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2020.0 DEFENDER (LE), 501-29

SIDE PANEL SHEET METAL REPAIRS

A-PILLAR REINFORCEMENT – 90 (G2452698)

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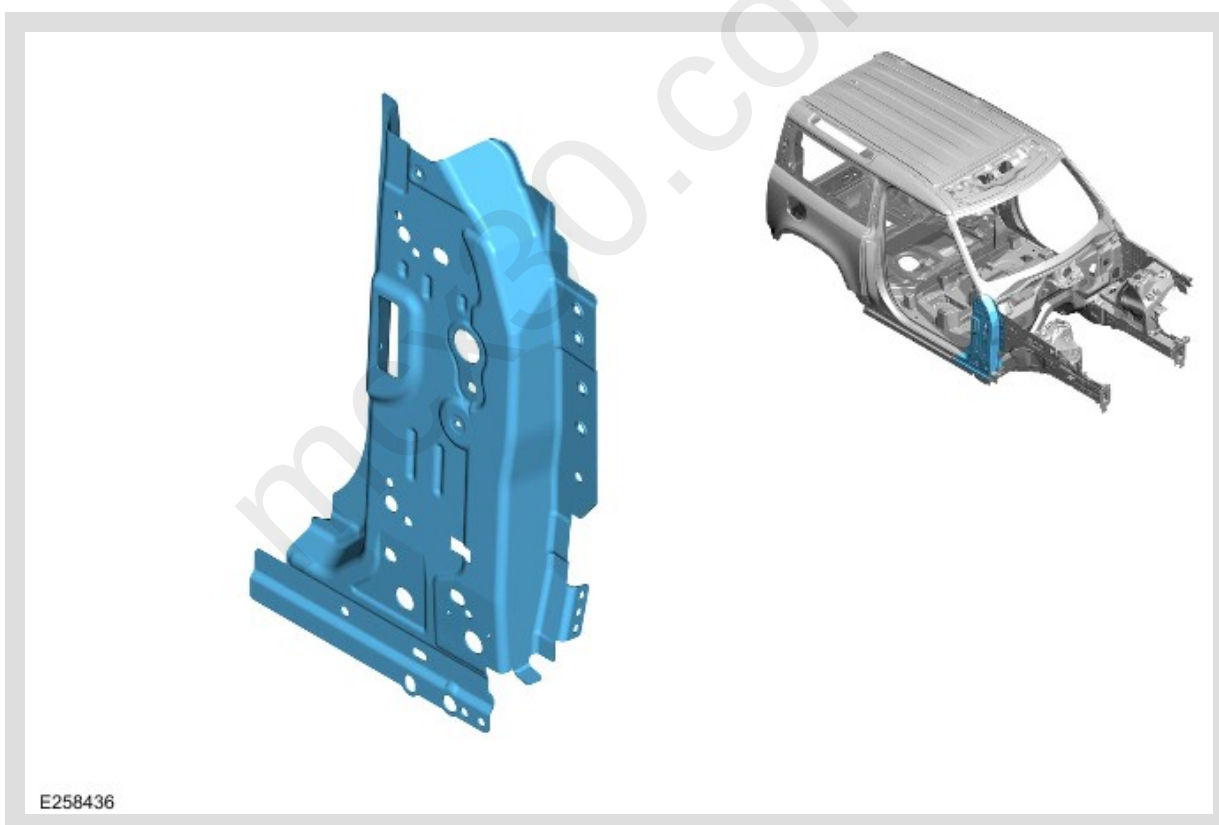
REMOVAL

 NOTE:

In this procedure the A-pillar reinforcement is installed in conjunction with:

- Front fender mounting bracket lower
- Side panel
- A pillar outer panel.

1.



The A-pillar reinforcement 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.
- To make sure that the vehicle is correctly aligned it must be placed on a JLR approved alignment jig.

When installing the A-pillar reinforcement 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: [Front Fender Mounting Bracket Lower - 90](#) (501-27 Front End Sheet Metal Repairs, Removal and Installation).

6.

For additional removal information

Refer to: [Side Panel - 90](#) (501-29 Side Panel Sheet Metal Repairs, Removal and Installation).

7.

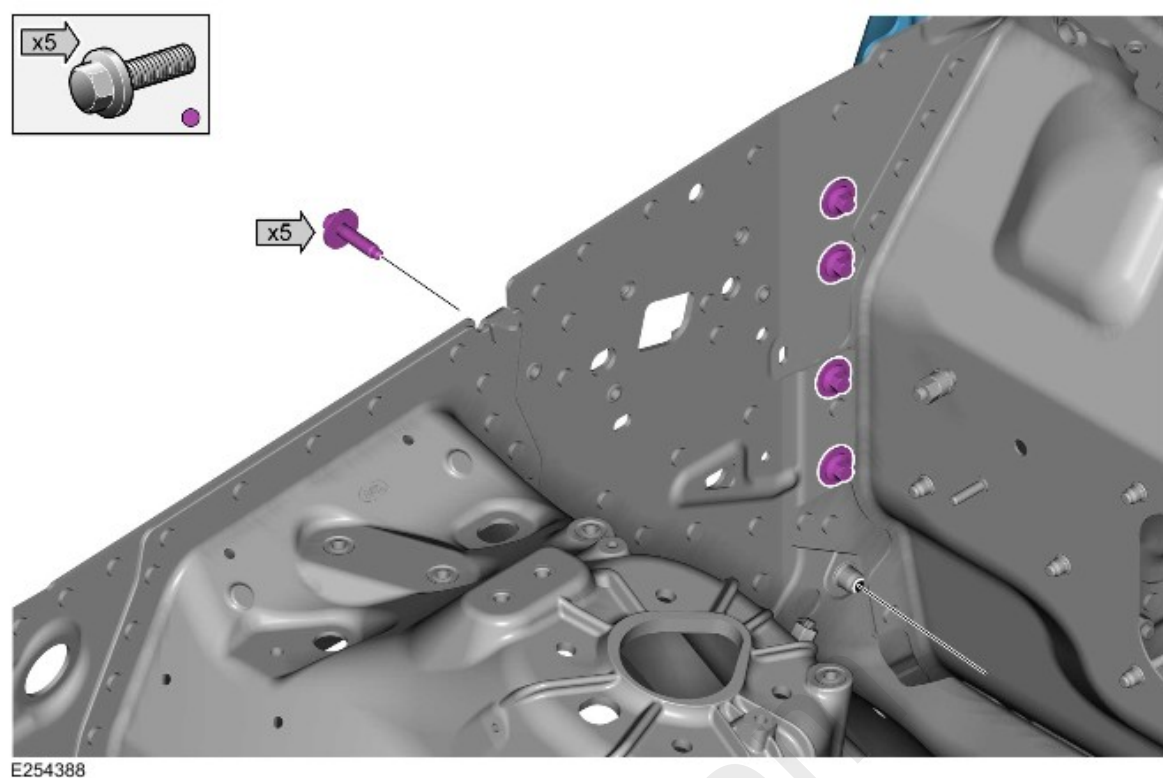
For additional removal information

Refer to: [A-Pillar Outer Panel - 90](#) (501-29 Side Panel Sheet Metal Repairs, Removal and Installation).

8.

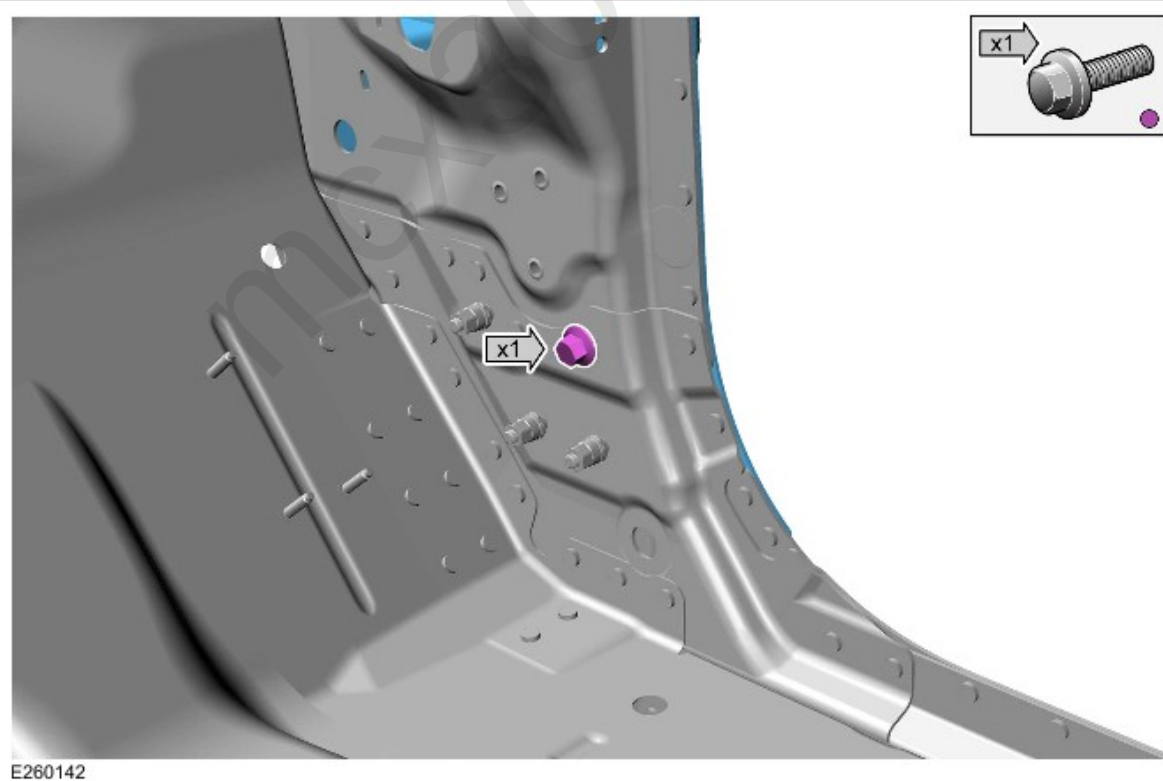
Release and position the wiring harness to one side.

9.

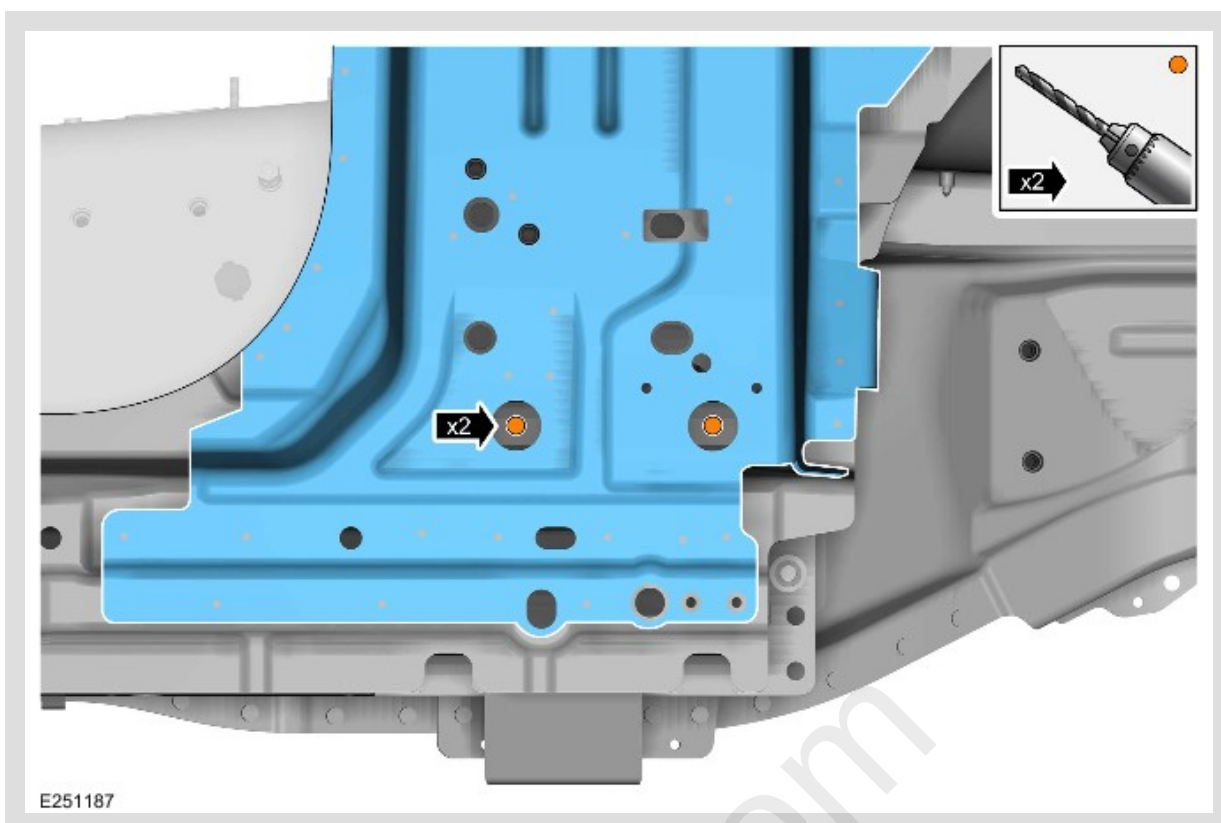


Remove the bolts as indicated.

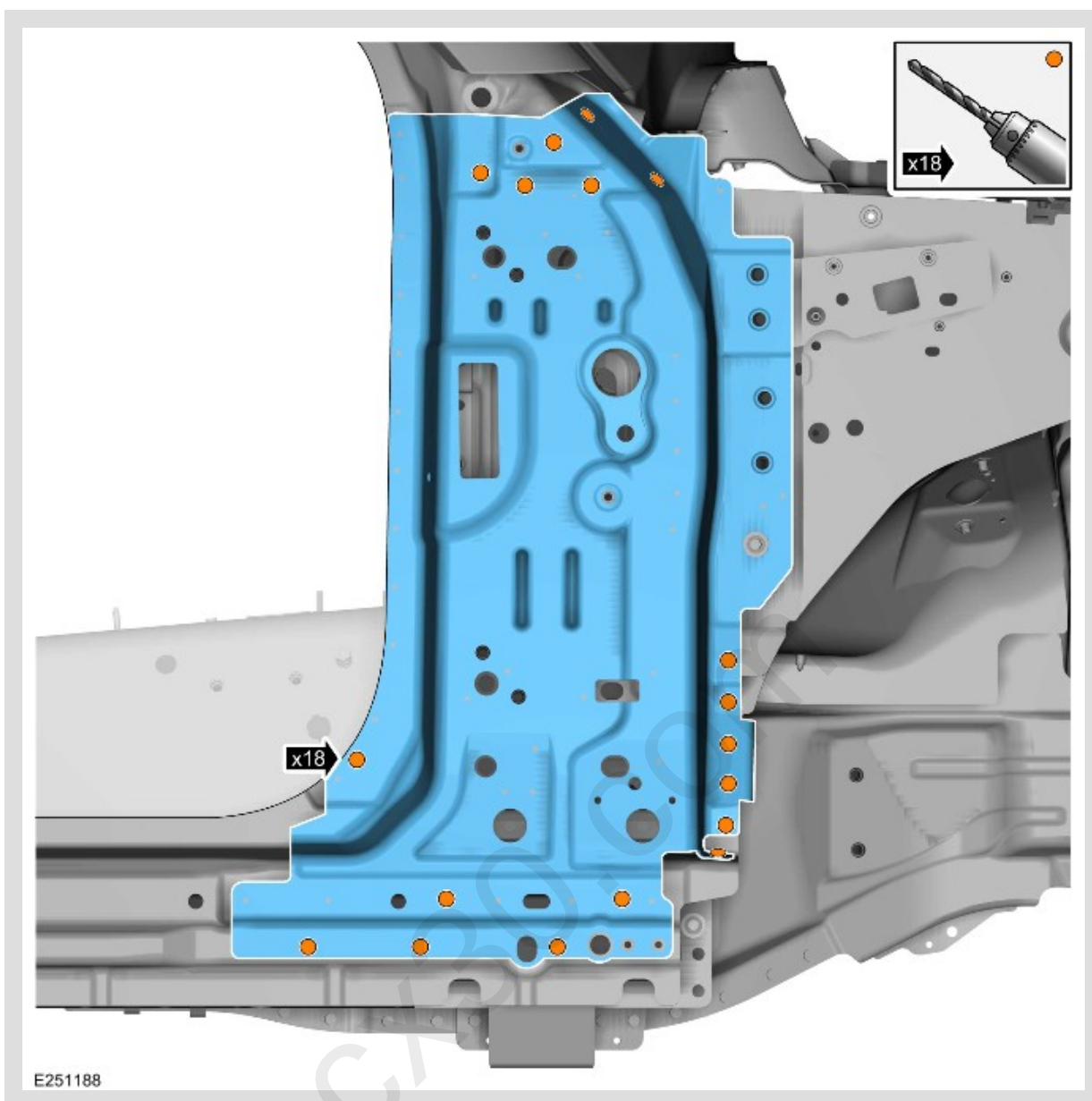
10.



Remove the bolt as indicated.



Remove the Self Piercing Rivets (SPRs) as indicated.

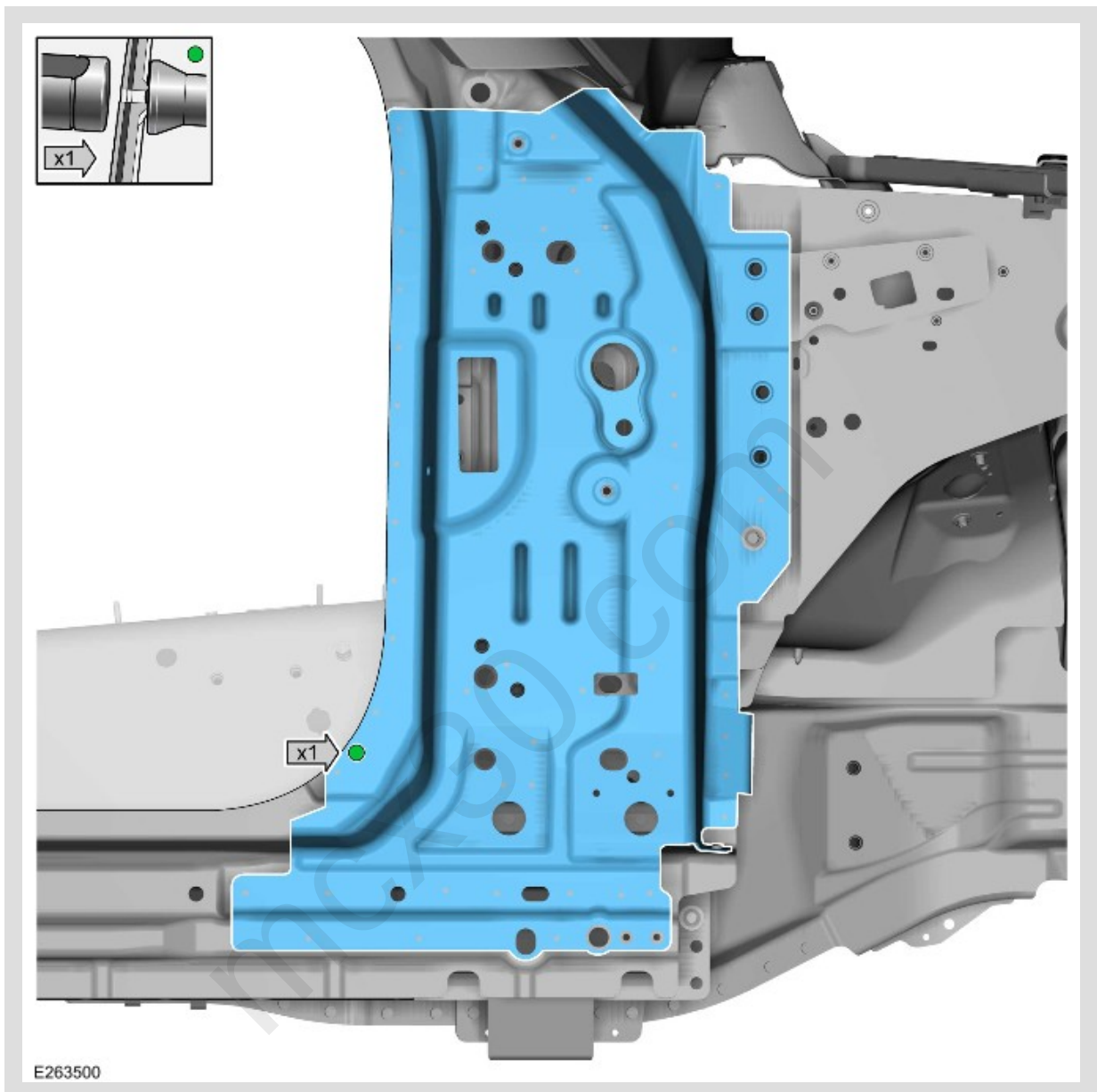


Remove the SPRs as indicated.

13.

NOTE:

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



Planish the panel as indicated.

14. Carefully separate the joints and remove the A-pillar reinforcement.

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:

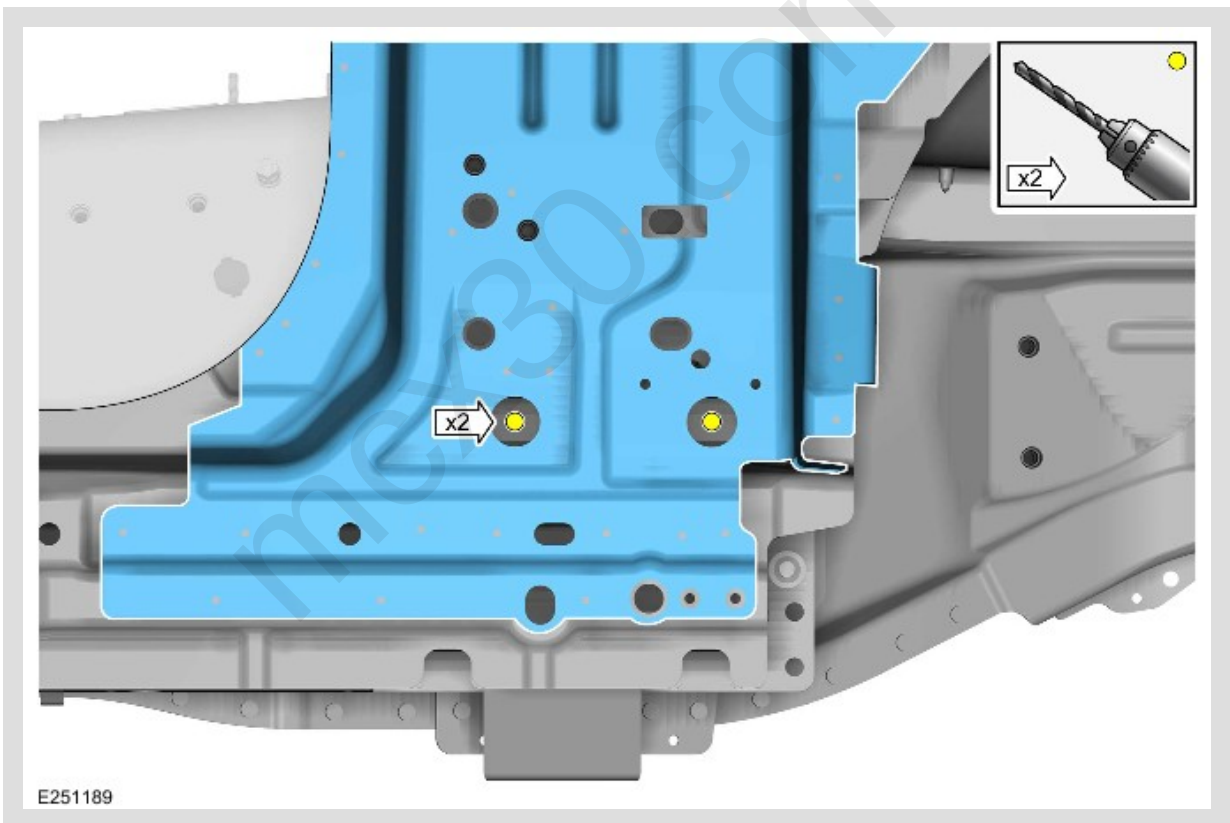
- Breakstem Fastener (BSF) installation involves using the JLR approved BSF installation tool and requires a hole diameter of 6.5 mm.
- Flow Form Rivet (FFR) installation requires using the JLR approved FFR installation tool.
- Refer to Adhesive, Fixings and Consumables for further information on Flow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

1. Remove the rivet remnants.

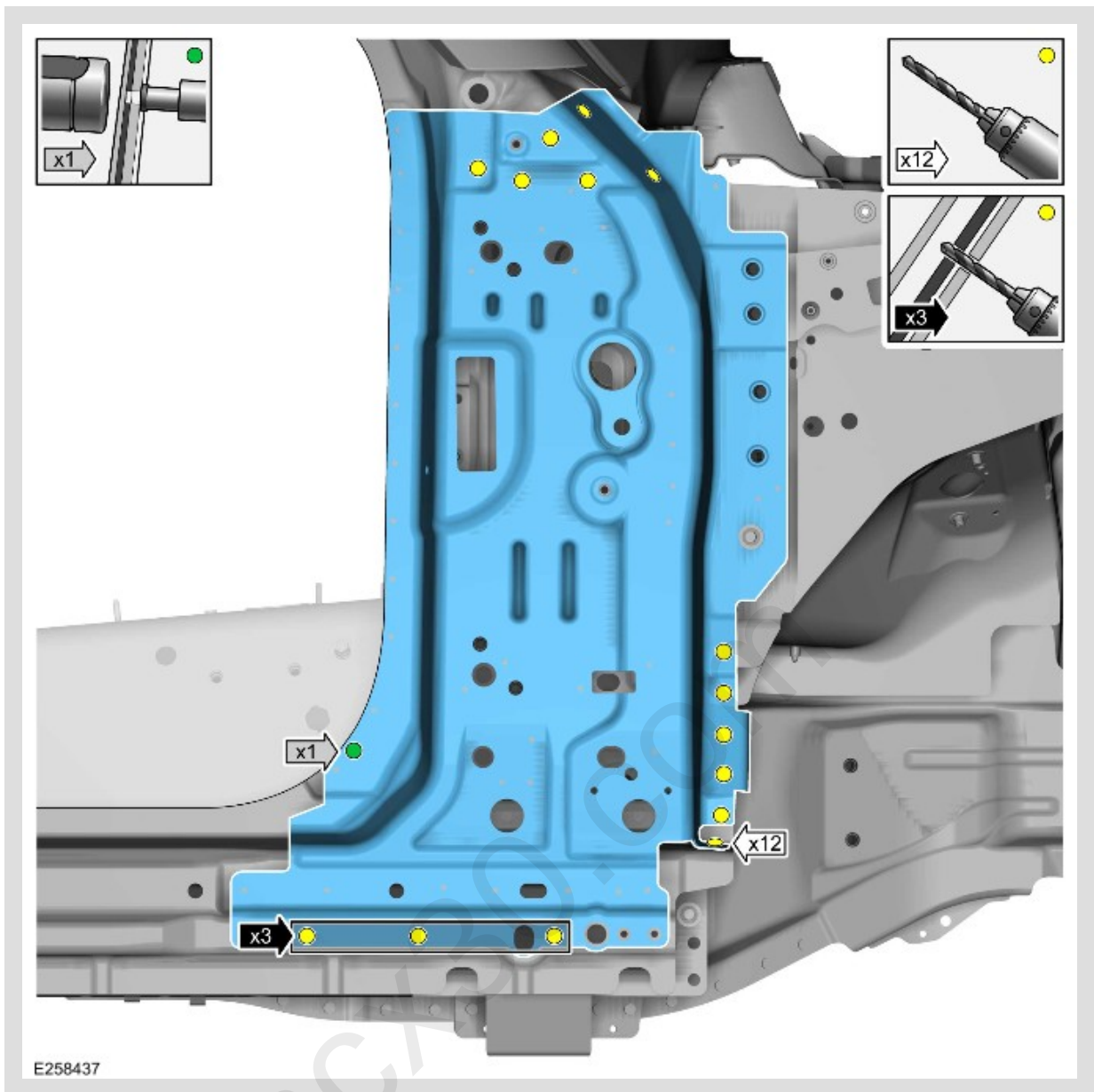
2. Dress the flanges where necessary.

3. Offer up the new A-pillar reinforcement 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.

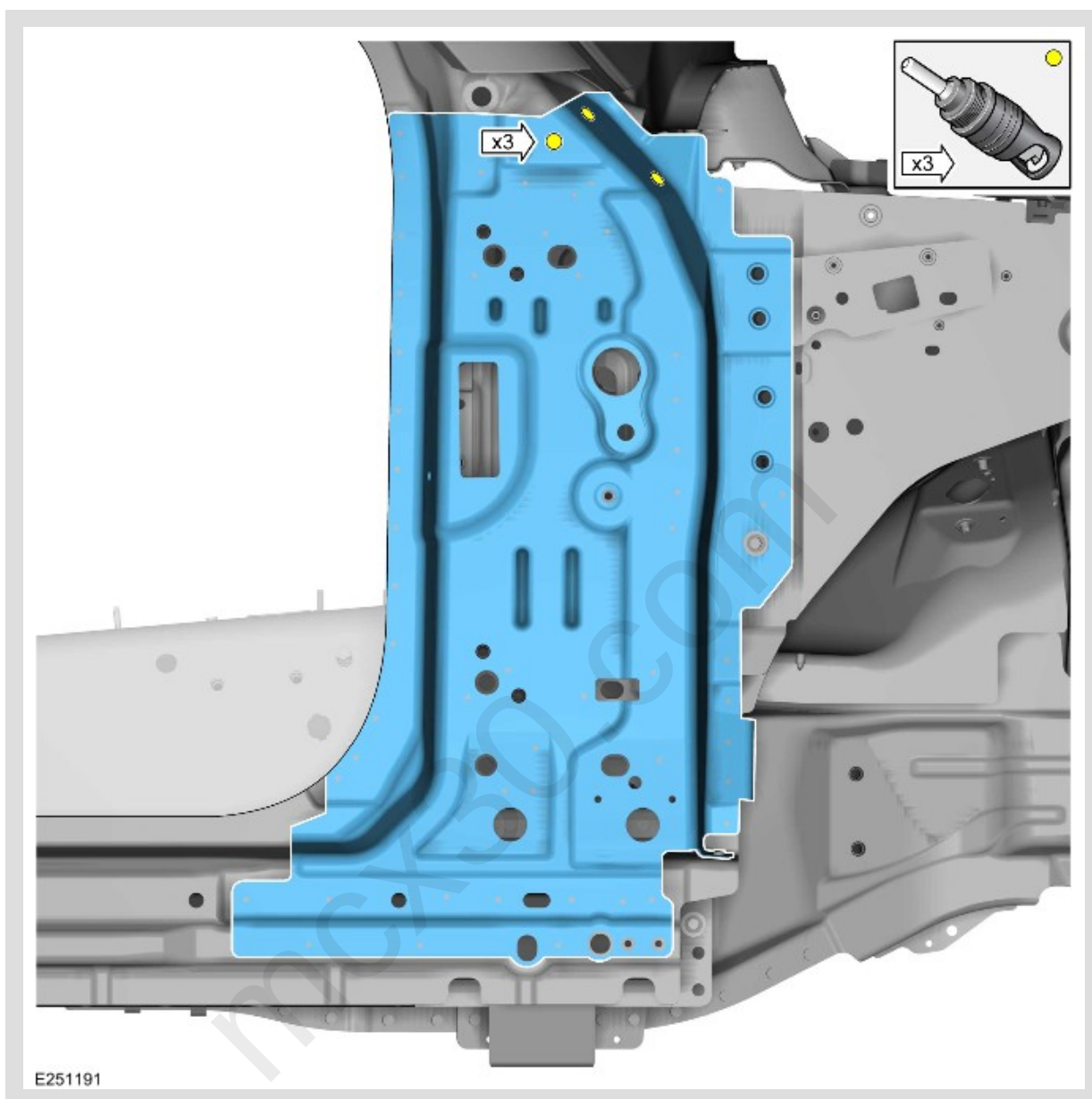


Drill holes where the BSFs are to be installed as indicated. Punch a calibrated hole where the Flow Form Rivet (FFR) is to be installed as indicated.

6.

NOTE:

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

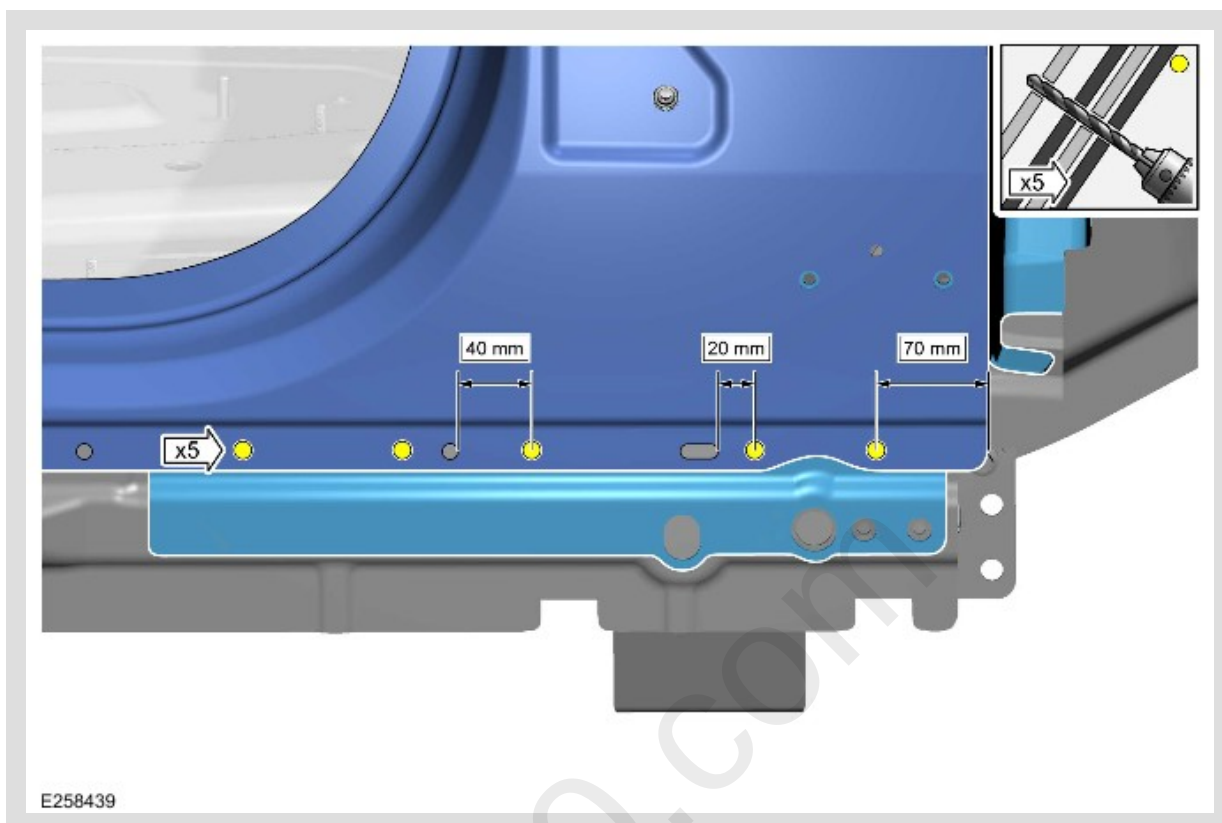


Countersink the holes to a depth of 2 mm as indicated.

7.

NOTE:

When installing the A-pillar reinforcement in conjunction with side panel procedures.



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

8. Remove the new A-pillar reinforcement.

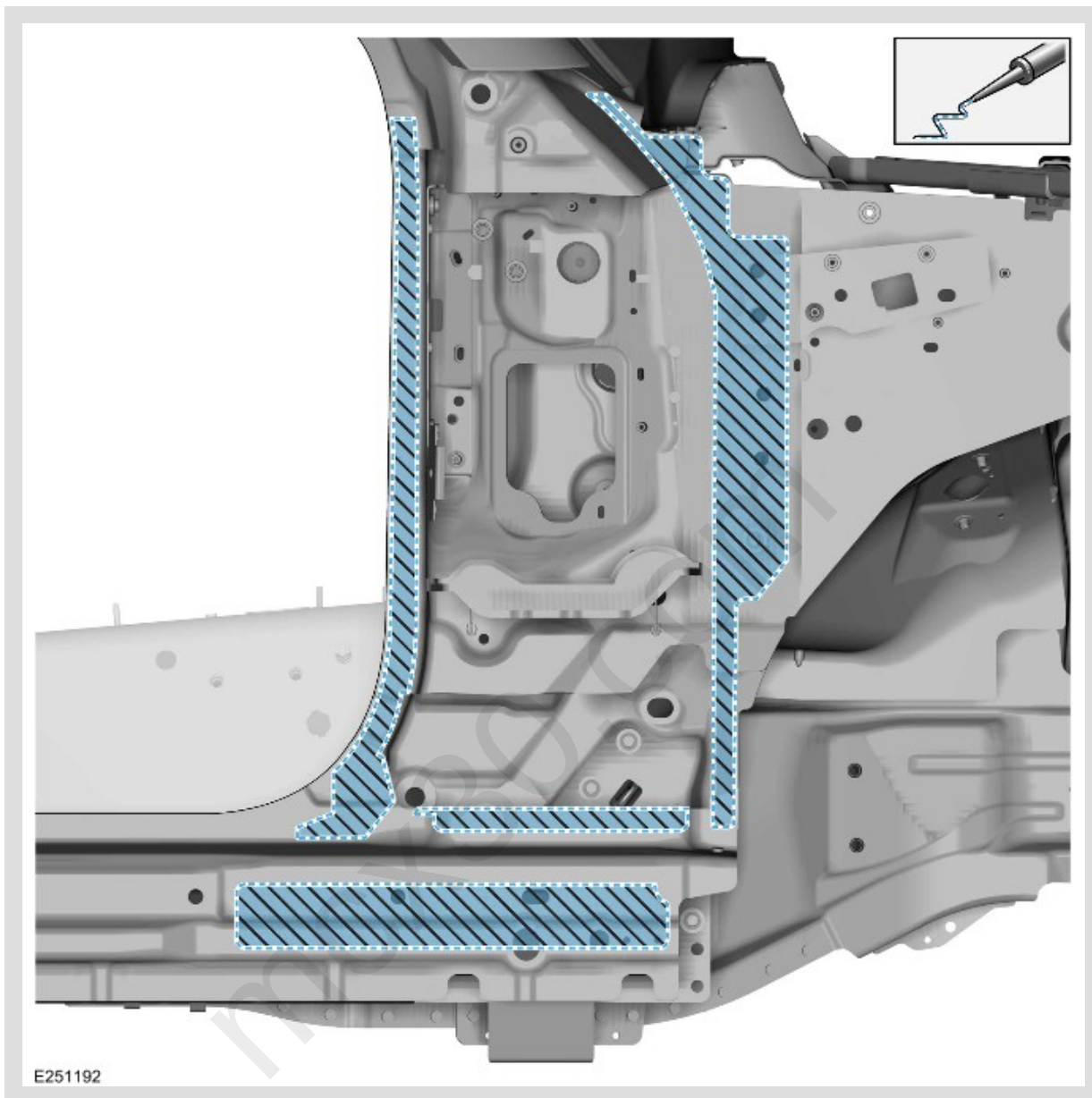
9. Deburr the drilled holes.

10. Clean and prepare the panel surfaces.

11.

 NOTE:

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

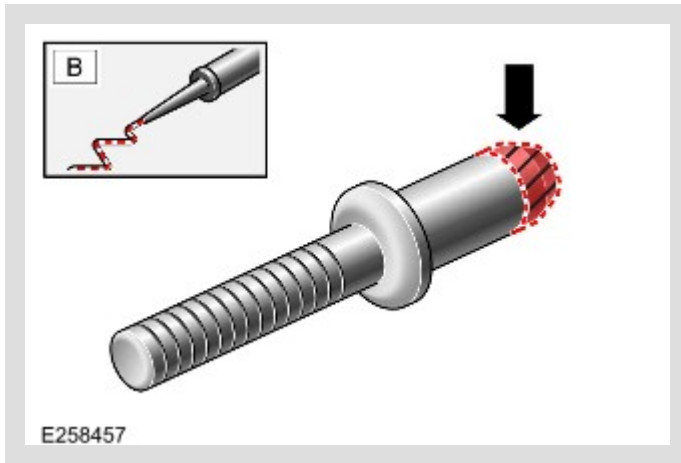


Apply a 5 mm zig zag bead of the JLR recommended bonding material as indicated.

12.

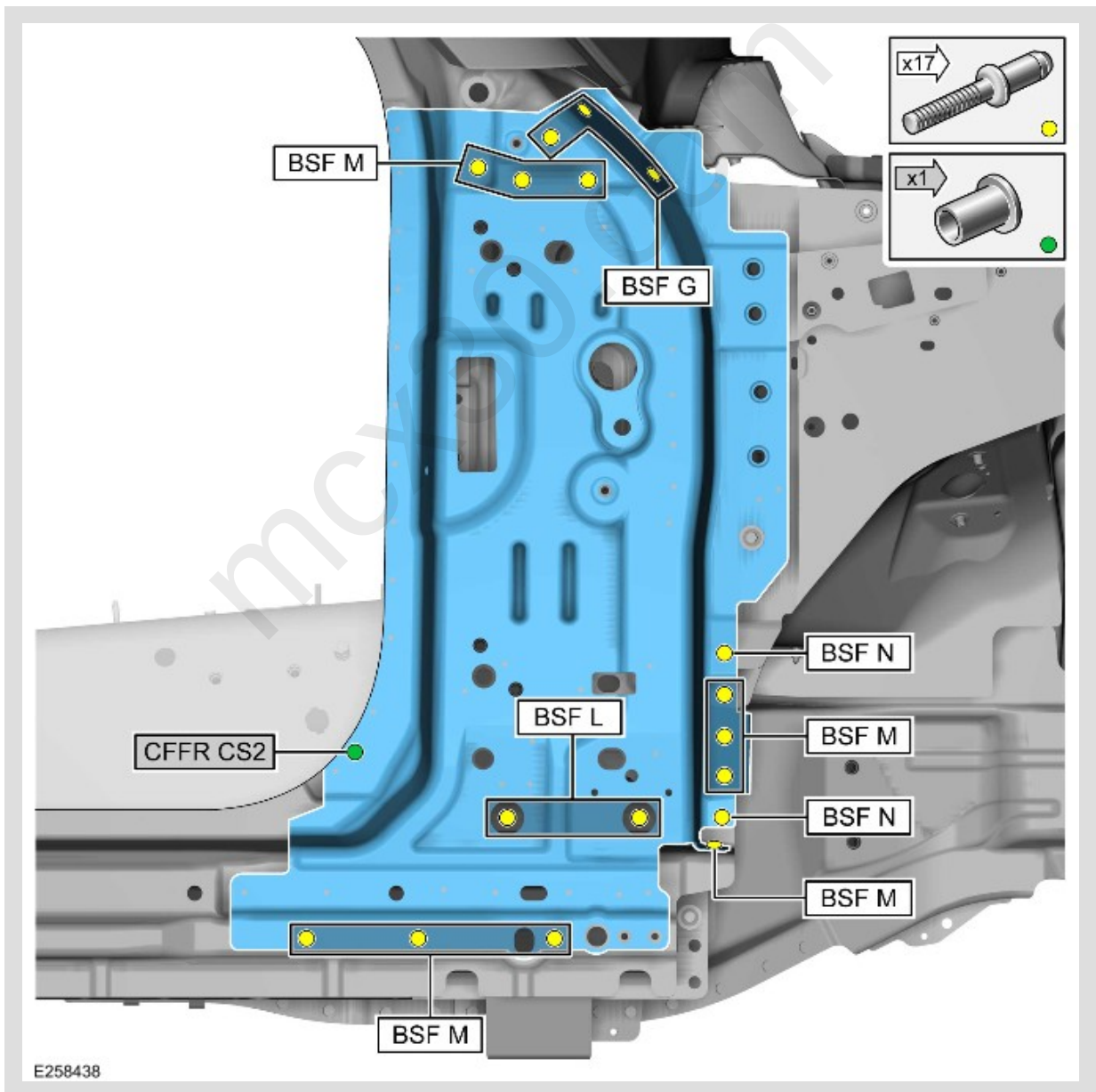
Offer up the new A-pillar reinforcement and clamp into position. Check alignment, if correct proceed to next step, if not rectify and check the alignment again before proceeding.

13.



Apply a small amount of JLR recommended flexible sealant to the Breakstem Fasteners (BSFs) as indicated before installing.

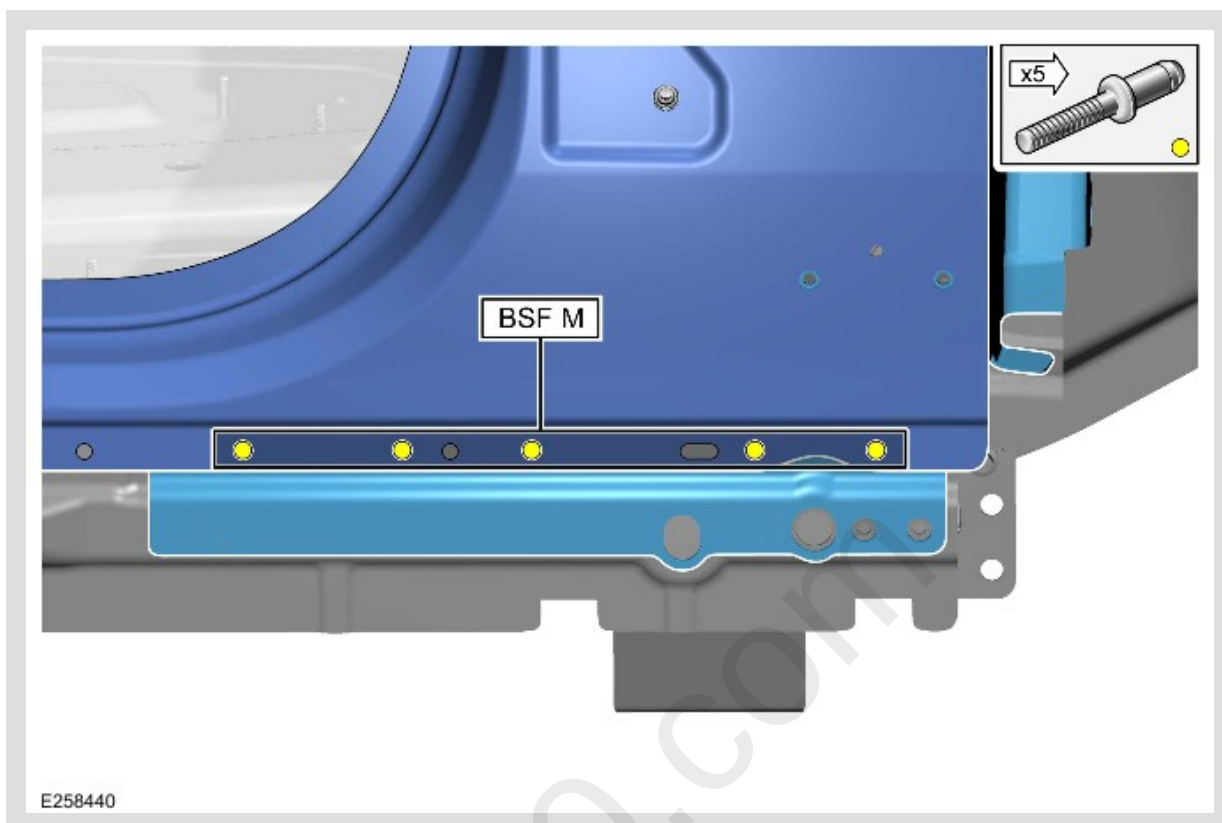
14.



Install the FFR and BSFs as indicated.

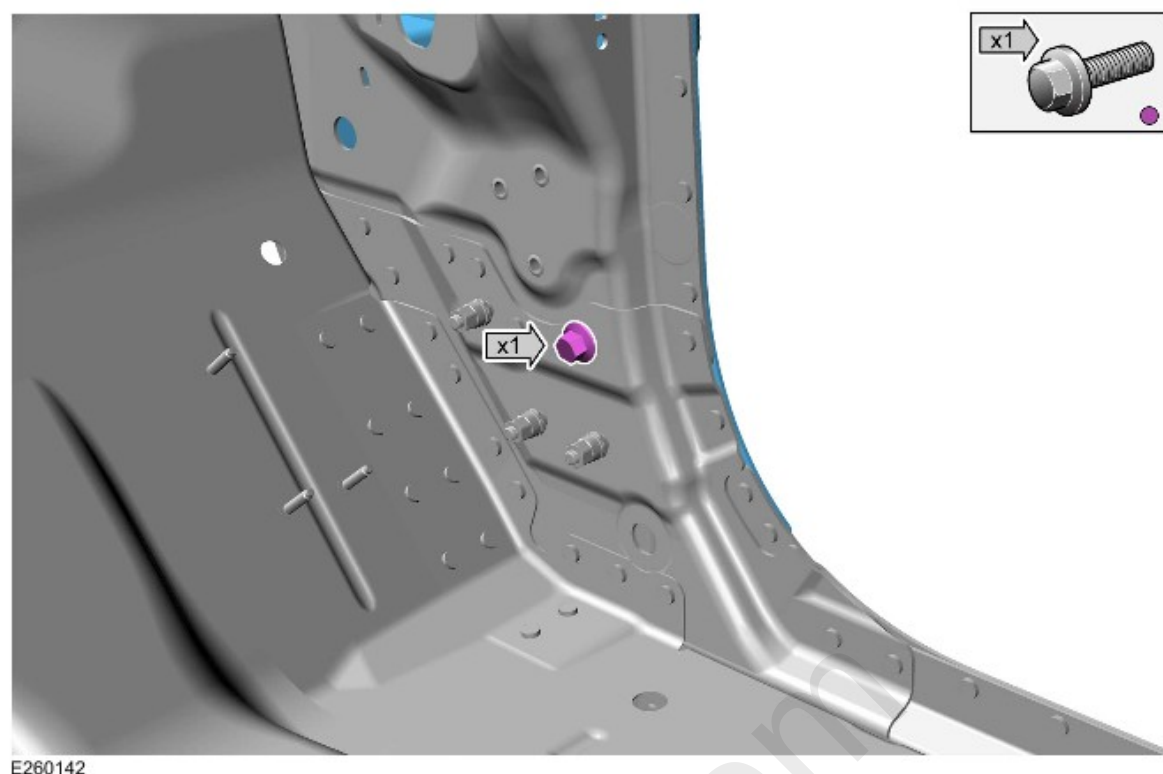
 NOTE:

When installing the A-pillar reinforcement in conjunction with side panel procedures.



Install the BSFs as indicated.

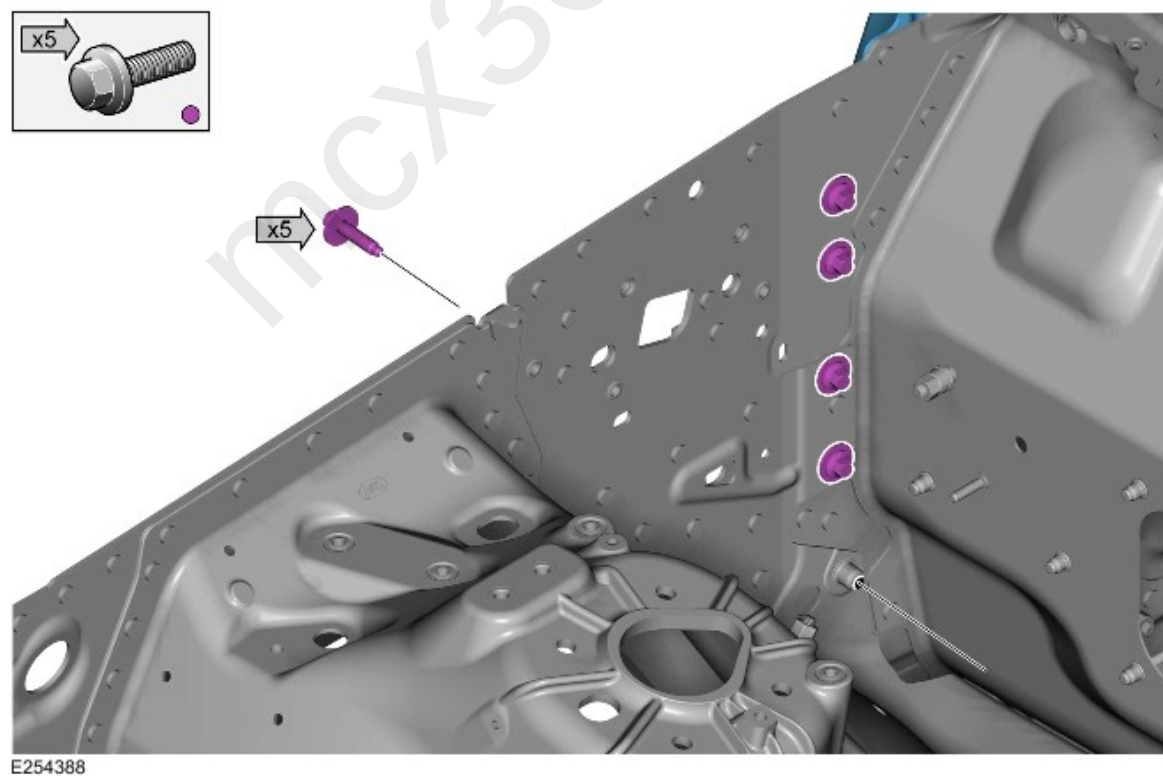
16.



Install the bolt and tighten.

Torque: 60Nm

17.



Install the bolts and tighten.

Torque: 25 Nm

18. Remove any excess adhesive.

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

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

21. 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.

22. For additional installation information

Refer to: [A-Pillar Outer Panel - 90](#) (501-29 Side Panel Sheet Metal Repairs, Removal and Installation).

23. For additional installation information

Refer to: [Side Panel - 90](#) (501-29 Side Panel Sheet Metal Repairs, Removal and Installation).

24. For additional installation information

Refer to: [Front Fender Mounting Bracket Lower - 90](#) (501-27 Front End Sheet Metal Repairs, Removal and Installation).