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2020.0 DEFENDER (LE), 501-30

REAR END SHEET METAL REPAIRS

INNER QUARTER PANEL ASSEMBLY - 110 (G2394499)

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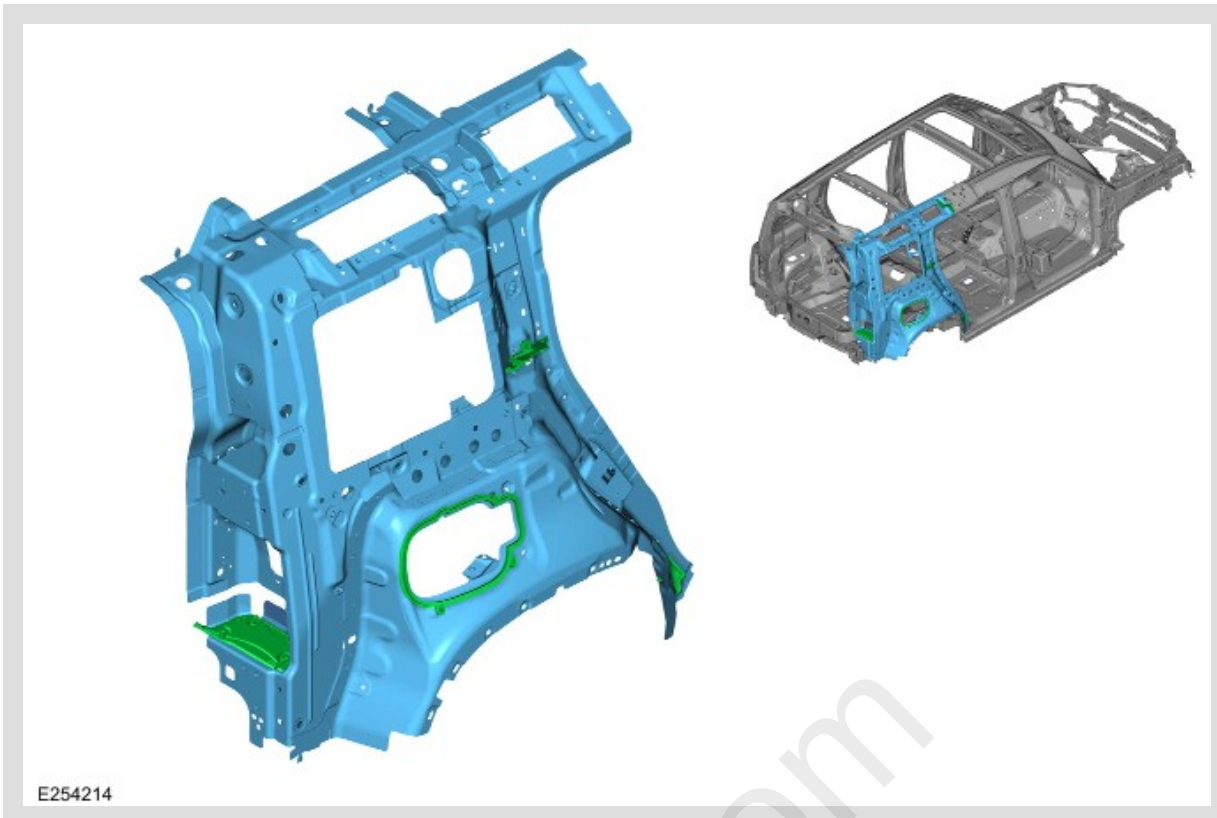
REMOVAL

 NOTE:

In this procedure, the inner quarter panel assembly is installed in conjunction with:

- Rear header panel upper
- Rear center roof reinforcement panel
- Rear roof reinforcement panel
- Side panel
- Outer tail lamp outer panel
- Back panel outer
- Rear wheelhouse lower rear extension
- Side panel reinforcement rear extension.

1.



The inner quarter panel assembly 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.

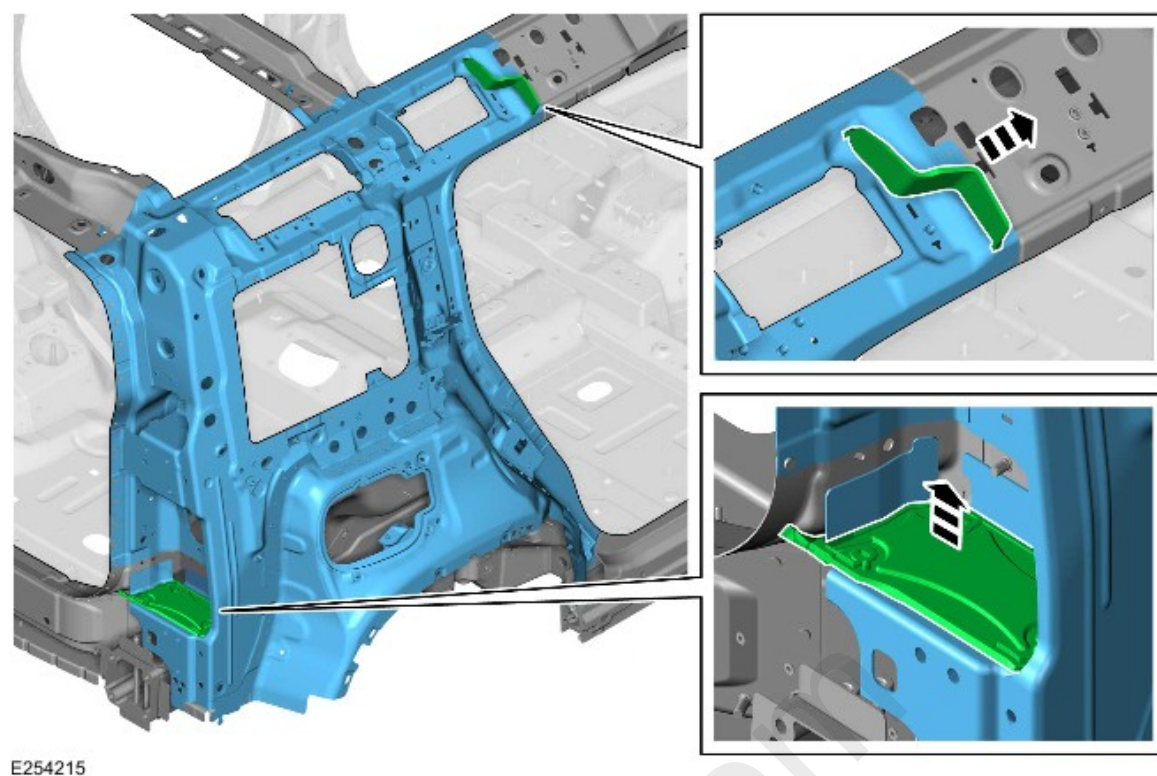
When installing the inner quarter panel assembly make sure that you are aware of the methods, tools and fixings used in this procedure.

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).

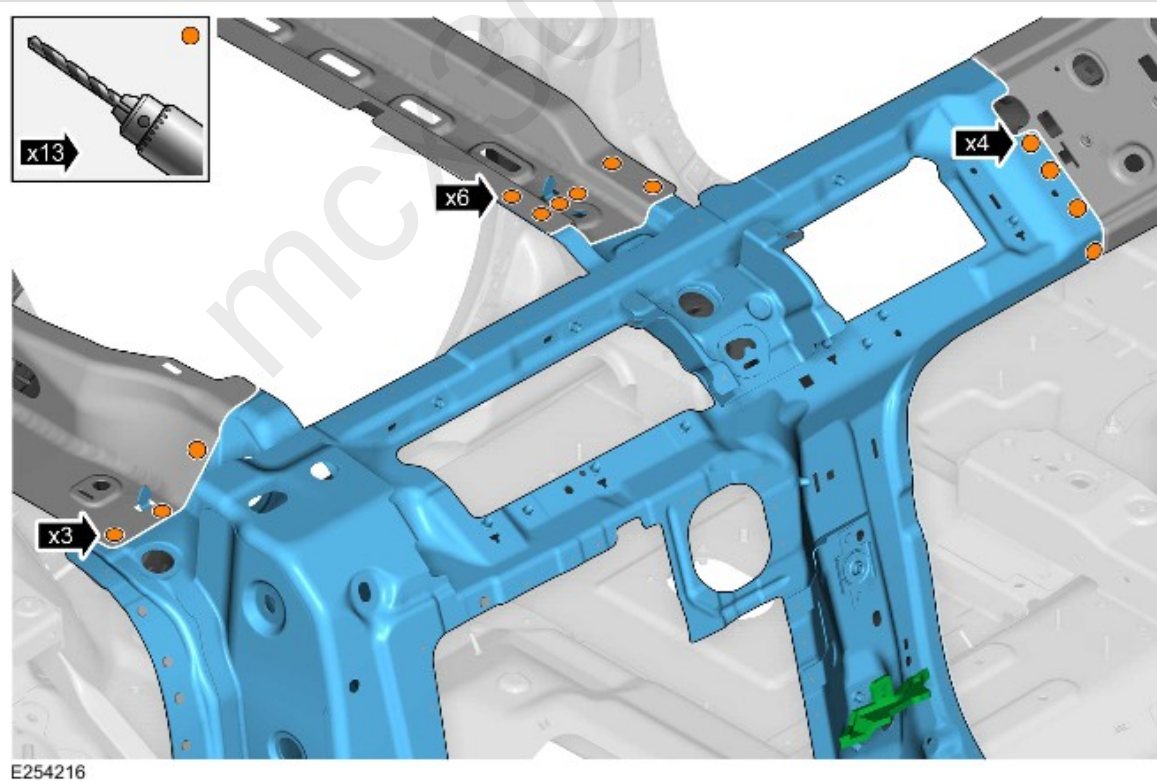
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4. For additional information on the fixings required to complete this procedure
Refer to: [Specifications - 110](#) (501-30 Rear End Sheet Metal Repairs, Specifications).
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5. For additional removal information
Refer to: [Rear Header Panel Upper - 110](#) (501-28 Roof Sheet Metal Repairs, Removal and Installation).
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6. 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).
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7. For additional removal information
Refer to: [Rear Roof Reinforcement Panel - 110, Vehicles With: Roof Opening Panel](#) (501-28 Roof Sheet Metal Repairs, Removal and Installation).
Refer to: [Rear Roof Reinforcement Panel - 110, Vehicles Without: Roof Opening Panel](#) (501-28 Roof Sheet Metal Repairs, Removal and Installation).
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8. For additional removal information
Refer to: [Side Panel - 110](#) (501-29 Side Panel Sheet Metal Repairs, Removal and Installation).
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9. For additional removal information
Refer to: [Outer Tail Lamp Outer Panel Right Side - 110](#) (501-30 Rear End Sheet Metal Repairs, Removal and Installation).
Refer to: [Outer Tail Lamp Outer Panel Left Side - 110](#) (501-30 Rear End Sheet Metal Repairs, Removal and Installation).
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10. For additional removal information
Refer to: [Back Panel Outer - 110](#) (501-30 Rear End Sheet Metal Repairs, Removal and Installation).
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11. For additional removal information
Refer to: [Rear Wheelhouse Lower Rear Extension - 110](#) (501-30 Rear End Sheet Metal Repairs, Removal and Installation).
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12. For additional removal information
Refer to: [Side Panel Reinforcement Rear Extension - 110](#) (501-29 Side Panel Sheet Metal Repairs, Removal and Installation).
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13. Release and position the wiring harness to one side.
-

14.



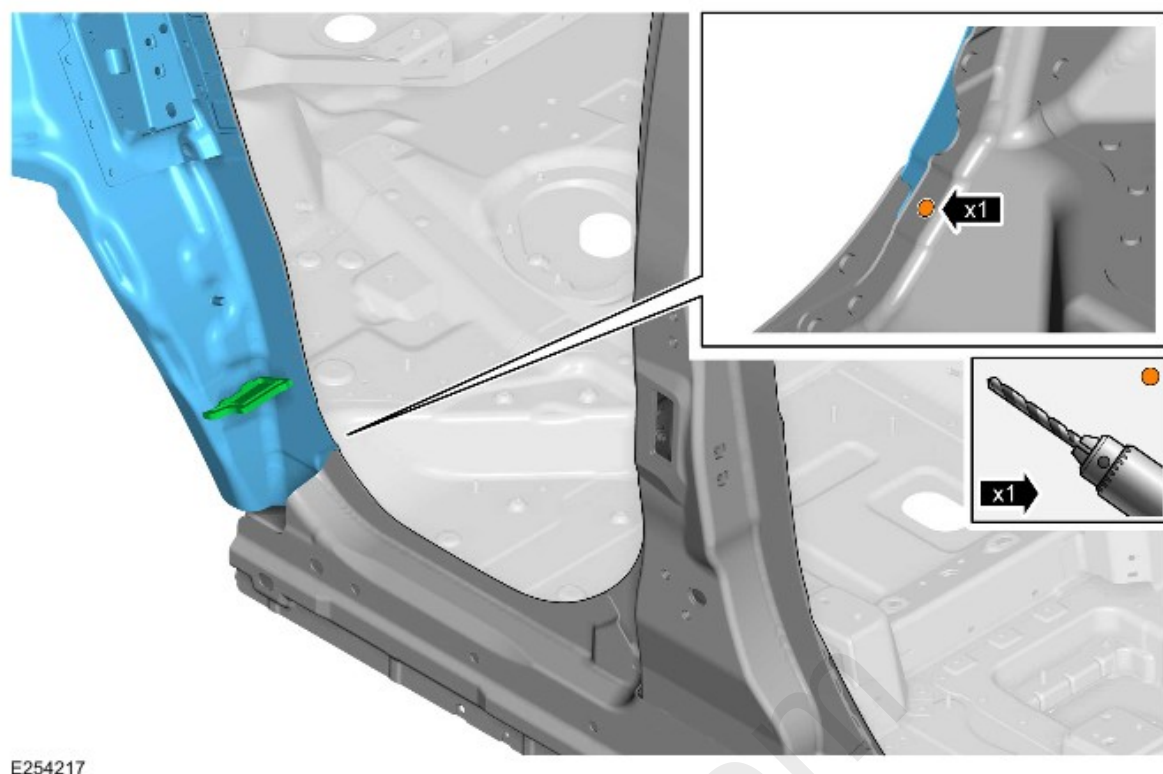
Remove the Noise, Vibration and Harshness (NVH) material as indicated.

15.



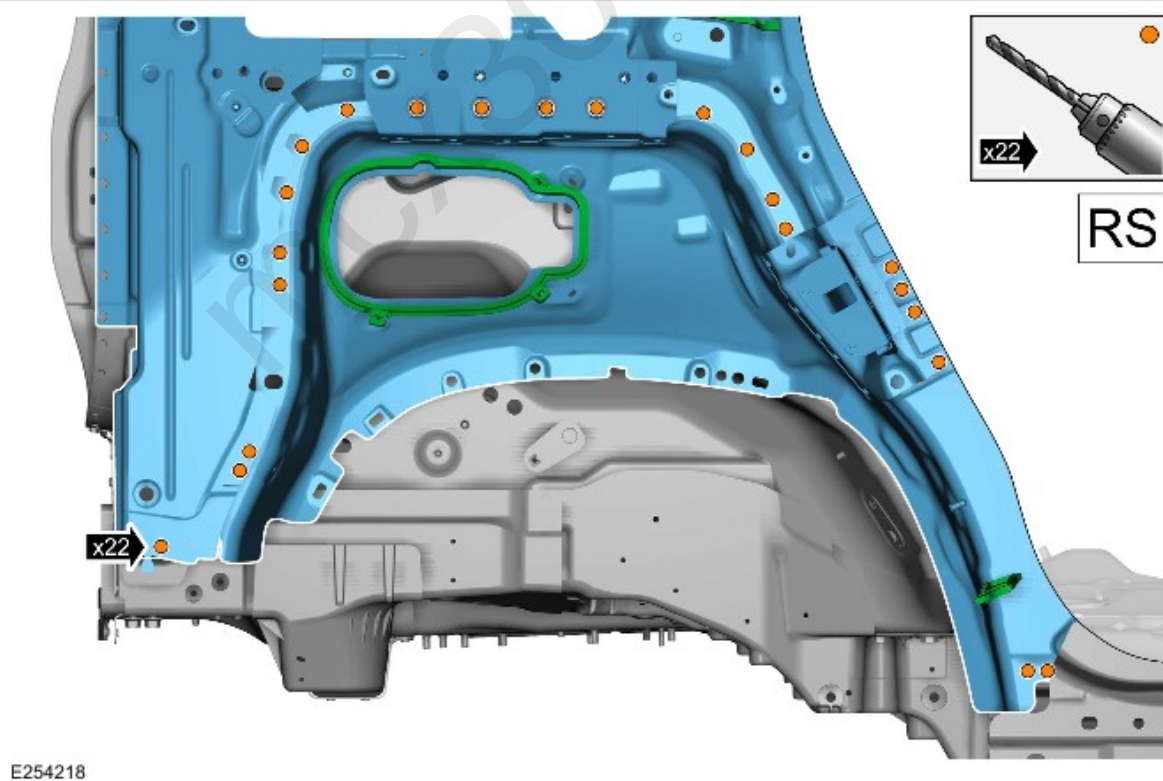
Remove the Self Piercing Rivets (SPRs) as indicated.

16.



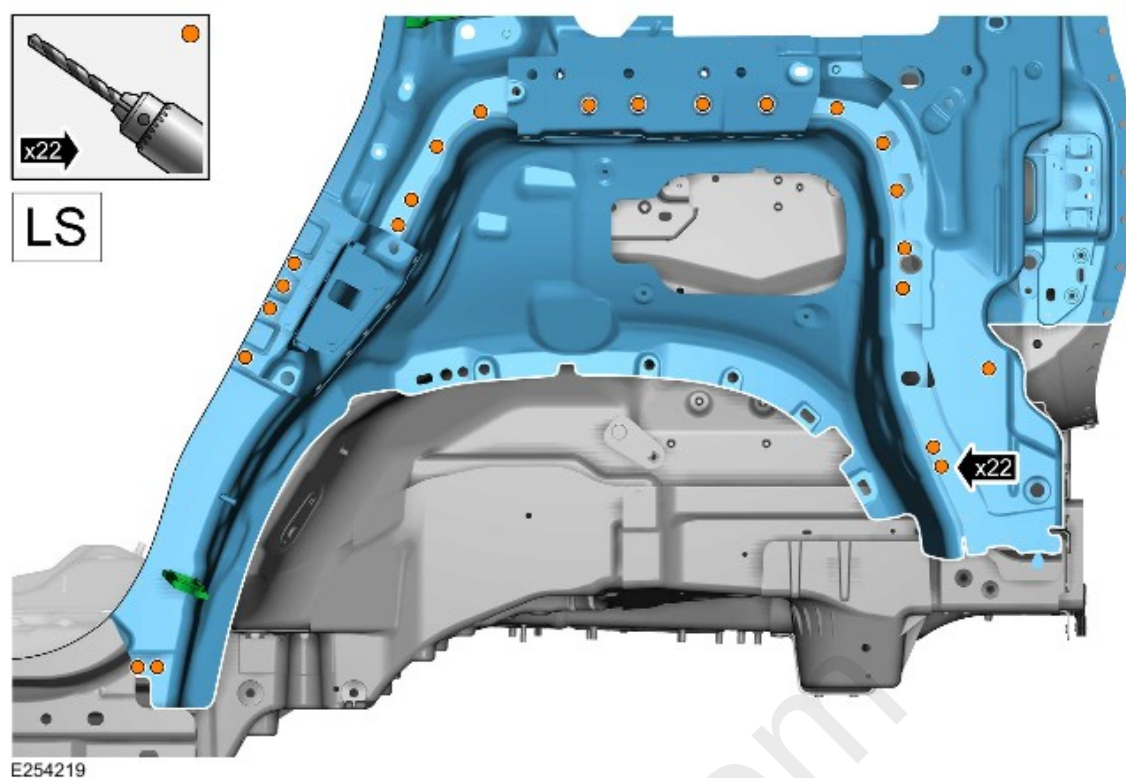
Remove the SPR as indicated.

17.



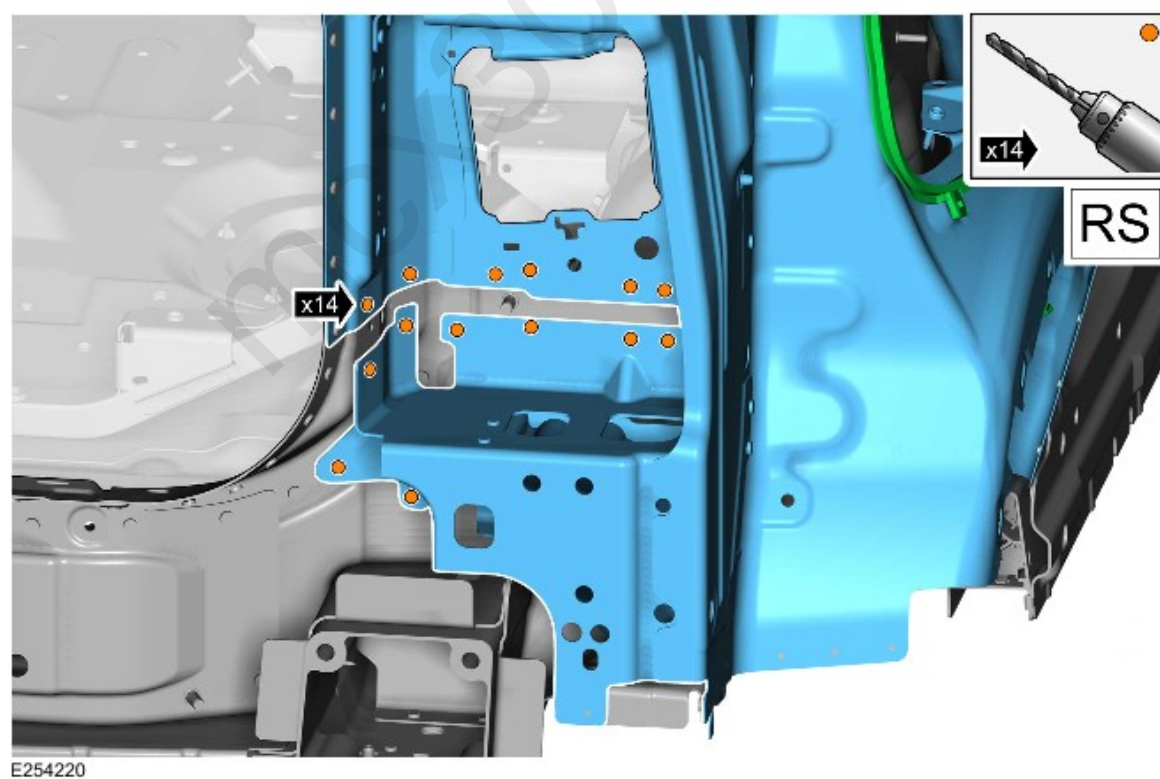
Remove the SPRs as indicated.

18.

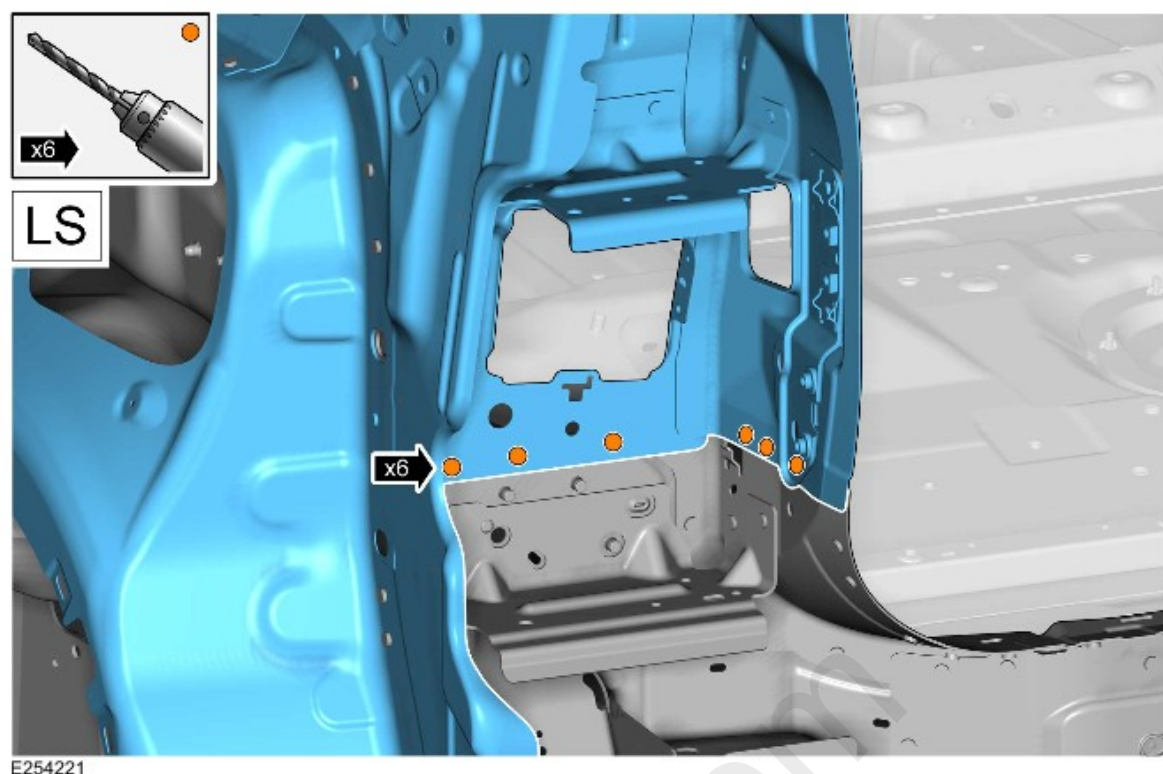


Remove the SPRs as indicated.

19.



Remove the SPRs as indicated.

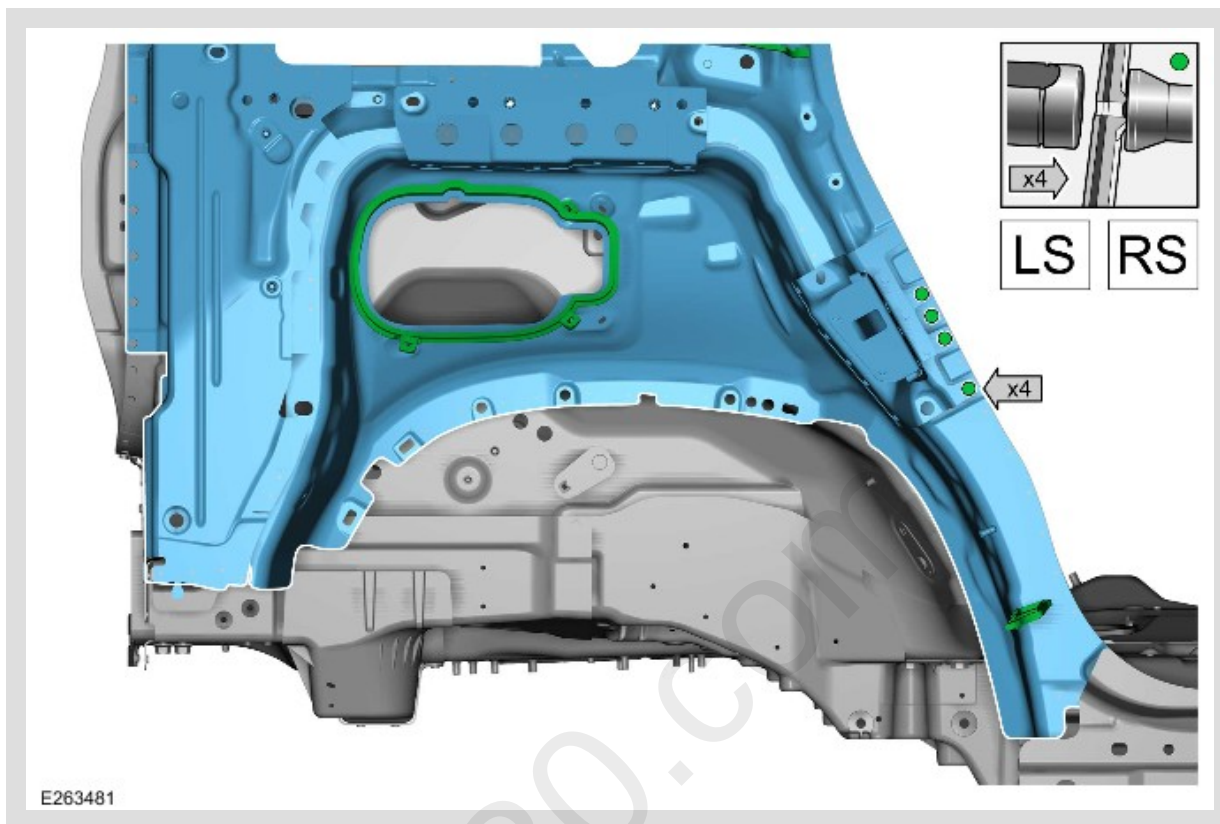


Remove the SPRs as indicated.

21.

 NOTE:

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



Planish the panel as indicated.

22.



 CAUTION:

This step will require the aid of another technician as the panel will be heavy.

Carefully separate the joints and remove the inner quarter panel assembly.

INSTALLATION

 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 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.

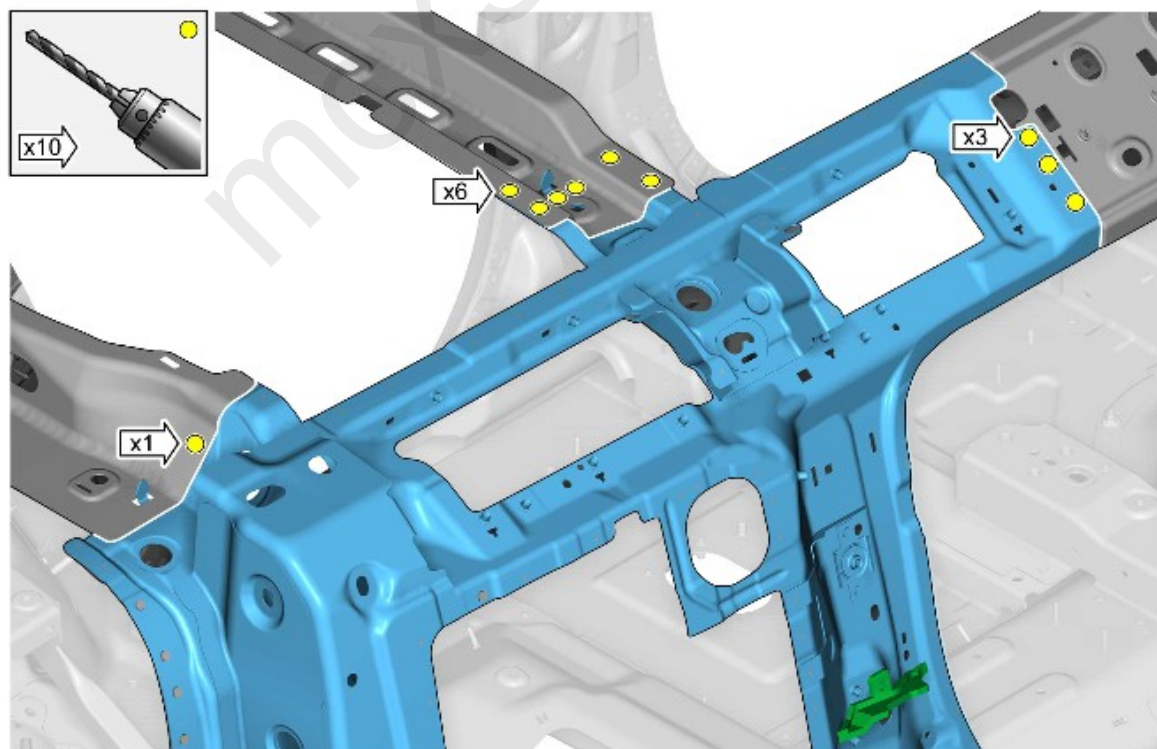


CAUTION:

This step will require the aid of another technician as the panel will be heavy.

Offer up the new inner quarter panel assembly and clamp into position. Check alignment, if correct proceed to next step, if not rectify and check the alignment again before proceeding.

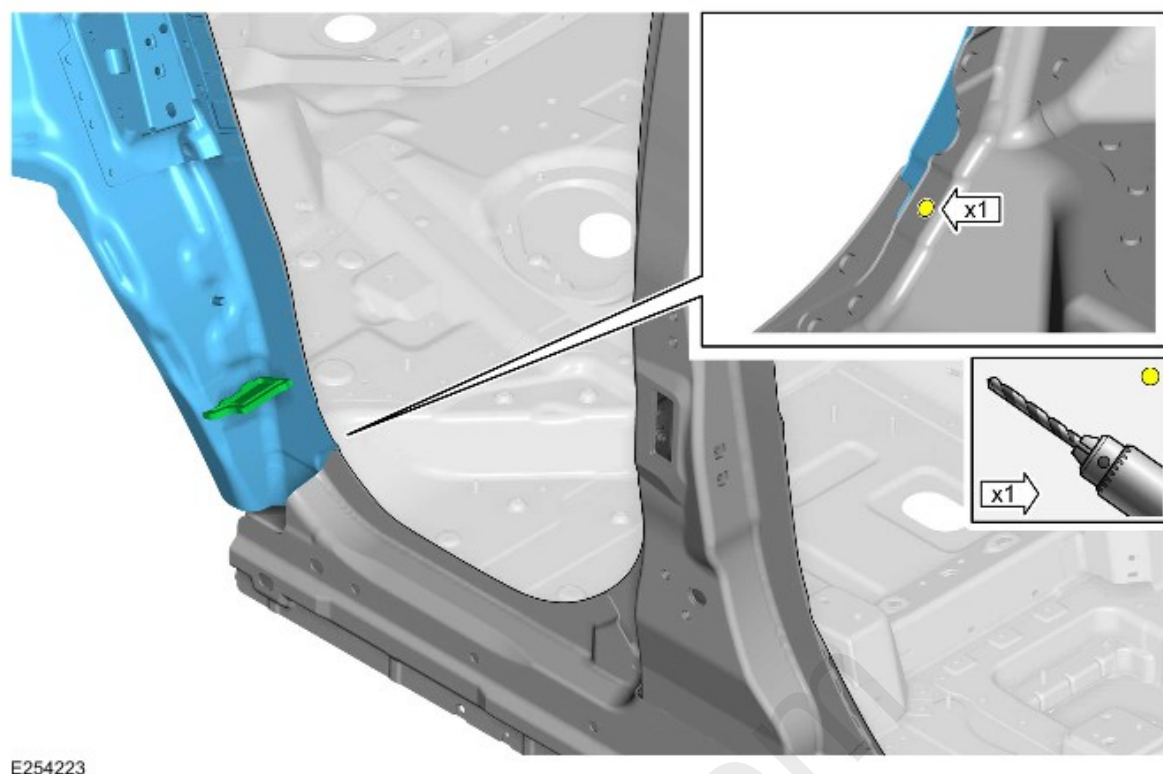
4.



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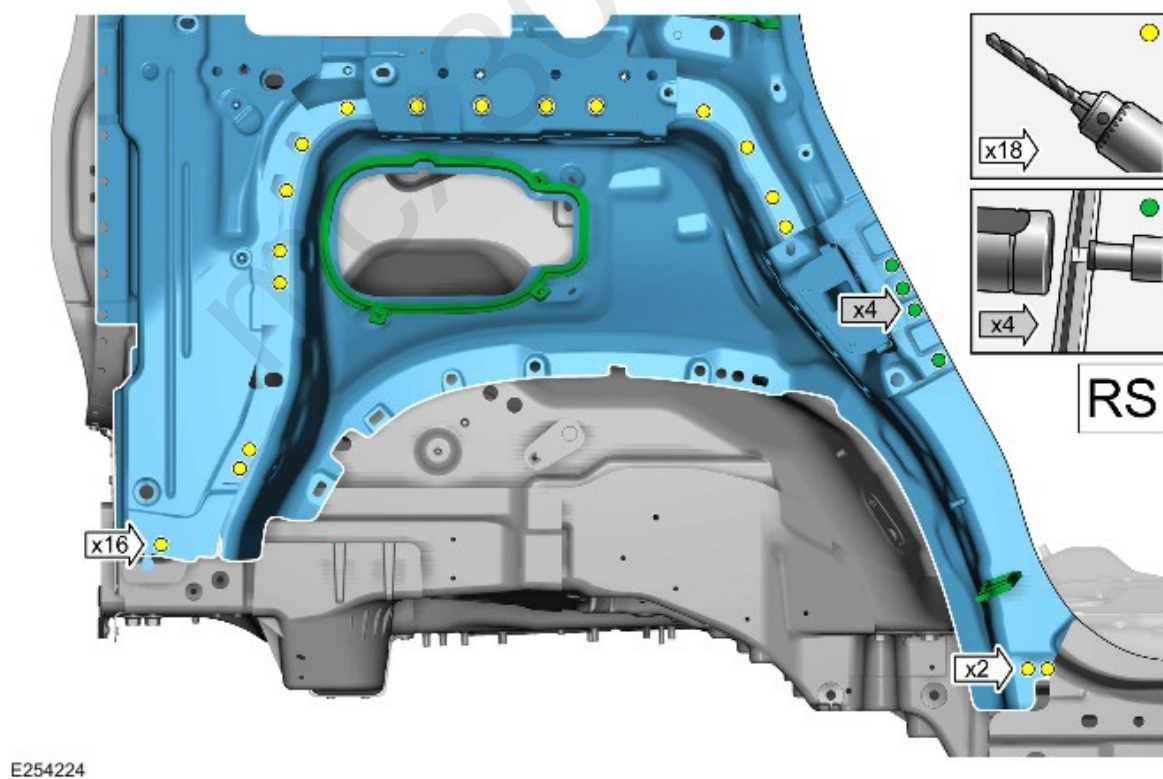
Drill holes where the Breakstem Fasteners (BSFs) are to be installed as indicated.

5.



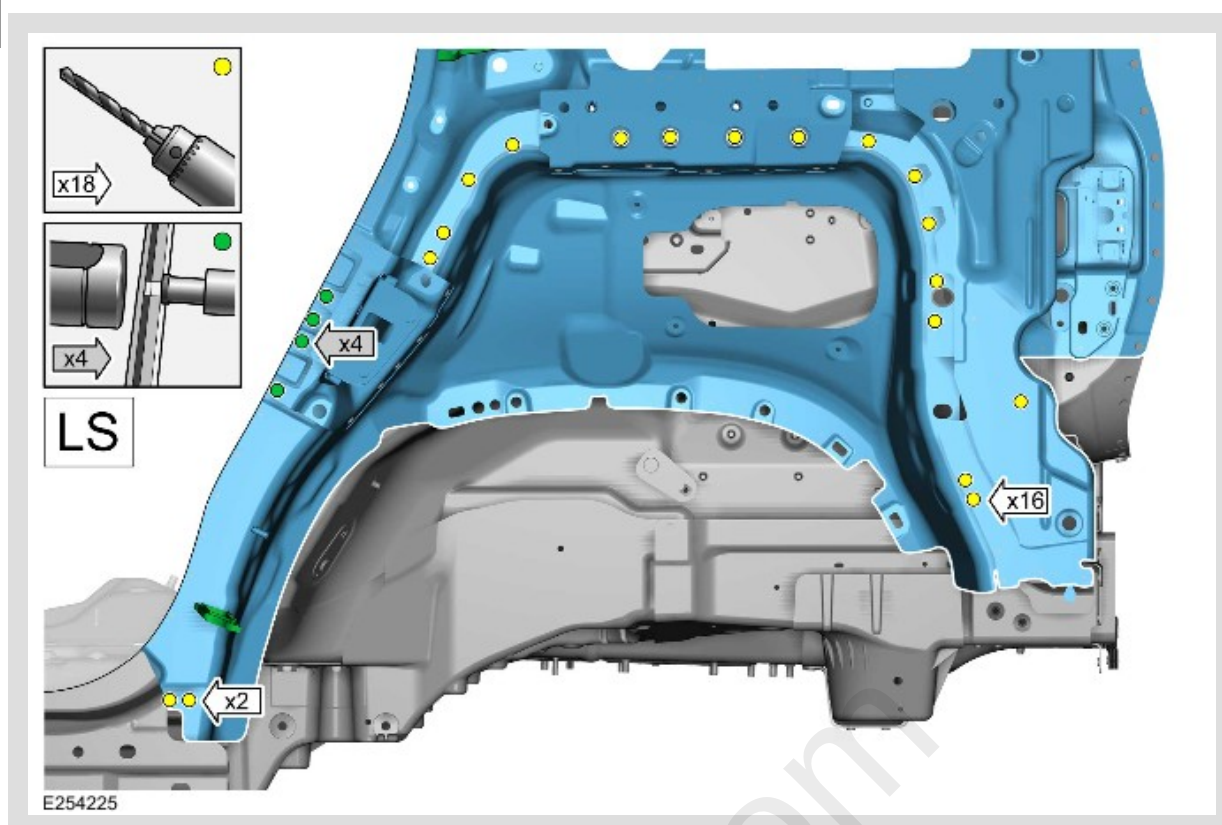
Drill a hole where the BSF is to be installed as indicated.

6.



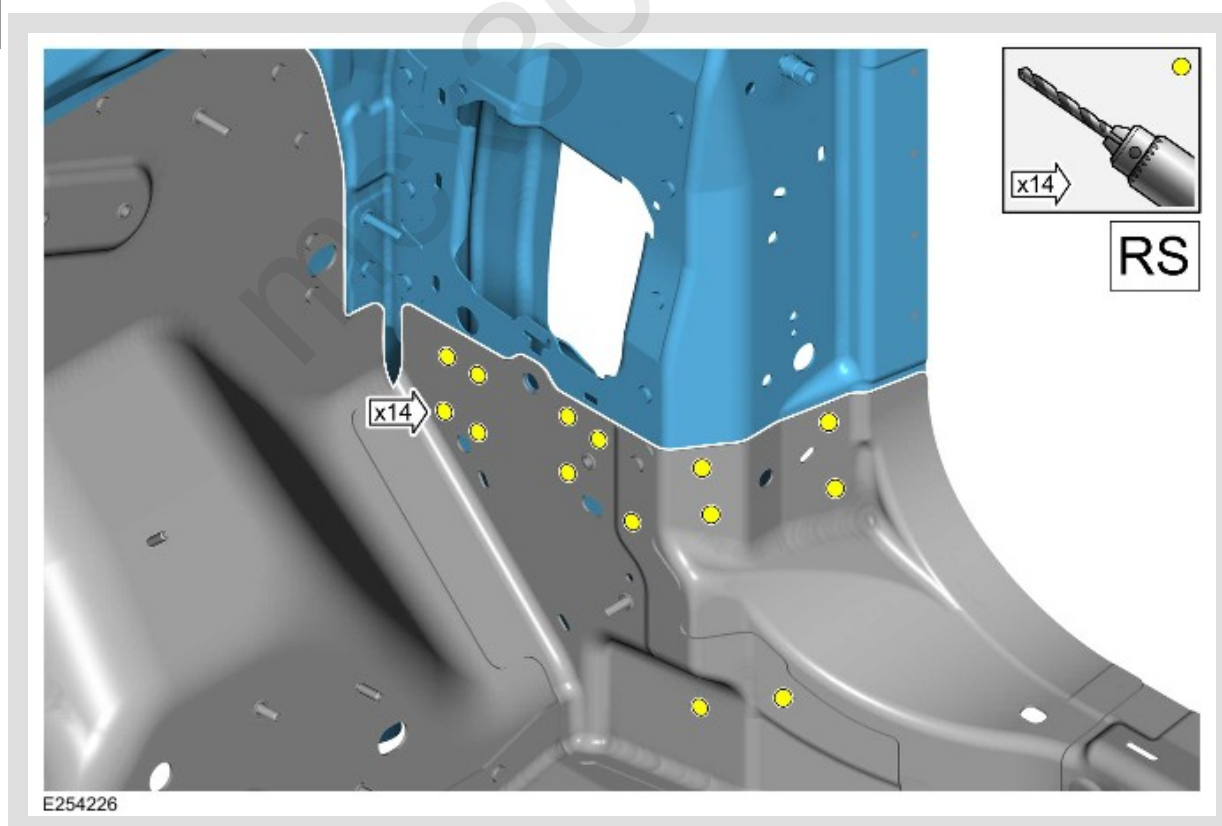
Drill holes where the BSFs are to be installed. Punch calibrated holes where the Flow Form Rivets (FFRs) are to be installed as indicated.

7.

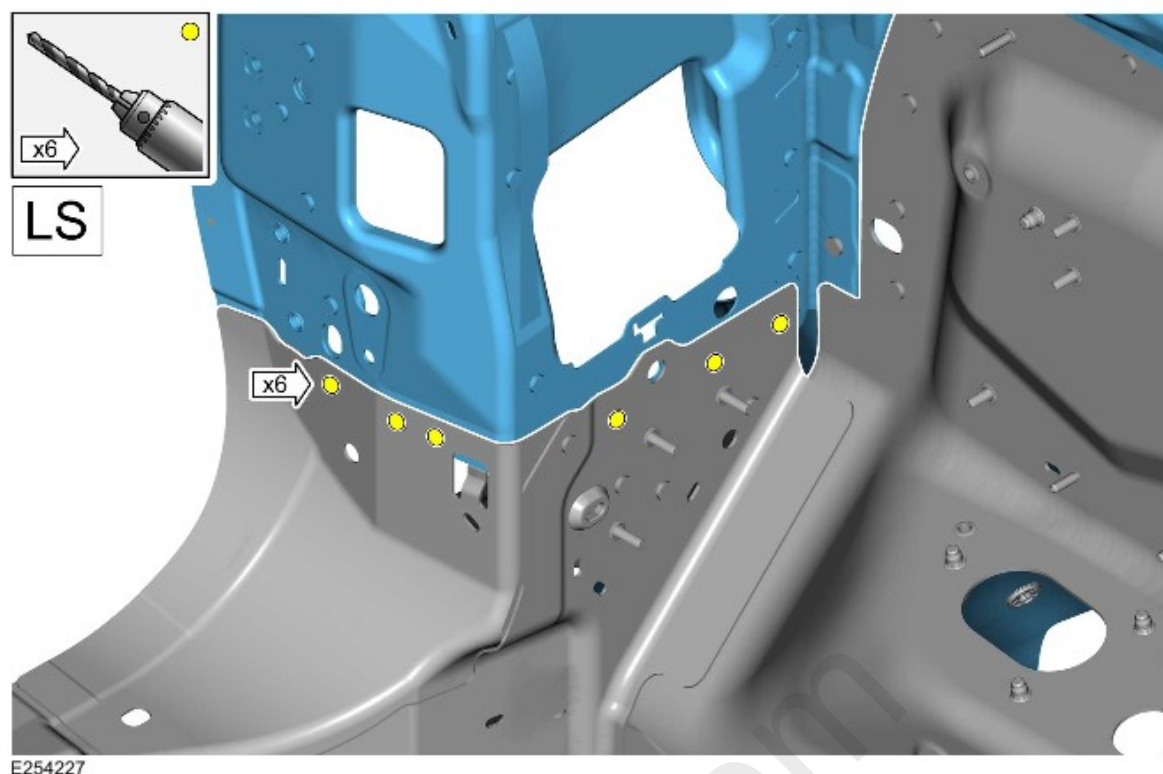


Drill holes where the BSFs are to be installed. Punch calibrated holes where the FFRs are to be installed as indicated.

8.



Drill holes where the BSFs are to be installed as indicated.

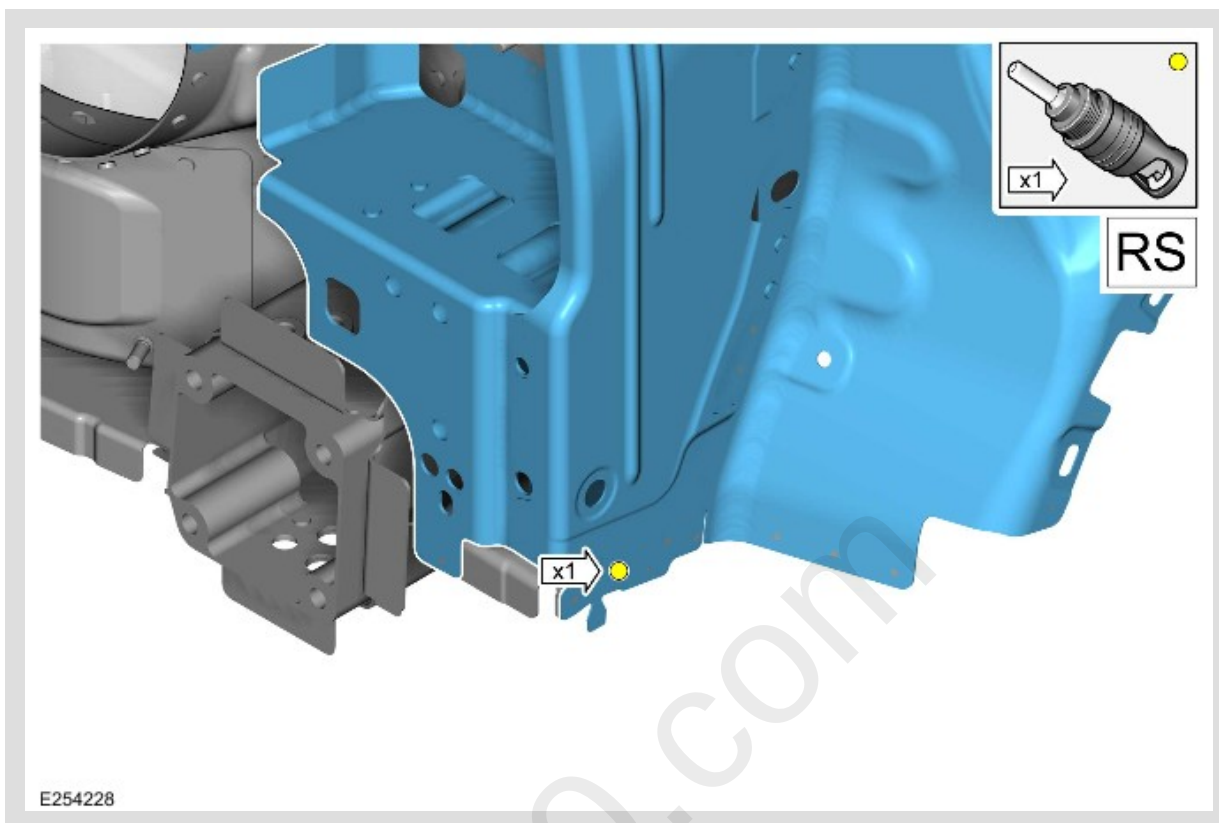


Drill holes where the BSFs are to be installed as indicated.

10.

 NOTE:

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



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

11.

 **CAUTION:**

This step will require the aid of another technician as the panel will be heavy.

Remove the new inner quarter panel assembly.

12.

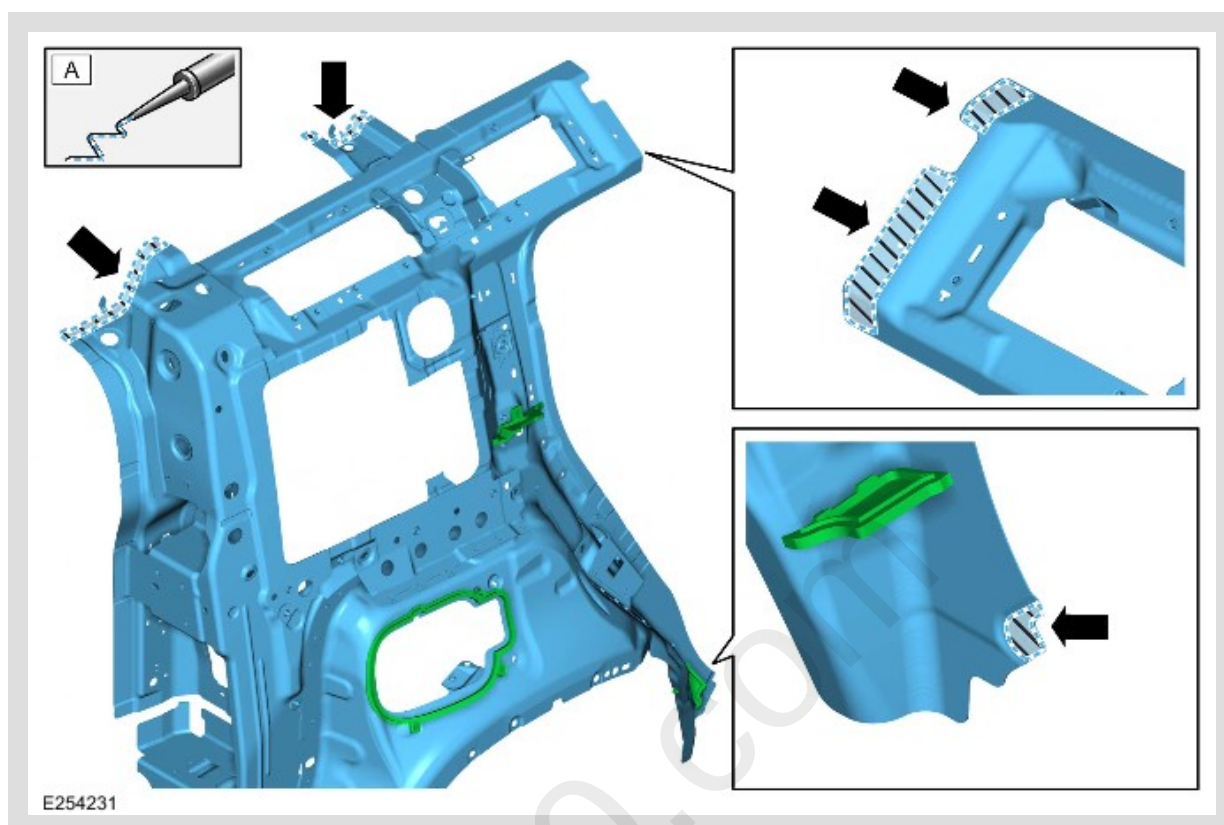
Deburr the drilled holes.

13.

Clean and prepare the panel surfaces.

 NOTE:

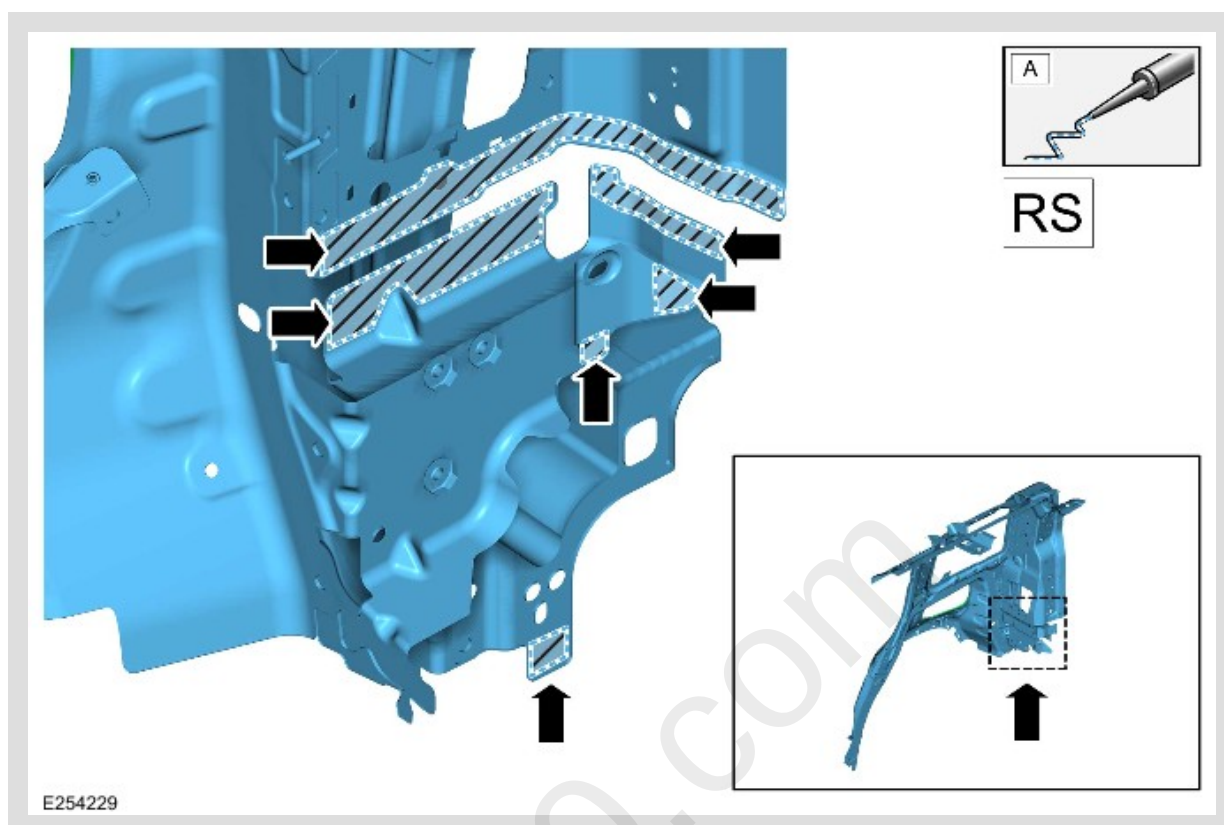
Make sure a continuous bead of adhesive surrounds the fixing holes.



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

 NOTE:

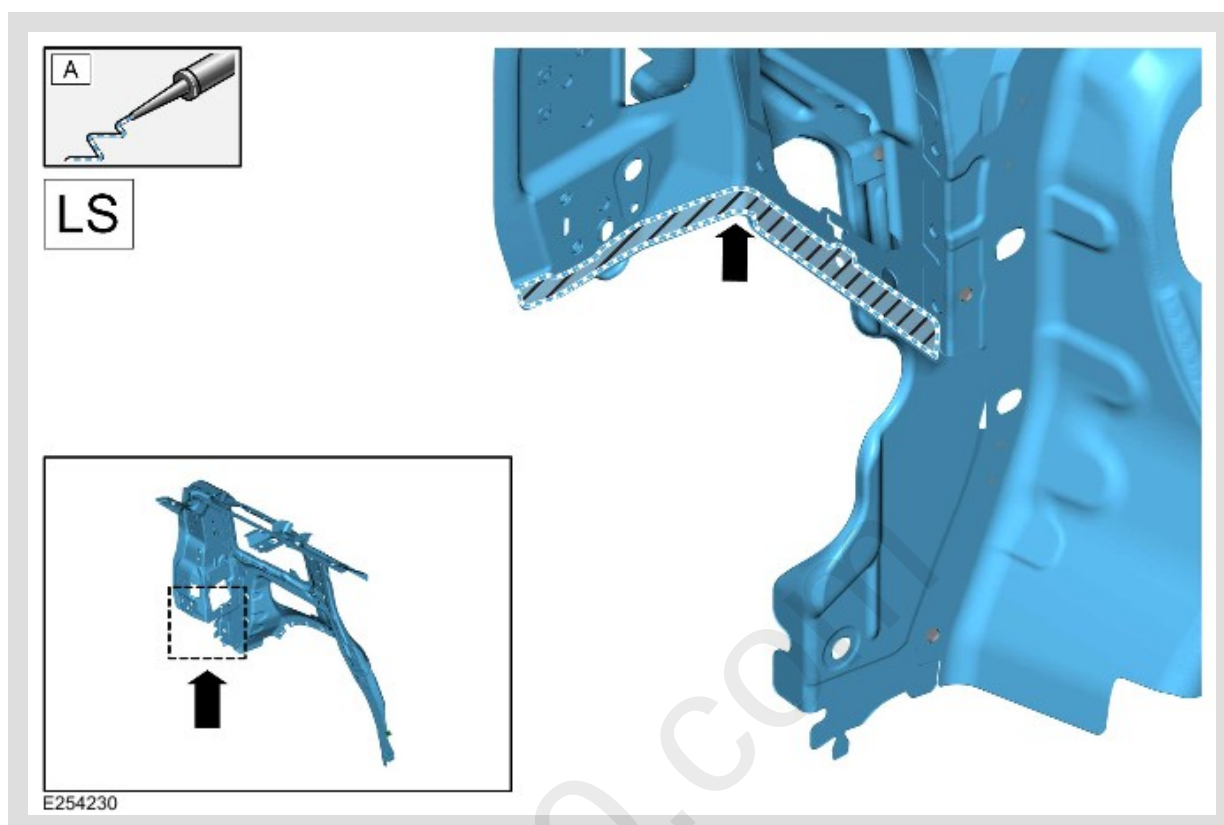
Make sure a continuous bead of adhesive surrounds the fixing holes.



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

 NOTE:

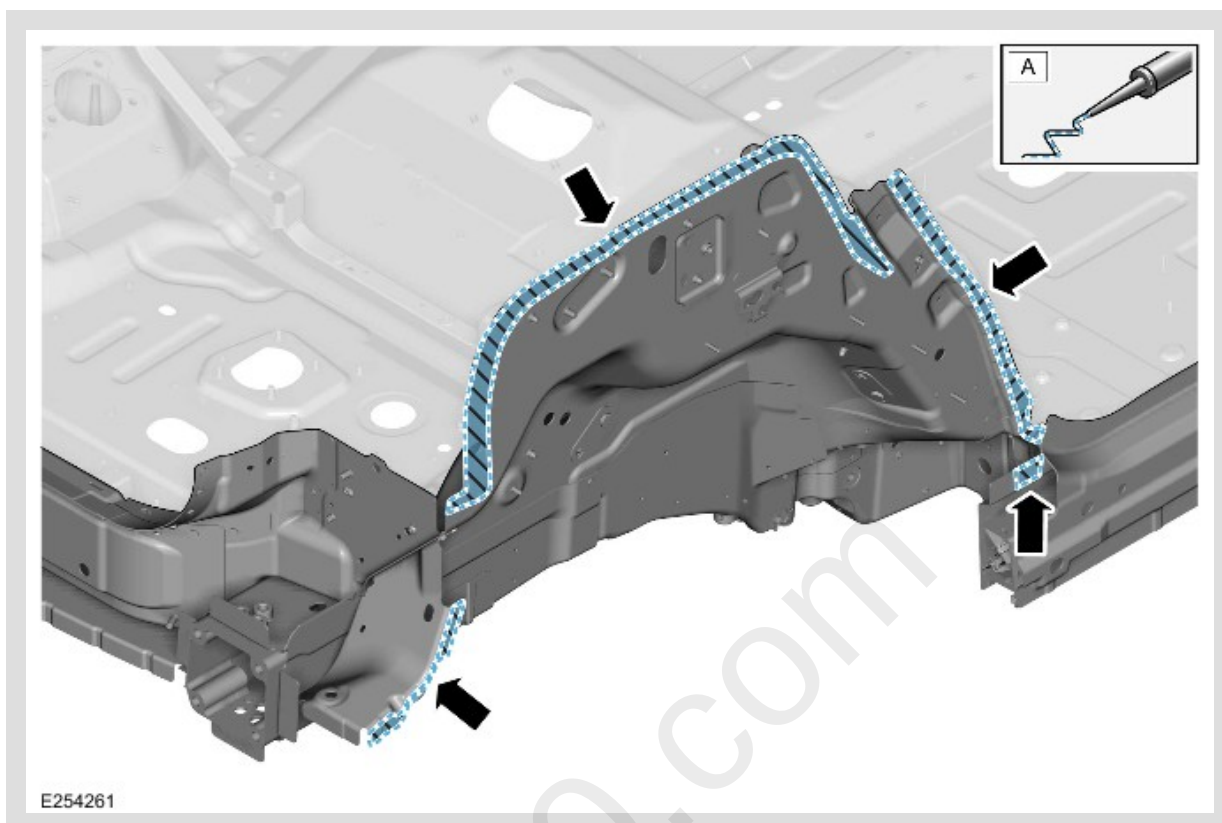
Make sure a continuous bead of adhesive surrounds the fixing holes.



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

NOTE:

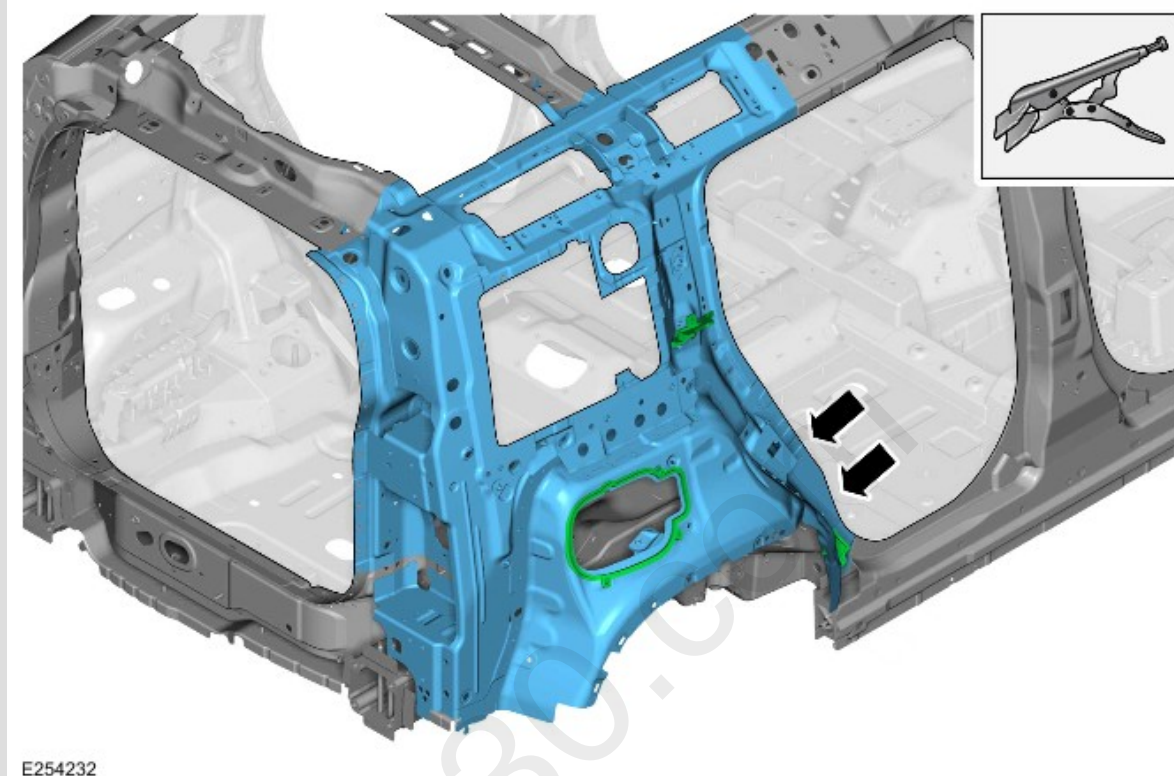
Make sure a continuous bead of adhesive surrounds the fixing holes.



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

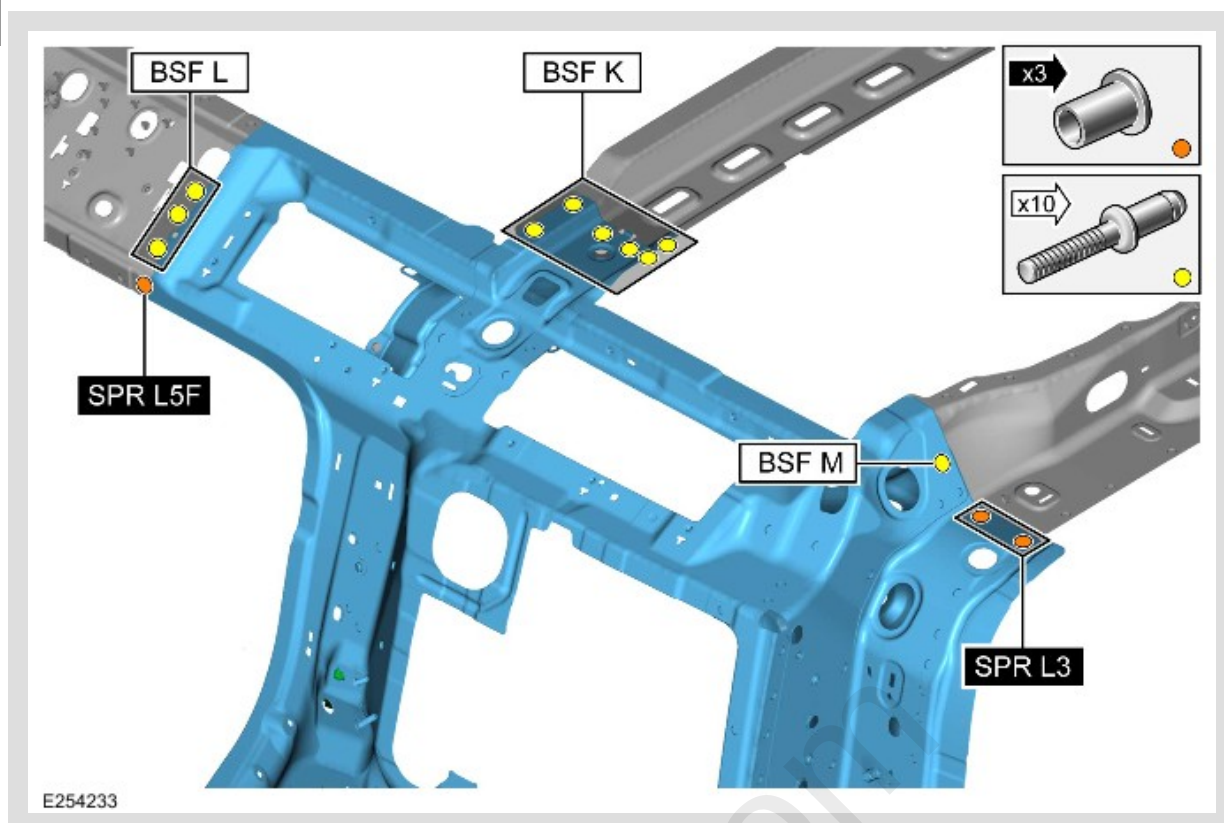
**⚠ CAUTION:**

This step will require the aid of another technician as the panel will be heavy.



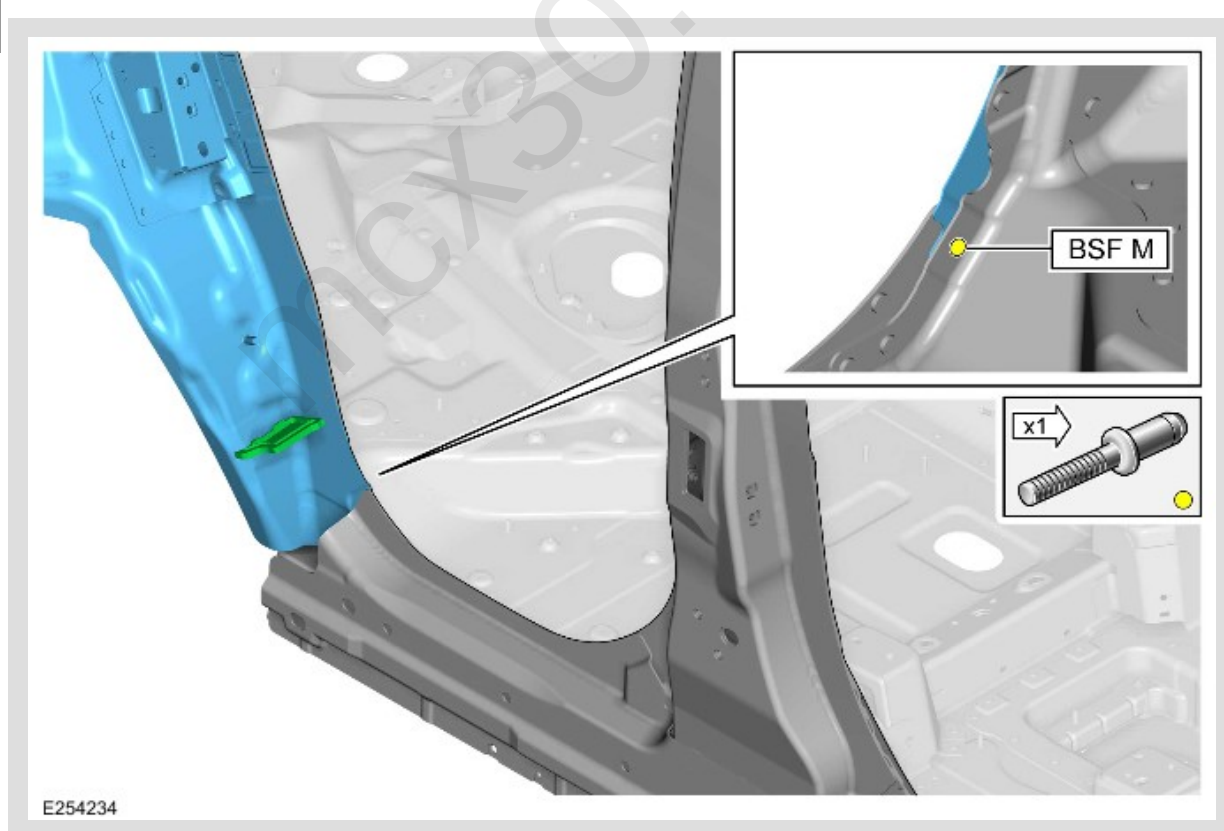
Offer up the new inner quarter panel assembly and clamp into position. Check alignment, if correct proceed to next step, if not rectify and check the alignment again before proceeding.

19.



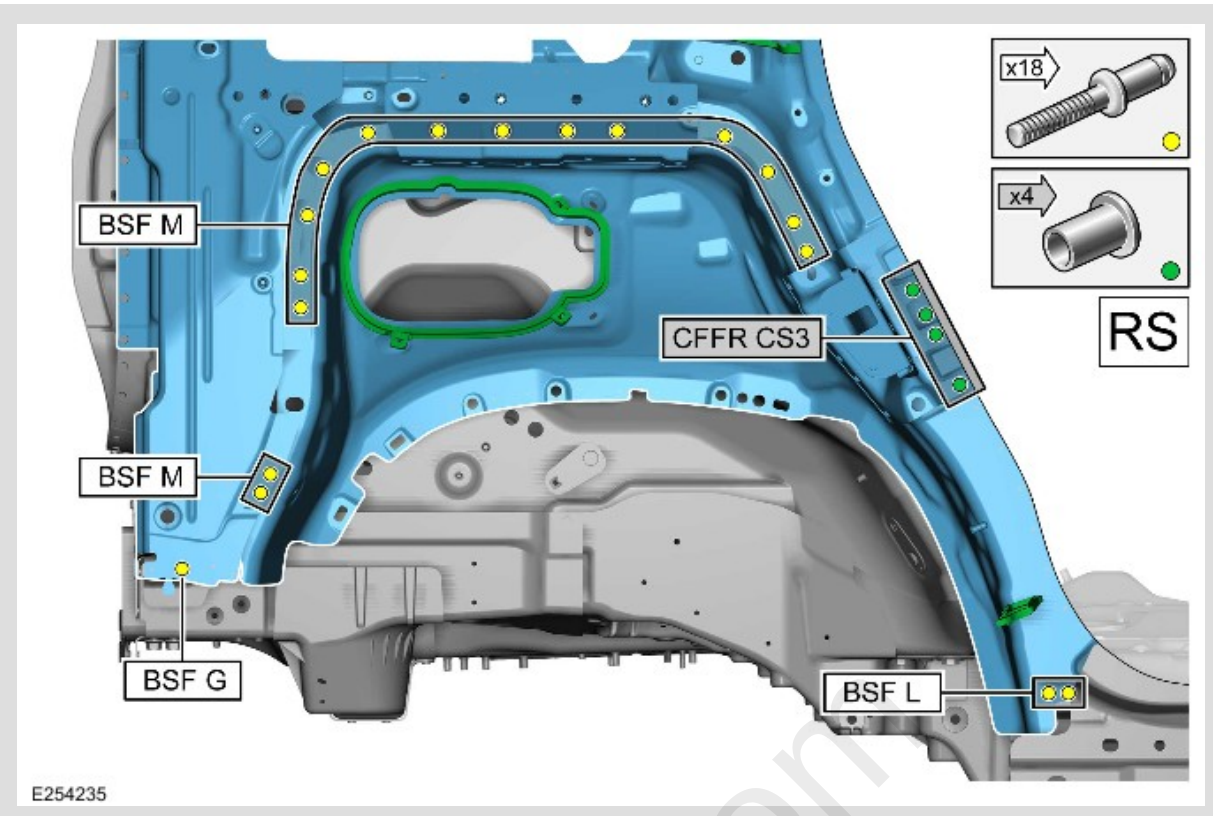
Install the BSFs and Self Piercing Rivets (SPRs) as indicated.

20.



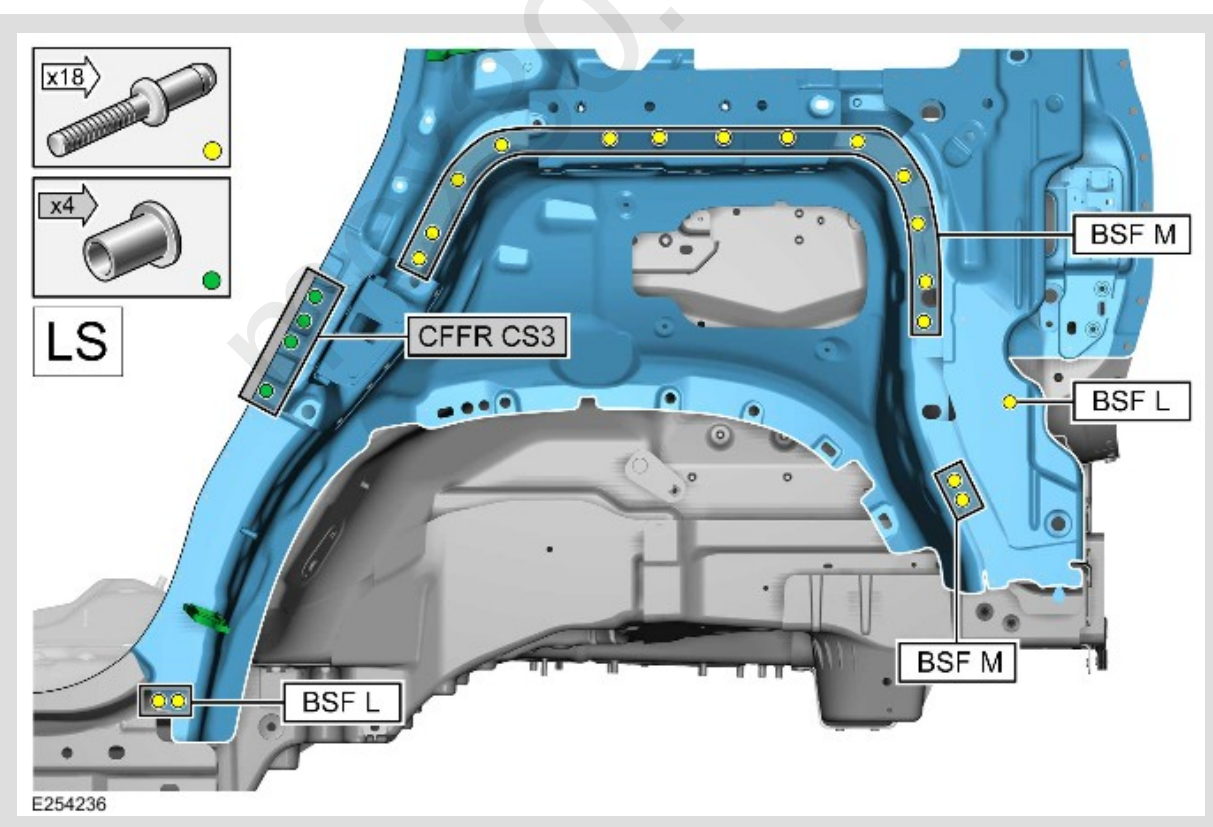
Install the BSF as indicated.

21.



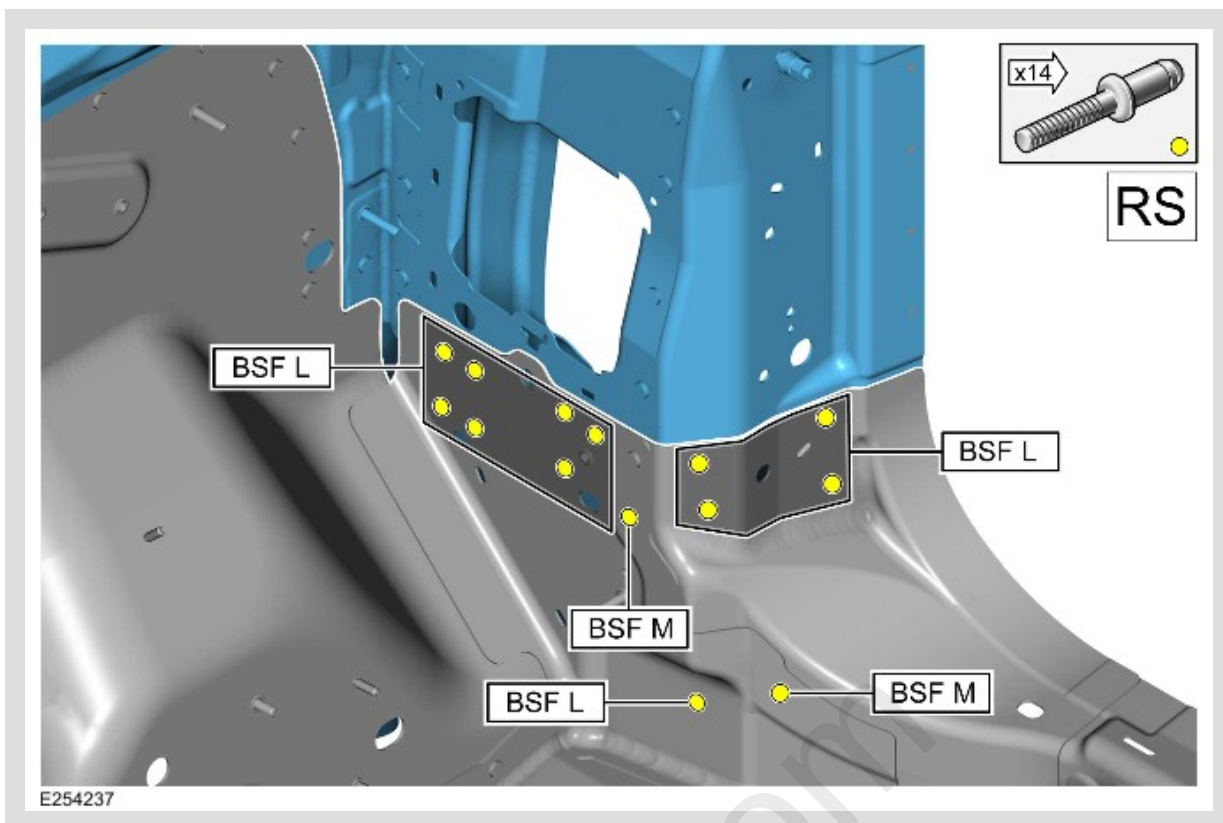
Install the BSFs and FFRs as indicated.

22.



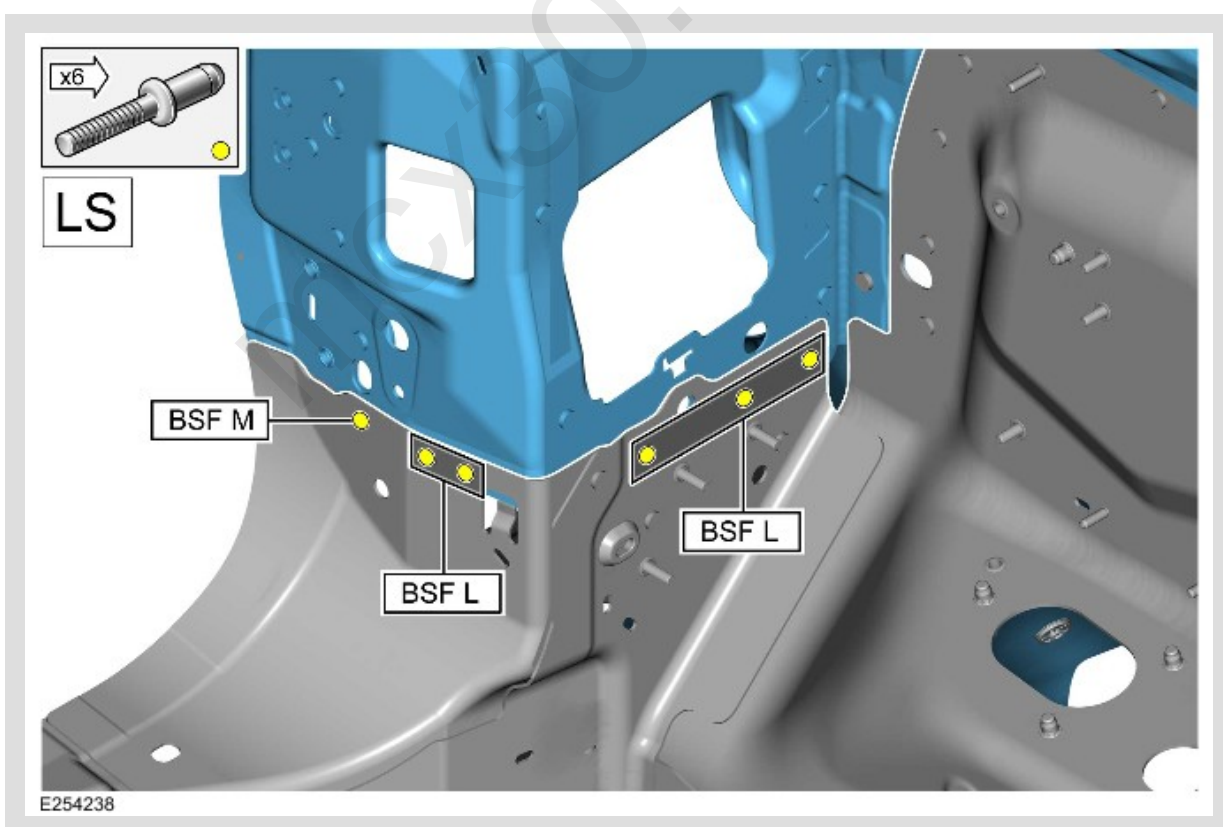
Install the BSFs and FFRs as indicated.

23.



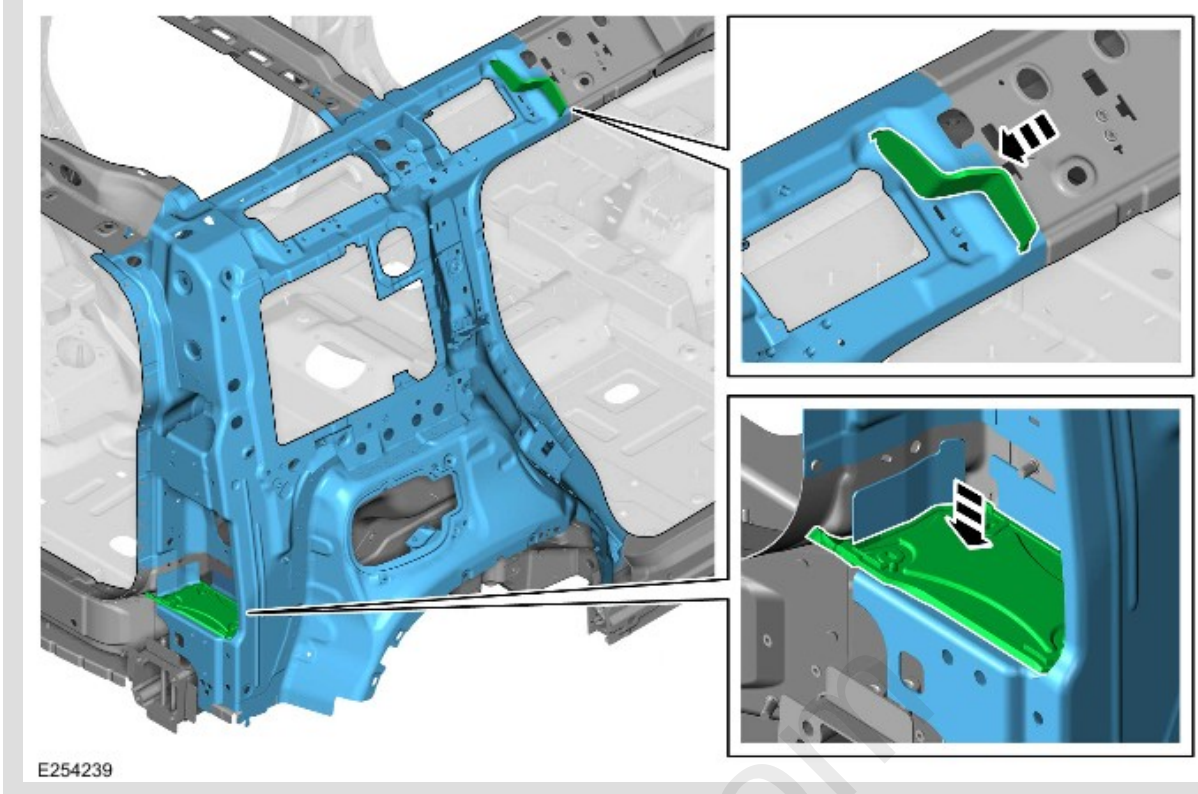
Install the BSFs as indicated.

24.



Install the BSFs as indicated.

25.



Install the NVH material as indicated.

26. Remove any excess adhesive.

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

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

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

NOTE:

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

30. For additional installation information

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

31. For additional installation information

Refer to: [Rear Wheelhouse Lower Rear Extension - 110](#) (501-30 Rear End Sheet Metal Repairs, Removal and Installation).

32. For additional installation information

Refer to: [Back Panel Outer - 110](#) (501-30 Rear End Sheet Metal Repairs, Removal and Installation).

33. For additional installation information

Refer to: [Outer Tail Lamp Outer Panel Right Side - 110](#) (501-30 Rear End Sheet Metal Repairs, Removal and Installation).

Refer to: [Outer Tail Lamp Outer Panel Left Side - 110](#) (501-30 Rear End Sheet Metal Repairs, Removal and Installation).

34. For additional installation information

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

35. For additional installation information

Refer to: [Rear Roof Reinforcement Panel - 110, Vehicles With: Roof Opening Panel](#) (501-28 Roof Sheet Metal Repairs, Removal and Installation).

Refer to: [Rear Roof Reinforcement Panel - 110, Vehicles Without: Roof Opening Panel](#) (501-28 Roof Sheet Metal Repairs, Removal and Installation).

36. 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).

37. For additional installation information

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