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2020.0 DEFENDER (LE), 501-11

GLASS, FRAMES AND MECHANISMS

WINDSHIELD (G2413068)

mcx30.com

REMOVAL AND INSTALLATION

SPECIAL TOOL(S)



JLR-501-176

Fiber-lined Glass Removal Tool Kit

GENERAL EQUIPMENT

EQUIPMENT NAME
Air / Electric / Rechargeable drill

REMOVAL

ⓘ CAUTIONS:

- Place the glass on felt covered supports with the locating studs facing up. Do not stand on edge as this can cause chips which subsequently develop into cracks.
- Protect the surrounding paintwork to avoid damage.

△ 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.
- This component is available in multiple variations. Before the windshield is removed, check the part numbers for a correct application.

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1. Remove the cowl panel.

Refer to: [Cowl Panel](#) (501-02 Front End Body Panels, Removal and Installation).

2.

 NOTE:

This step must be completed on both sides.

Remove the windshield finisher.

Refer to: [Windshield Moulding](#) (501-11 Glass, Frames and Mechanisms, Removal and Installation).

3.

 NOTE:

This step must be completed on both sides.

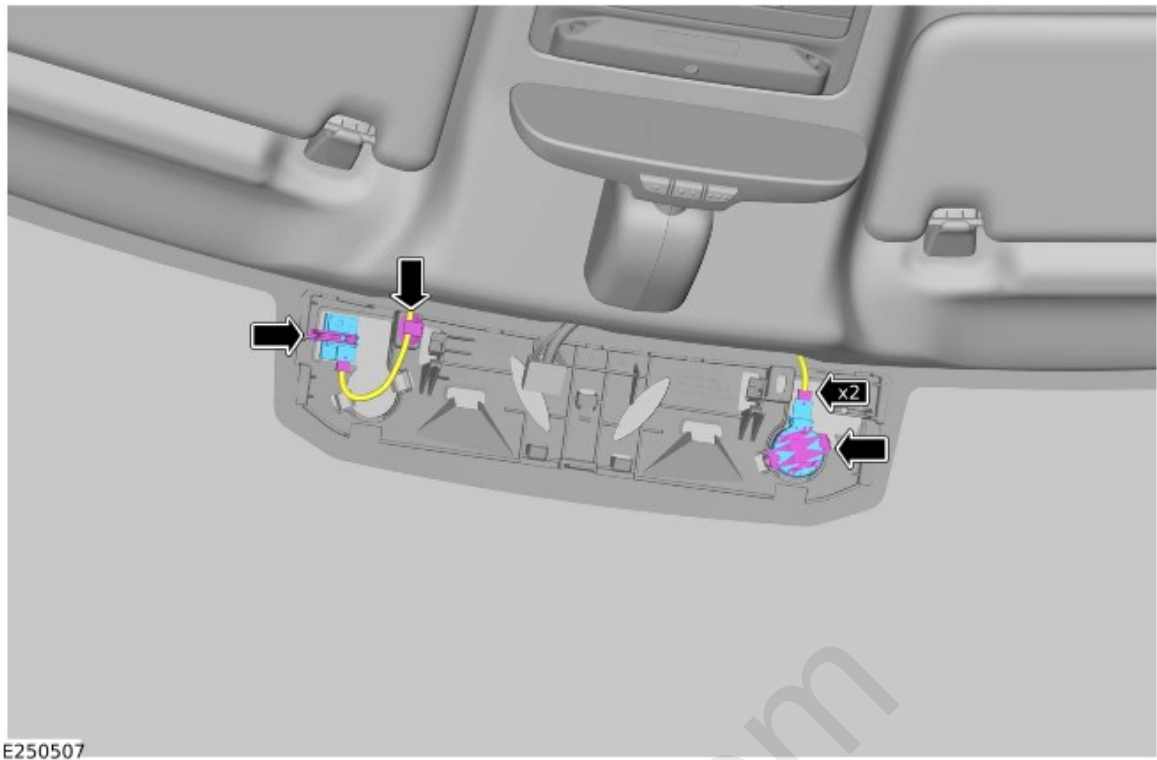
Remove the A-pillar upper trim panel.

Refer to: [A-Pillar Trim Panel](#) (501-05 Interior Trim and Ornamentation, Removal and Installation).

4.

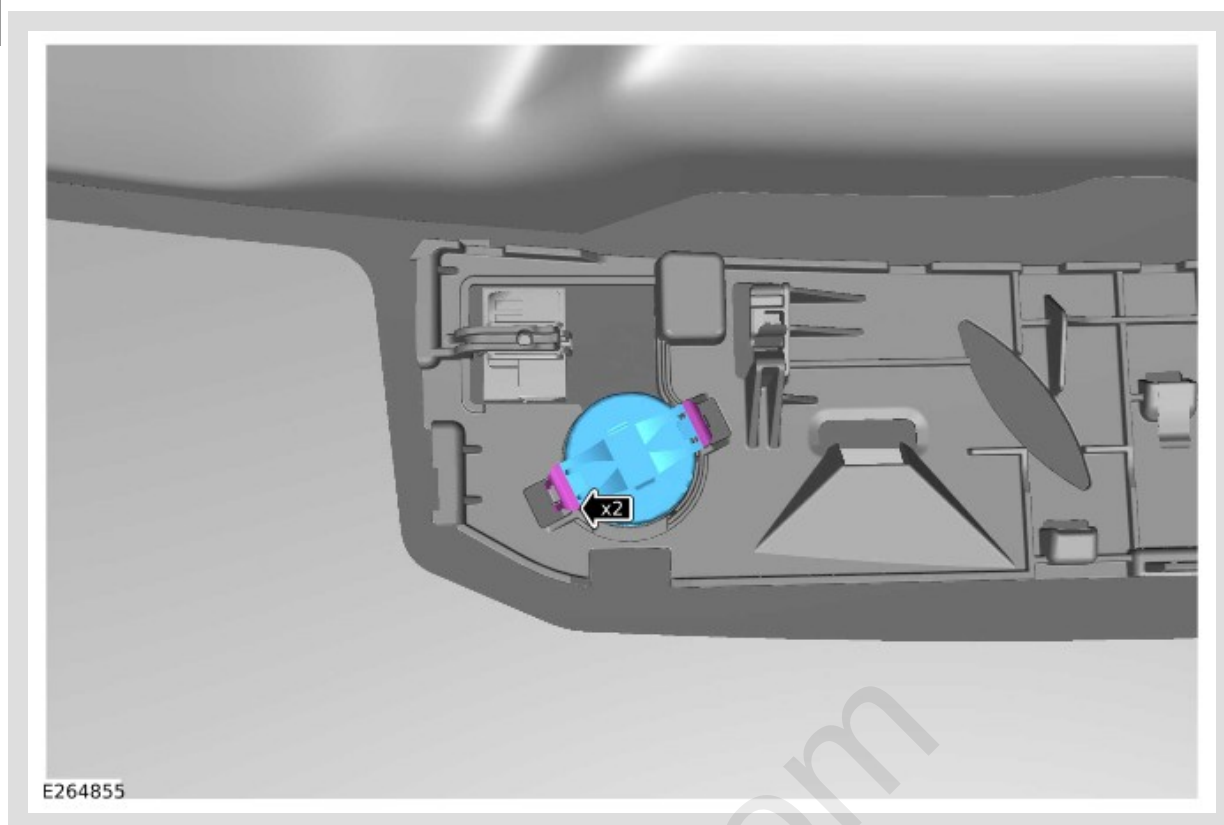
Remove the Image Processing Module 'A' (IPMA).

Refer to: [Image Processing Module A](#) (413-09 Warning Devices, Removal and Installation).



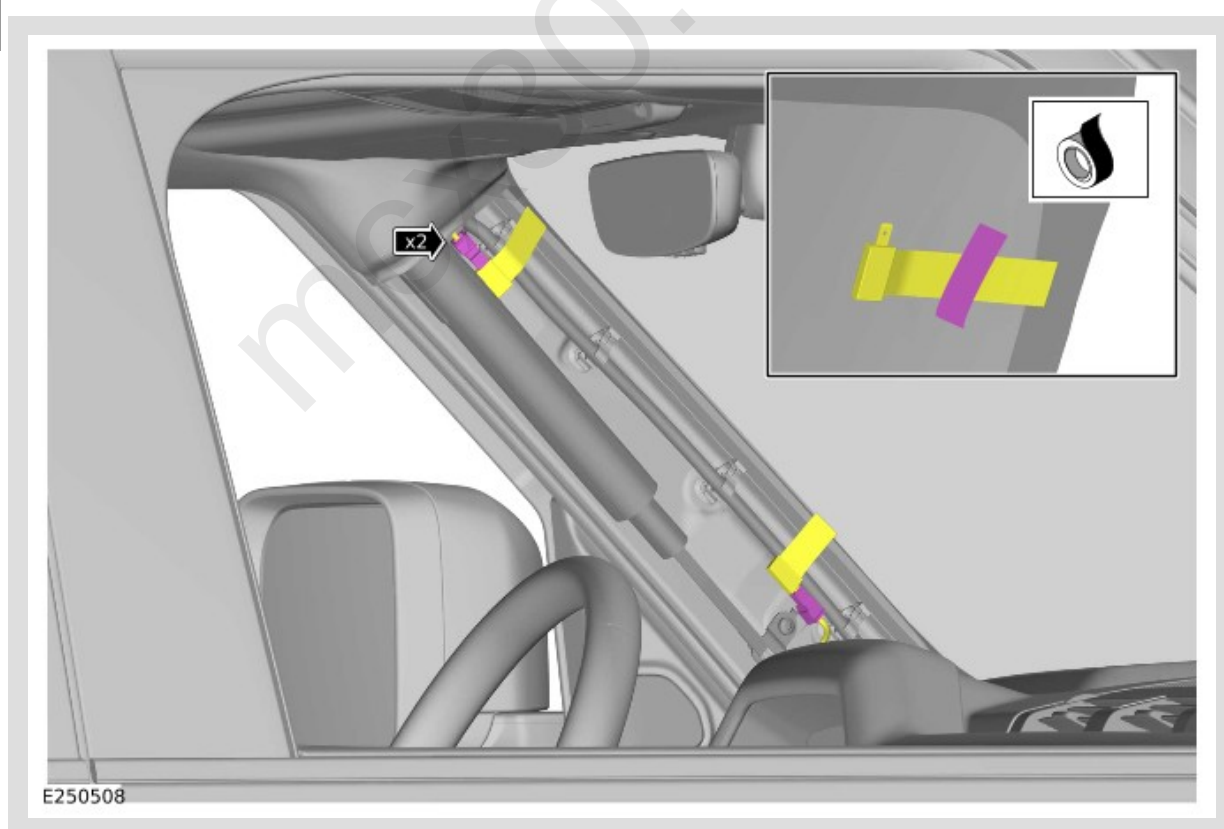
- Disconnect humidity sensor electrical connector.
- Release the wiring harness clip.
- Remove the humidity sensor.
- Disconnect the rain/light sensor electrical connector.
- Remove the rain/light sensor metal clip.
- Remove the rain/light sensor.

6.

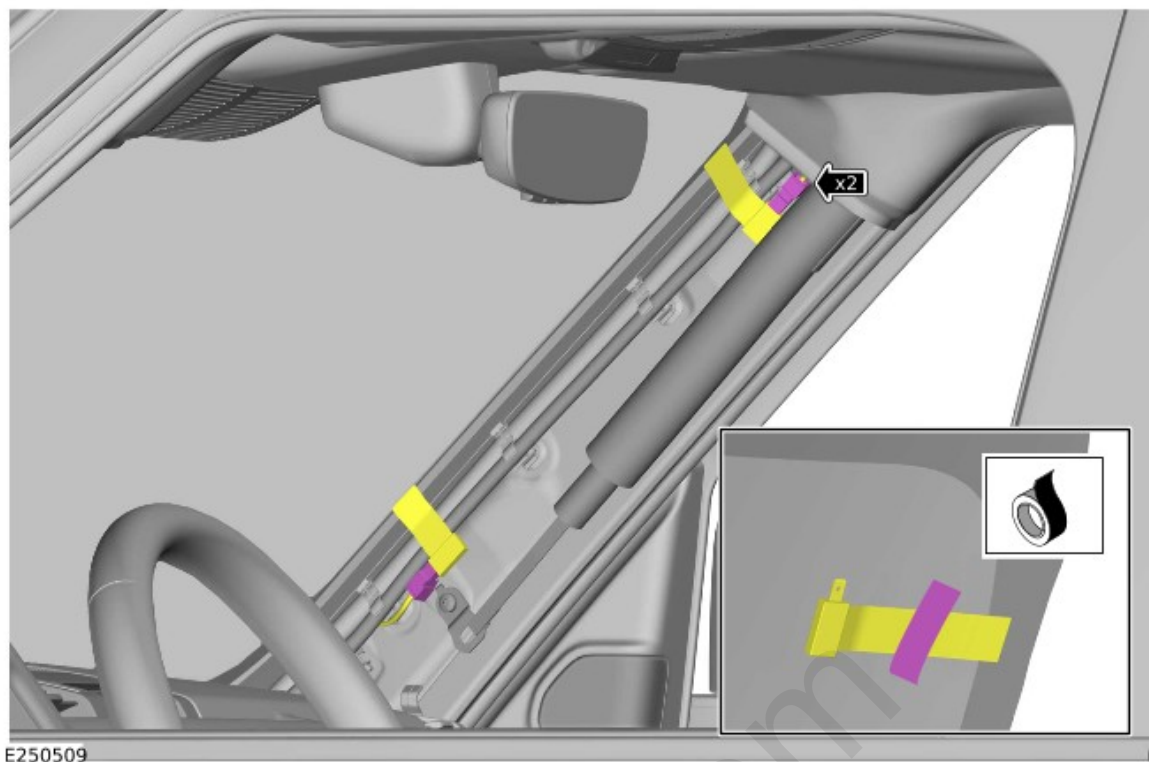


Remove the blanking cap.

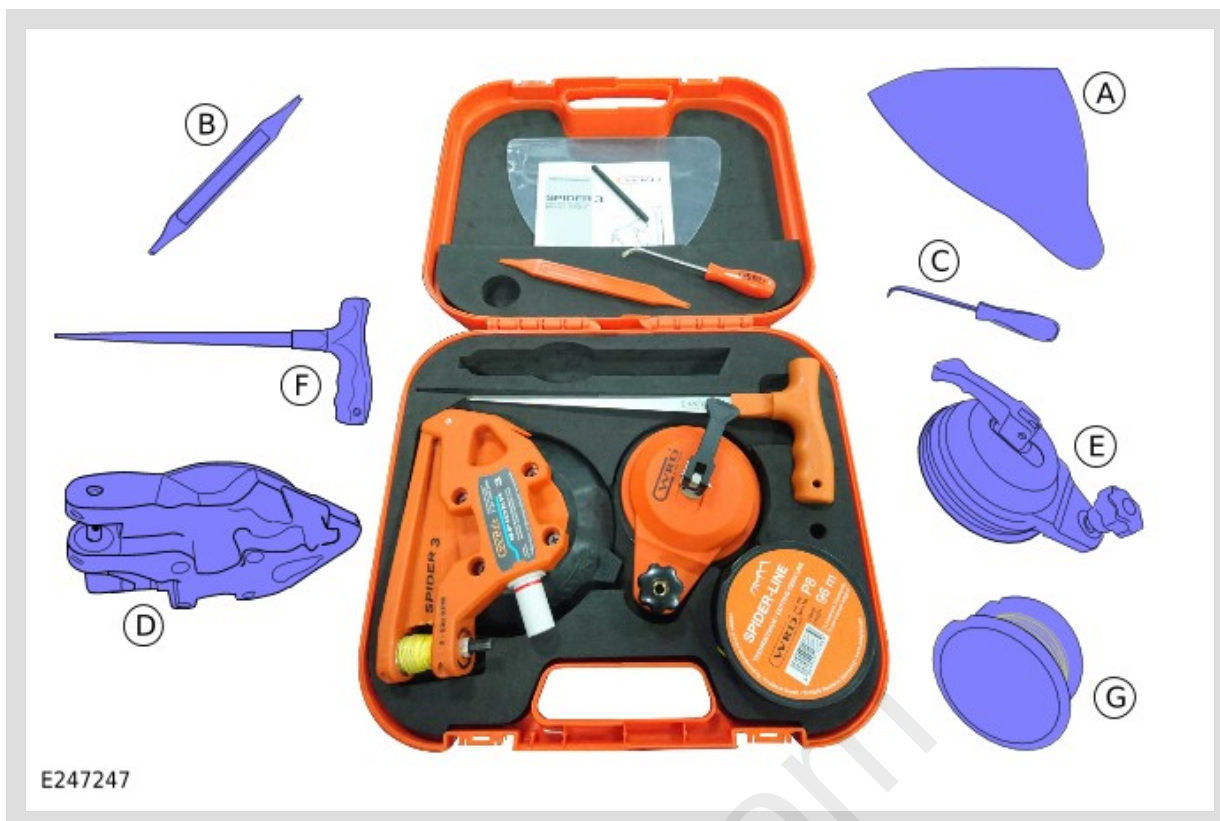
7.



- Disconnect the 2 left windshield heater element electrical connectors.
- Use suitable tape to secure the 2 windshield heater element electric cables.



- Disconnect the 2 right windshield heater element electrical connectors.
- Use suitable tape to secure the 2 windshield heater element electric cables.



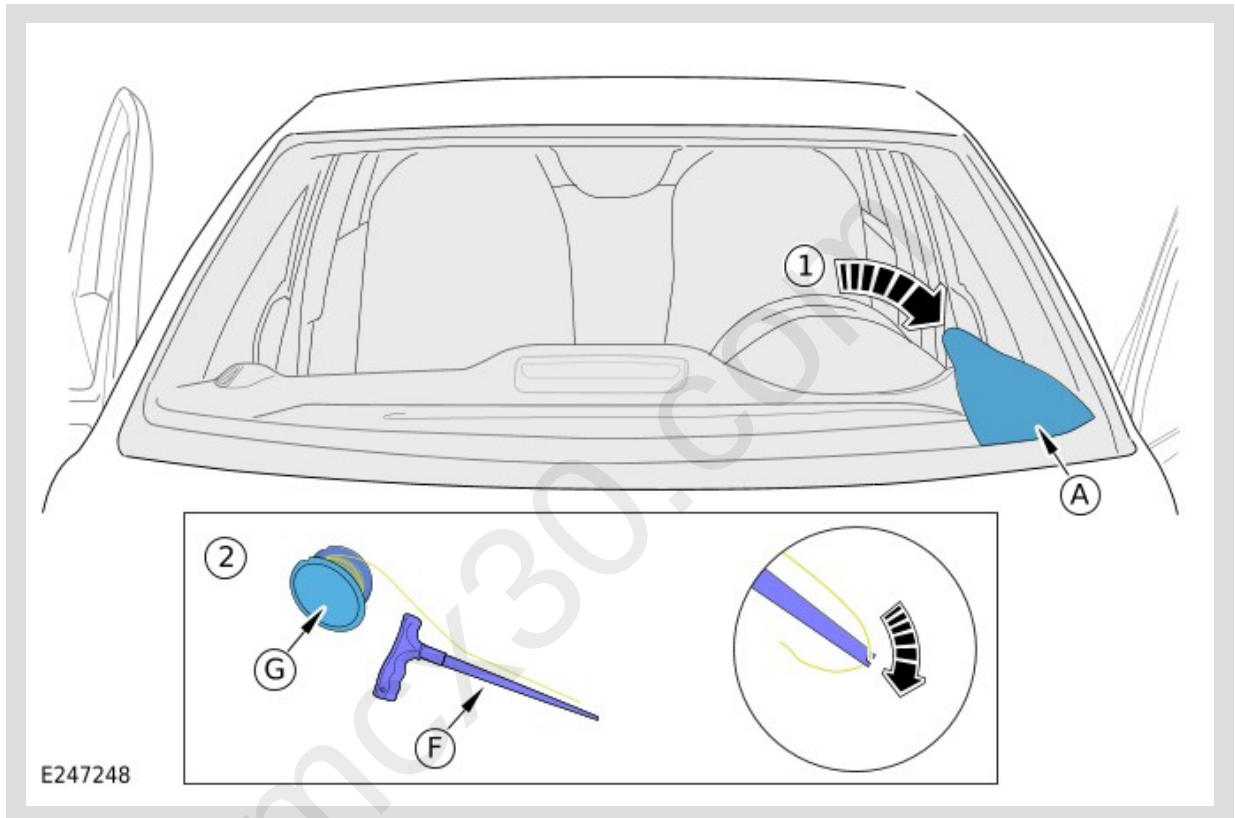
- The illustration is used to index the contents of the fiber-lined glass removal special tool.
Special Tool(s): [JLR-501-176](#)
- Make sure that the contents of the fiber-lined glass removal special tool kit are complete and no items are damaged or missing.
- Consult the instruction manual supplied with the fiber-lined glass removal special tool before commencing the removal of the windshield.
- (A) Instrument Panel protector
- (B) Cutting fiber threading tool
- (C) Pick
- (D) Spider cutting tool
- (E) Anchor suction tool
- (F) Cutting fiber install tool
- (G) Cutting fiber

⚠ CAUTION:

Make sure that extreme care is taken with this step, to avoid damage to the windshield and surrounding areas.

⚠ NOTES:

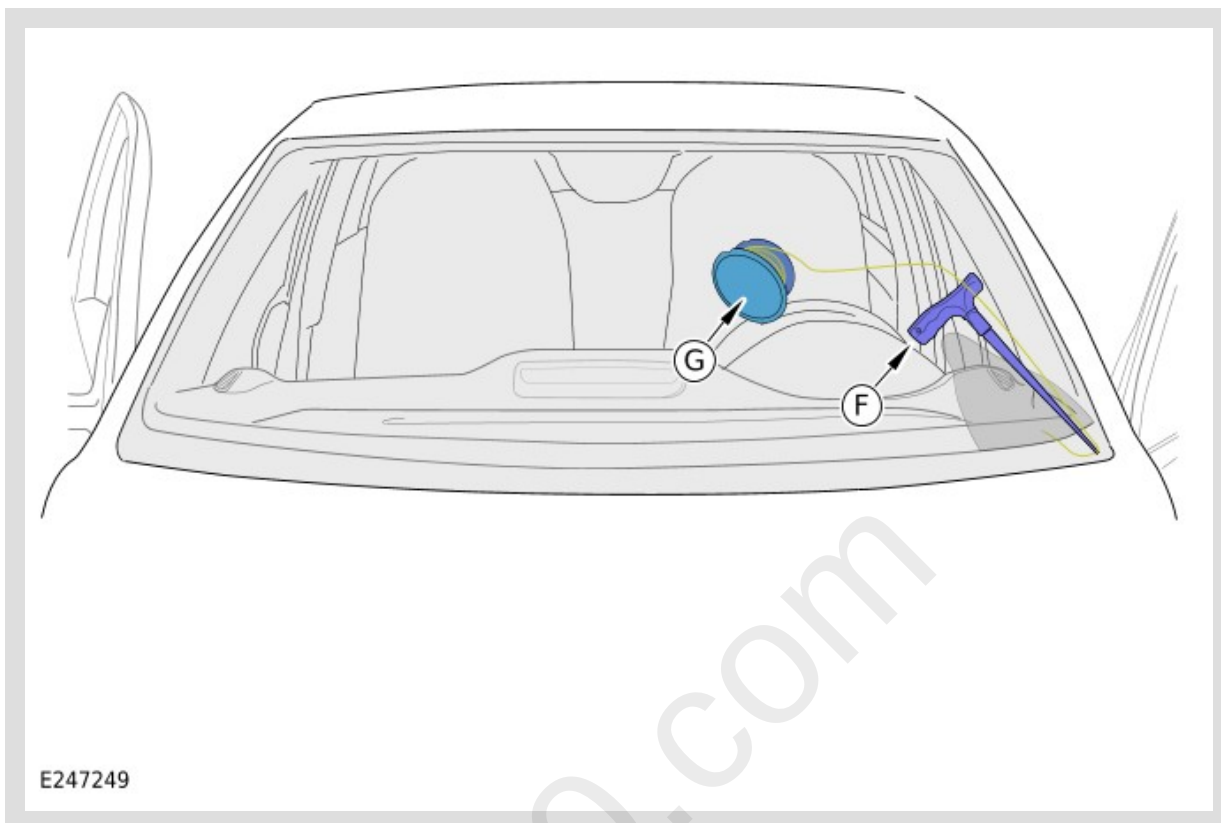
- This procedure contains illustrations for left hand drive vehicles, right hand drive vehicles are similar.
- This step is to be completed from inside the vehicle.



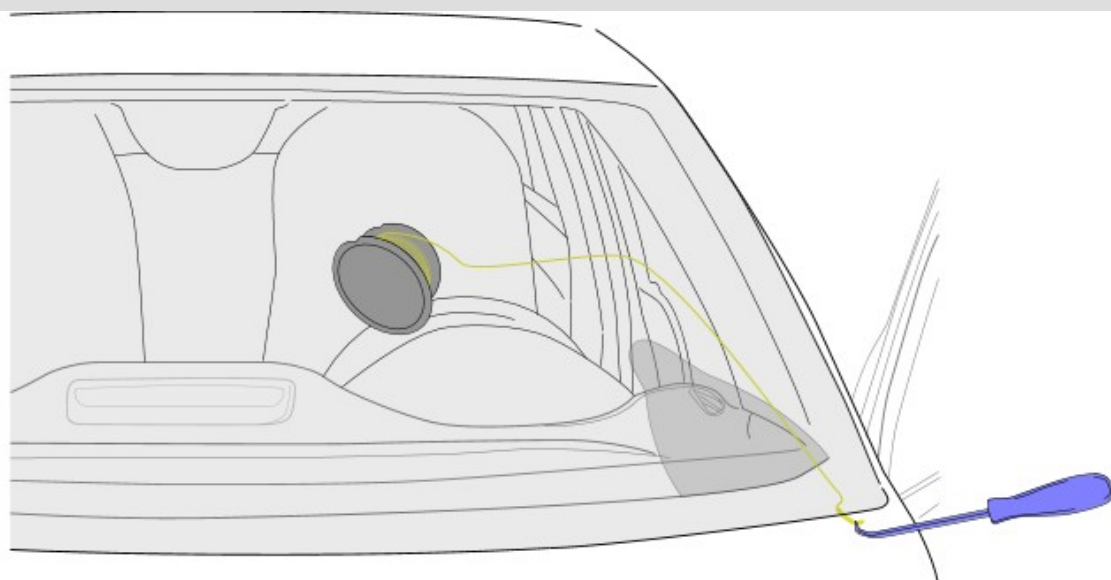
- Install the instrument panel protector (A) as illustrated.
- Install the cutting fiber (G) into the cutting fiber install tool (F) as illustrated.

 NOTE:

This step is to be completed from inside the vehicle.



Use the cutting fiber install tool **(F)** to push the cutting fiber **(G)** through the windshield sealant as illustrated.

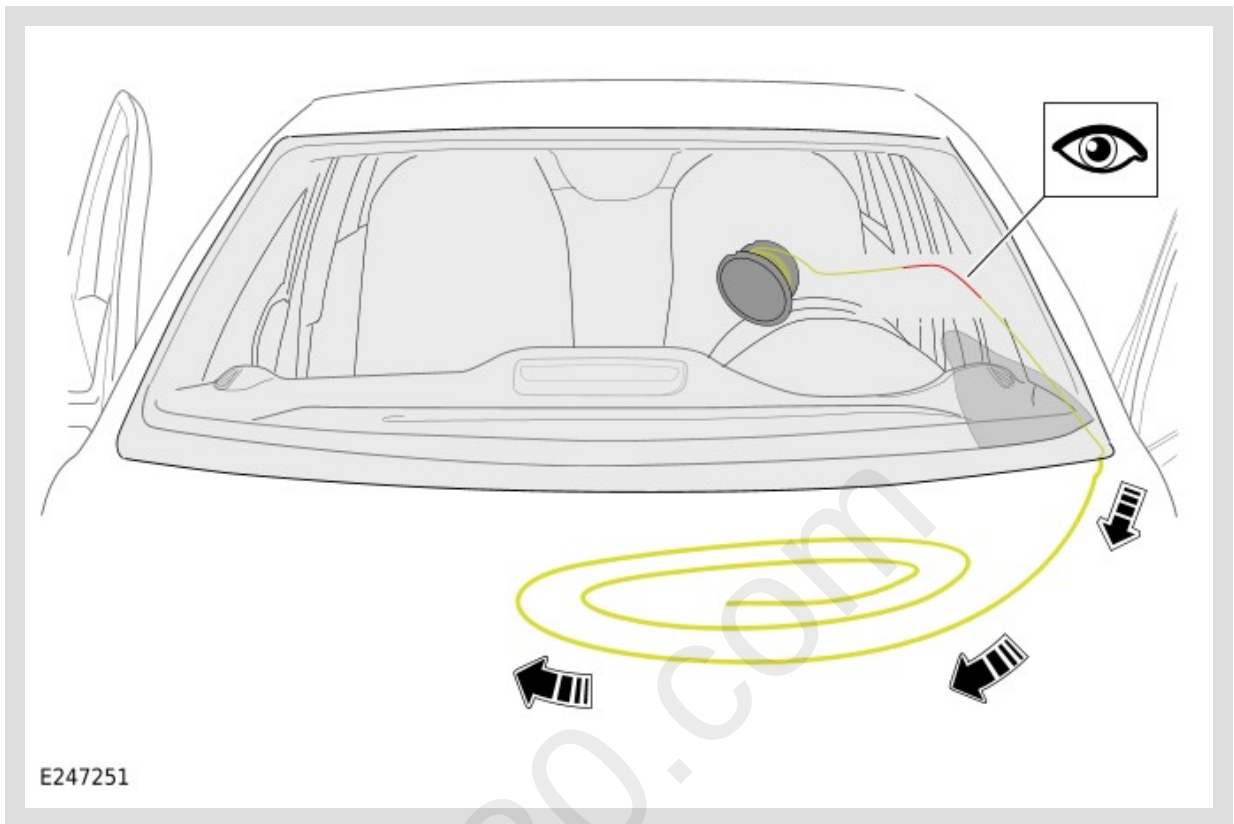


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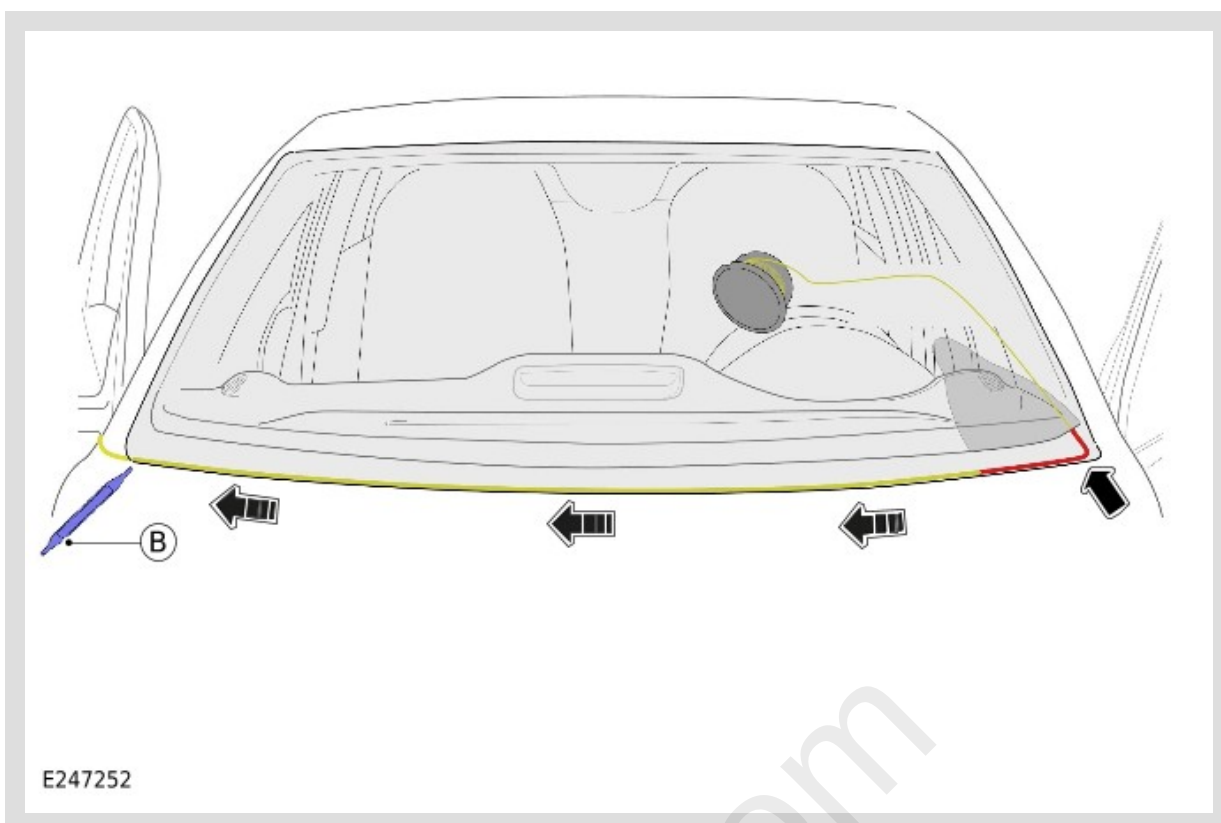
Use the pick to pull the cutting fiber fully through the windshield sealant. The cutting fiber should now be accessible from outside the vehicle.

NOTE:

The red marker on the cutting fiber indicates the correct amount of fiber required for the windshield removal.



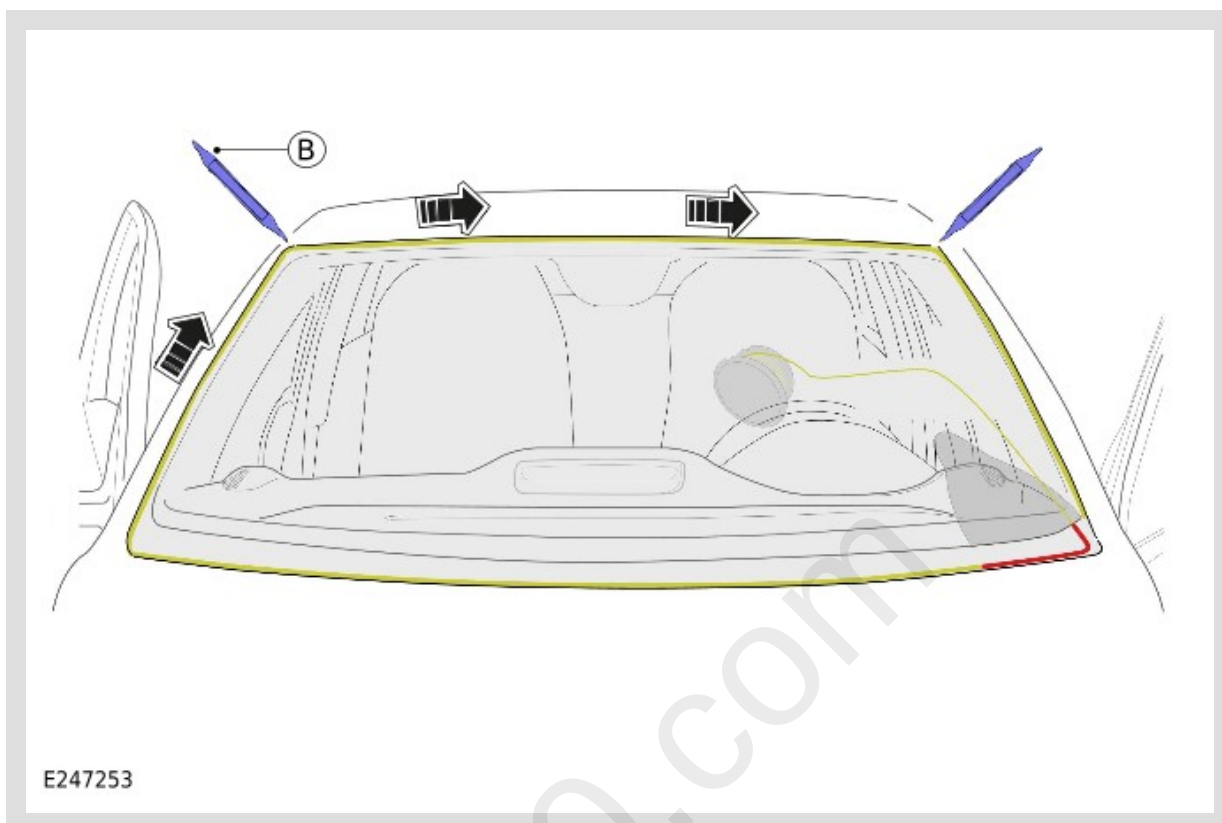
Pull the cutting fiber through the windshield until the correct length of fiber is available.



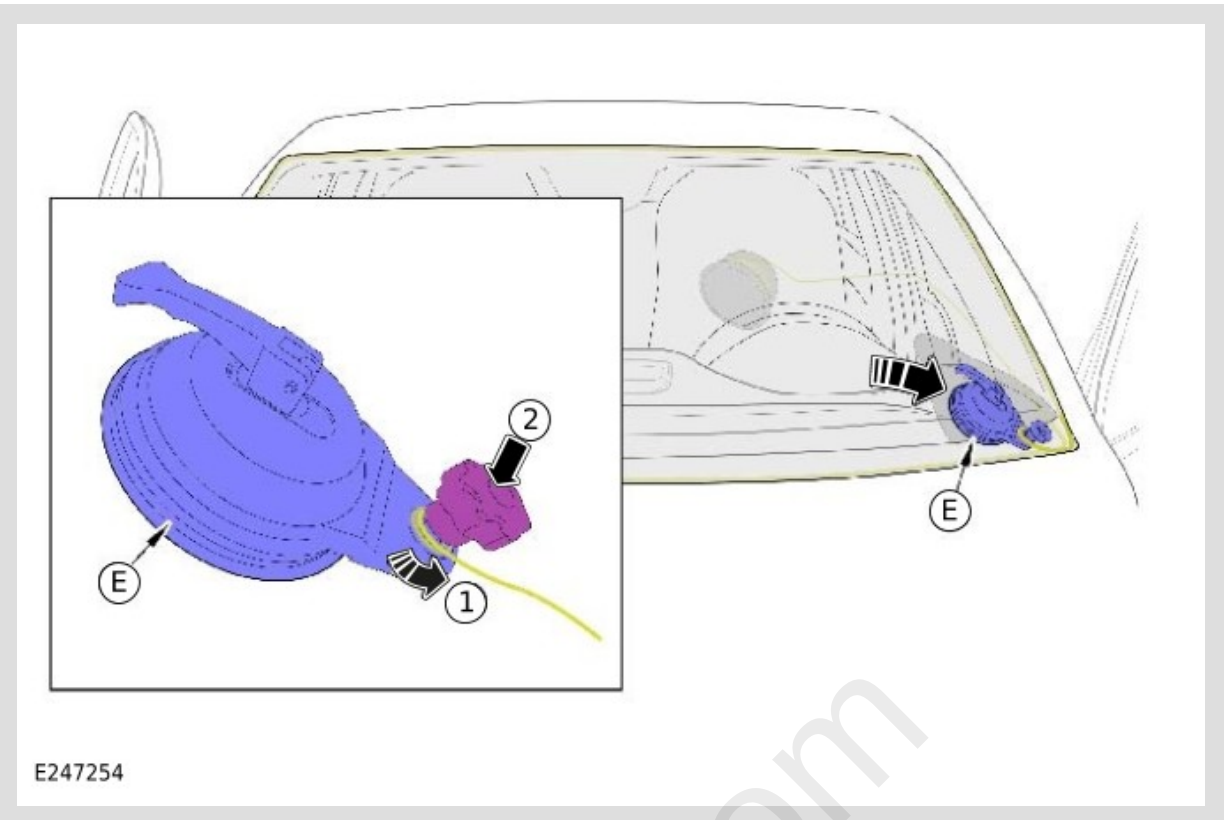
Use the cutting fiber threader **(B)** to install the cutting fiber as illustrated.

NOTE:

Make sure the cutting fiber is following the full perimeter of the windshield as illustrated.



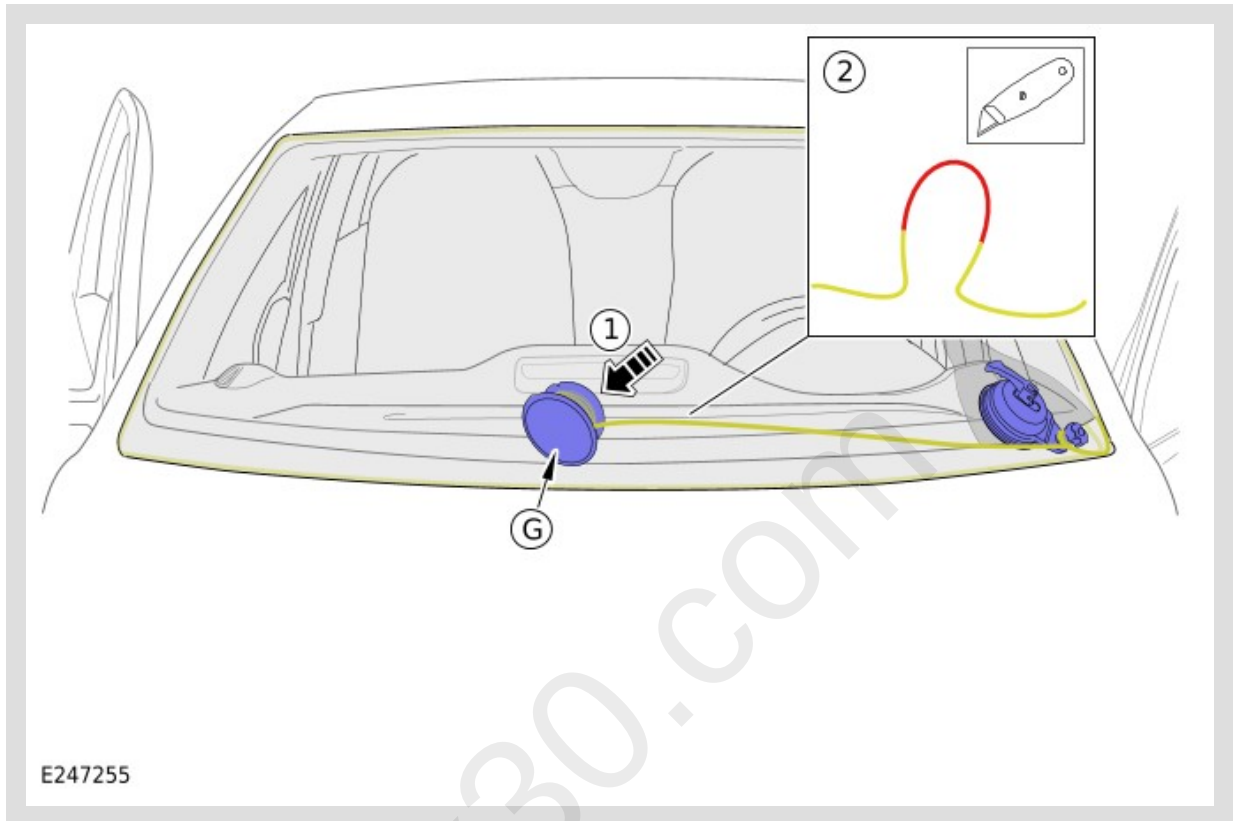
Use the cutting fiber threader **(B)** to install the cutting fiber as illustrated.



- Install the anchor suction cup (E) as illustrated.
- Secure the cutting fiber onto the anchor suction cup as illustrated.

 NOTES:

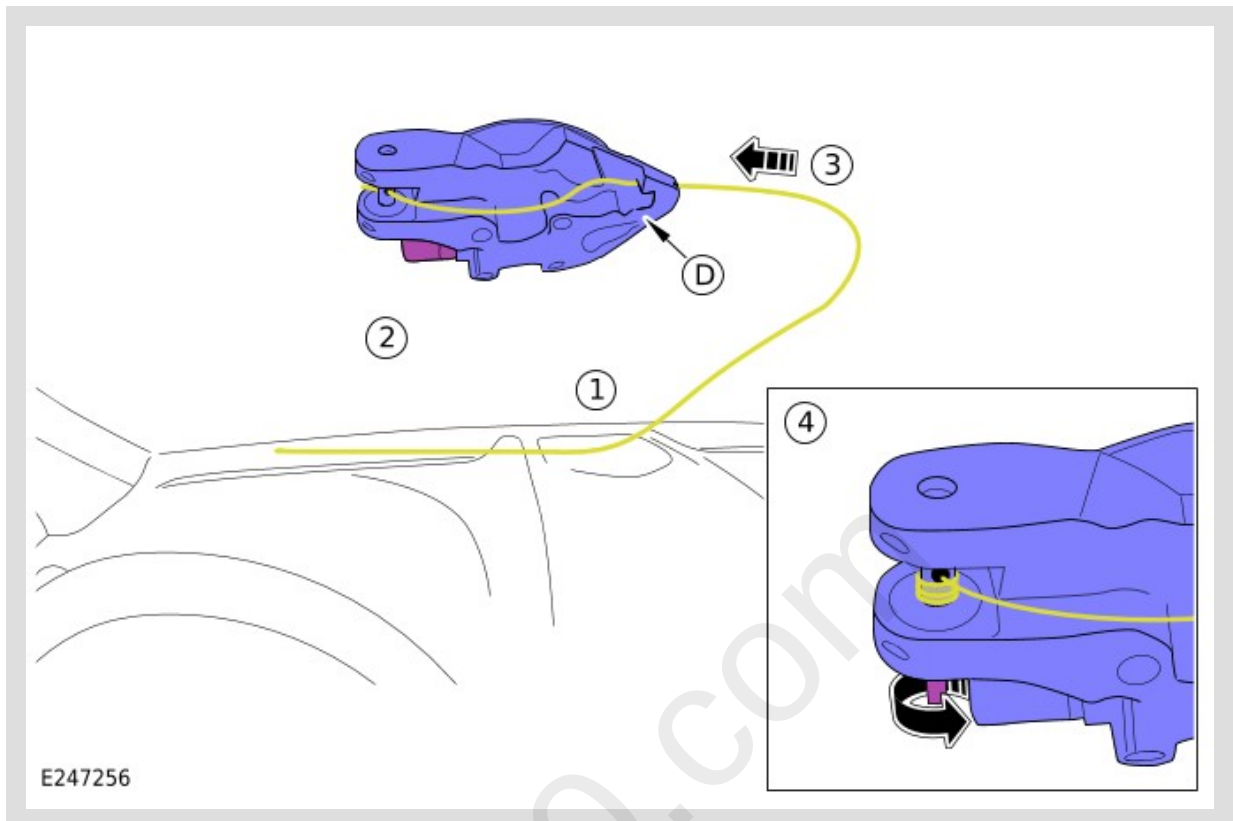
- This step is to be completed from inside the vehicle.
- The red marker on the cutting fiber indicates the correct amount of fiber required for the windshield removal.



Remove a suitable amount of cutting fiber from the cutting fiber spool (G).

 NOTE:

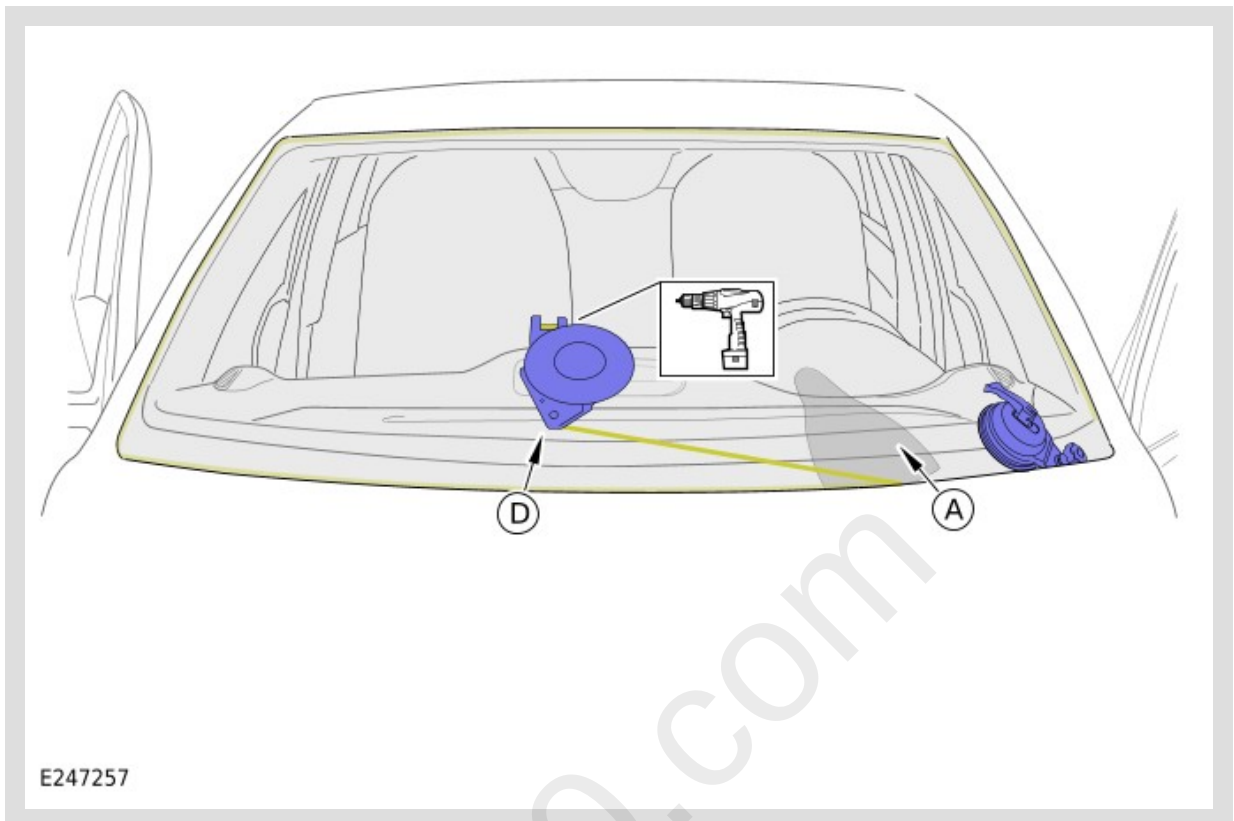
This step is to be completed from inside the vehicle.



Thread the cutting fiber onto the spider cutting tool (D), and fill the spider cutting tool spool as illustrated.

NOTE:

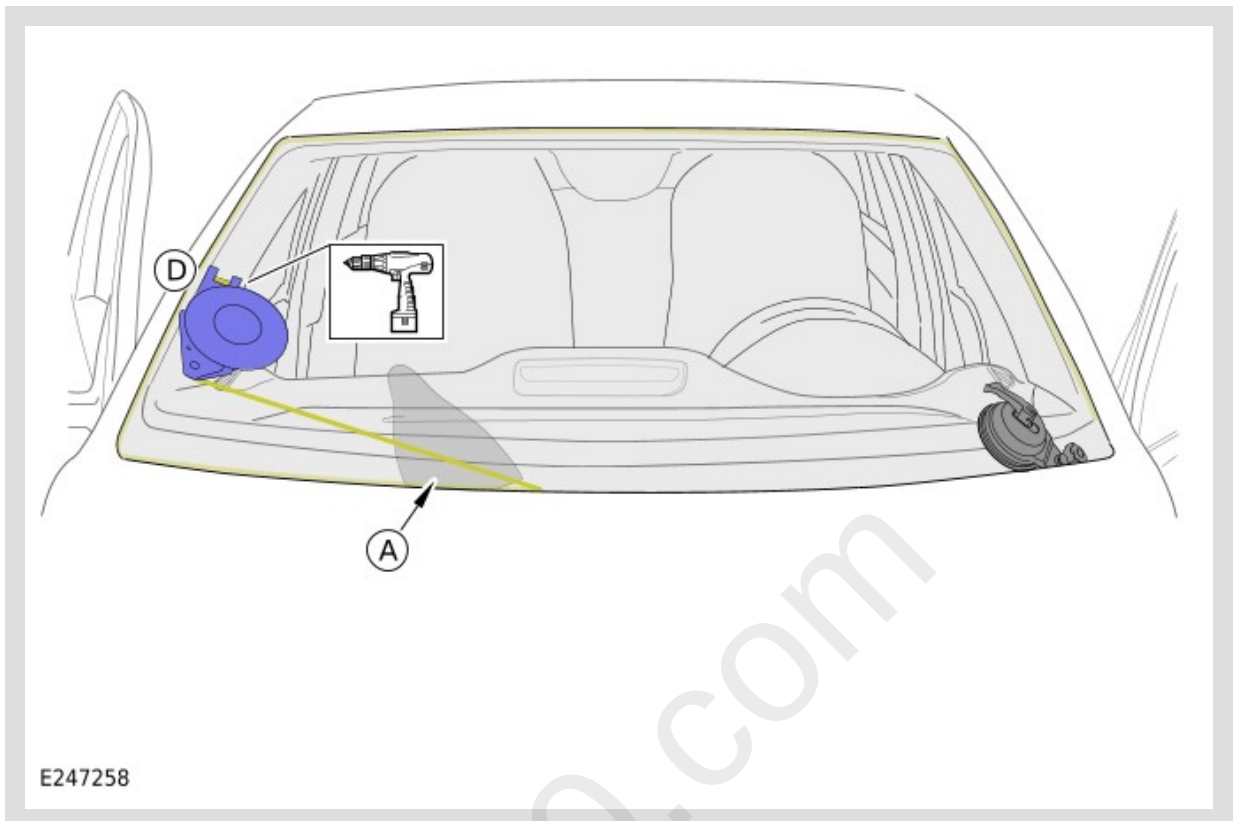
This step is to be completed from inside the vehicle.



- Install and secure the spider cutting tool **(D)** as illustrated.
- Use the instrument panel protector **(A)** to avoid damage being made to the instrument panel during the windshield removal.
- Use a suitable drill/driver to operate the spider cutting tool **(D)**.
General Equipment: [Air](#) / [Electric](#) / [Rechargeable drill](#)
- When the cutting fiber becomes parallel with the spider cutting tool **(D)**, proceed to the next step.

NOTE:

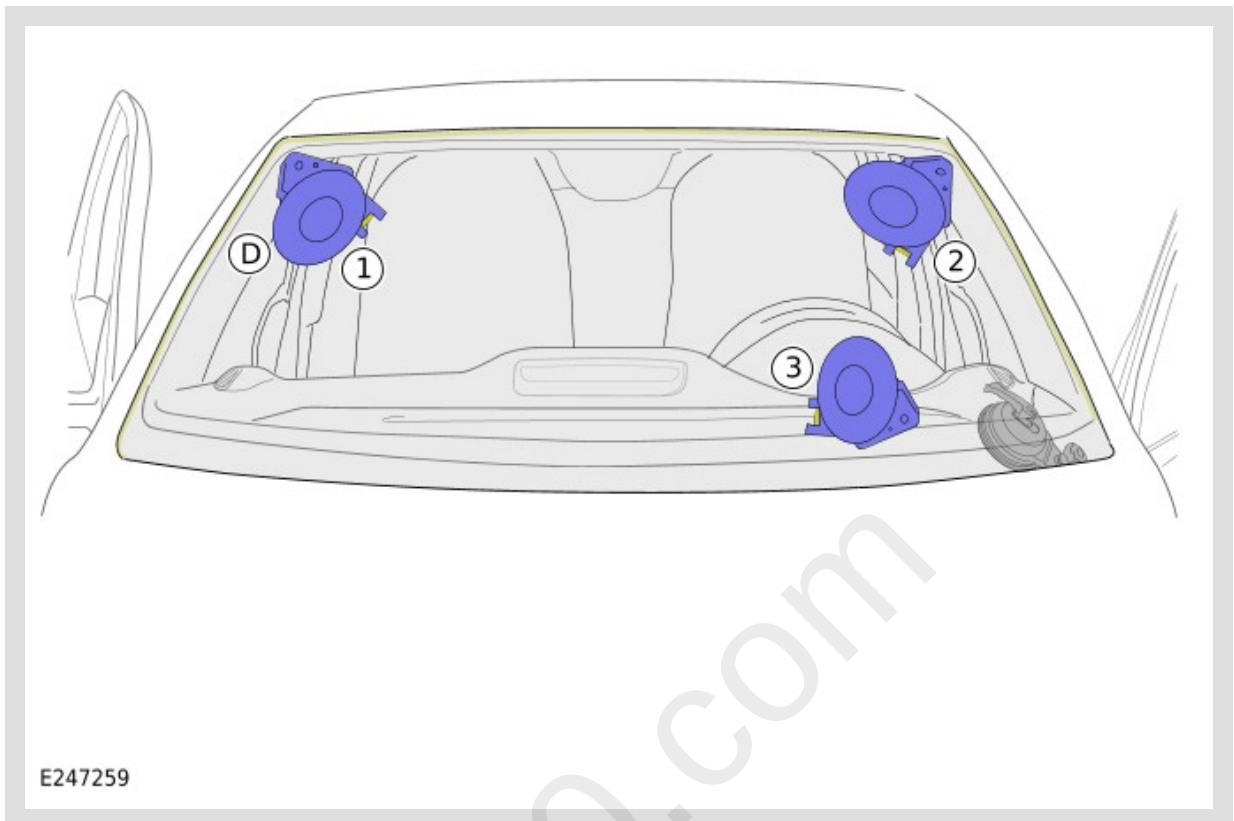
This step is to be completed from inside the vehicle.



- Install and secure the spider cutting tool **(D)** as illustrated.
- Use the instrument panel protector **(A)** to avoid damage being made to the instrument panel during the windshield removal.
- Use a suitable drill/driver to operate the spider cutting tool **(D)**.
General Equipment: [Air](#) / [Electric](#) / [Rechargeable drill](#)
- When the cutting fiber becomes parallel with the spider cutting tool **(D)**, proceed to the next step.

 NOTE:

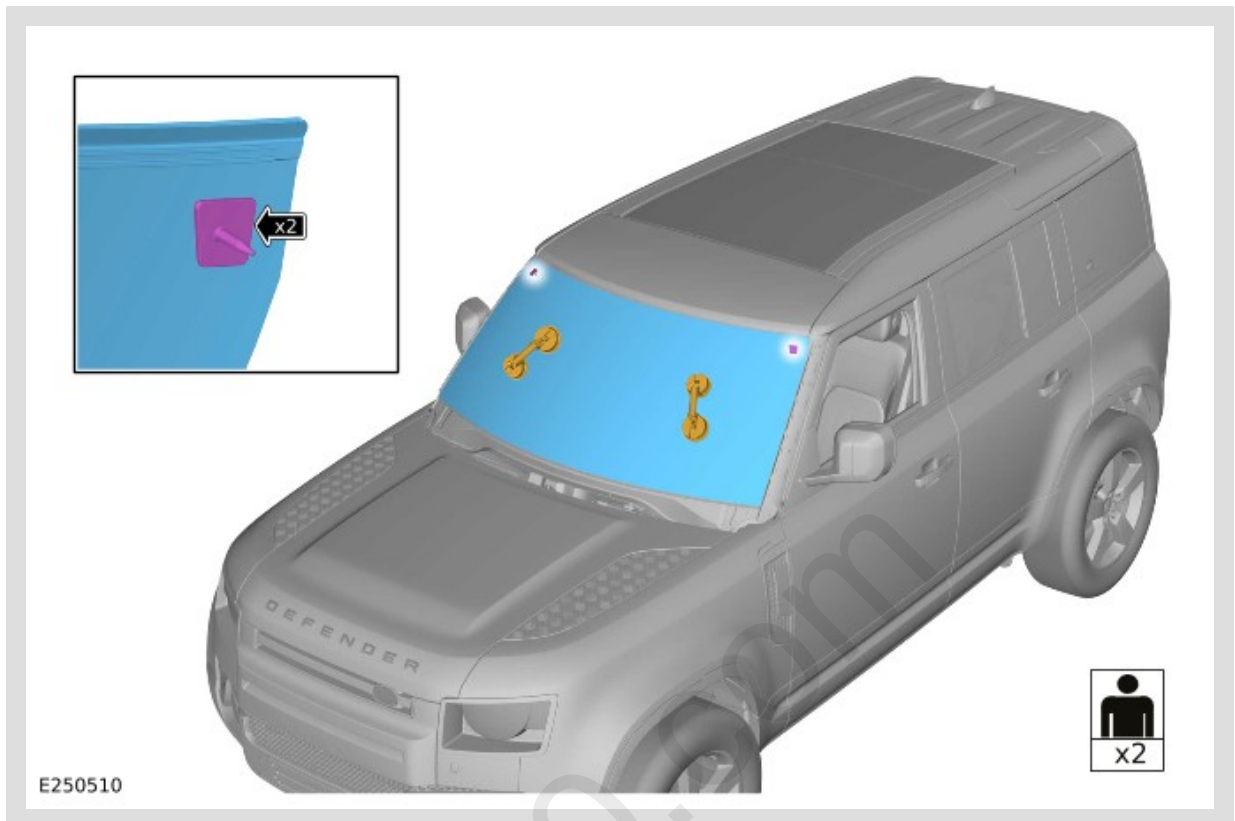
This step is to be completed from inside the vehicle.



- Repeat the previous step with the spider cutting tool **(D)** installed in position **1,2 and 3** until the windshield sealant is fully cut through.
- Make sure the instrument panel protector is always used to avoid damage to all surrounding areas.

**WARNING:**

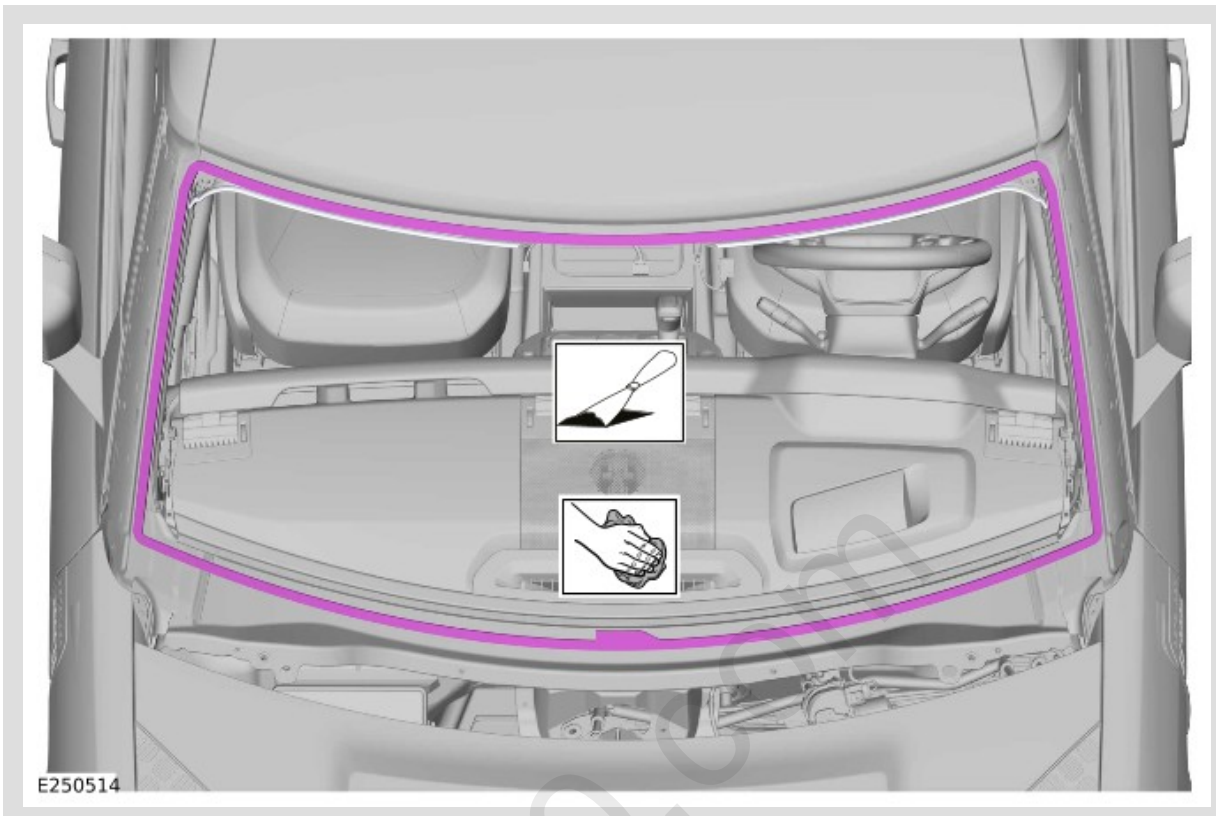
This step requires the aid of another technician.



With assistance, remove the windshield.

INSTALLATION

1.

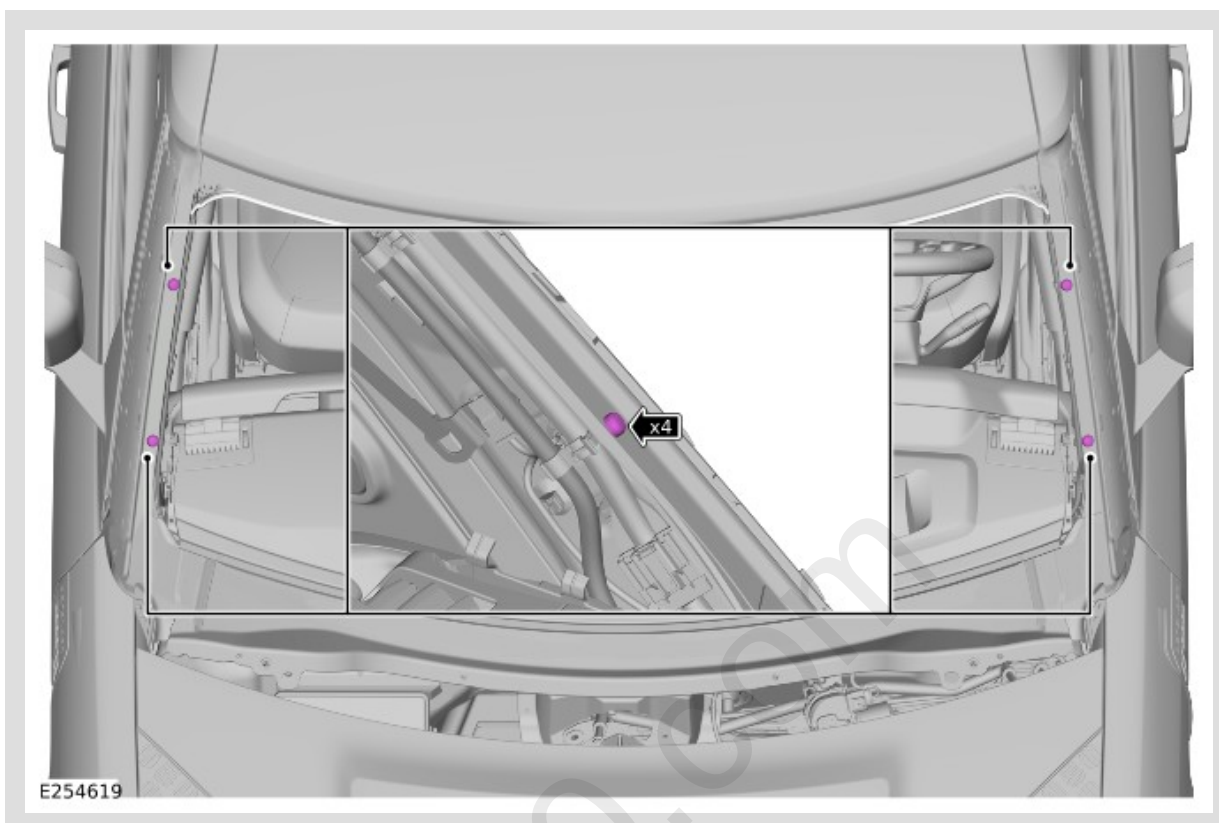


Use suitable tools and remove all residual sealant from the body.

2.

ⓘ CAUTION:

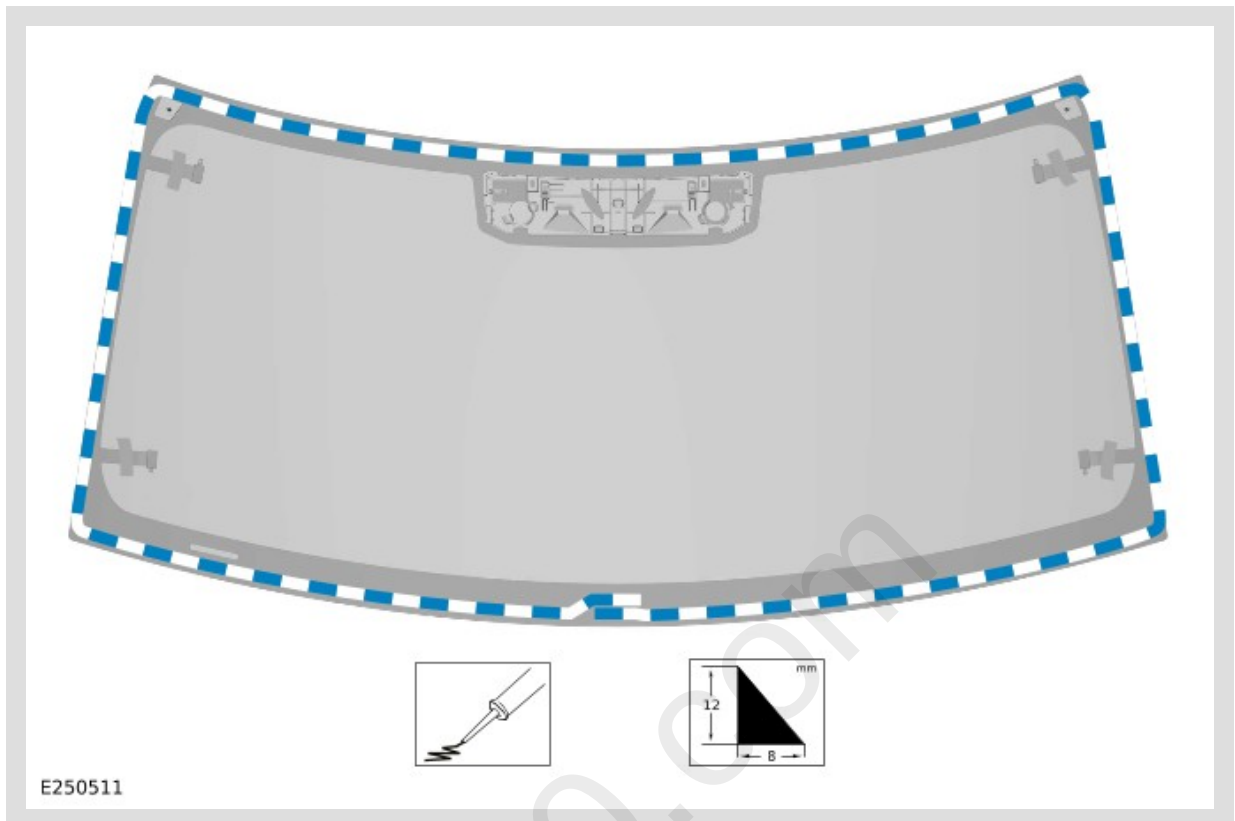
The spacers need to be aligned with the inner edge of the A-pillar as illustrated.



Install the 4 spacers to the edge of the A-pillar as illustrated.

ⓘ CAUTION:

Make sure that the windshield is clean and free of grease and foreign material.



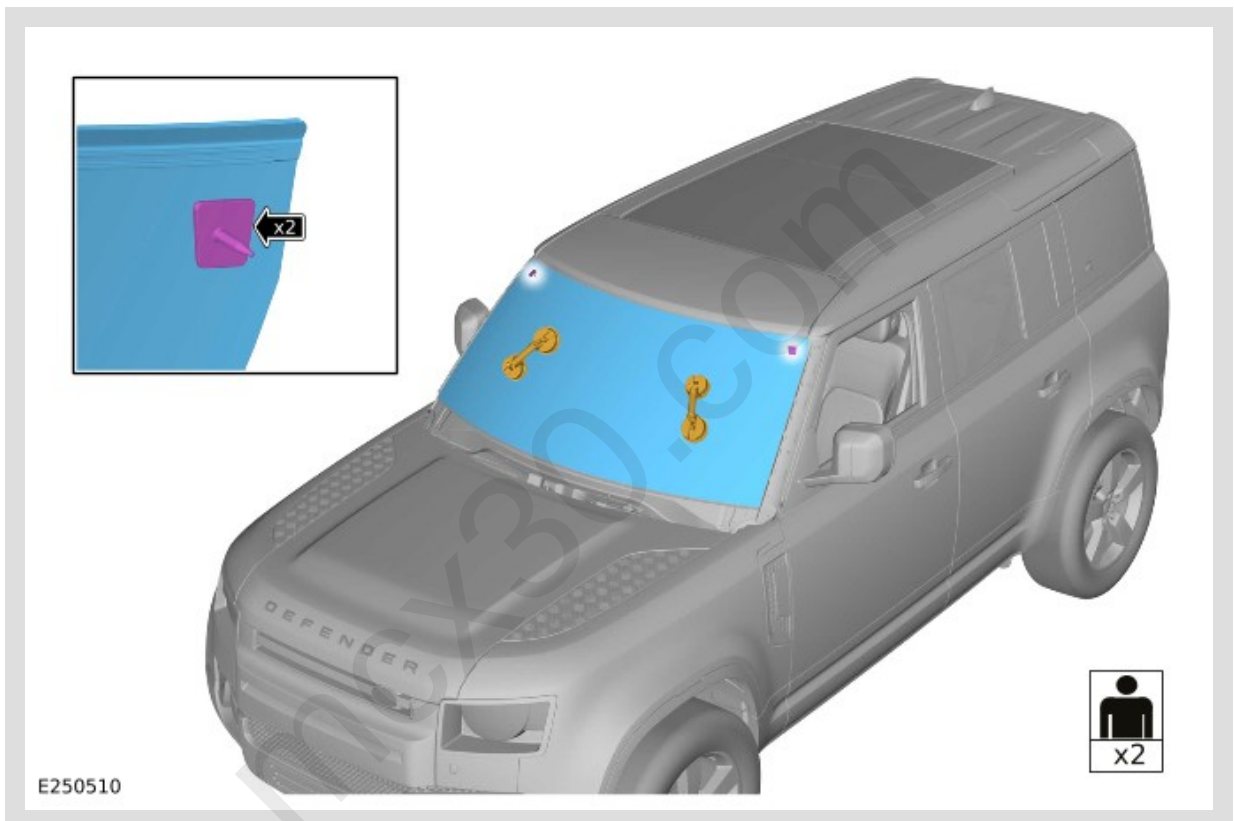
Follow the instructions included with the Jaguar Land Rover (JLR) PU adhesive sealant kit and apply sealant to the areas illustrated. Make sure to use Polyurethane SIKA JLR-5, or if not available use an equivalent JLR approved PU adhesive kit.

⚠ WARNING:

This step requires the aid of another technician.

ⓘ CAUTIONS:

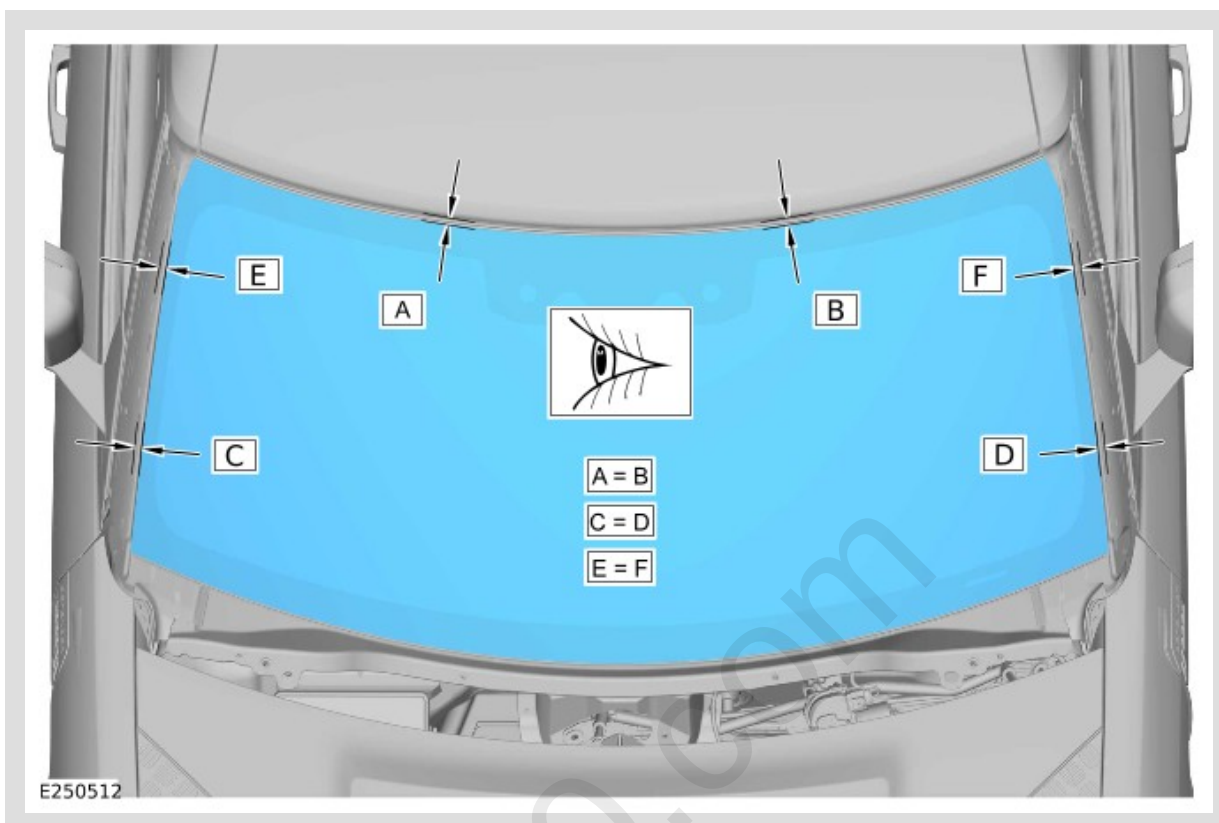
- Make sure that the PU adhesive only touches the body at the designated areas. New PU adhesive sealant needs to be applied to the windshield if the PU adhesive sealant is accidentally disturbed.
- Make sure that no excess sealant residue is evident.
- Make sure to apply even pressure along the edges of the windshield.



With assistance, install the windshield.

ⓘ CAUTION:

Make sure that no excess sealant residue is evident.

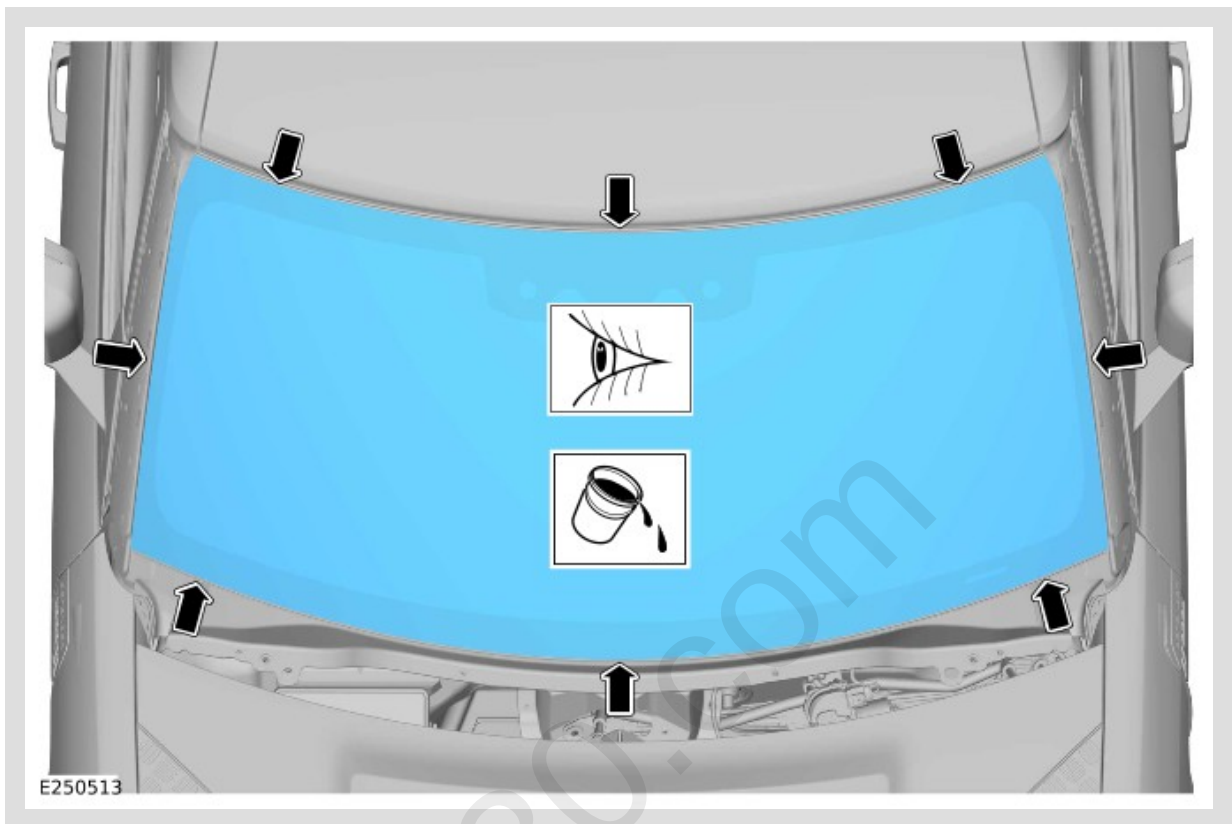


Check if the gaps around the edges of the windshield are even.

6.

⚠ CAUTIONS:

- Wait at least 2 hours to allow the PU adhesive to dry before applying water to the windshield.
- Do not use high pressure water equipment to complete this step.



- Apply water around the windshield at the areas illustrated. Mark any area that shows water ingress.
- If the check fails and water ingress is evident, remove the windshield and repeat the installation procedure. Do not attempt to apply additional sealant to areas that show water ingress.

7. Release and connect the 4 windshield heater element electrical connectors.

8.

⚠ NOTE:

This step must be completed on both sides.

Install the A-pillar trim panel.

Refer to: [A-Pillar Trim Panel](#) (501-05 Interior Trim and Ornamentation, Removal and Installation).

9.

- Install the humidity sensor.
- Connect humidity sensor electrical connector.
- Install the wiring harness clip.
- Install the rain/light sensor.
- Install the rain/light sensor metal clip.
- Connect the rain/light sensor electrical connector.

10. Install the blanking cap.

11. Install the IPMA.

Refer to: [Image Processing Module A](#) (413-09 Warning Devices, Removal and Installation).

12.

 NOTE:

This step must be completed on both sides.

Install the windshield finisher.

Refer to: [Windshield Moulding](#) (501-11 Glass, Frames and Mechanisms, Removal and Installation).

13. Install the cowl panel.

Refer to: [Cowl Panel](#) (501-02 Front End Body Panels, Removal and Installation).

14.

 NOTE:

The drive cycle must not be completed in dark or foggy conditions. The vehicle must not be loaded. Use straight roads wherever possible. Do not travel closely to the vehicle in front.

- The 'Image Processing Module 'A' IPMA must be calibrated when a windshield is replaced the using the JLR approved diagnostic equipment.
- Select 'Image Processing Module 'A' IPMA'
- Select 'ECU Functions'
- Select ' IPMA Set-up application – Camera Calibration'
- Follow all on-screen instructions to complete this task.