

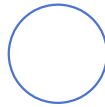
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# Land Rover Defender: Front Proximity Camera

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2009 Dodge RAM  
2500 Service &  
Repair Manual |...  
**\$36.99**



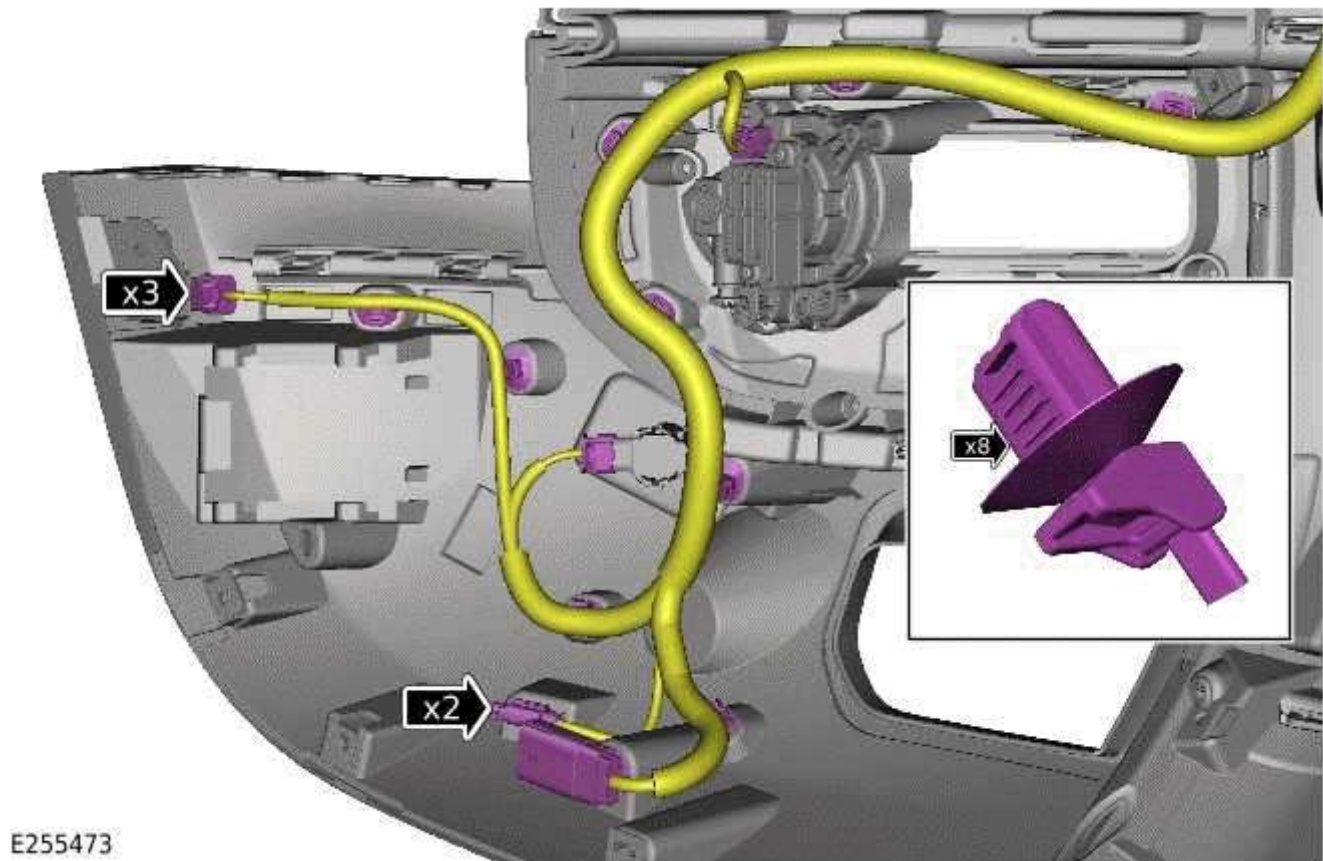
## REMOVAL AND INSTALLATION

### REMOVAL

#### NOTES:

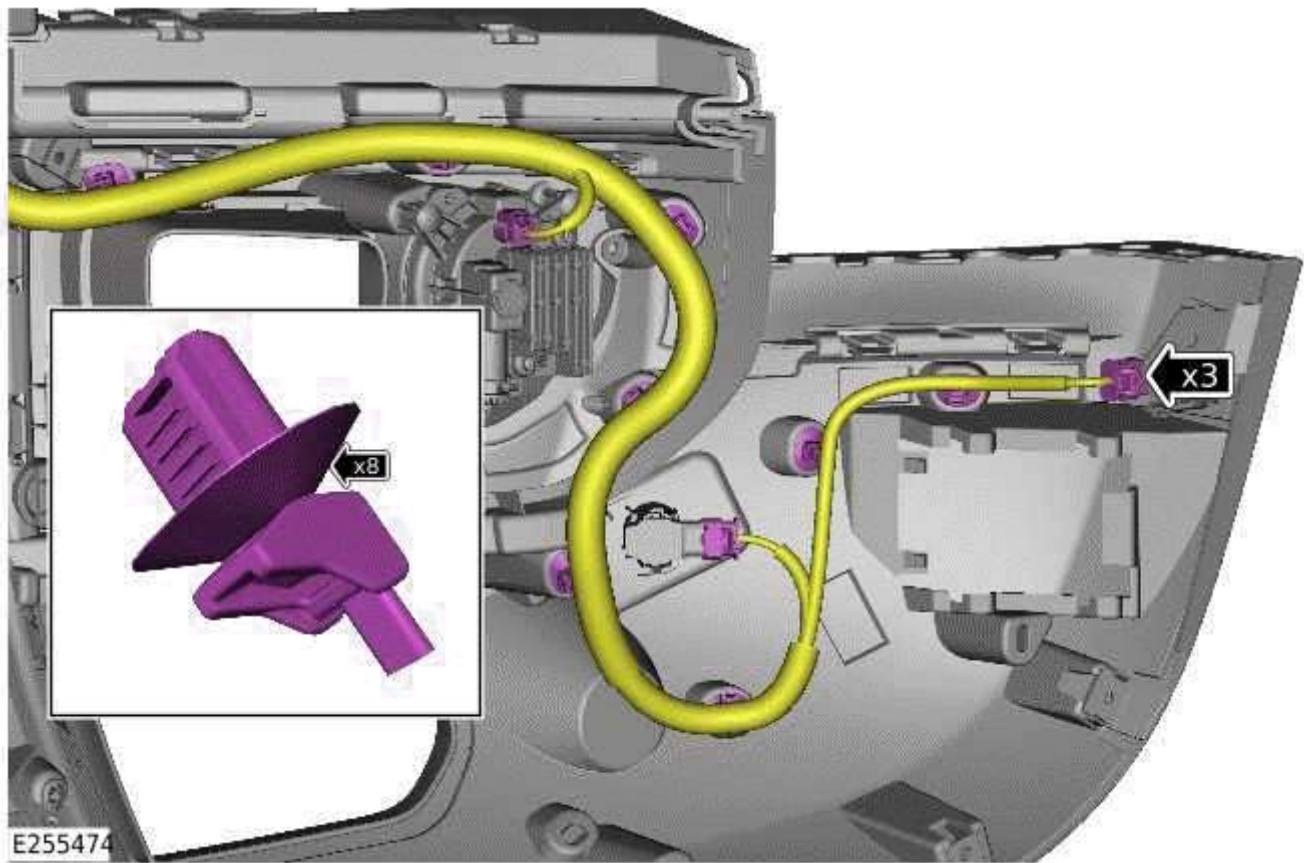
- **This procedure contains some variation in the illustrations depending on the vehicle specification, but the essential information is always correct.**
- **This procedure contains illustrations showing certain components removed to provide extra clarity.**
- **The ignition must be switched off.**

1. Raise and support the vehicle on a suitable 2-post lift.
2. With assistance, remove the front bumper.
- 3.



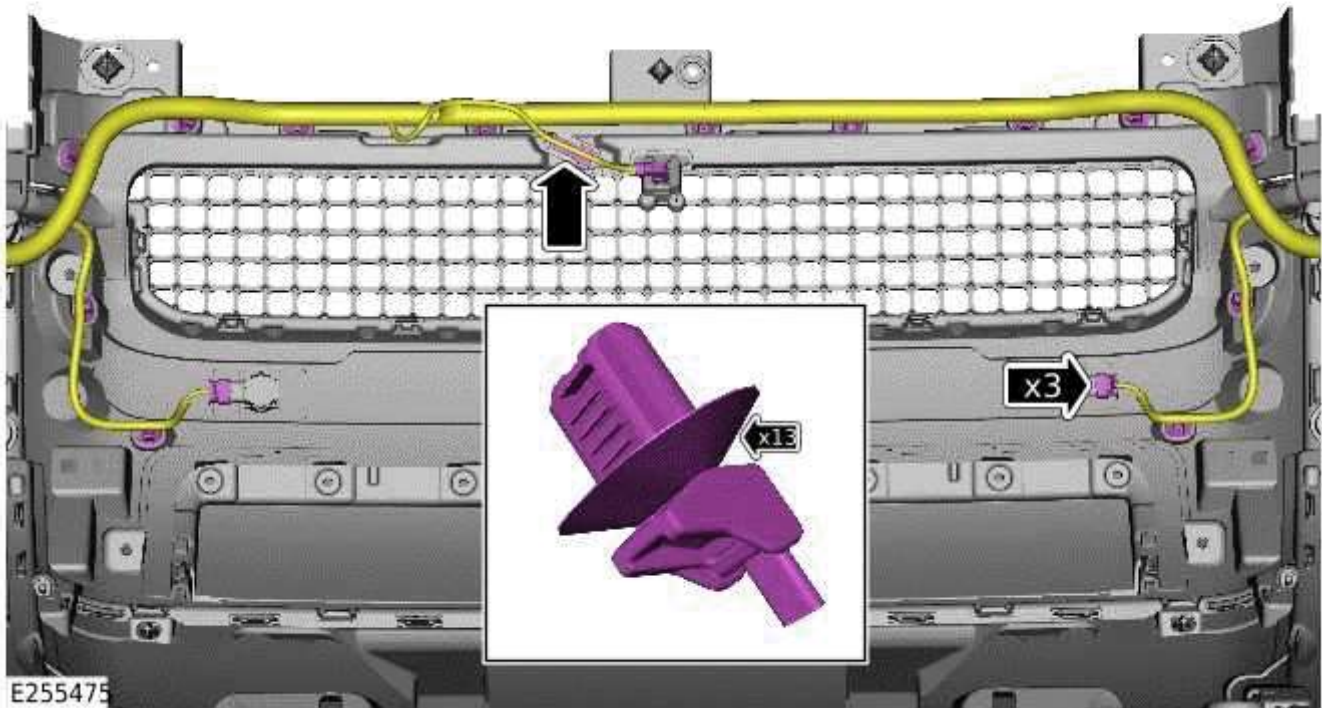
- Disconnect the 3 electrical connectors.
- Release the front bumper wiring harness at 8 clips.
- Release the 2 electrical connectors from the front bumper.

4.



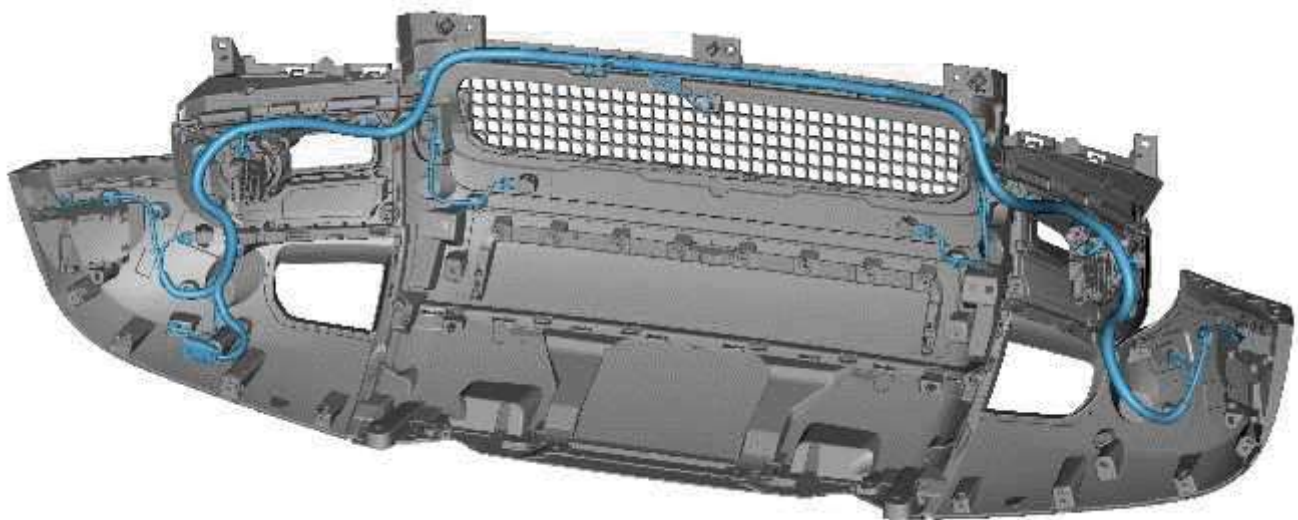
- Disconnect the 3 electrical connectors.
- Release the front bumper wiring harness at 8 clips.

5.



- Disconnect the 3 electrical connectors.
- Release the front bumper wiring harness at 14 clips.

6.

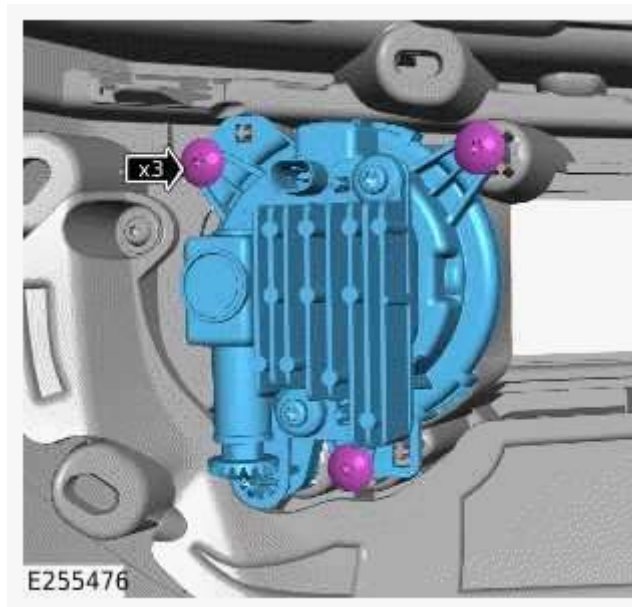


Remove the front bumper wiring harness.

7.

**NOTE: Repeat the step for the other side.**



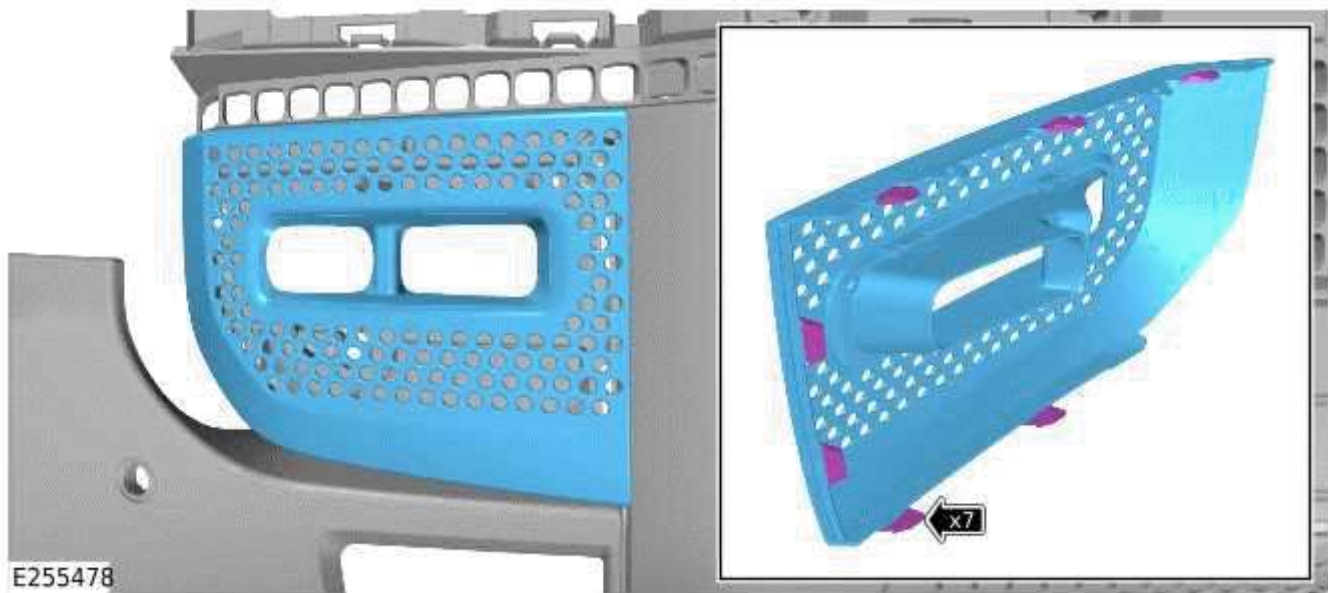


- Remove the 3 screws.
- Remove the front fog lamp.

8.

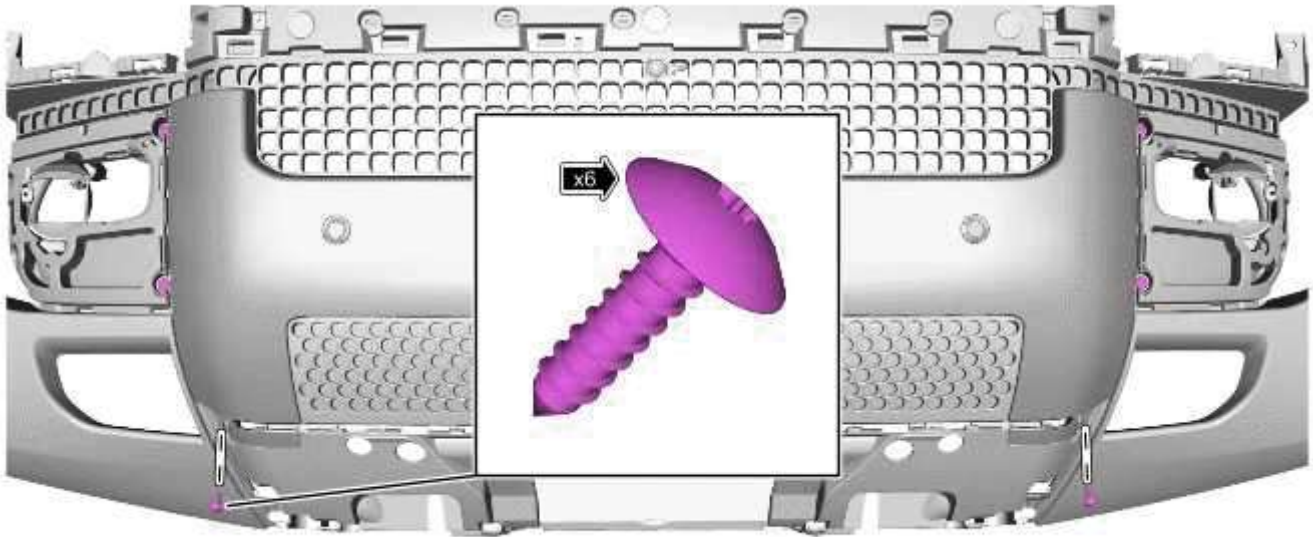
**CAUTION:** Take extra care not to damage the clips.

**NOTE:** Repeat this step for the other side.



- Release the 7 clips.
- Remove the fog lamp finisher.

9.

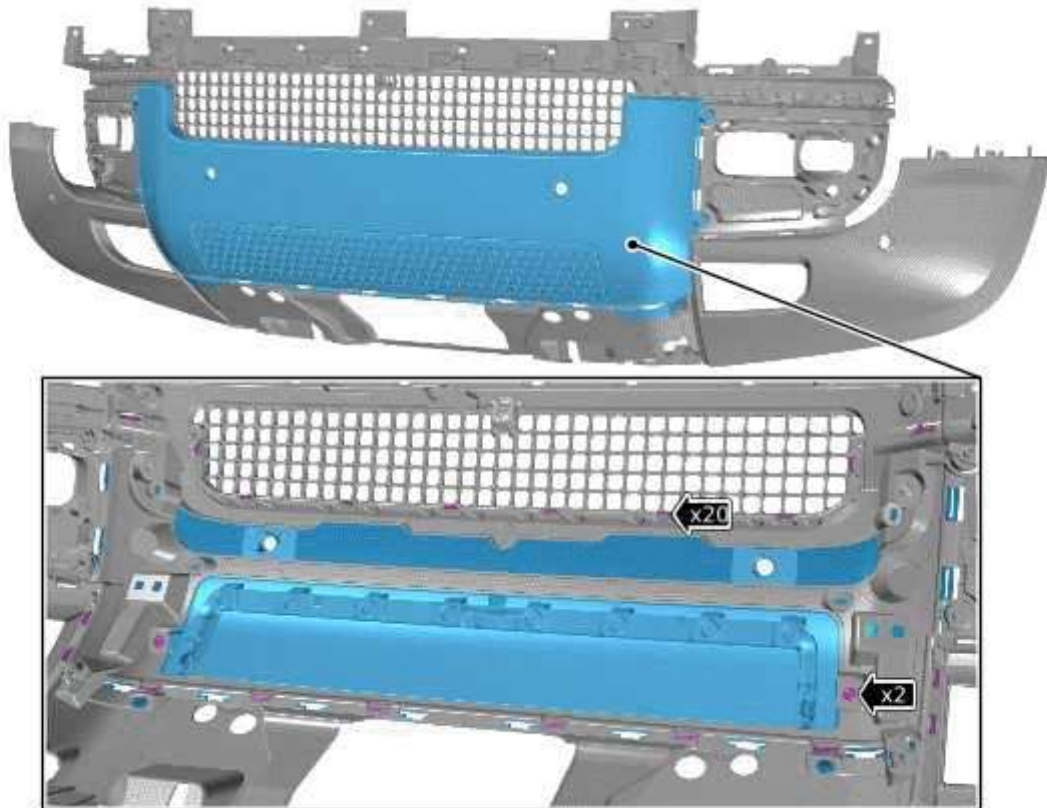


E258643

- Remove the 6 screws.

10.

**CAUTION: Take extra care not to damage the clips.**

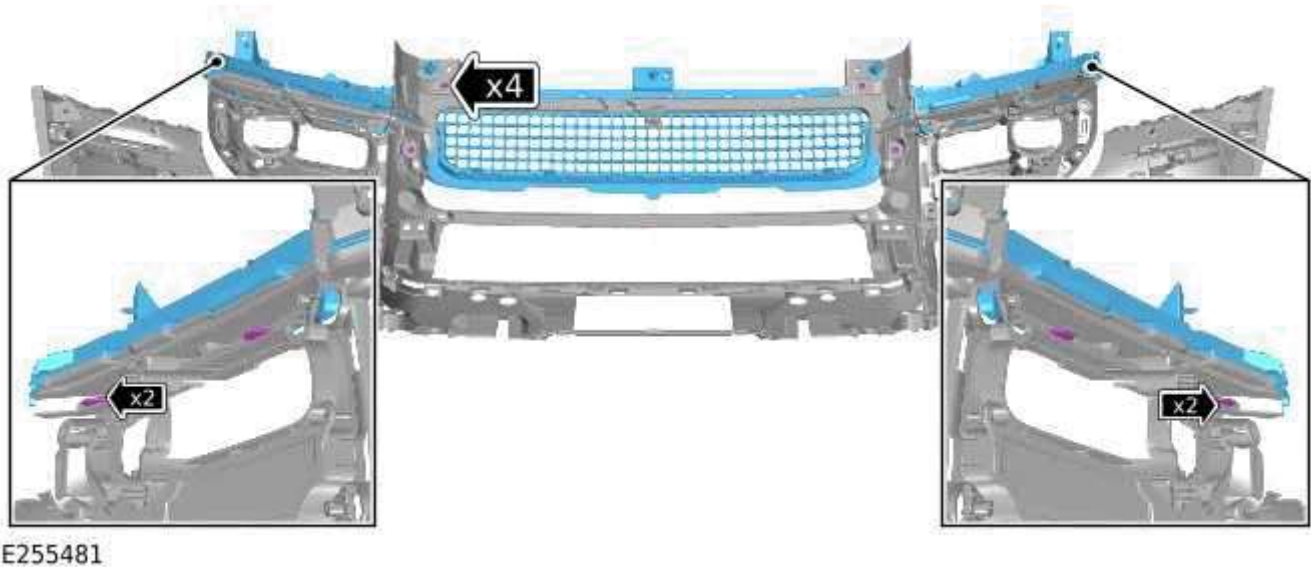


E255480

- Remove the 2 screws.
- Release the 20 clips.
- Remove the front bumper protector.

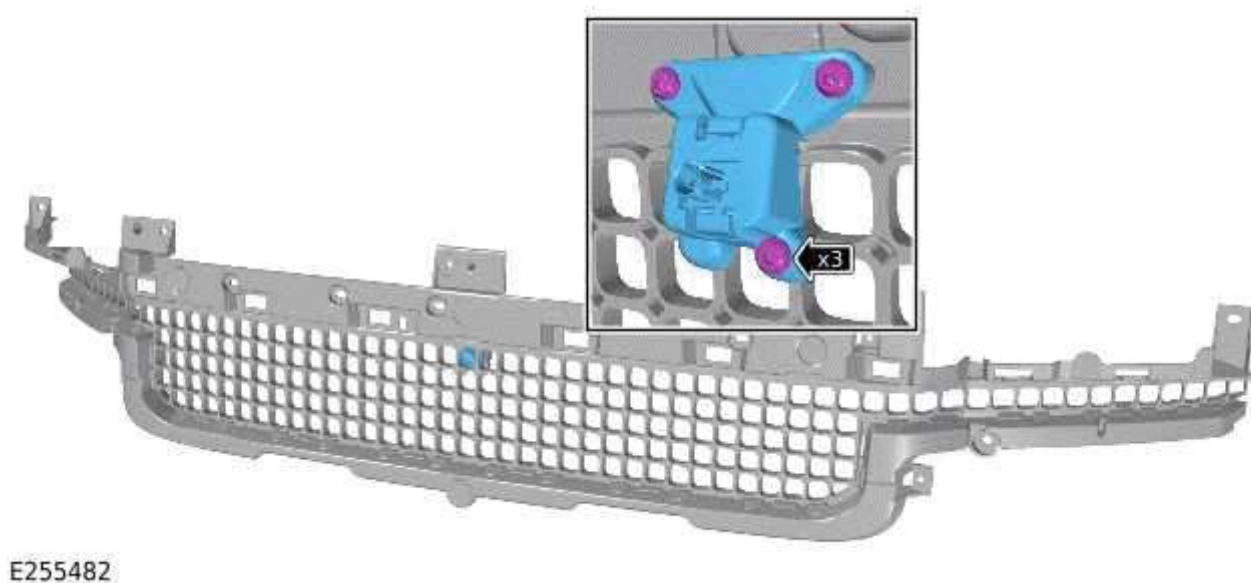
11.

**CAUTION: Take extra care not to damage the clips.**



- Remove the 4 screws.
- Release the 4 clips.
- Remove the front bumper lower grille.

12.



- Remove the 3 screws.
- Remove the front proximity camera.

## INSTALLATION

1.

- Install the front proximity camera to the front bumper lower grille.
- Install and tighten the 3 screws.

Torque: 4Nm

2.

**NOTE: Make sure that all the clips are correctly installed.**

- Install the front bumper lower grille to the front bumper.
- Install and tighten the 4 screws.

Torque: 4Nm

3.

**NOTE: Make sure that all the clips are correctly installed.**

- Install the front bumper protector.
- Install and tighten the 2 inside screws.

Torque: 4Nm

- Install and tighten the 6 outside screws.

Torque: 4Nm

4.

**NOTE: Make sure that all the clips are correctly installed.**

Install the 2 fog lamp finishers on both sides.

5.

- Install the 2 front fog lamps on both sides.
- Install and tighten the 6 screws.

Torque: 1.5Nm

6.

**NOTE: Make sure that all the clips are correctly installed.**

- Install the front bumper wiring harness.
- Secure the front bumper wiring harness at the 30 clips.
- Connect the 9 electrical connectors.
- Secure the 2 electrical connectors to the front bumper.

7. With assistance, install the front bumper.

8.

**NOTE: Make sure that the camera calibration cycle is completed following removal or replacement of the proximity camera.**

- **Proximity camera calibration:**
- To complete the side camera proximity calibration, drive the vehicle in a city like or rural scenario with sufficient visual structure for approximately 5-10 minutes.
- Drive straight ahead between 5 and 60 km/h (3 and 37 mph), with a sufficient side cameras free field of view of around 5 meters.