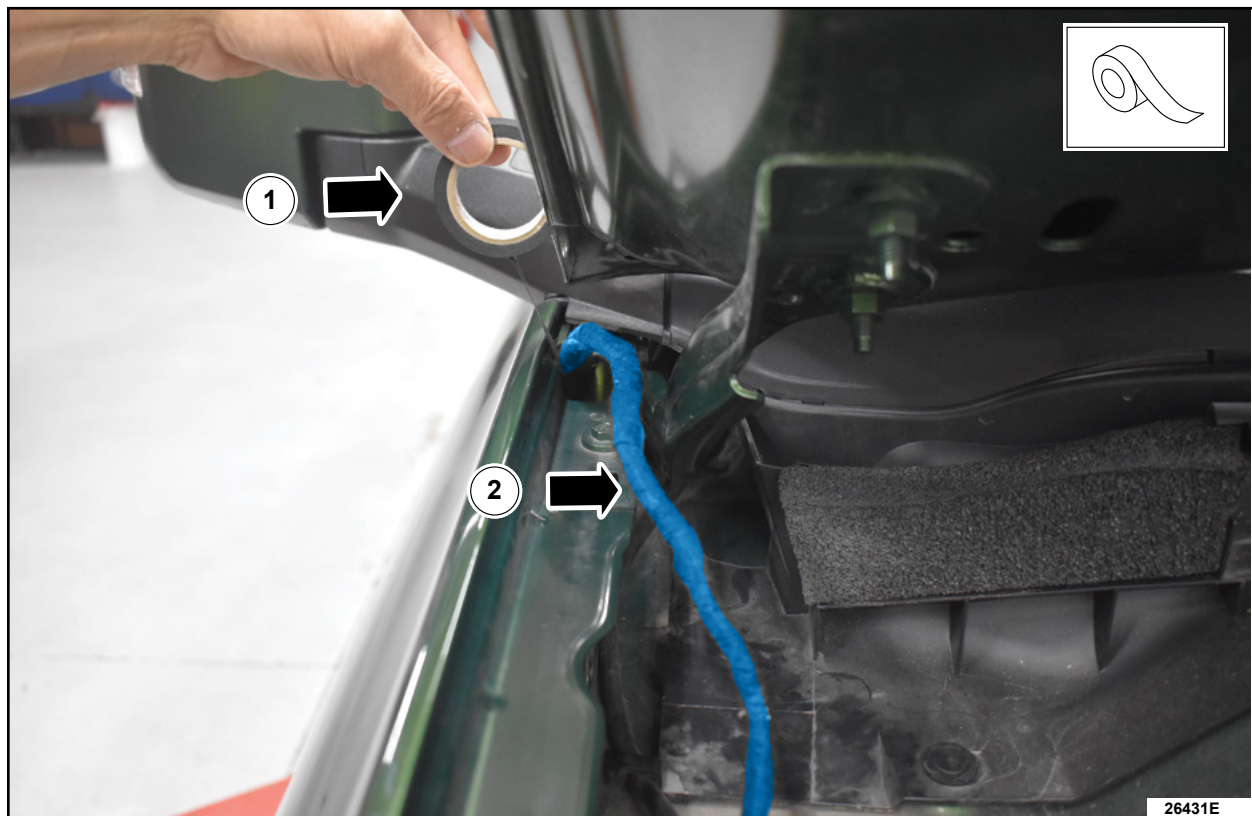


FIGURE 5



- (1) Retainer 1

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

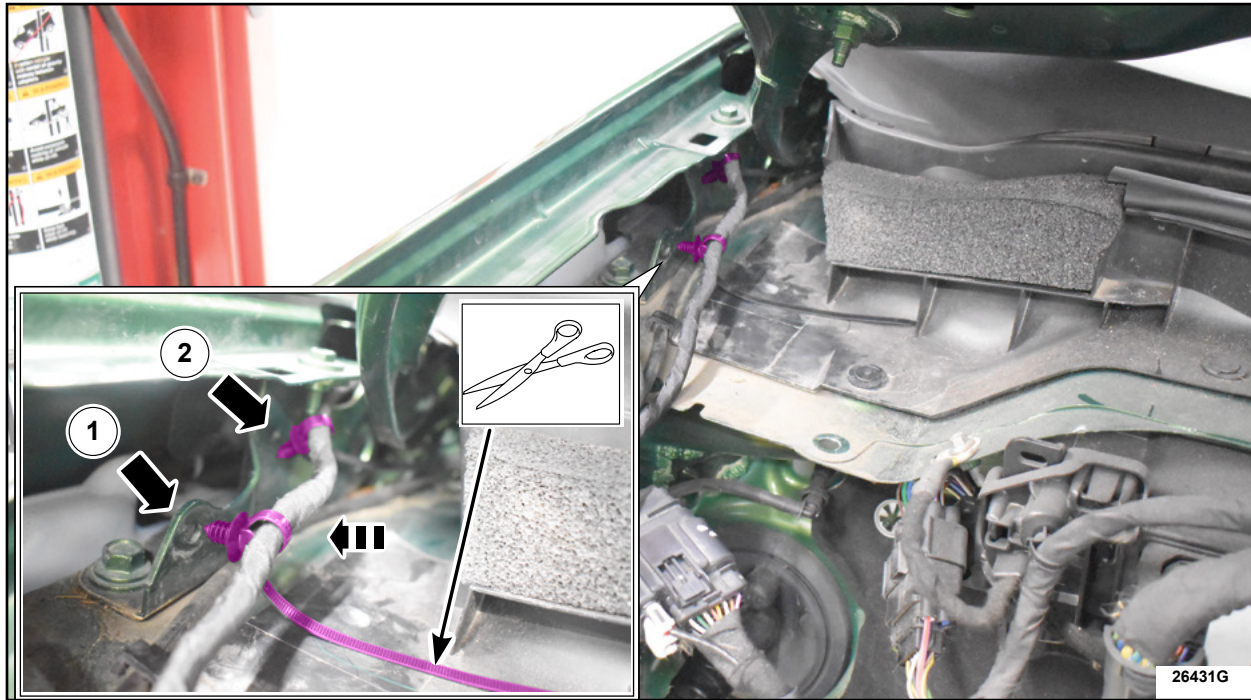


FIGURE 7

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

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

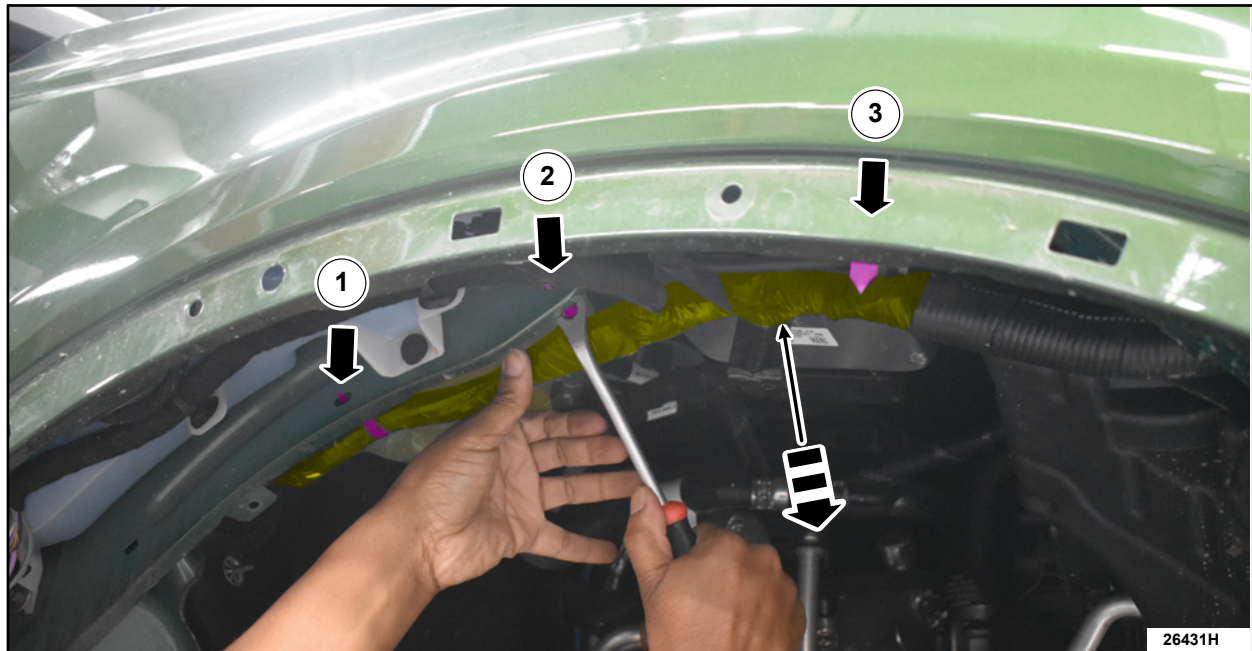


FIGURE 8

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

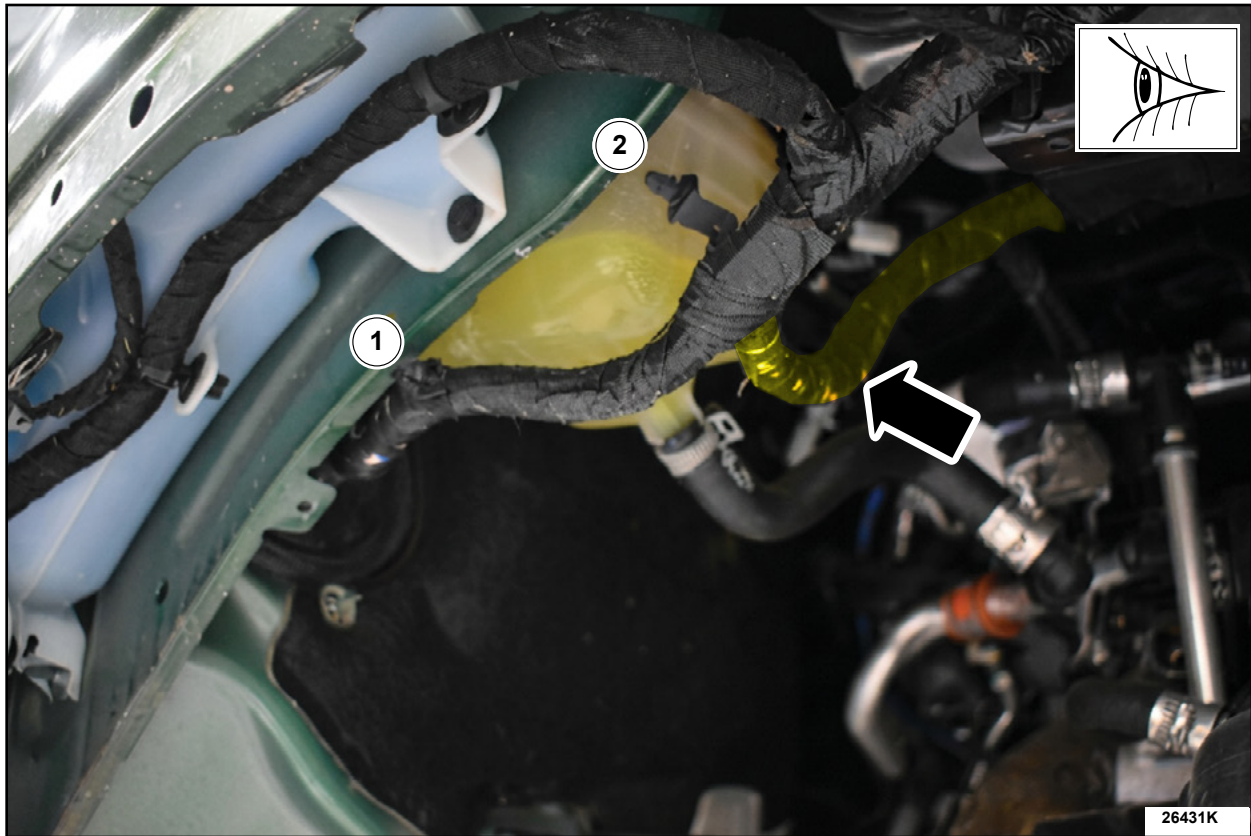


FIGURE 9

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.



19. Install the convolute tubing onto the inspected portions of the wire harness and using the Coroplast® tape, tape the tubing onto the harness. See Figure 10.

- (1) 3.5in (8.89cm)
- (2) 5.5in (13.97cm)
- (3) 5.5in (13.97cm)
- (4) 6in (15.24cm)
- (5) 4in (10.16cm)
- (6) 3.5in (8.89cm)

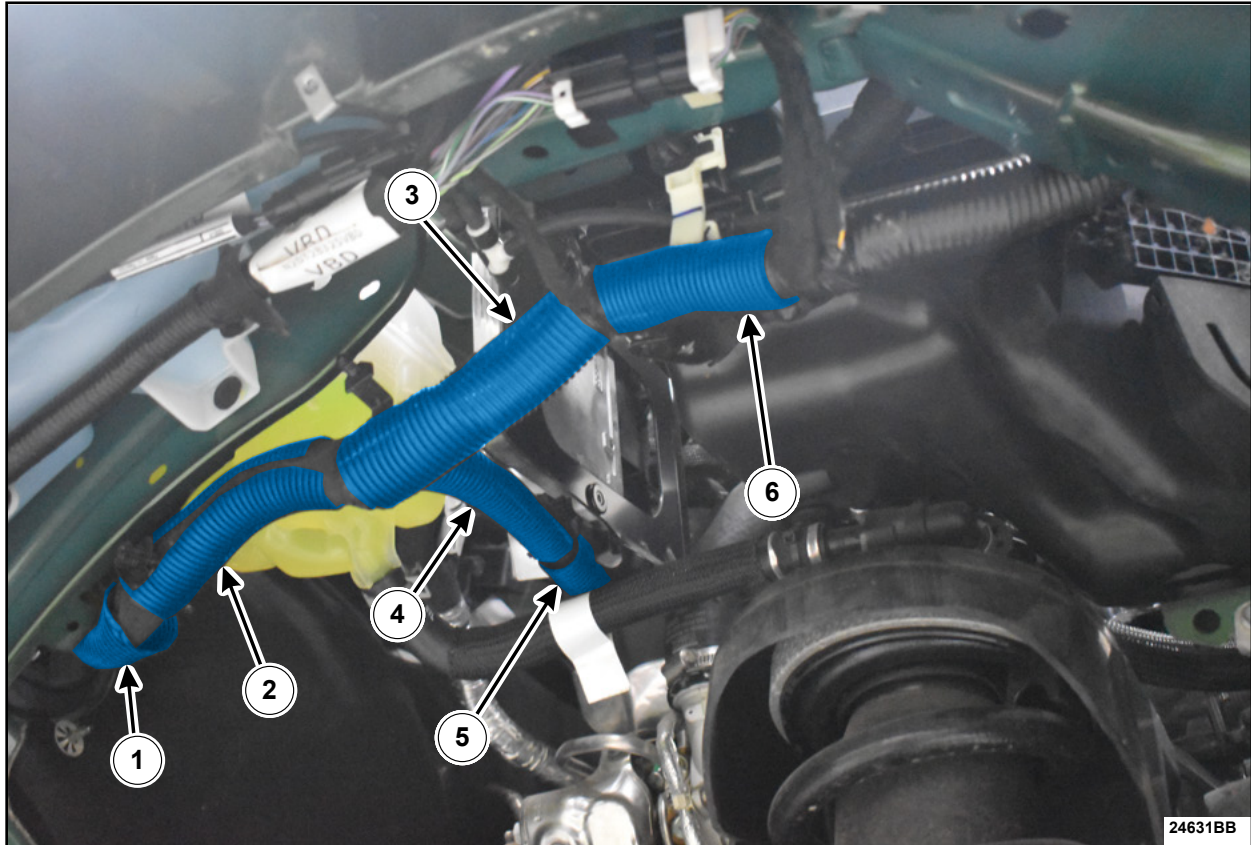


FIGURE 10

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.

