



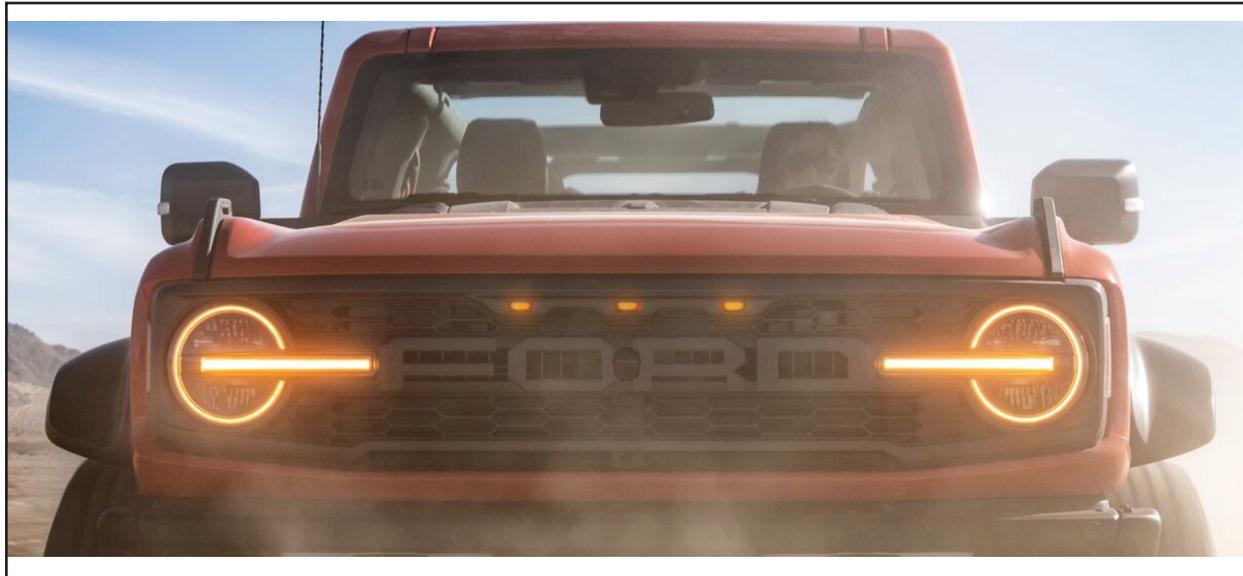
FORD PERFORMANCE

M-13008K-BR
2021-present Bronco
Raptor Headlamp Kit

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PRIOR TO INSTALLATION READ THESE INSTRUCTION COMPLETELY
For questions, Call the FORD PERFORMANCE Techline 1-800-367-3788

Please visit <https://www.performanceparts.ford.com> for warranty information



PART NUMBER	DESCRIPTION	QUANTITY
P2DZ-13008-F	LH raptor headlamp assembly	1
P2DZ-13008-D	RH raptor headlamp assembly	1
ML3Z-13C788-A	LED control module	2
W506945-S437	LED control module mounting screws	8

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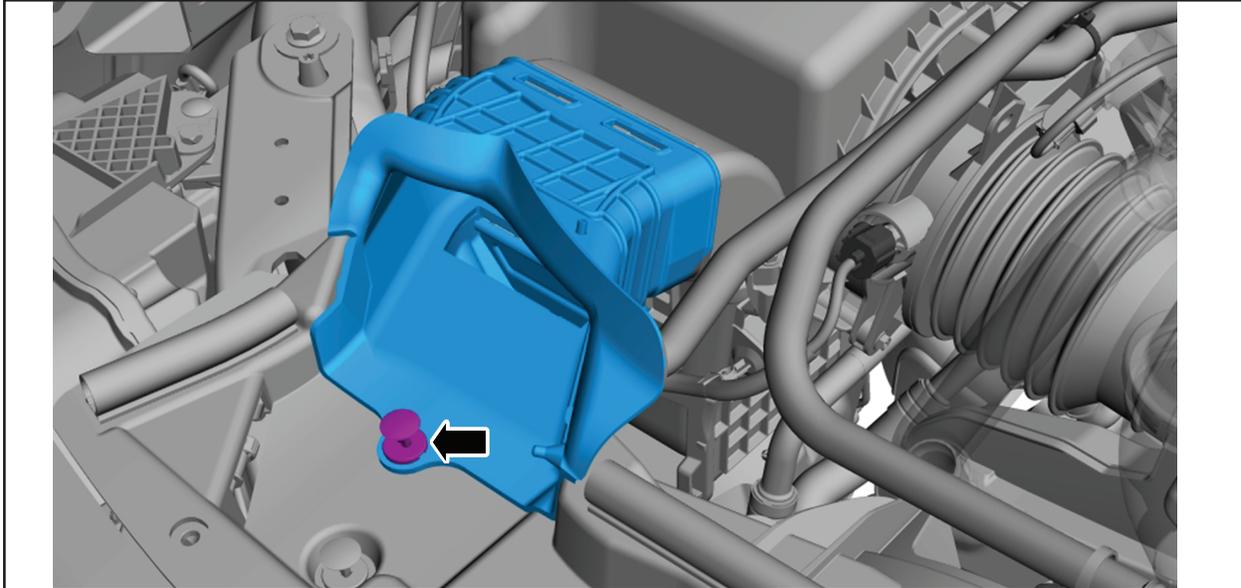
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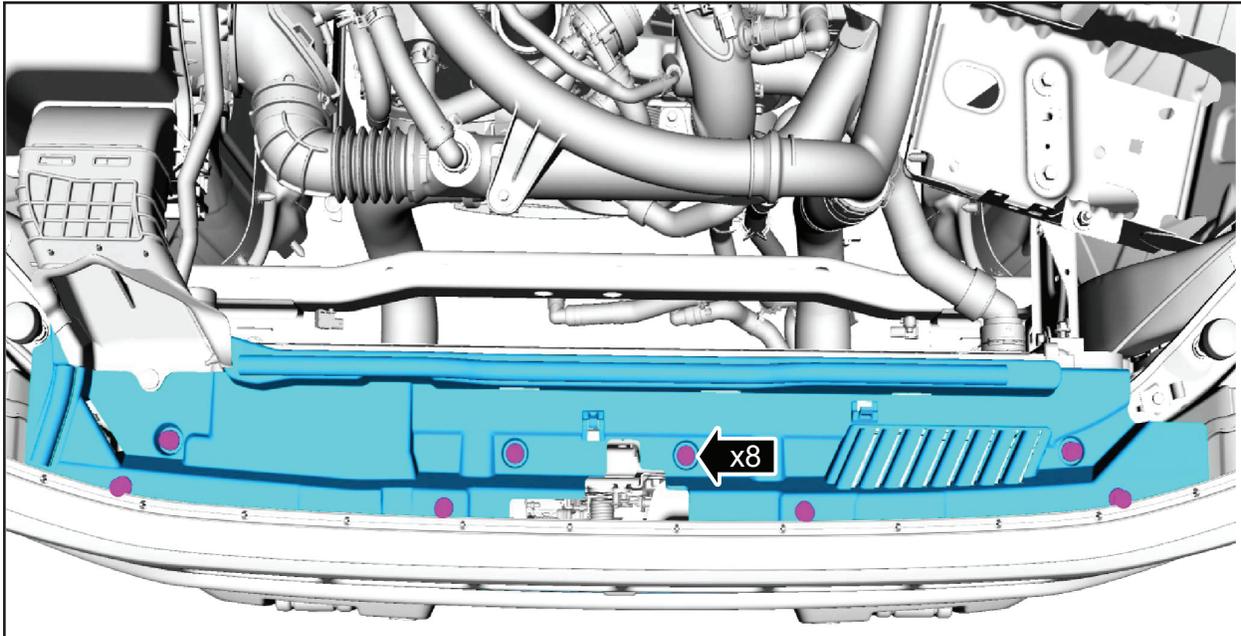
INSTALLATION PROCEDURE - Raptor Headlamp Kit

1. On both sides, remove the fastener and the air intake duct.

NOTE: LH (left hand) side shown, RH (right hand) side similar.



2. Remove the pin type retainers and the upper radiator air deflector shield.



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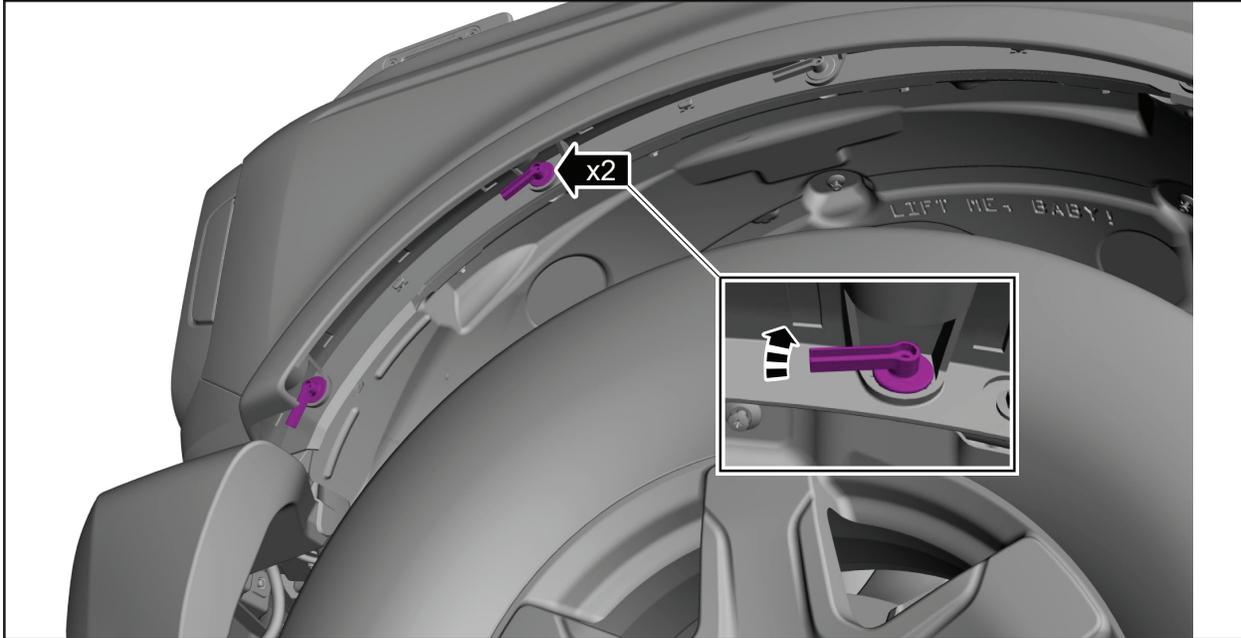
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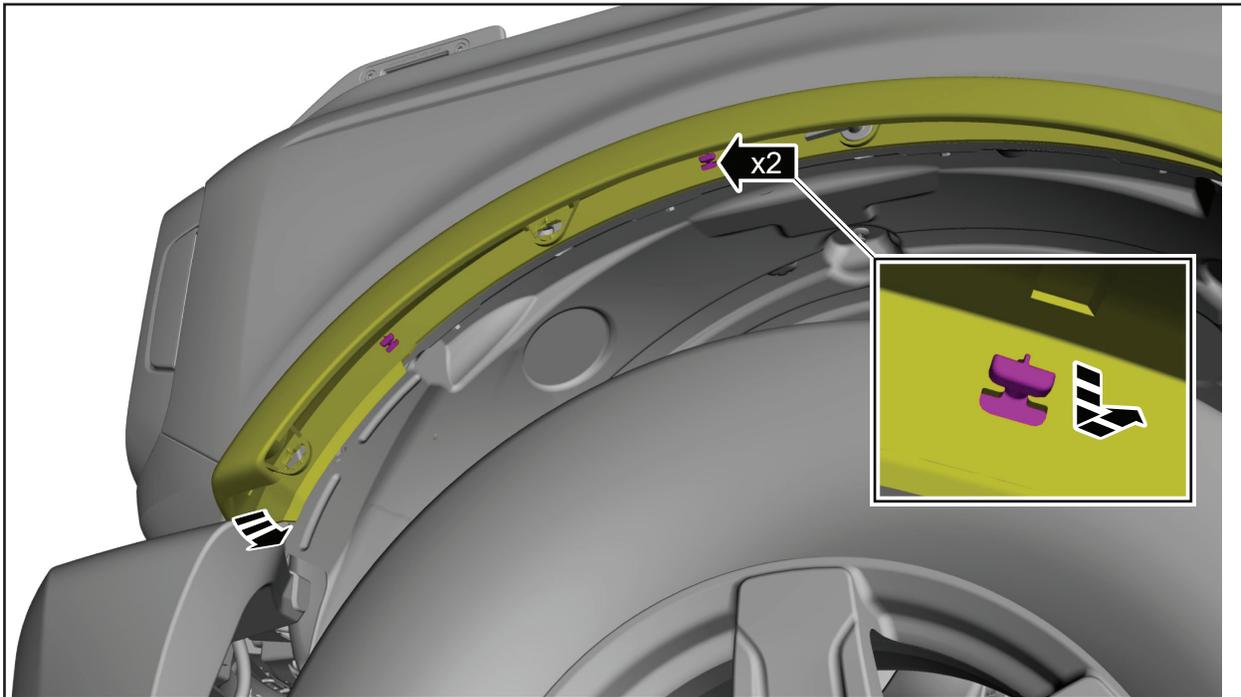
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3. Remove the front bumper upper cover.

a. On both sides, turn and remove the levers.



b. On both sides, dislodge the trim pins and position the front fender moulding aside.



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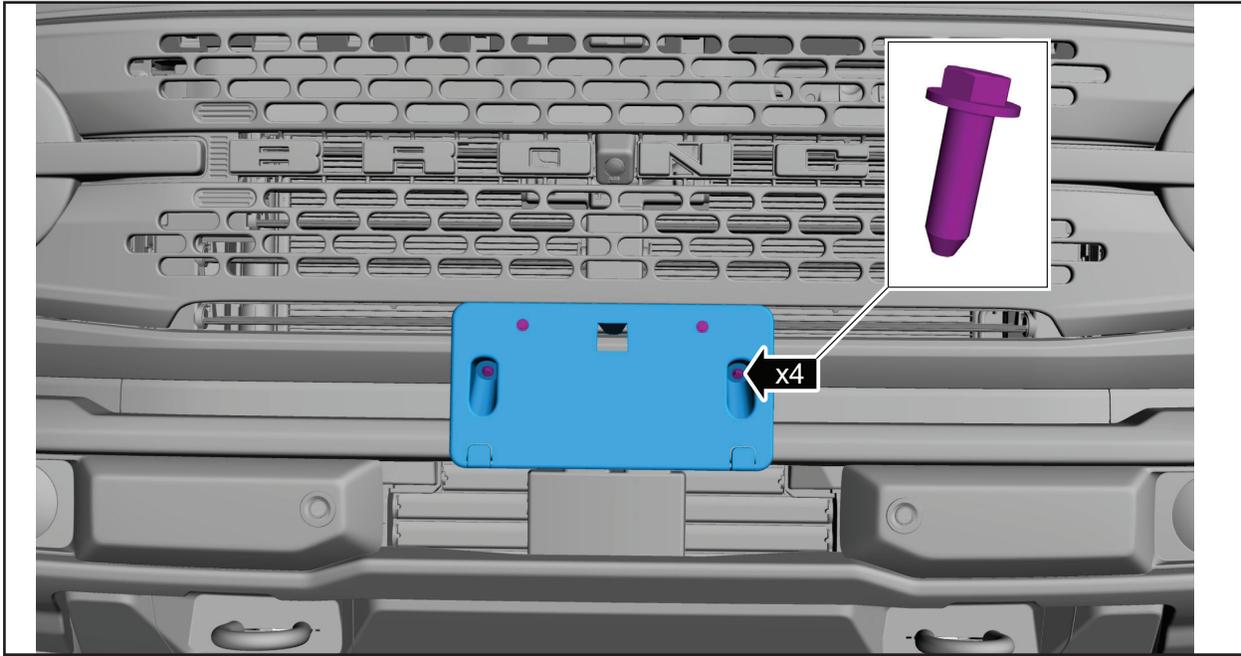


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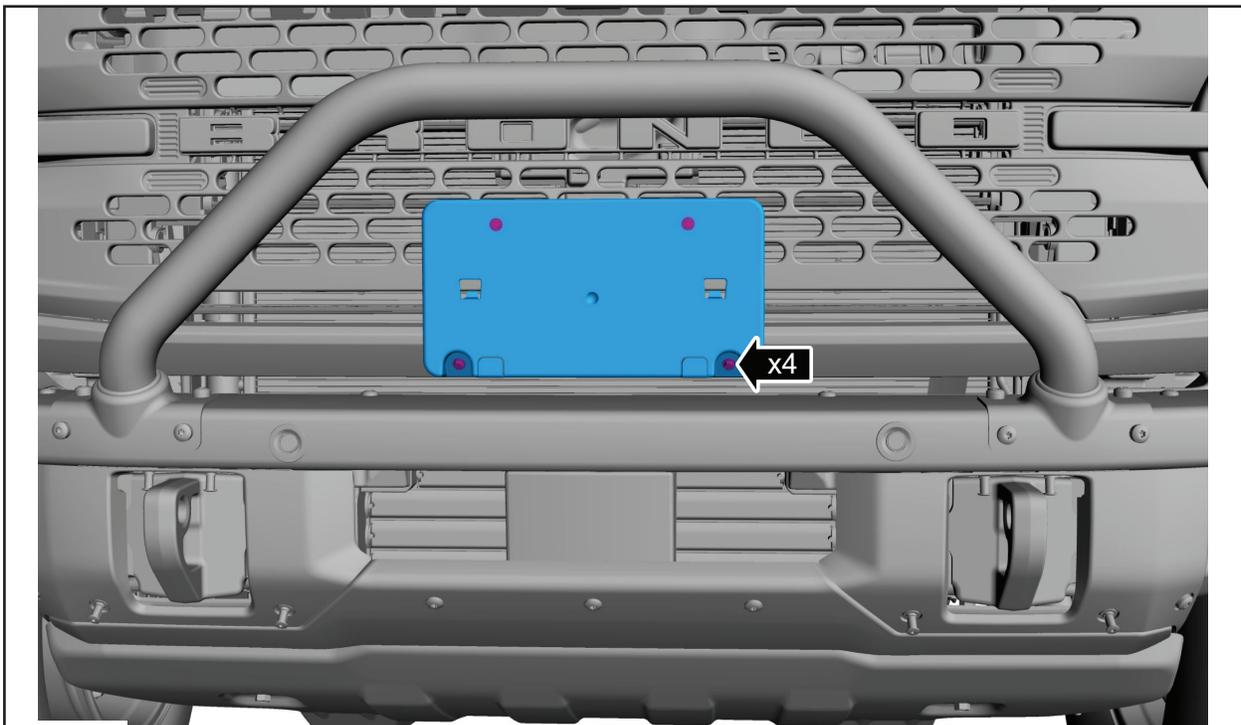
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c. Remove the screws and the front license plate bracket.



d. If equipped, remove the screws and the front license plate bracket.



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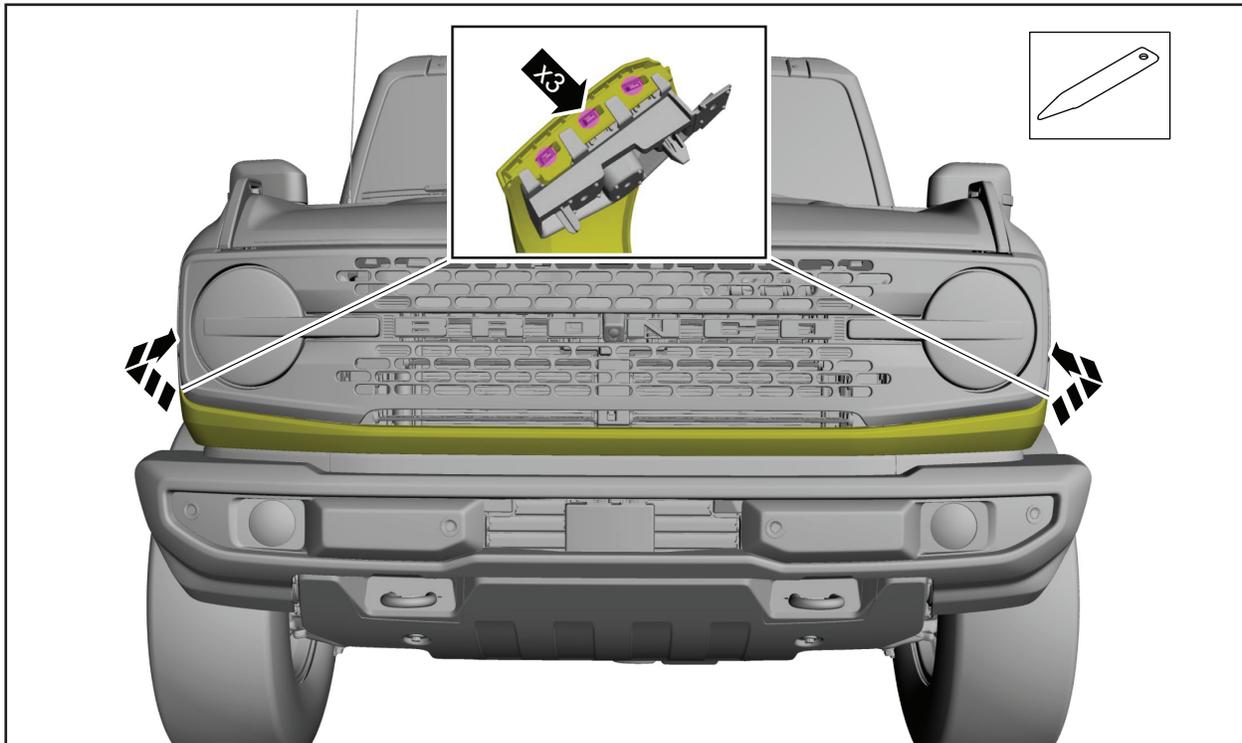
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e. If equipped, remove the bolts and front bumper bar.



f. Release the sides of the front bumper upper cover from the side brackets
Use the General Equipment: Interior Trim Remover



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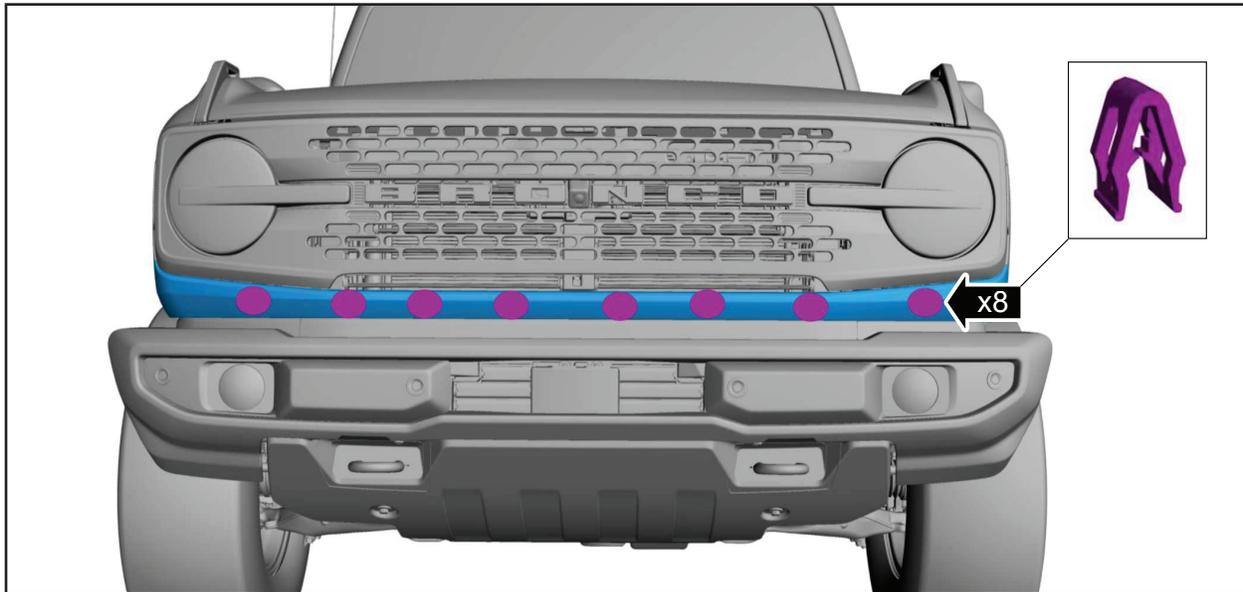


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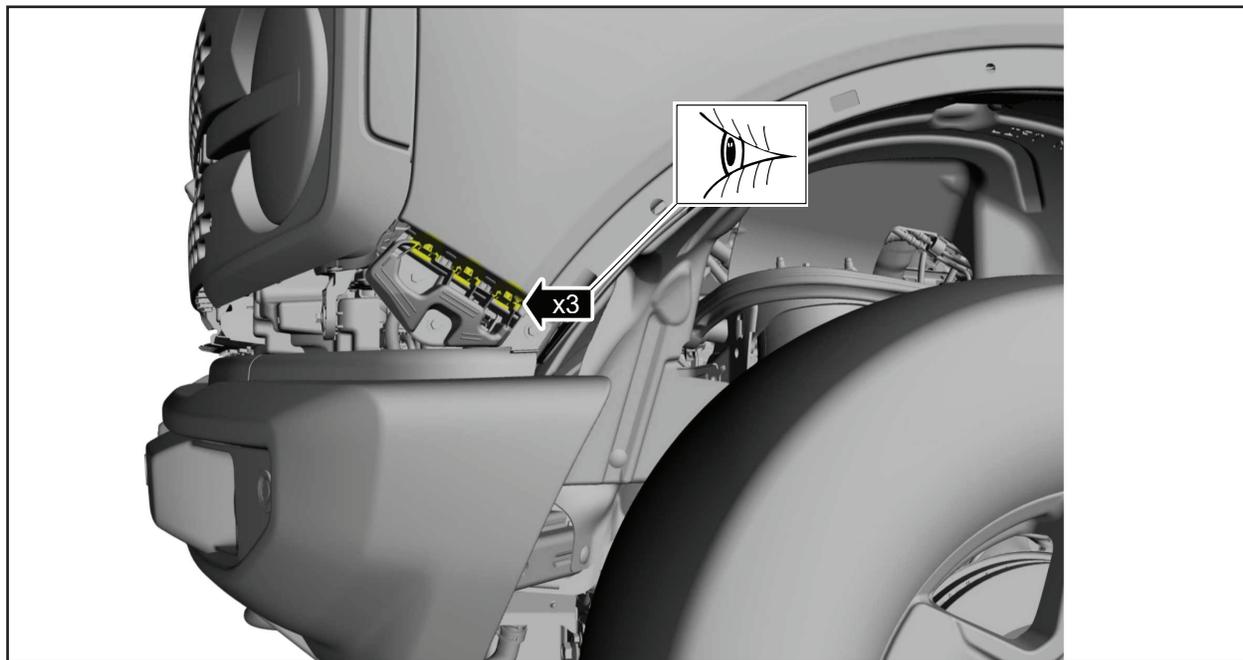
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g. Release the clips and remove the front bumper upper cover and bracket assembly.



h. On both sides, inspect the side bracket for damage.



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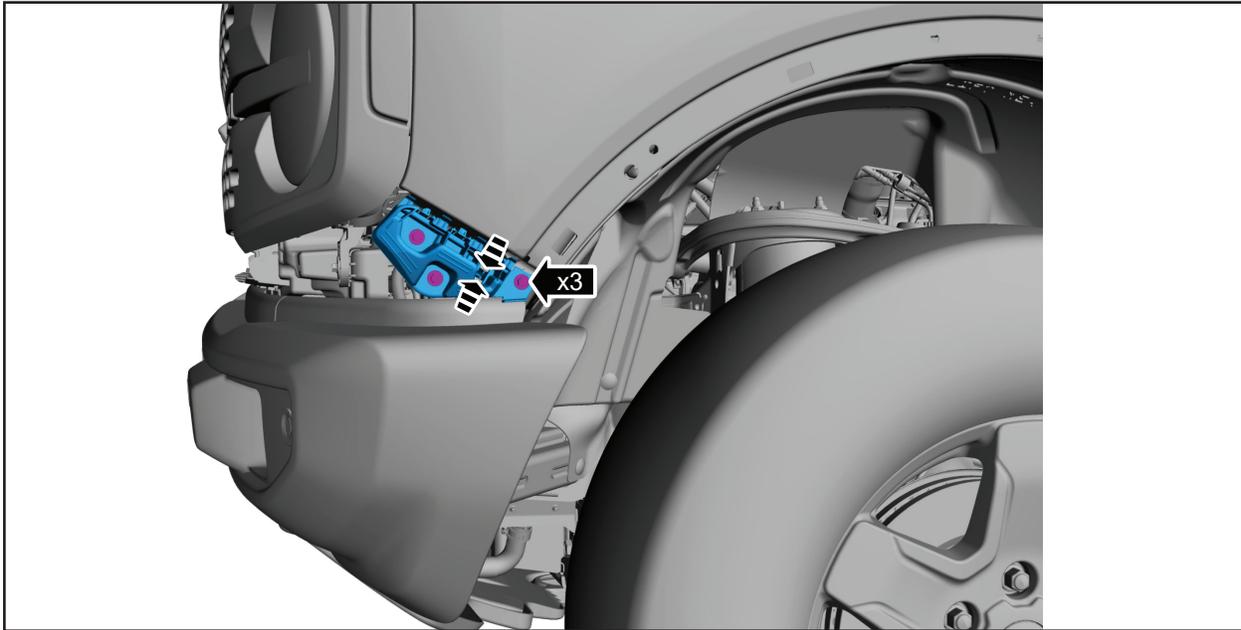


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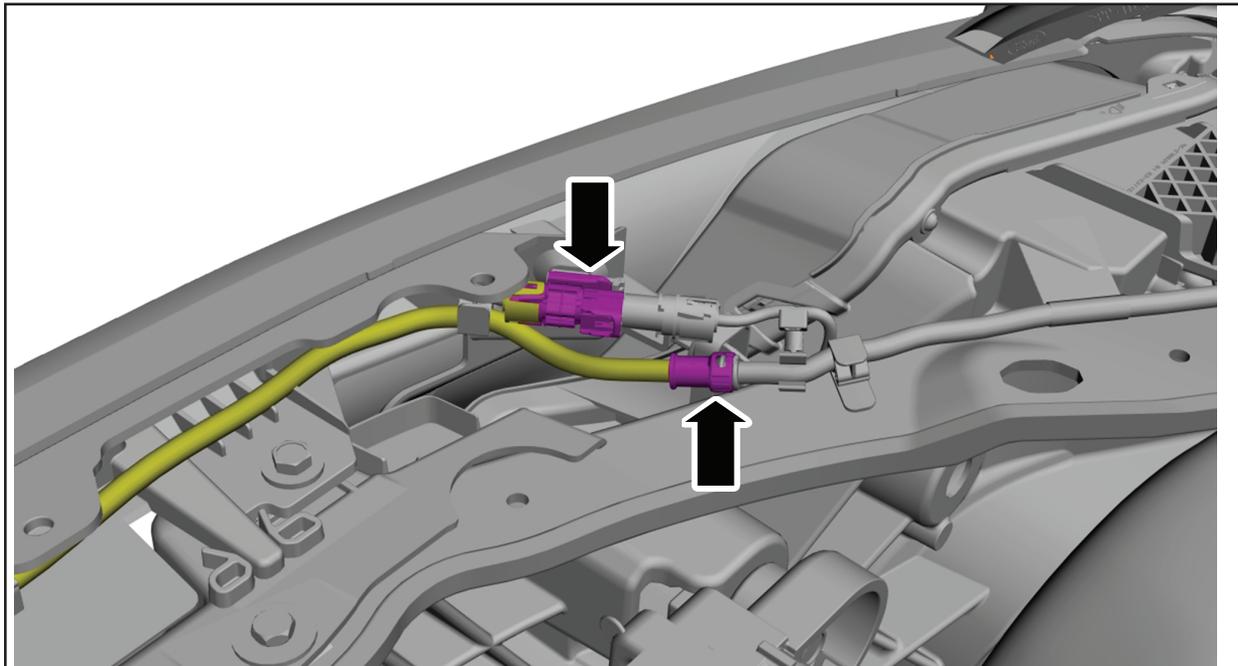
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- i. If required, remove the screws, release the tabs and remove the damaged side bracket(s).



4. Remove the radiator grille.

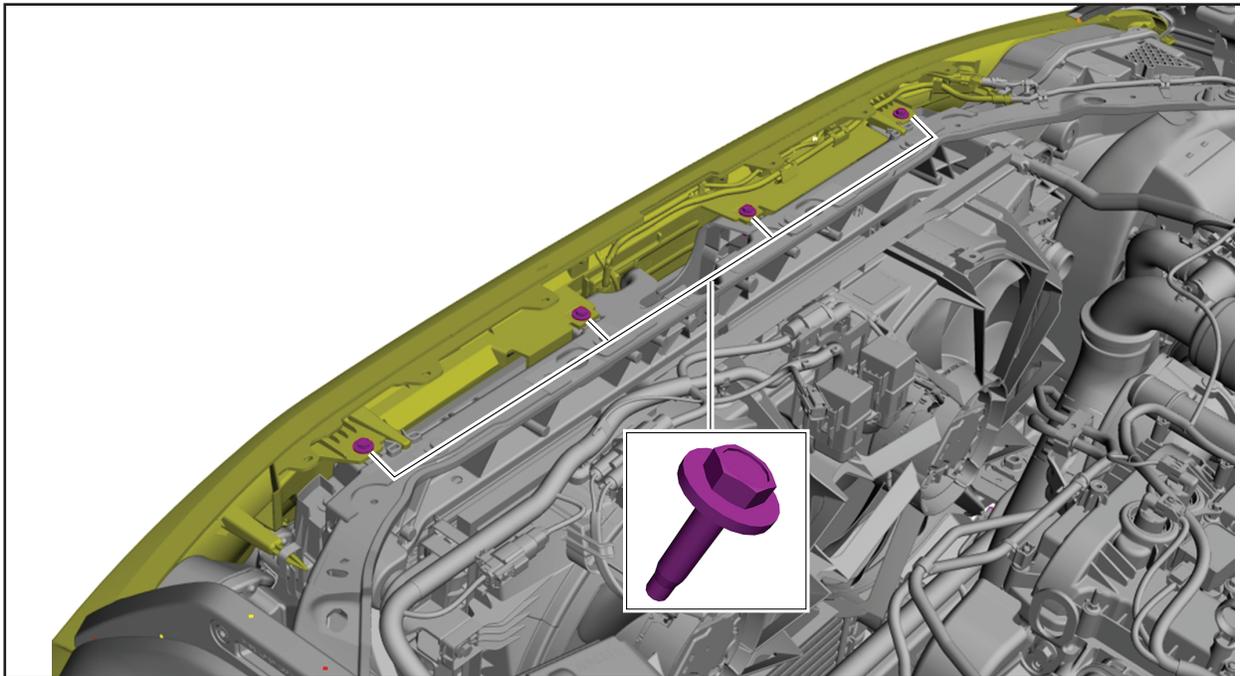
- a. If equipped with a camera, disconnect the electrical connector and camera washer hose.



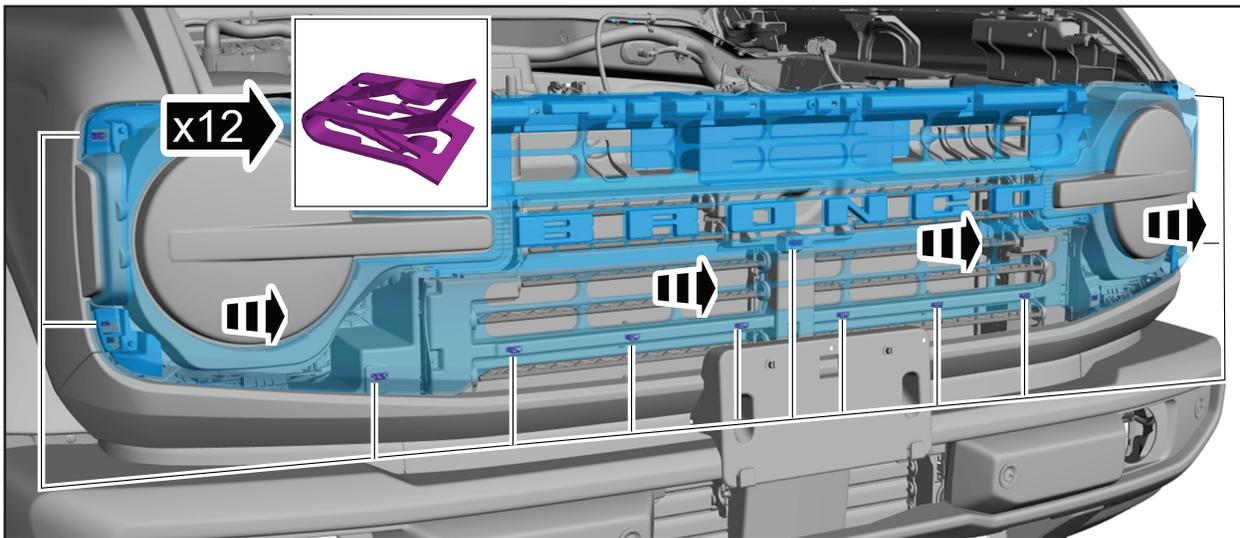
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b. Remove the bolts.



c. Disengage the clips and pull off the radiator grille.



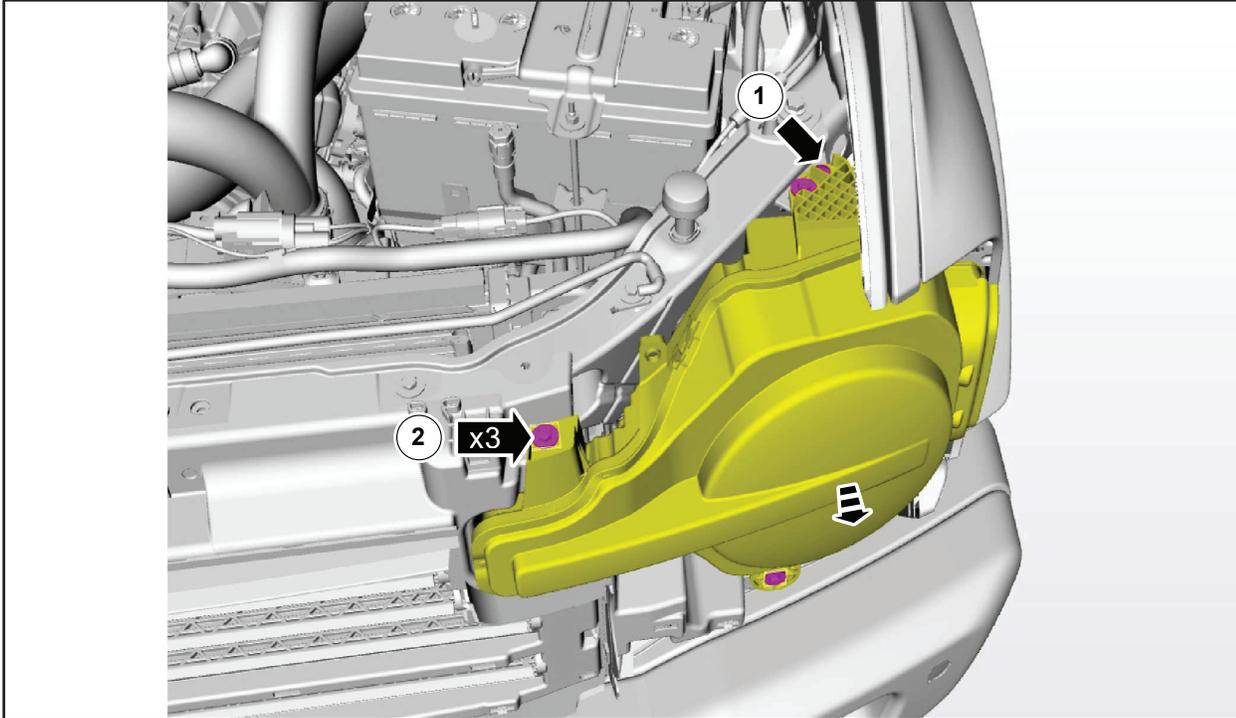


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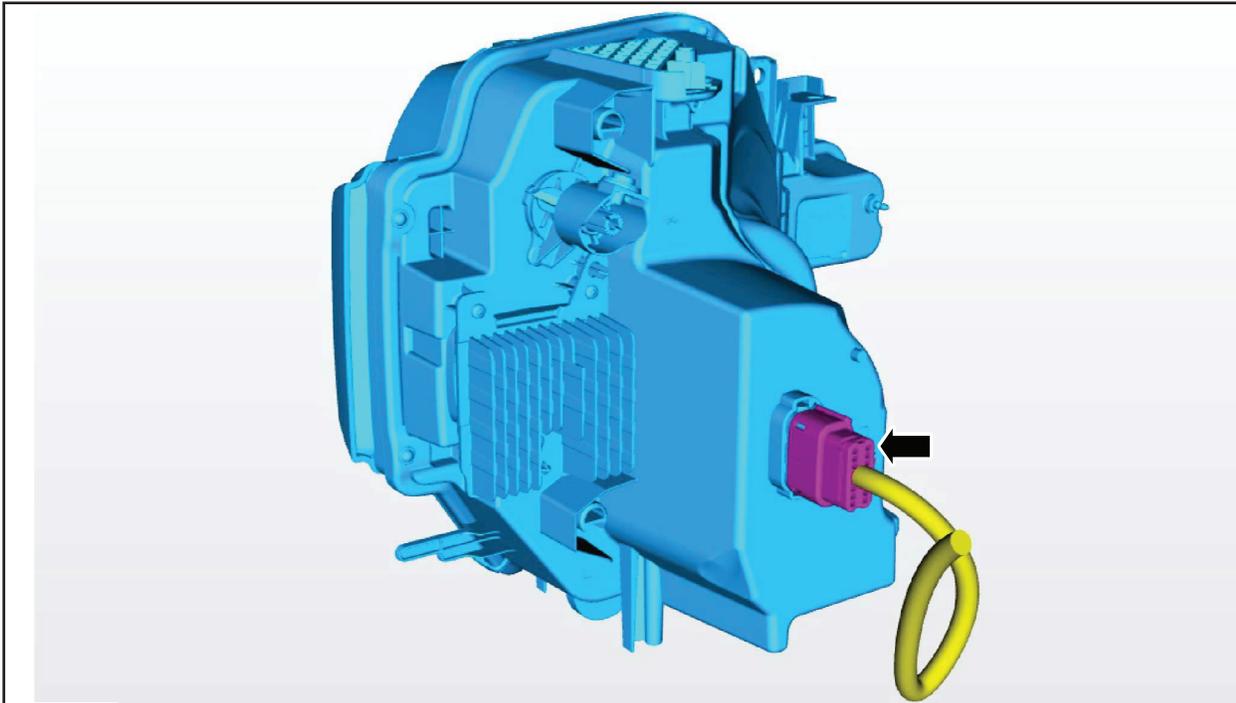
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5. Remove the headlamp assembly push pin retainer, then remove the bolts and position out the headlamp assembly.



6. Disconnect the electrical connector and remove the headlamp assembly.



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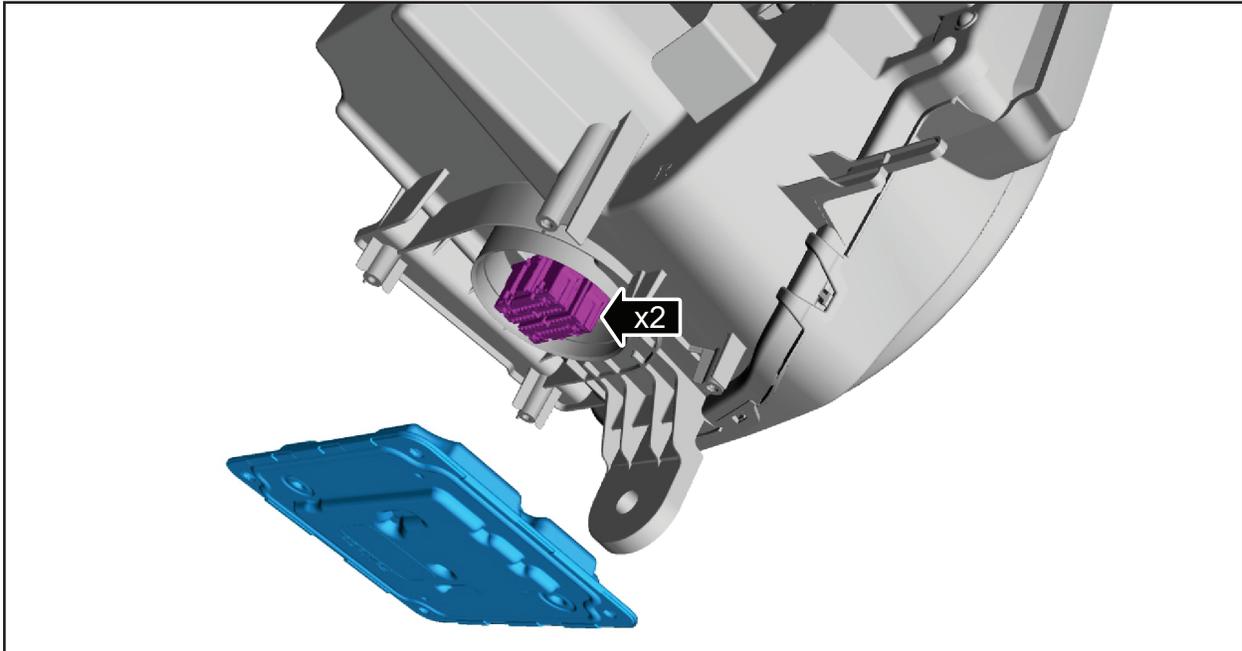


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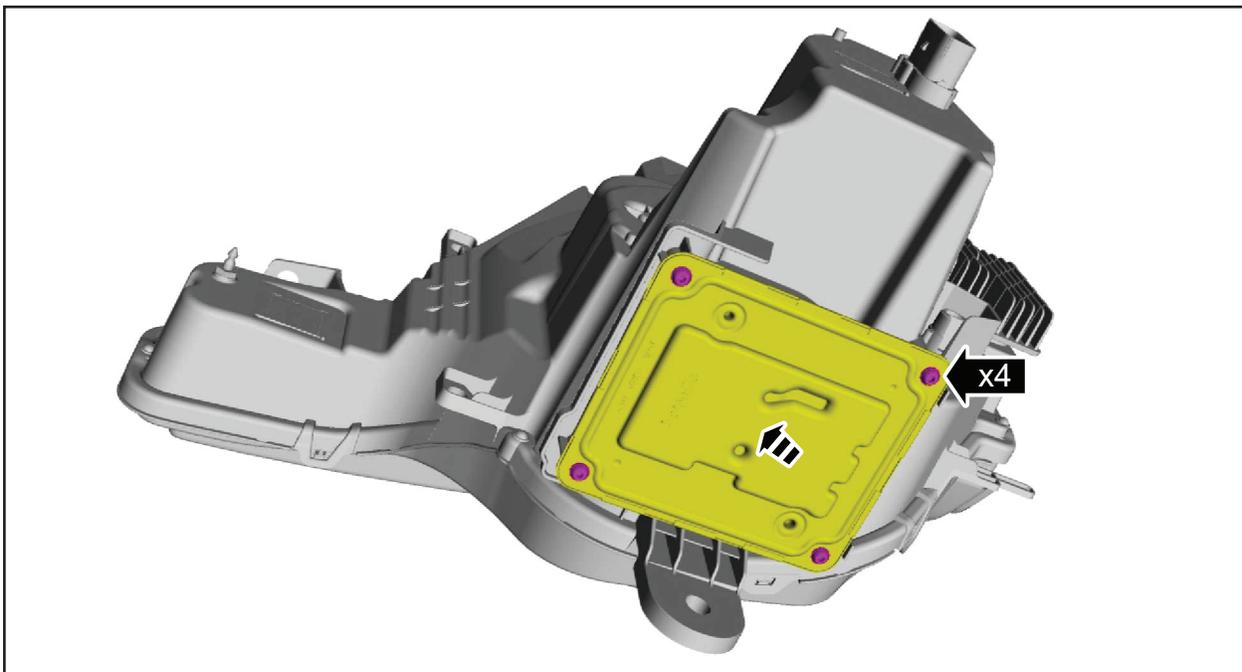
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7. On both *new* headlamps, connect the electrical connectors to the *new* light emitting diode (LED) control modules.



8. On both *new* headlamps, position the LED control module in place and install the LED control module mounting screws.



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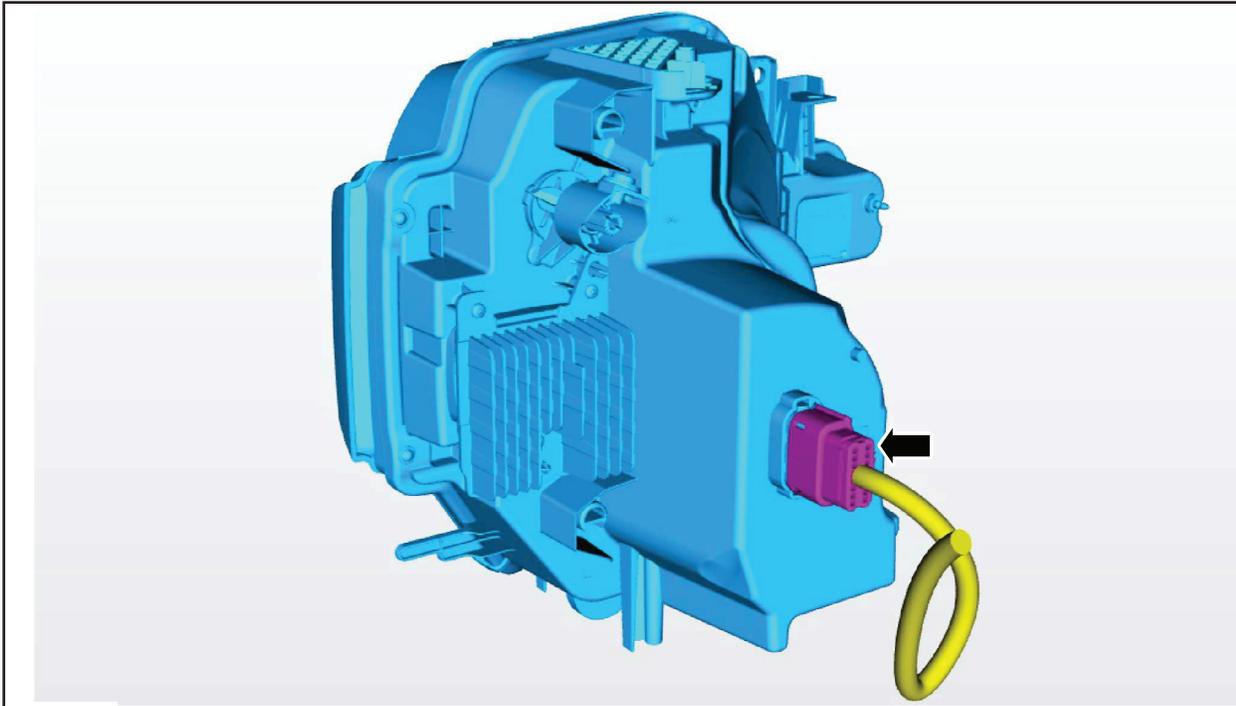


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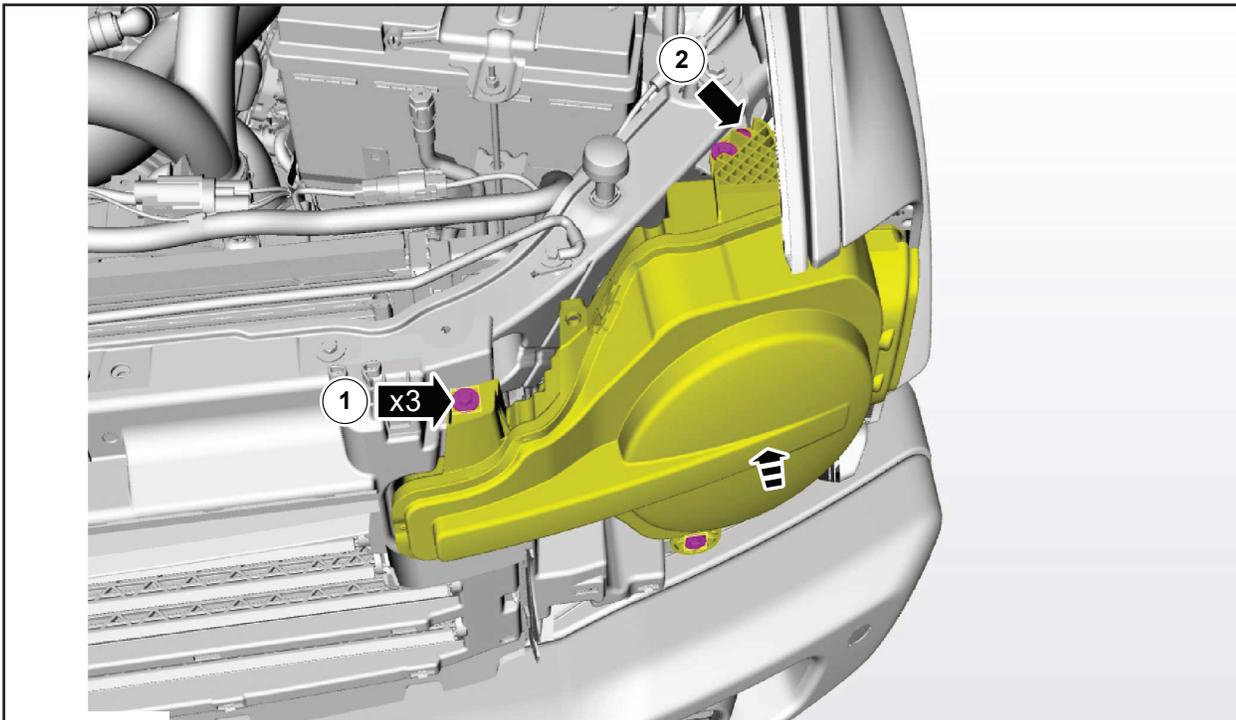
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9. On both sides, connect the electrical connector to the *new* headlamp assembly.



10. On both sides, position the headlamp assembly in place, then install the bolts and the push pin retainer.



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11. Turn the headlamps on to ensure that both headlamps are lit. The ring on the lamp should be illuminated as well.

- Raptor headlamps have an amber ring.
- High Series headlamps have a white ring.
- Low Series headlamps have no illuminated ring.

NOTE: For Raptor headlamps, make sure you have the amber color ring lit and note this. You will need to select the proper lamp in the FDRS tool at the end.



12. Finish installing the new headlamps and reinstall all other components by reversing steps 1 through 4.

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13. Log into Ford Diagnostic and Repair System (FDRS) and start a new vehicle session.
14. Select **Toolbox** tab.
15. From the list on the LH side of the screen, select **BCM**.
16. From the list on the RH side of the screen, select **BCM - Headlamp Upgrade**.
17. Click **RUN**. Follow all on-screen instructions carefully.

NOTE: When prompted for a password, please type the 7-digit code detailed below www.motorcraftservice.com.

NOTE: Password is a mixture of upper-case and lower-case alphanumeric characters.

Headlamp Type	Password
Raptor	v6NrHyF
Low Series	hj4AFUt
High Series	MPvG6gw

18. From the list on the LH side of the screen, select **BCM**.
19. From the list on the RH side of the screen, select **Local Interconnect Network (LIN) New Module Initialization Routine**.
20. Click **RUN**. Follow all on-screen instructions carefully.

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21. Adjust the headlamp assembly.

a. Click on the link below to view video.

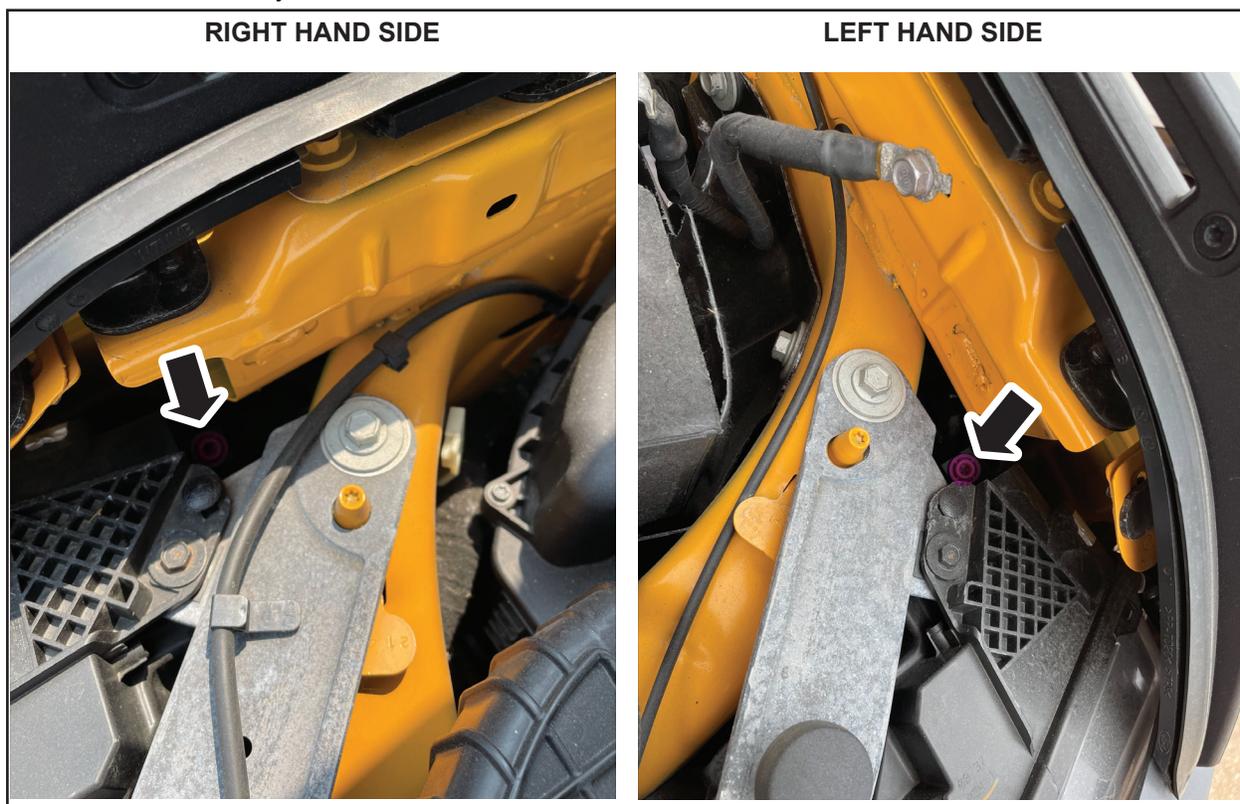
http://www.fordservicecontent.com/Ford_Content/videos/FusionHeadlampAdj2.wmv

All headlamp types

NOTE: Refer to the Owner's Literature and the image below for the headlamp adjustment screw location.

NOTE: Consult your state vehicle inspection manual for recommended tolerance ranges for visual aiming.

NOTE: Horizontal aim is not adjustable.



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- b. Identify the headlamp type. Vehicles are equipped with Visually Optically Aligned Left (VOL) or Visually Optically Aligned Right (VOR) headlamps. Molded in small letters on the headlamp lens is one of the following: VOL or VOR.

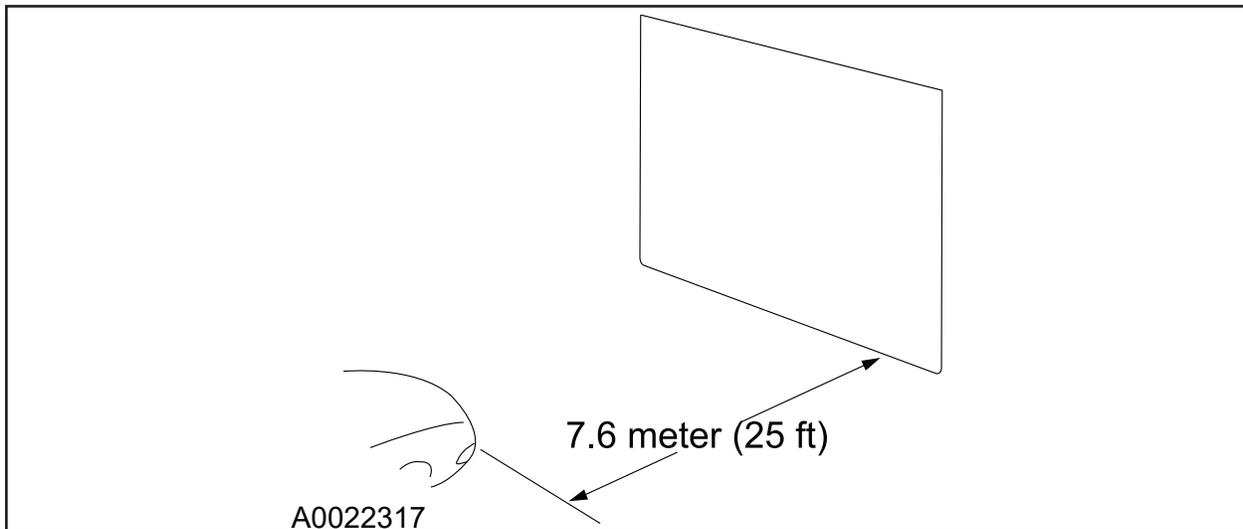


- c. Before starting headlamp adjustment, entry conditions must be met.

- Vehicle must be on level ground.
- Tires must be correctly inflated.
- Vehicle must be normally loaded.
- Headlamps must be clean.
- Headlamps must operate correctly.
- Air suspension switch must be on (if equipped).

- d. Park the vehicle on a level surface approximately 7.6 m (25 ft) from the vertical wall or screen directly in front of it.

NOTE: The vertical wall or screen must be a minimum of 2.4 m (8 ft) wide.

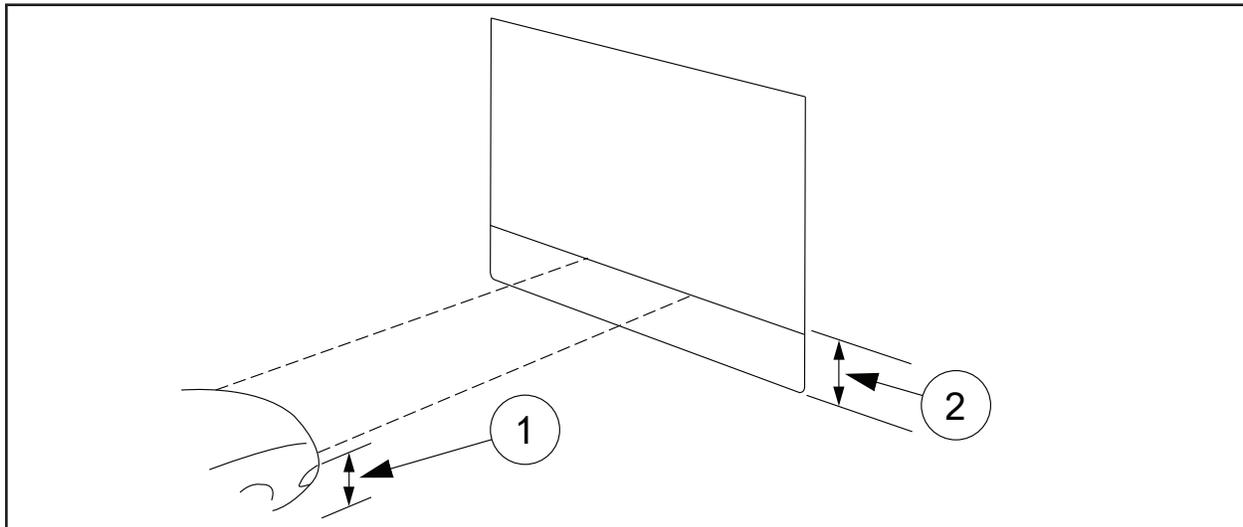


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e. Measure the center of the headlamp height to ground and record the measurement.

NOTE: The optical center of the low beam is sometimes marked on the lens (circle, crosshair or other mark) or is the center of the low beam reflector, bulb or LED shield or the low beam projector inner lens.



f. Use a 2.4 m (8 ft) section of masking tape for the horizontal reference line.

- For vehicles with headlamp optical center heights below 95 cm (37.5 inches), place the horizontal reference line equal to the headlamp optical center height.
- For vehicles with headlamp optical center heights between 95 cm - 105 cm (37.5 - 41.5 inches), place the horizontal reference line at the headlamp optical center height minus 1.3 cm (0.5 inch).
- For vehicles with headlamp optical center heights above 105 cm (41.5 inches), place the horizontal reference line at the headlamp optical center height minus 2.5 cm (1.0 inch).

g. Turn the low beam headlamps on to illuminate the wall or screen and open the hood.

NOTE: Carry out this procedure in a dark environment to effectively see the headlamp beam pattern.

h. On the wall or screen, locate the cut off of the beam pattern.

NOTE: The cut off of the beam pattern is the horizontal line of the beam pattern where there is MAXIMUM change between light and dark.

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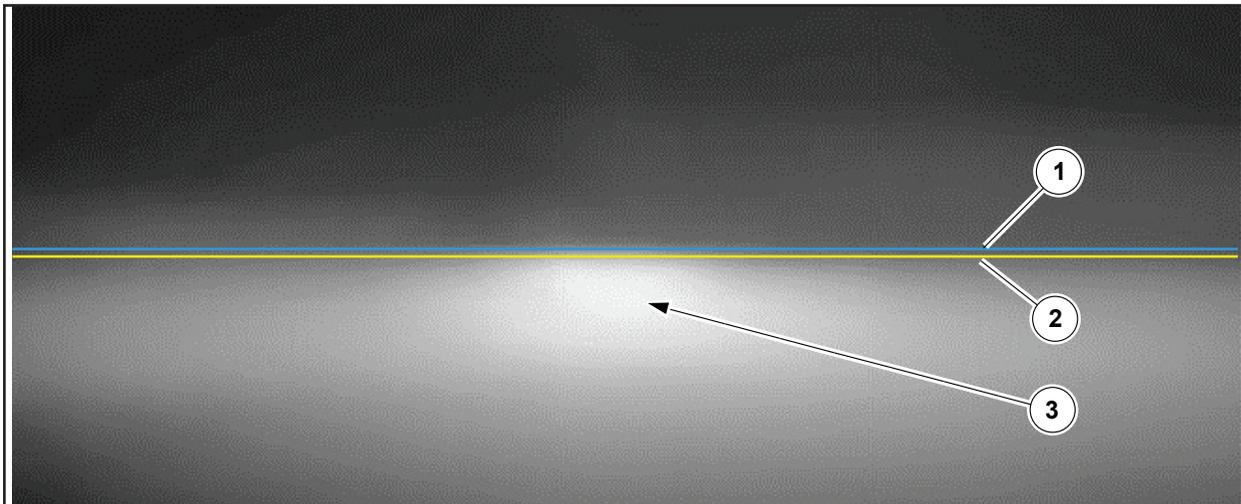
VOR-type headlamps

NOTE: Procedure applies to both left and right headlamps with VOR molded on lens.

i. There is a distinct cutoff in the right portion of the beam pattern.

NOTE: The appearance of the VOR beam pattern may vary between vehicles.

- 1 - Horizontal reference line
- 2 - Cut off
- 3 - High intensity zone



j. Align the headlamps to the horizontal reference line. Adjust the headlamp as necessary using the headlamp adjusting screw.

NOTE: Align one headlamp while covering the other headlamp.

k. Repeat the previous step for the remaining headlamp.

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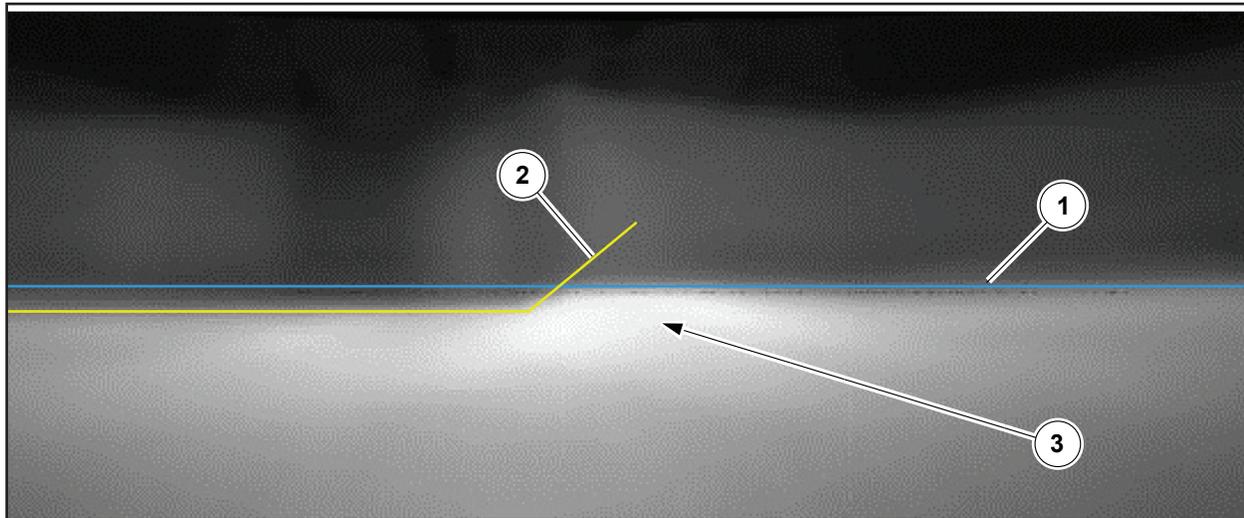
VOL-type headlamps

NOTE: Procedure applies to both left and right headlamps with VOL molded on lens.

- I. There is a distinct cutoff in the left portion of the beam pattern. The edge of this cutoff should be positioned 5 CM (2 in) below the horizontal reference line.

NOTE: The appearance of the VOL beam pattern may vary between vehicles.

- 1 - Horizontal reference line
- 2 - Cut off
- 3 - High intensity zone



- m. Align the headlamps to the horizontal reference line. Adjust the headlamp as necessary using the headlamp adjusting screw.

NOTE: Align one headlamp while covering the other headlamp.

- n. Repeat the previous step for the remaining headlamp.