

PUBLISHED: 09-DEC-2019  
2020.0 DEFENDER (LE), 413-13

PARKING AID

## FRONT PROXIMITY CAMERA (G2414494)

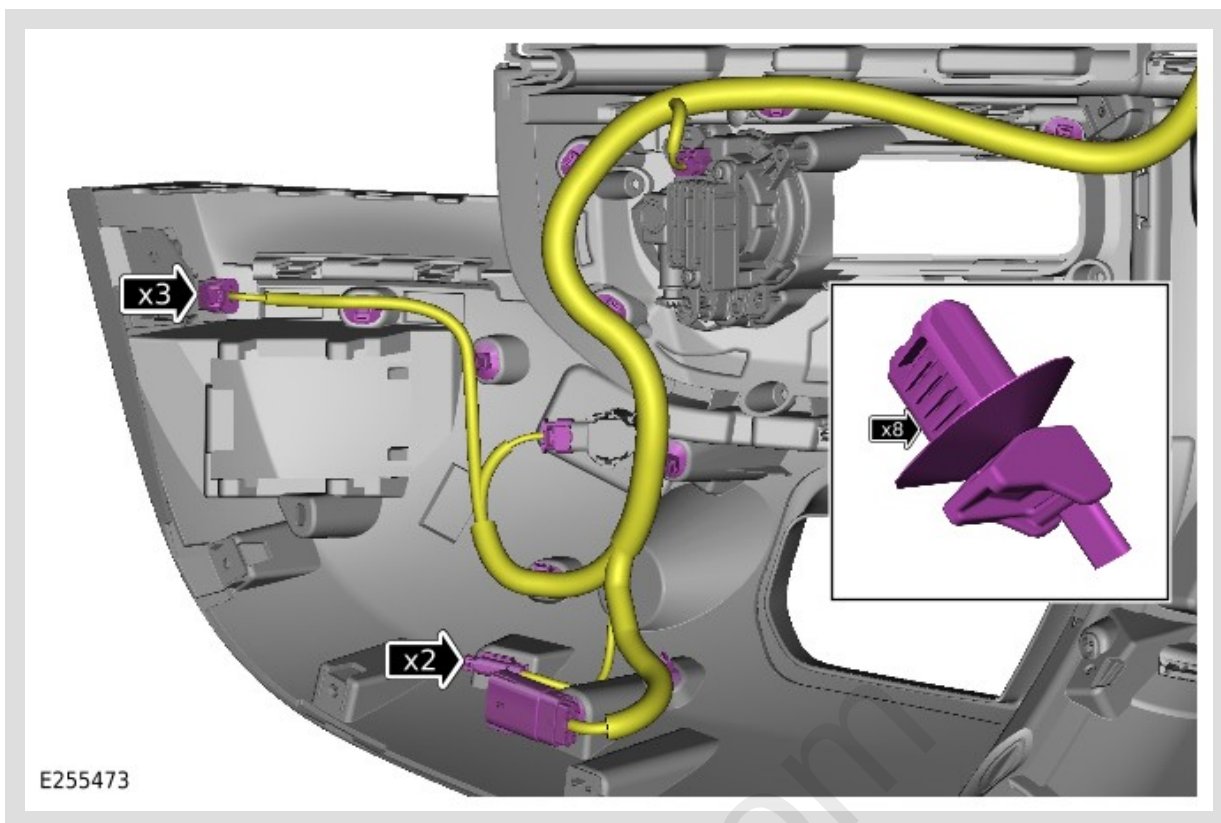
mcx30.com

REMOVAL

 **NOTES:**

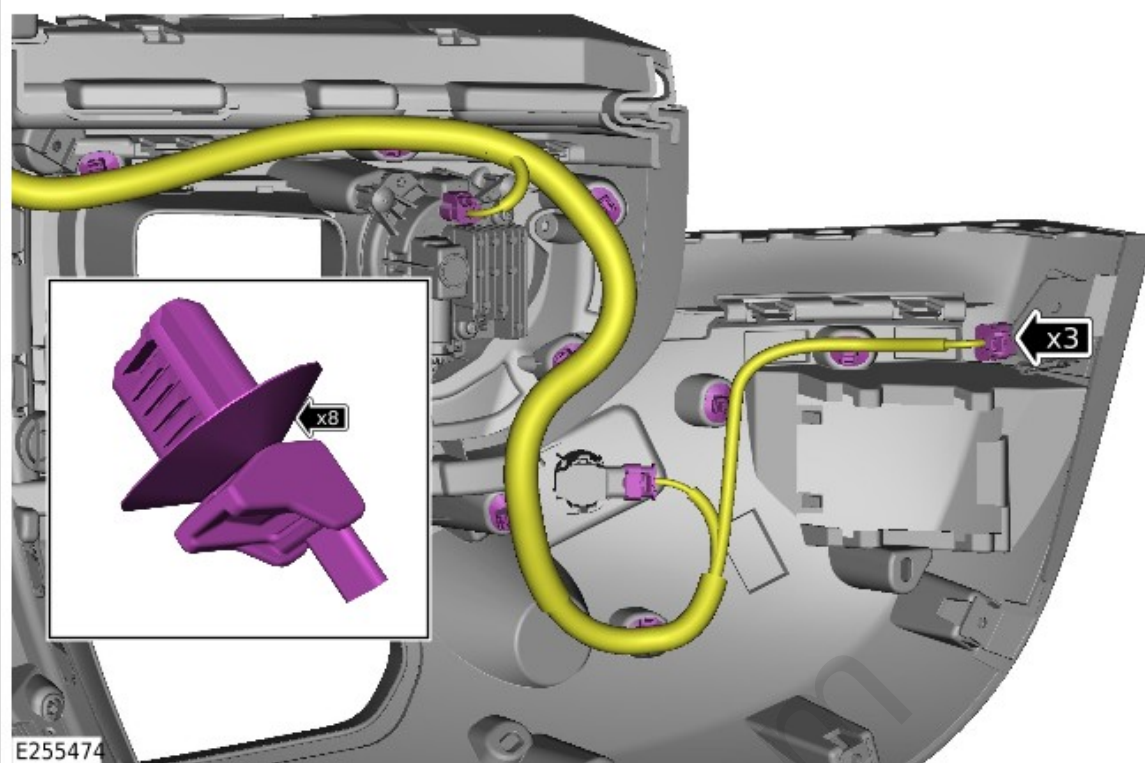
- This procedure contains some variation in the illustrations depending on the vehicle specification, but the essential information is always correct.
- This procedure contains illustrations showing certain components removed to provide extra clarity.
- The ignition must be switched off.

1. Raise and support the vehicle on a suitable 2-post lift.  
Refer to: [Jacking and Lifting](#) (100-02 Jacking and Lifting, Description and Operation).
2. With assistance, remove the front bumper.  
Refer to: [Front Bumper](#) (501-19 Bumpers, Removal and Installation).



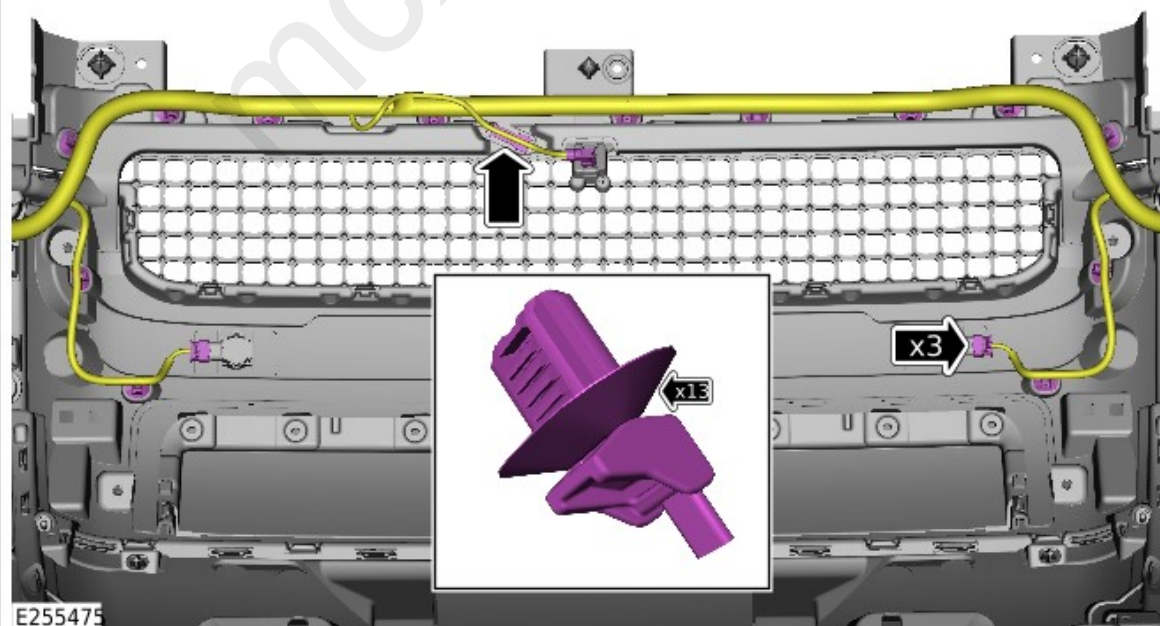
- Disconnect the 3 electrical connectors.
- Release the front bumper wiring harness at 8 clips.
- Release the 2 electrical connectors from the front bumper.

4.



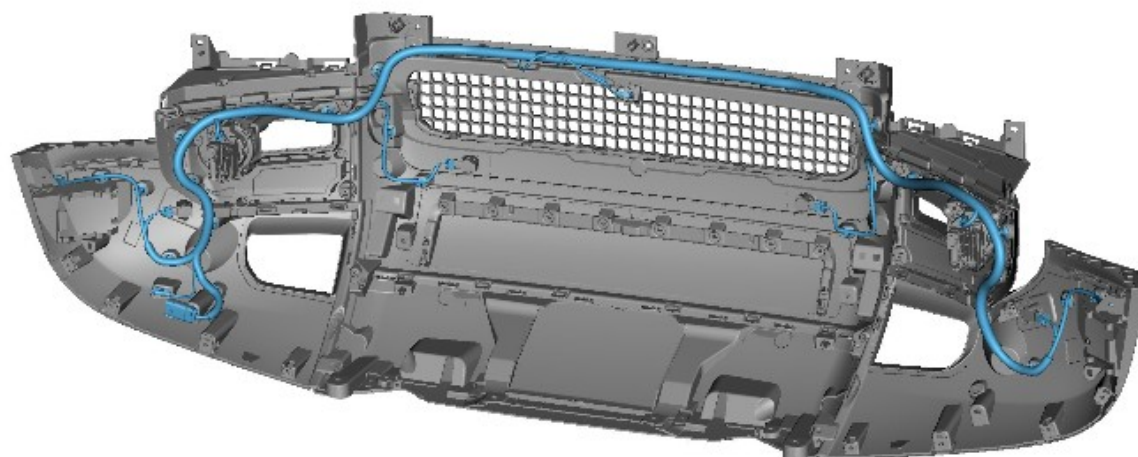
- Disconnect the 3 electrical connectors.
- Release the front bumper wiring harness at 8 clips.

5.



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

6.



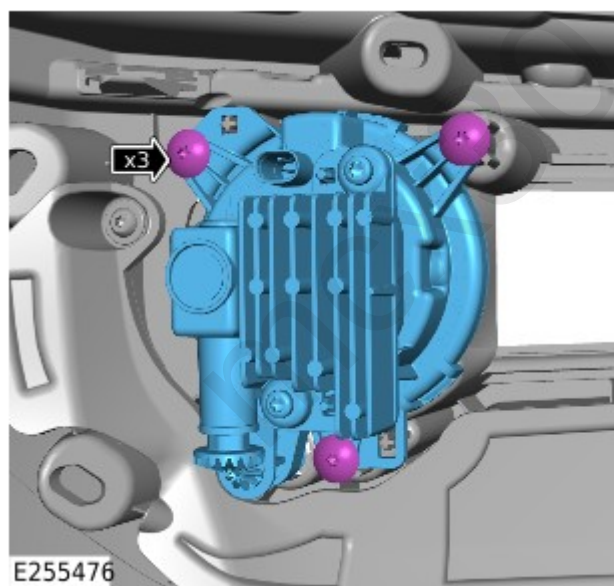
E255908

Remove the front bumper wiring harness.

7.

 **NOTE:**

Repeat the step for the other side.



E255476

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

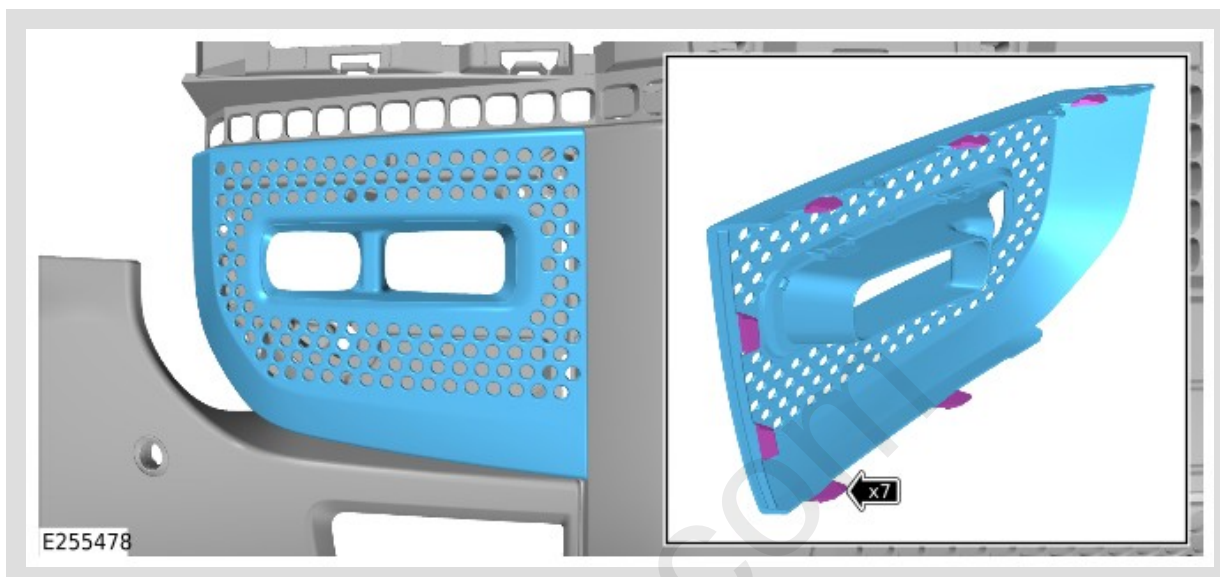
8.

**⚠ CAUTION:**

Take extra care not to damage the clips.

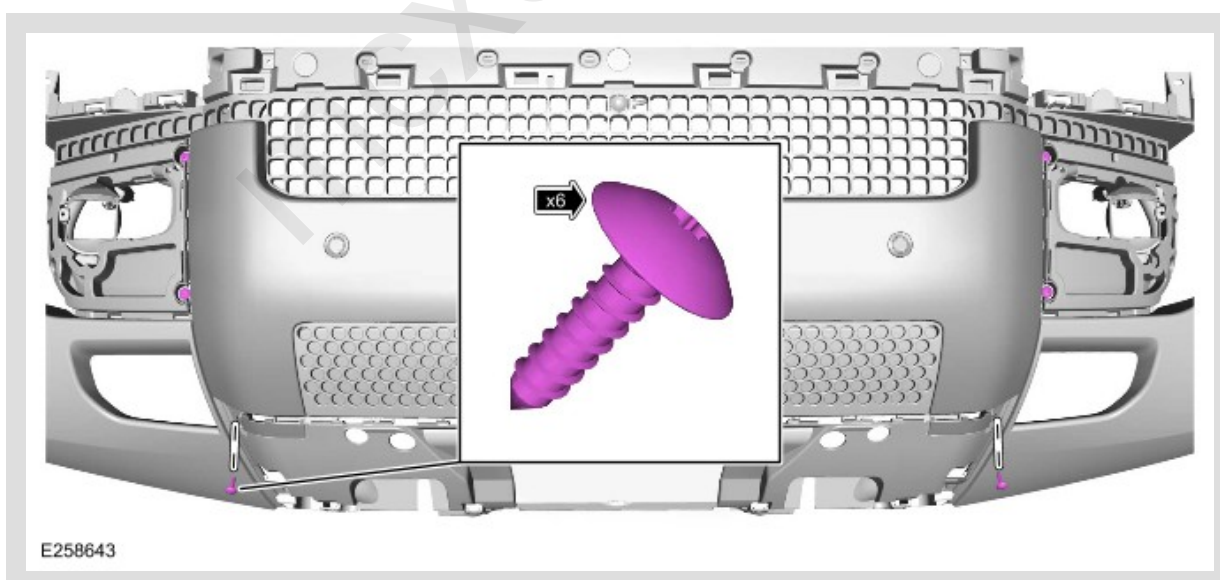
**△ NOTE:**

Repeat this step for the other side.



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

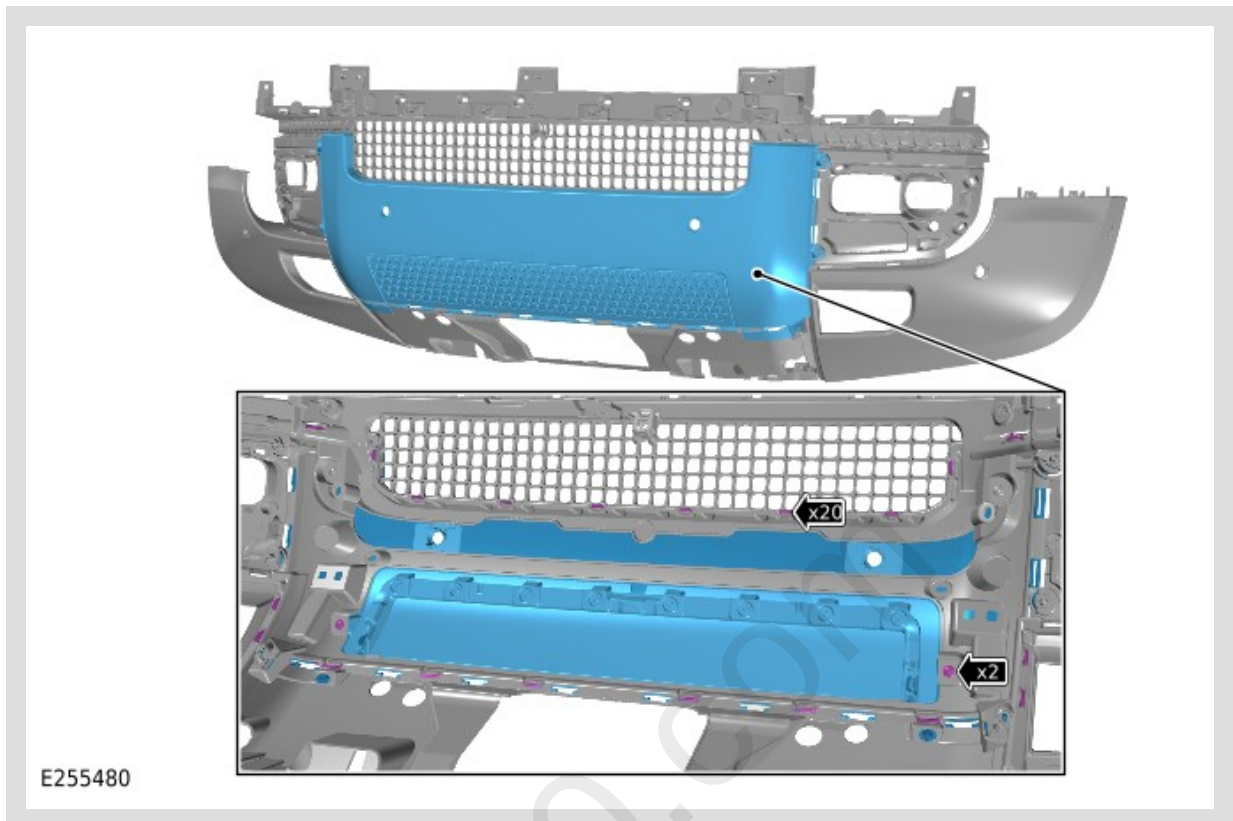
9.



Remove the 6 screws.

**ⓘ CAUTION:**

Take extra care not to damage the clips.

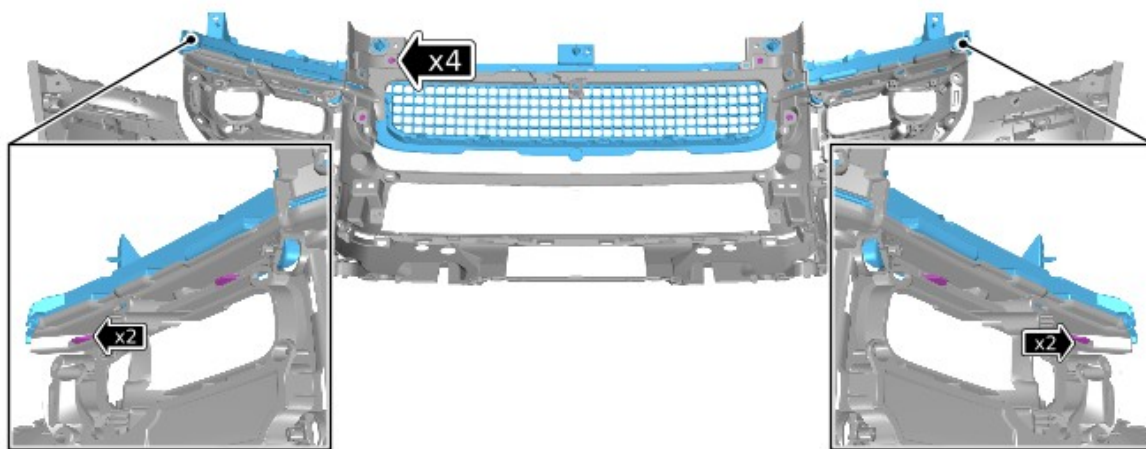


- Remove the 2 screws.
- Release the 20 clips.
- Remove the front bumper protector.

11.

**⚠ CAUTION:**

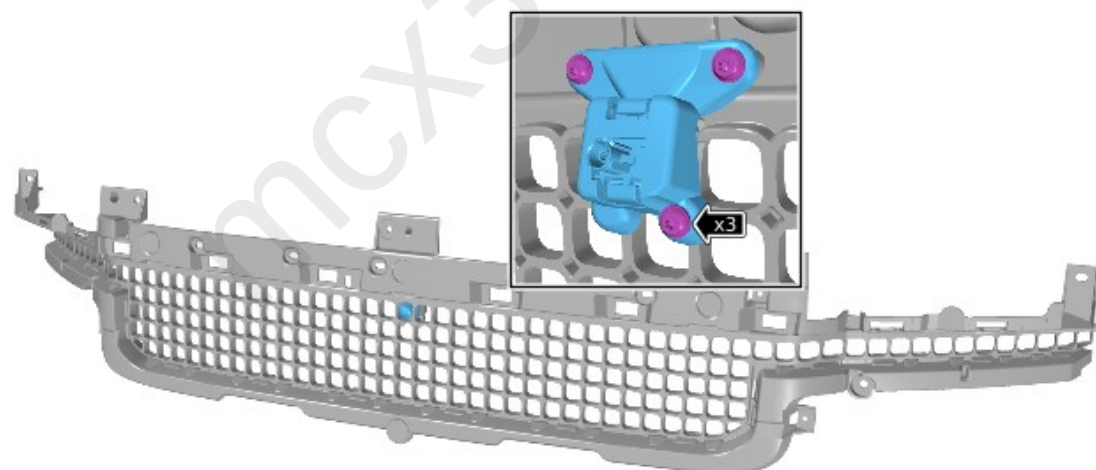
Take extra care not to damage the clips.



E255481

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

12.



E255482

- 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.
- Install and tighten the 6 outside screws.

*Torque: 4Nm*

*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*

 **NOTE:**

- 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.

Refer to: [Front Bumper](#) (501-19 Bumpers, Removal and Installation).

**NOTE:**

- **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.