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2020.0 DEFENDER (LE), 501-29

SIDE PANEL SHEET METAL REPAIRS

SIDE PANEL REINFORCEMENT REAR EXTENSION - 110 (G2394435)

mcx30.com

REMOVAL

The following step(s) applies to:

All vehicles

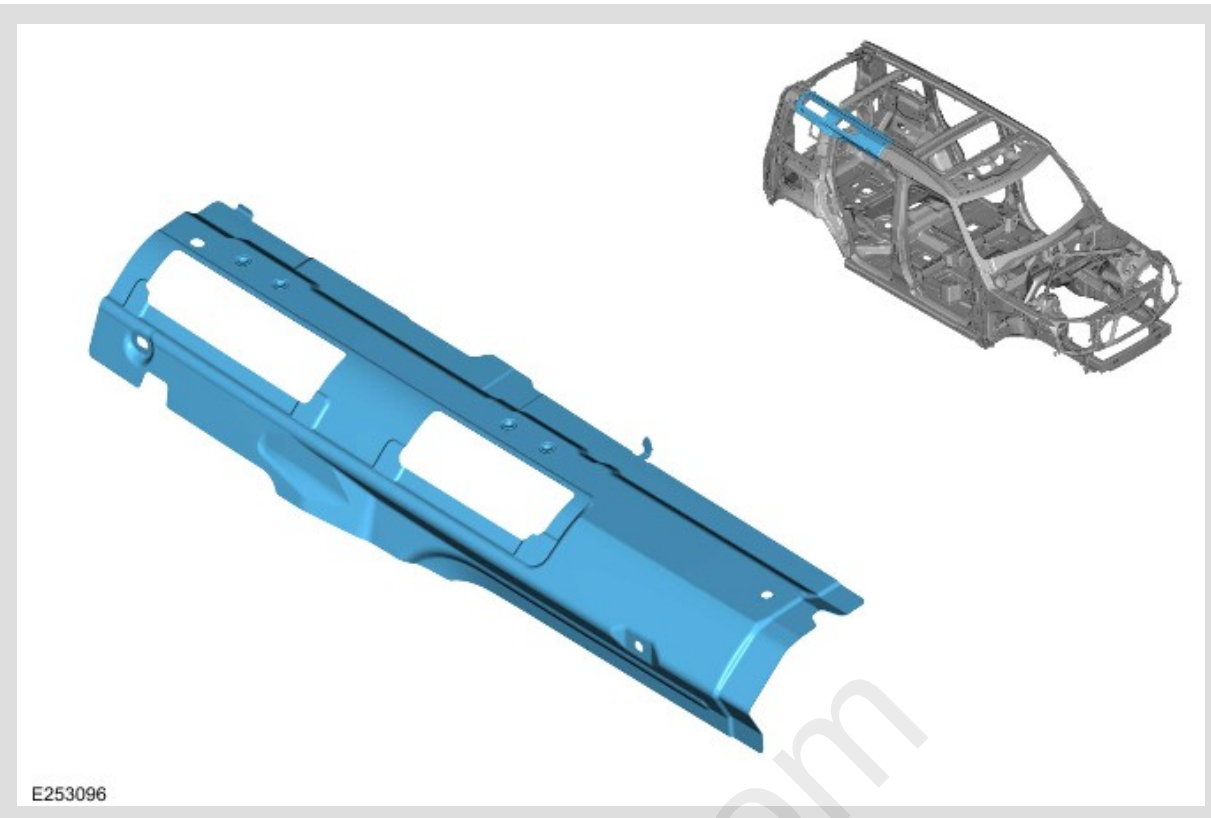


NOTE:

In this procedure the side panel reinforcement rear extension is installed in conjunction with:

- Side panel
- Rear header panel upper
- Roof panel opening frame
- Front center roof reinforcement panel
- Rear center roof reinforcement panel

1.



The side panel reinforcement rear extension is serviced as indicated.

2.

Before commencing this procedure make sure that you are aware of all Health and Safety requirements. Refer to: [Health and Safety Precautions](#) (100-00 General Information, Description and Operation).

3.



NOTES:

- Where Breakstem Fastener (BSF) removal is instructed remove the fastener shaft with a 4 mm punch and remove the head with a 6.5 mm drill bit. Clean all the drilled holes to make sure they are free from debris.
- Where Self Piercing Rivet (SPR) removal is instructed use either the Jaguar Land Rover (JLR) approved SPR tool or a 5.3 mm drill bit. Clean all the drilled holes to make sure they are free from debris.
- Where Flow Form Rivet (FFR) removal is instructed, remove the head and then remove the shaft with a punch. Clean the holes to make sure they are free from debris.
- Any joints sealed as part of vehicle manufacture must be sealed as part of the repair.

When installing the side panel reinforcement rear extension make sure that you are aware of the methods, tools and fixings used in this procedure.

Refer to: [Body Repairs](#) (501-25A Body Repairs - General Information, Description and Operation).

Refer to: [Adhesives, Fixings and Consumables](#) (501-25A Body Repairs - General Information, Description and Operation).

4. For additional information on the fixings required to complete this procedure
Refer to: [Specifications - 110](#) (501-29 Side Panel Sheet Metal Repairs, Specifications).

5. For additional removal information.
Refer to: [Side Panel - 110](#) (501-29 Side Panel Sheet Metal Repairs, Removal and Installation).

6. For additional removal information.
Refer to: [Rear Header Panel Upper - 110](#) (501-28 Roof Sheet Metal Repairs, Removal and Installation).

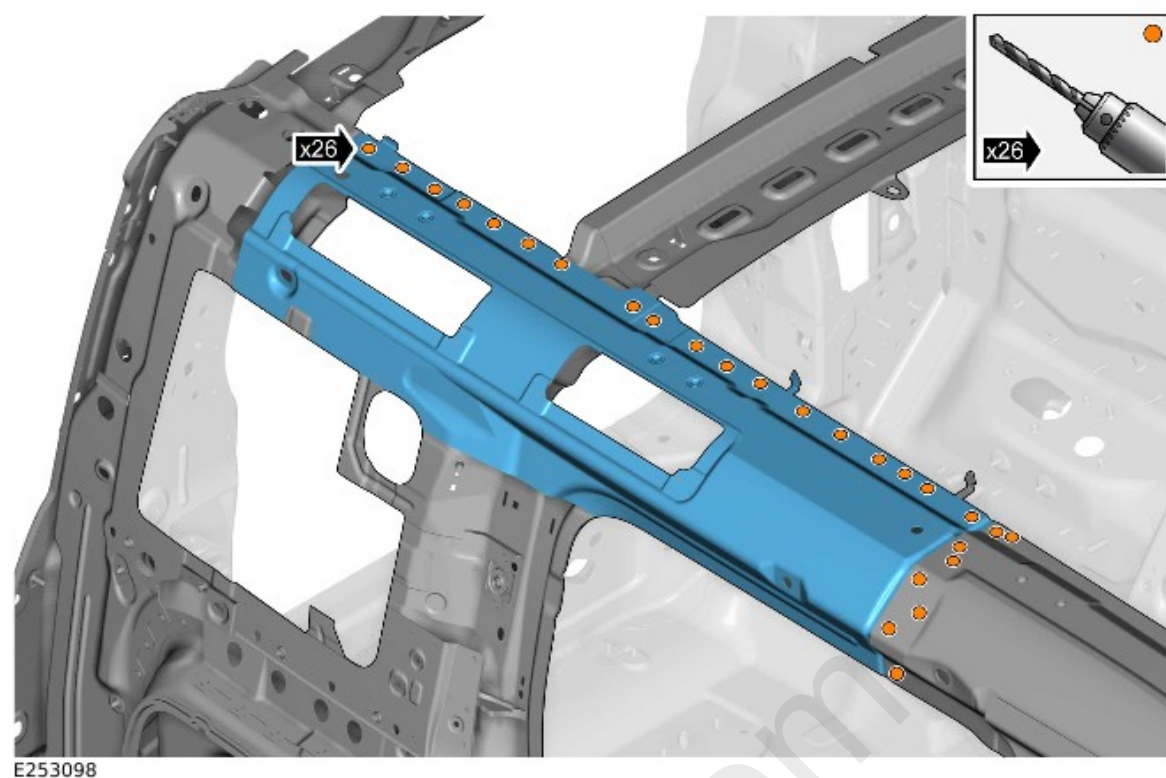
7. For additional removal information.
Refer to: [Roof Opening Panel Frame](#) (501-17 Roof Opening Panel, Removal and Installation).

8. For additional removal information.
Refer to: [Front Center Roof Reinforcement Panel - Vehicles Without: Roof Opening Panel](#) (501-28 Roof Sheet Metal Repairs, Removal and Installation).

9. For additional removal information.
Refer to: [Rear Center Roof Reinforcement Panel - Vehicles Without: Roof Opening Panel](#) (501-28 Roof Sheet Metal Repairs, Removal and Installation).

10. Release and position the wiring harness to one side.

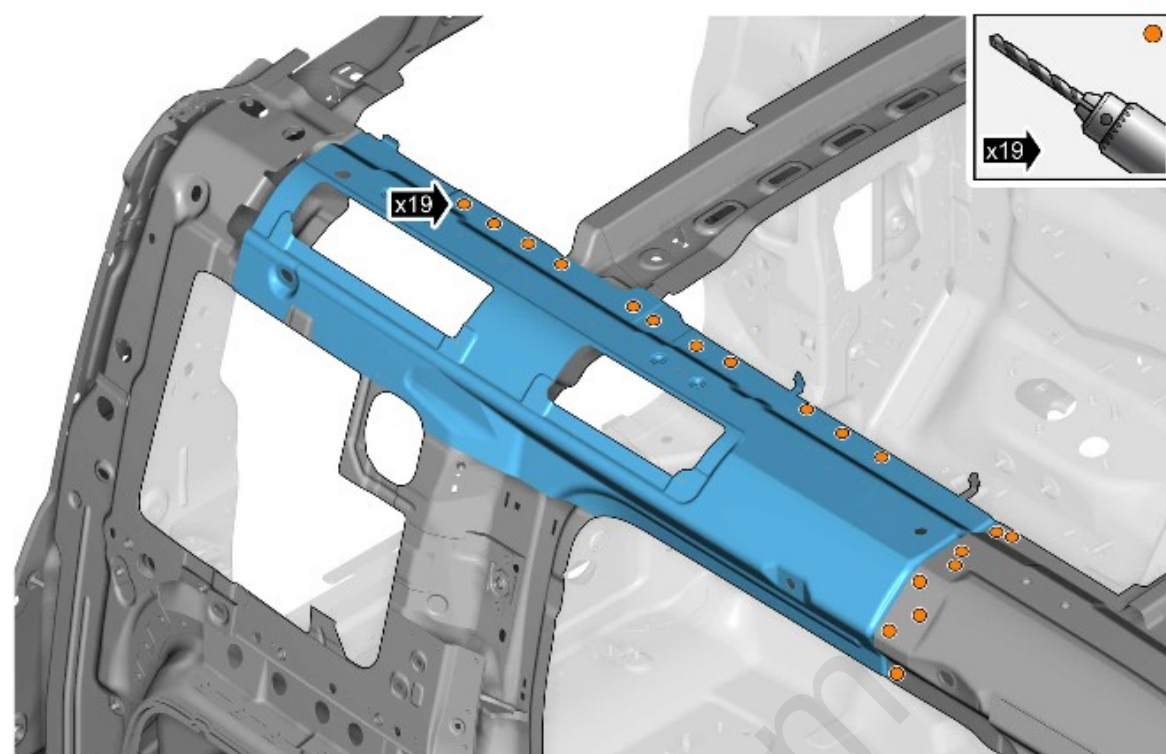
The following step(s) applies to:
Vehicles with roof opening panel



Remove the Self Piercing Rivets (SPRs) as indicated.

The following step(s) applies to:

Vehicles without roof opening panel



E253097

Remove the SPRs as indicated.

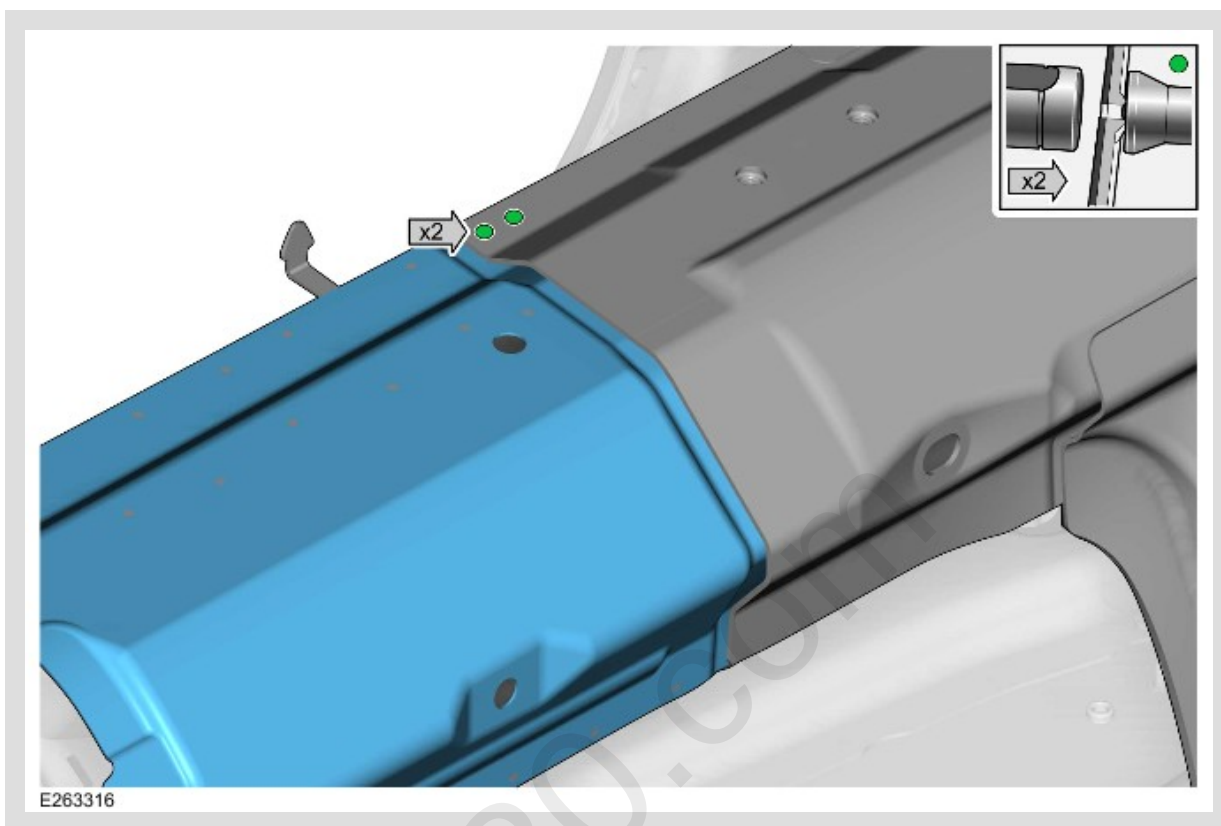
The following step(s) applies to:

All vehicles

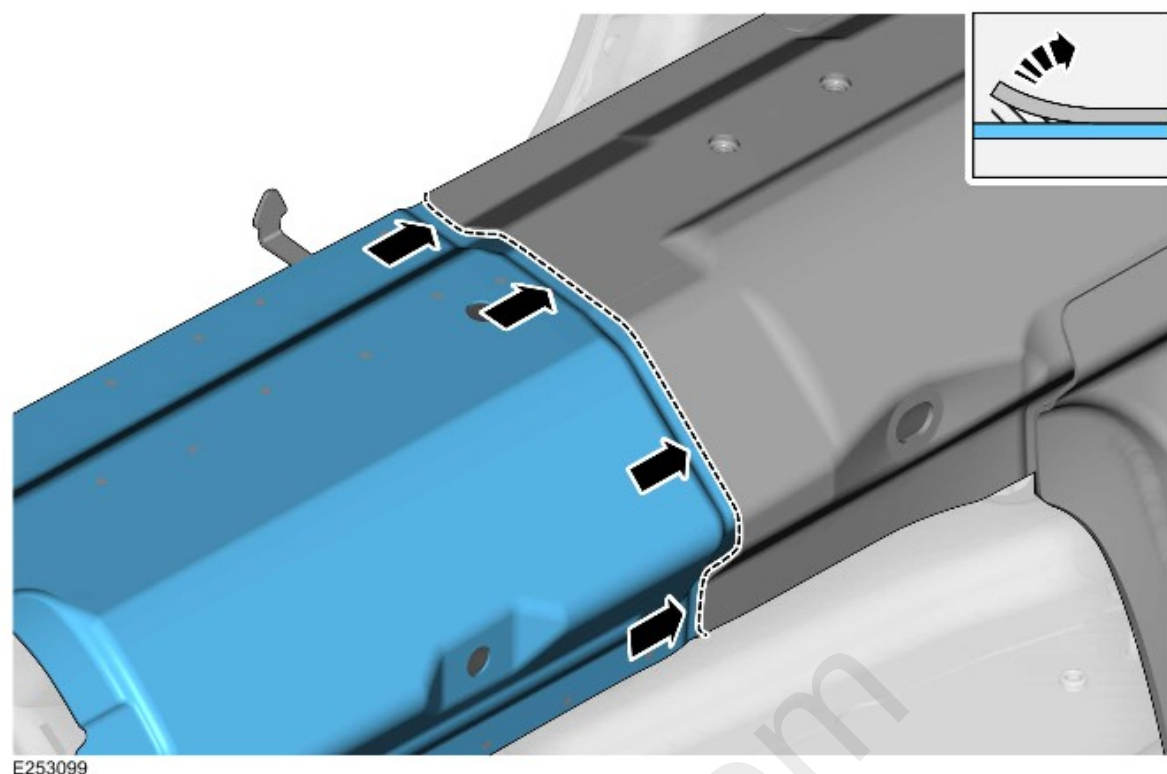
13.

 NOTE:

Where Flow Form Rivet (FFR) installation is indicated. Make sure that the panel is planished before removal.



Planish the panel as indicated.

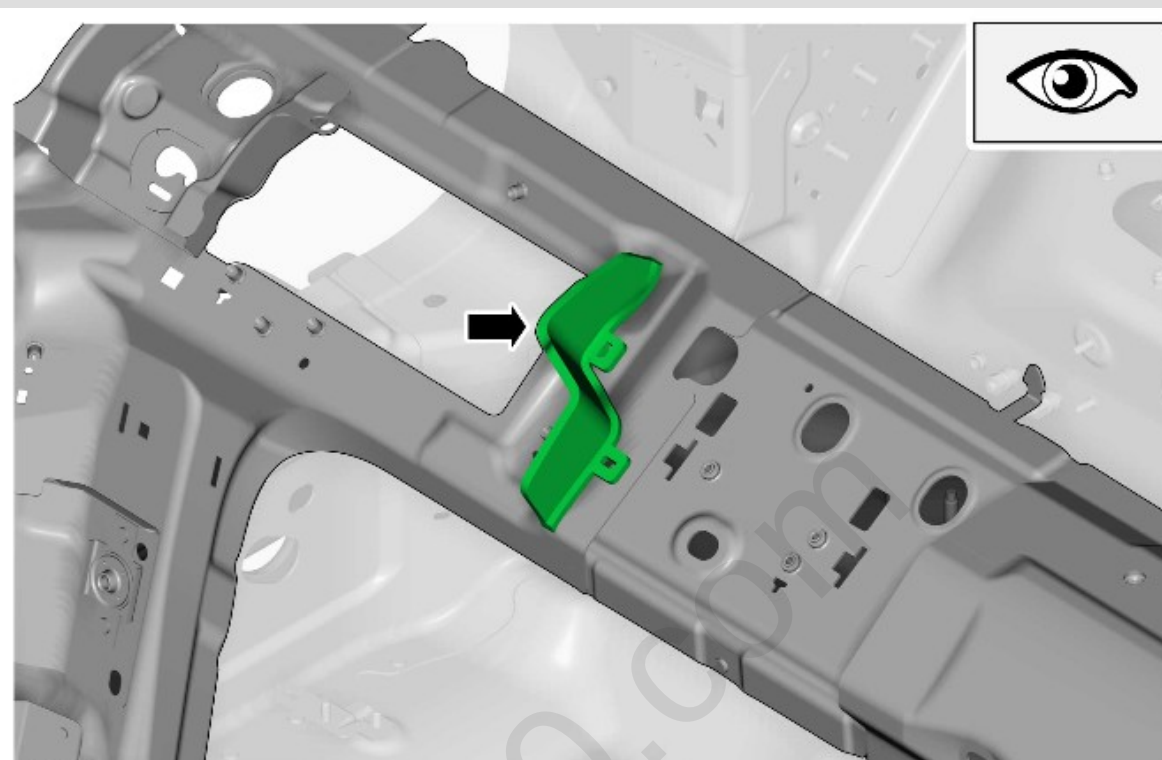


Build an expansion space as indicated.

15.

NOTE:

Avoid where possible damaging the Noise, Vibration and Harshness (NVH) material located behind the side panel reinforcement rear extension.



E253100

Carefully separate the joints and remove the side panel reinforcement rear extension.

INSTALLATION

The following step(s) applies to:

All vehicles

CAUTION:

Where structural adhesive is to be applied between surfaces it is essential compression is applied to the joints during the curing period.

NOTES:

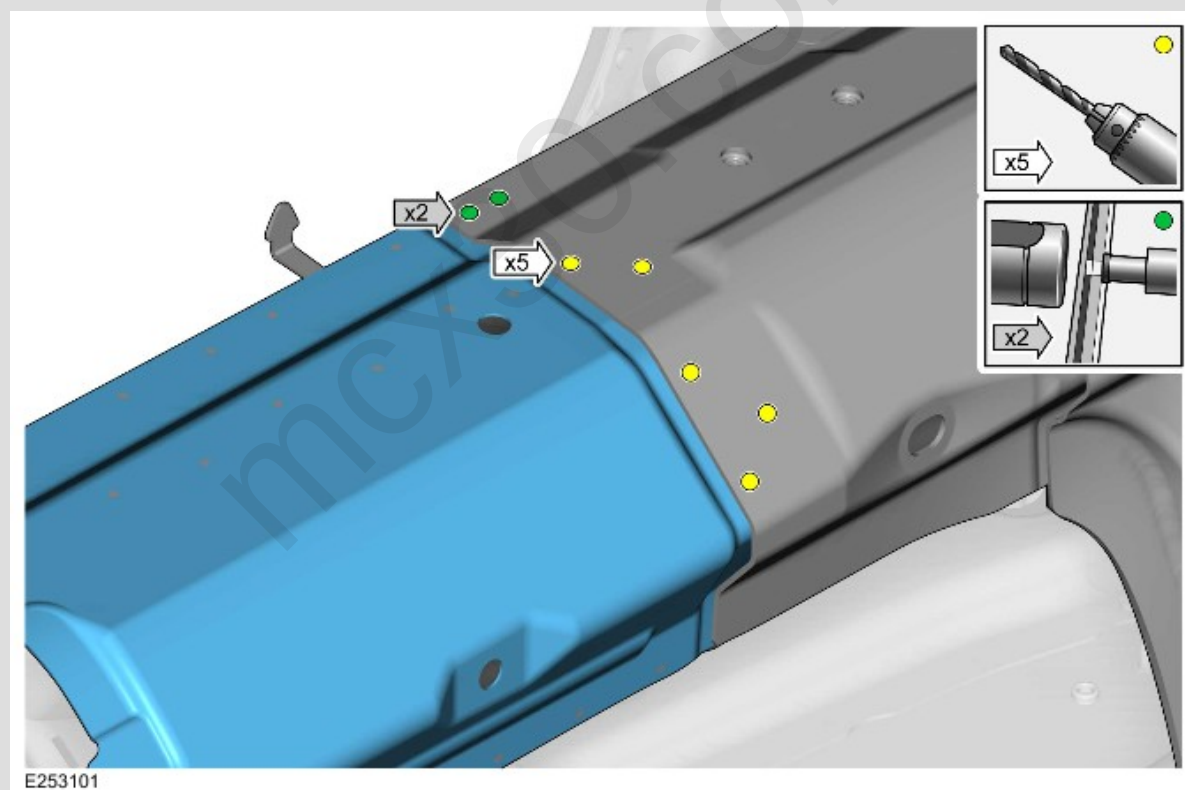
- Breakstem Fastener (BSF) installation involves using the JLR approved BSF installation tool and requires a hole diameter of 6.5 mm.
- Self Piercing Rivet (SPR) installation requires using the JLR approved SPR tool.
- Flow Form Rivet (FFR) installation requires using the JLR approved FFR installation tool.
- Refer to Adhesive, Fixings and Consumables for further information on Flow Form Rivets (FFRs).

1. Remove the rivet remnants.

2. Dress the flanges where necessary.

3. Offer up the new side panel reinforcement rear extension and clamp into position. Check alignment, if correct proceed to next step, if not rectify and check the alignment again before proceeding.

4.

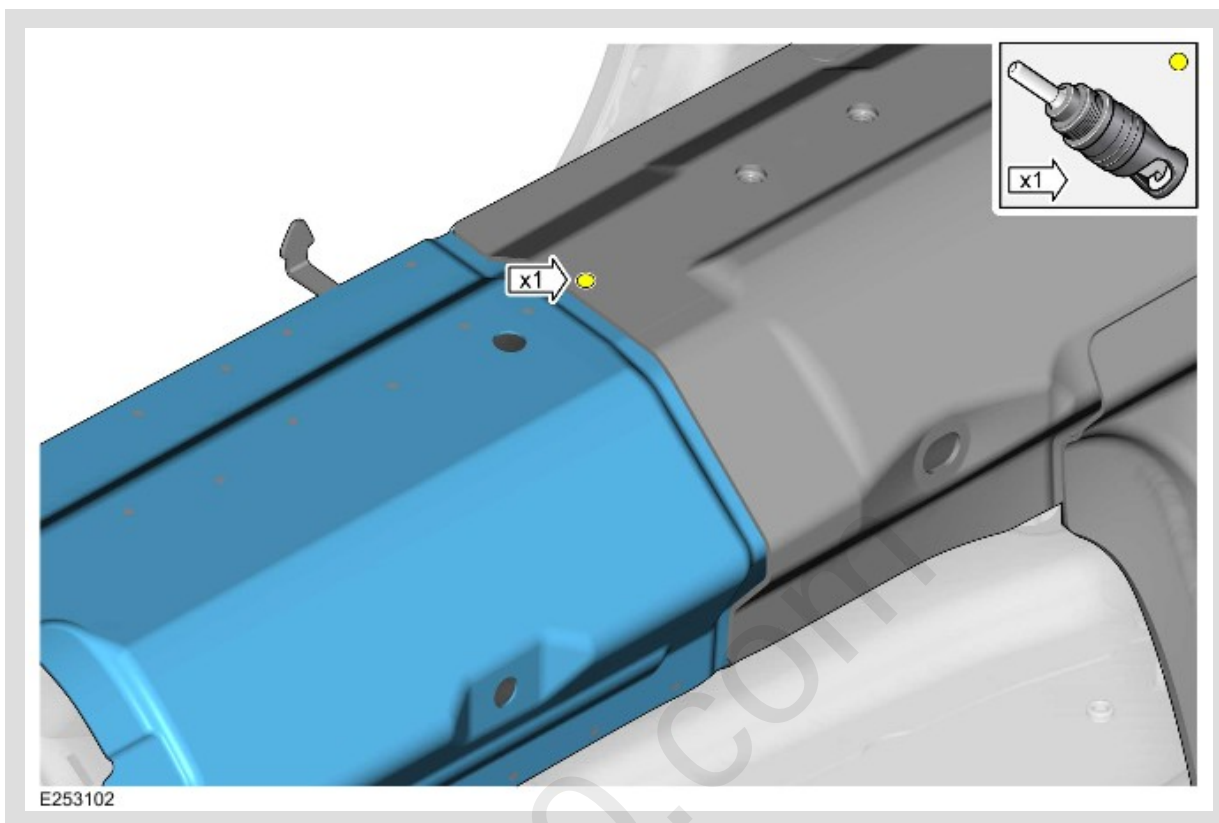


Drill holes where the Breakstem Fasteners (BSFs) are to be installed as indicated. Punch calibrated holes where the Flow Form Rivets (FFRs) are to be installed as indicated.

5.

 NOTE:

Make sure that the JLR recommended countersink tool is used for this step.



Countersink the holes to a depth of 2 mm as indicated.

6. Remove the new side panel reinforcement rear extension.

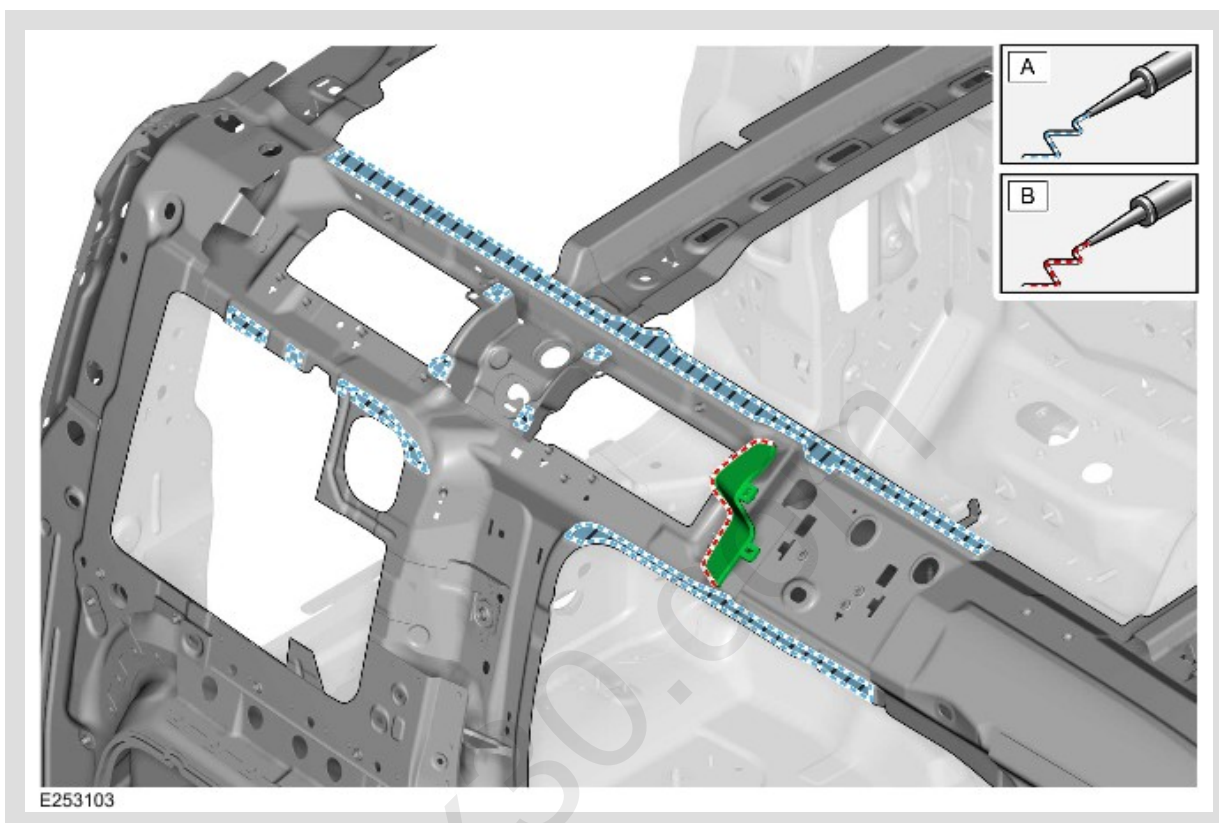
7. Deburr the drilled holes.

8. Clean and prepare the panel surfaces.

NOTE:

Make sure a continuous bead of adhesive surrounds the fixing holes.

- A: Apply a 5 mm zig zag bead of JLR recommended bonding material as indicated.
- B: Apply a 5 mm zig zag bead of JLR recommended flexible sealant as indicated.

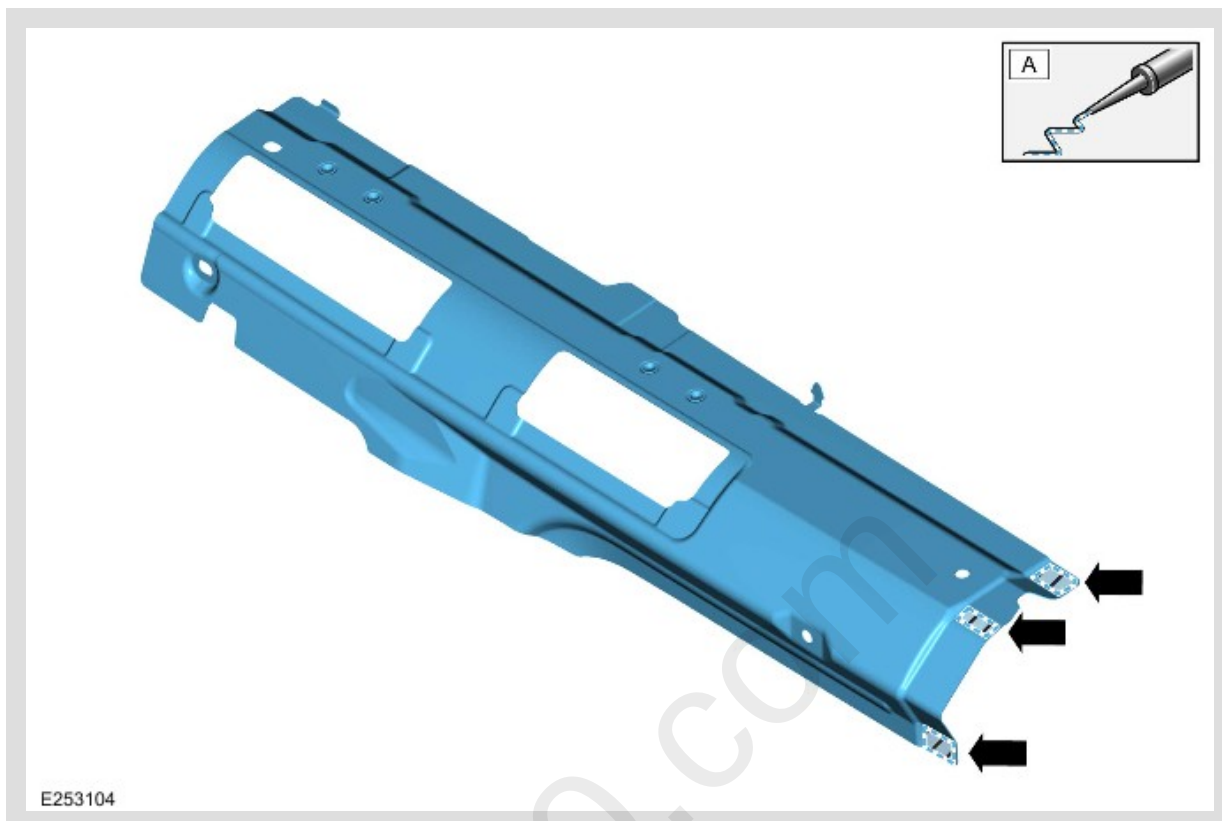


Apply a 5 mm zig zag bead of the JLR recommended bonding material as indicated.

10.

 NOTE:

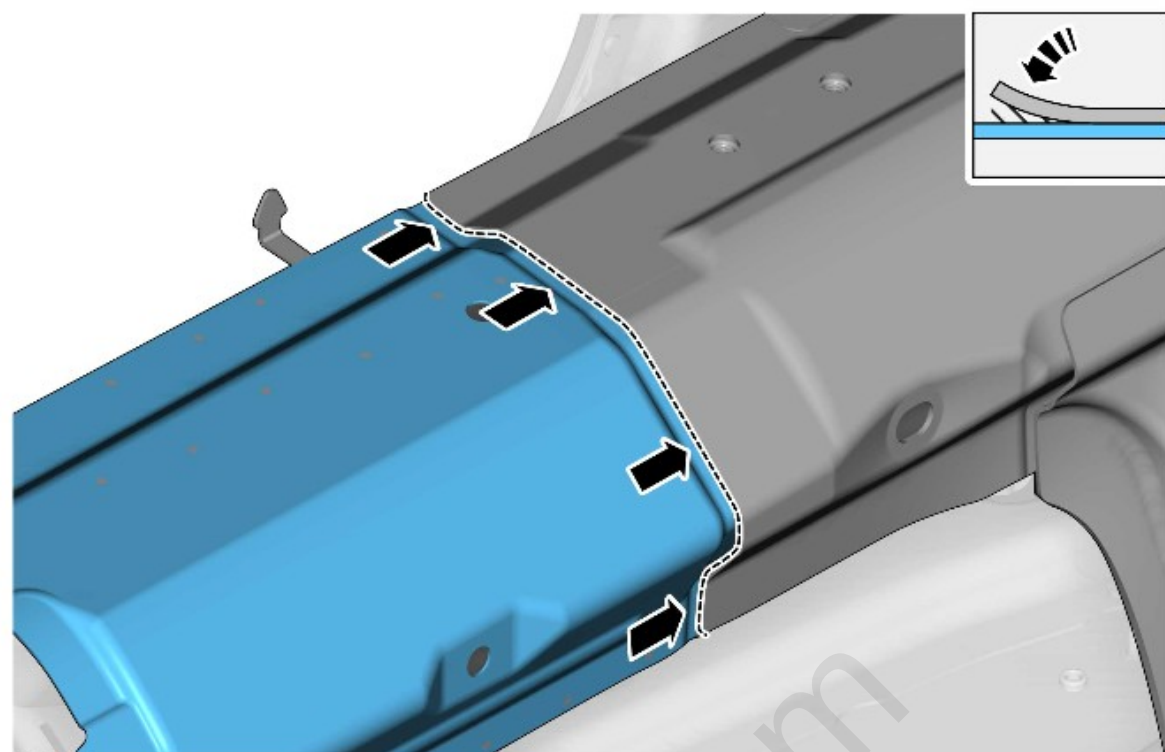
Make sure a continuous bead of adhesive surrounds the fixing holes.



Apply a 5 mm zig zag bead of the JLR recommended bonding material as indicated.

11.

Offer up the new side panel reinforcement rear extension and clamp into position. Check alignment, if correct proceed to next step, if not rectify and check the alignment again before proceeding.

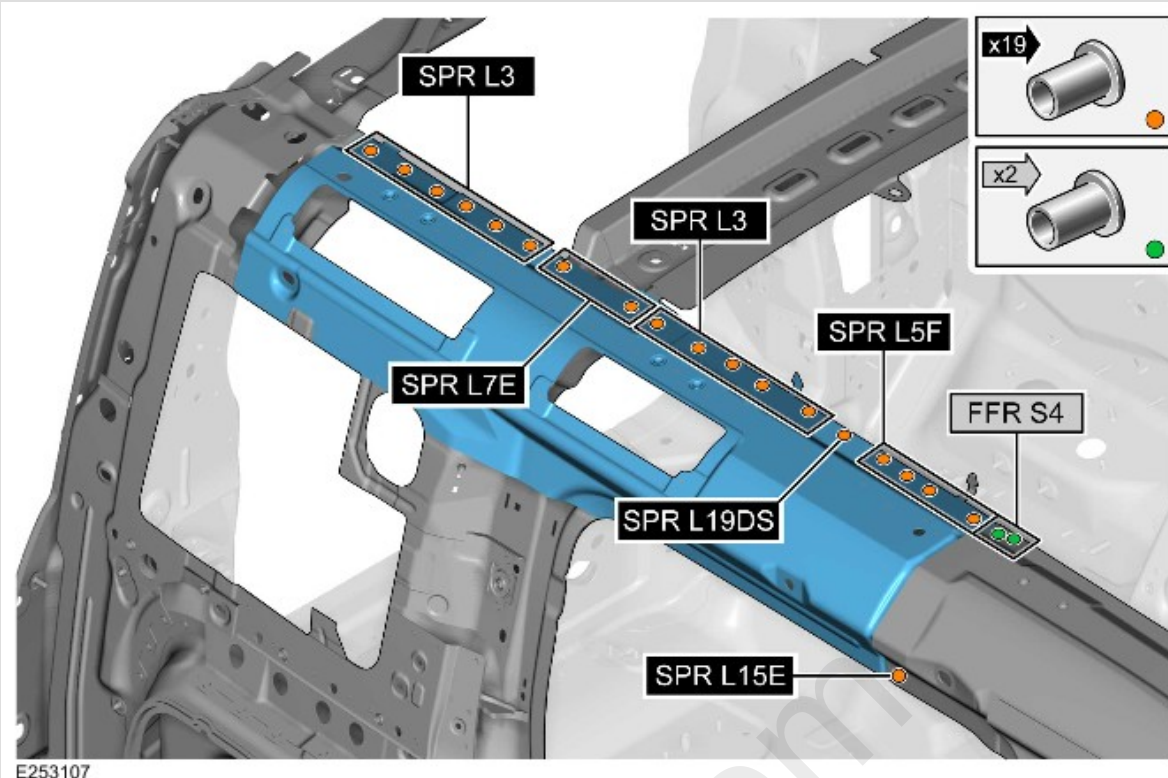


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Close the expansion space as indicated.

The following step(s) applies to:

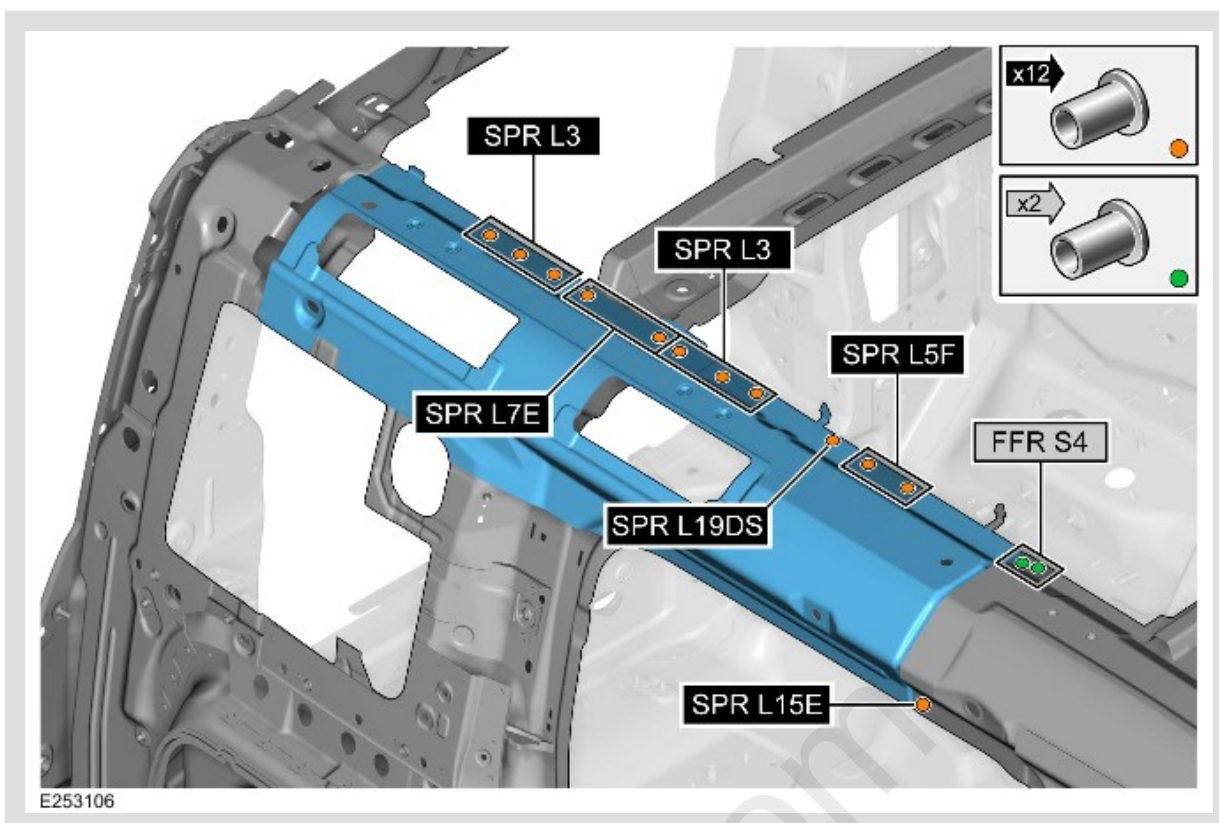
Vehicles with roof opening panel



Install the FFRs and Self Piercing Rivets (SPRs) as indicated.

The following step(s) applies to:

Vehicles without roof opening panel

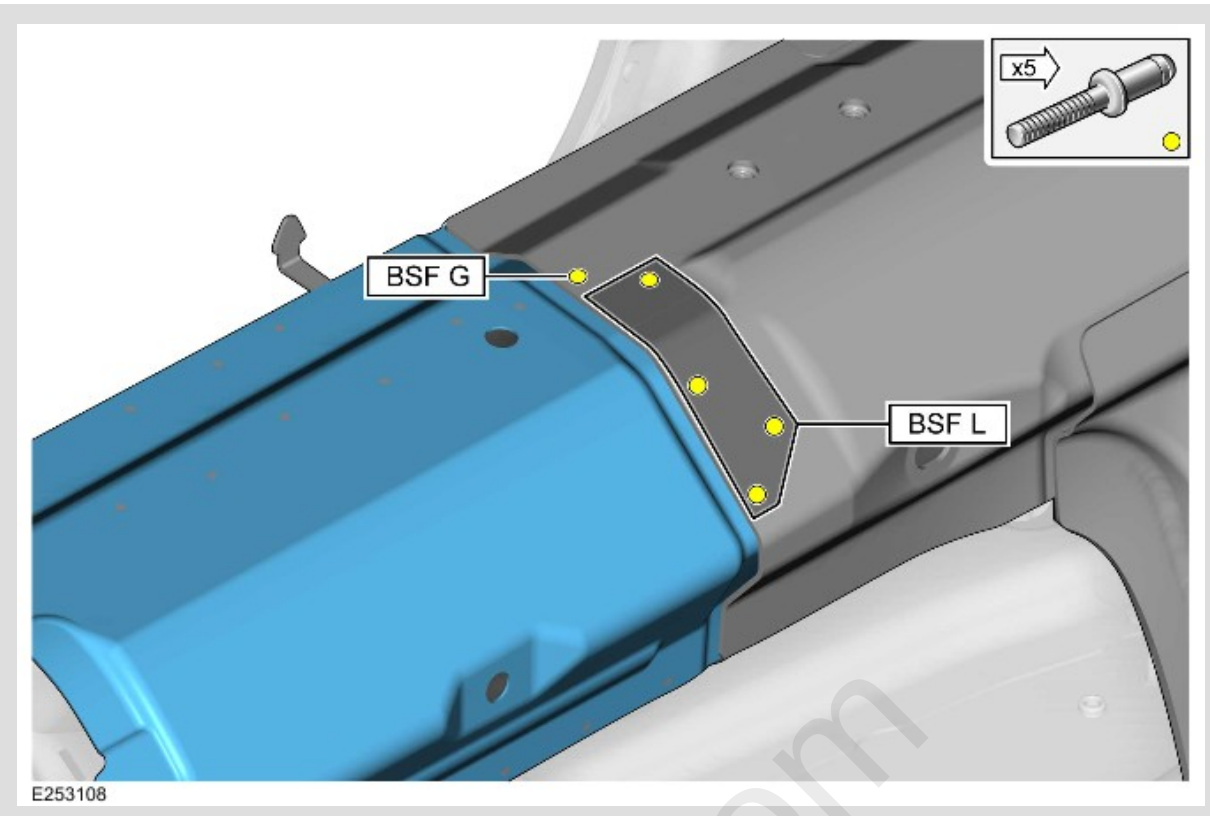


Install the FFRs and SPRs as indicated.

The following step(s) applies to:

All vehicles

15.



Install the BSFs as indicated.

16. Remove any excess adhesive.

17. Make sure that any open or exposed panel joints are correctly sealed.

18. Make sure corrosion protection is applied to all areas affected by the repair.

19. Make sure that all installed fixings are sealed using a JLR recommended sealer.



NOTE:

The installation of associated panels and components is the reversal of the removal procedure.

20. For additional installation information.

Refer to: [Rear Center Roof Reinforcement Panel - Vehicles Without: Roof Opening Panel](#) (501-28 Roof Sheet Metal Repairs, Removal and Installation).

21. For additional installation information.

Refer to: [Front Center Roof Reinforcement Panel - Vehicles Without: Roof Opening Panel](#) (501-28 Roof Sheet Metal Repairs, Removal and Installation).

22. For additional installation information.

Refer to: [Roof Opening Panel Frame](#) (501-17 Roof Opening Panel, Removal and Installation).

23. For additional installation information.

Refer to: [Rear Header Panel Upper - 110](#) (501-28 Roof Sheet Metal Repairs, Removal and Installation).

24. For additional installation information.

Refer to: [Side Panel - 110](#) (501-29 Side Panel Sheet Metal Repairs, Removal and Installation).