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2020.0 DEFENDER (LE), 501-30

REAR END SHEET METAL REPAIRS

OUTER TAIL LAMP OUTER PANEL SECTION RIGHT SIDE - 90 (G2452703)

mcx30.com

REMOVAL

 NOTE:

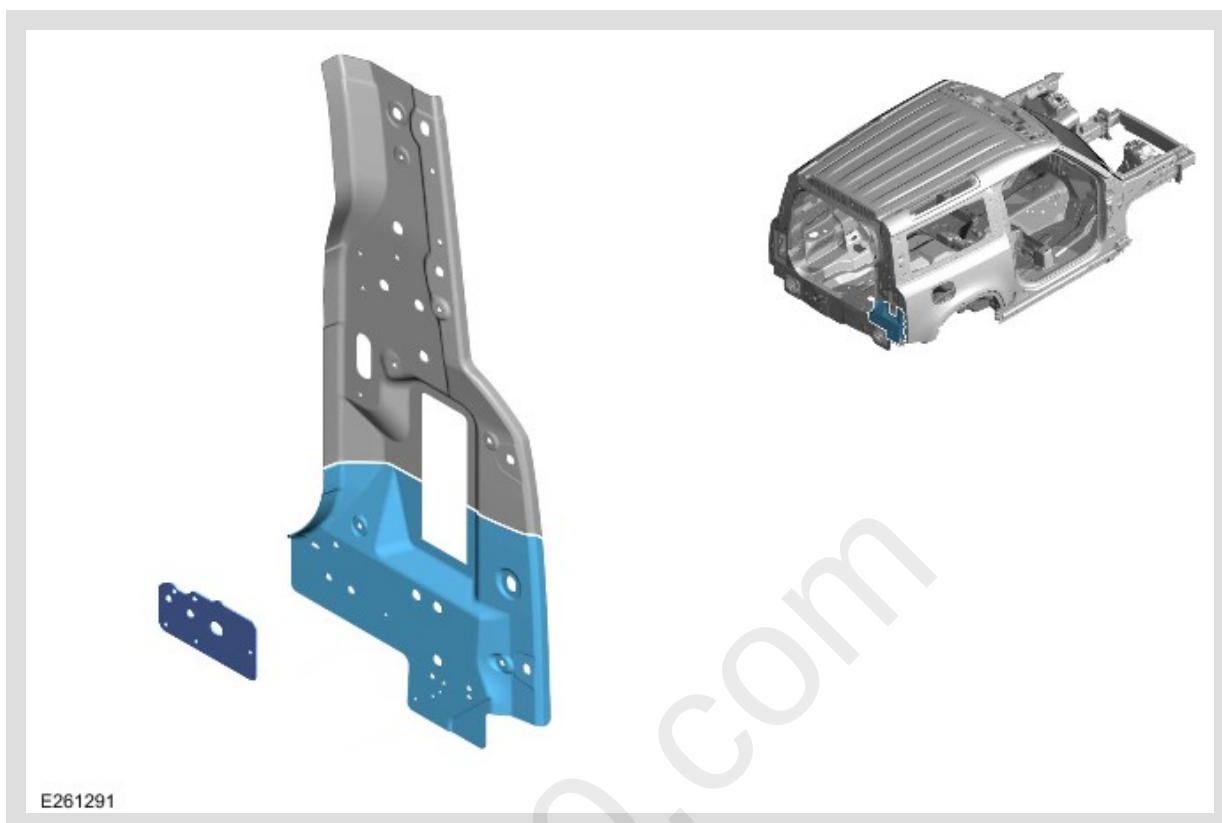
In this procedure, the outer tail lamp outer panel section right side is installed in conjunction with:

- Rear quarter trim panel
- Loadspace upper trim panel
- Rear quarter panel moulding
- Tail lamp assembly
- Tailgate
- Rear bumper
- Rear armature.

1.

 NOTE:

Additional item will be required to complete the repair.



The outer tail lamp outer panel 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).

**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 outer tail lamp outer panel section 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](#) (501-30 Rear End Sheet Metal Repairs, Specifications).

5. For additional removal information

Refer to: [Rear Quarter Trim Panel - 90](#) (501-05 Interior Trim and Ornamentation, Removal and Installation).

6. For additional removal information

Refer to: [Loadspace Upper Trim Panel - 90](#) (501-05 Interior Trim and Ornamentation, Removal and Installation).

7. For additional removal information

Refer to: [Rear Quarter Panel Moulding](#) (501-08 Exterior Trim and Ornamentation, Removal and Installation).

8. For additional removal information

Refer to: [Tail Lamp Assembly](#) (417-01 Exterior Lighting, Removal and Installation).

9. For additional removal information

Refer to: [Tailgate](#) (501-03 Body Closures, Removal and Installation).

10. For additional removal information

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

11. For additional removal information

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

12. Release and position the floor carpet to one side.

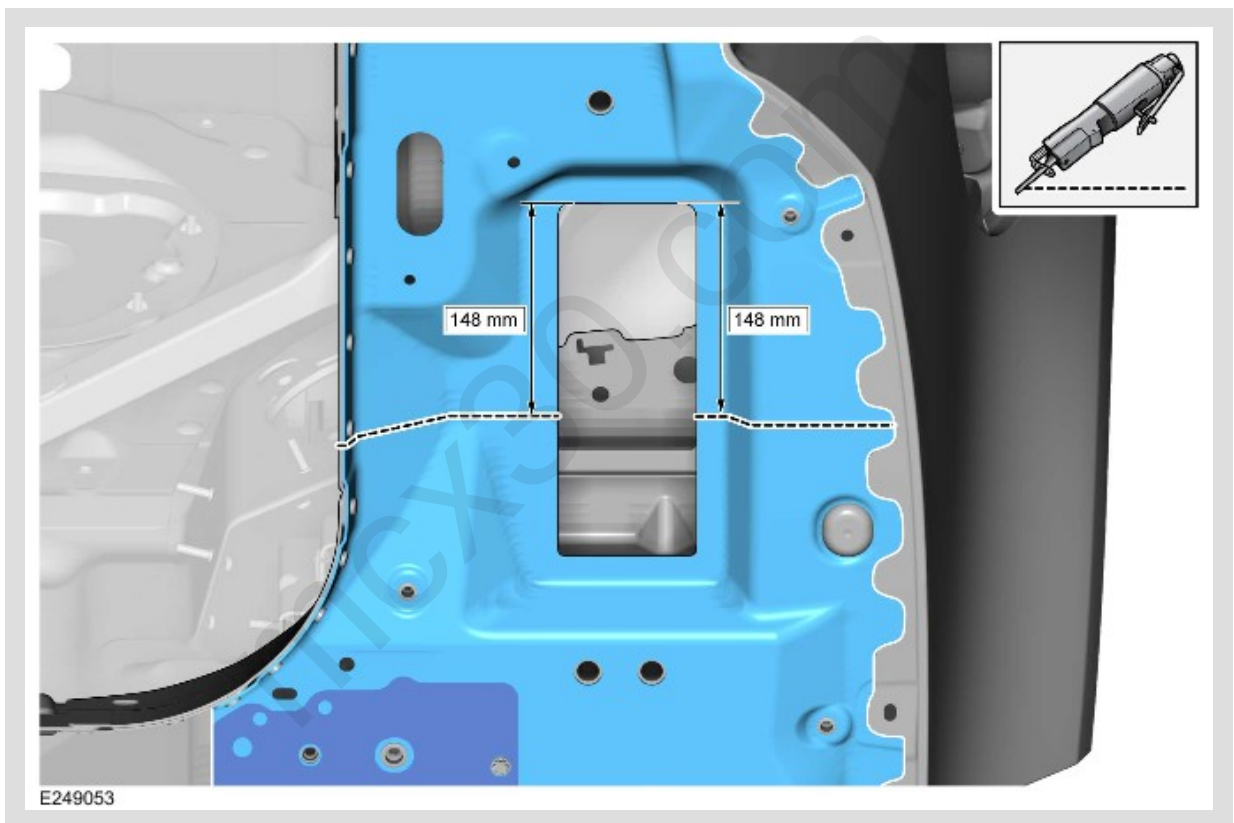
13. Release and position the floor Noise, Vibration and Harshness (NVH) material to one side.

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

15. Remove the tailgate lower hinge.

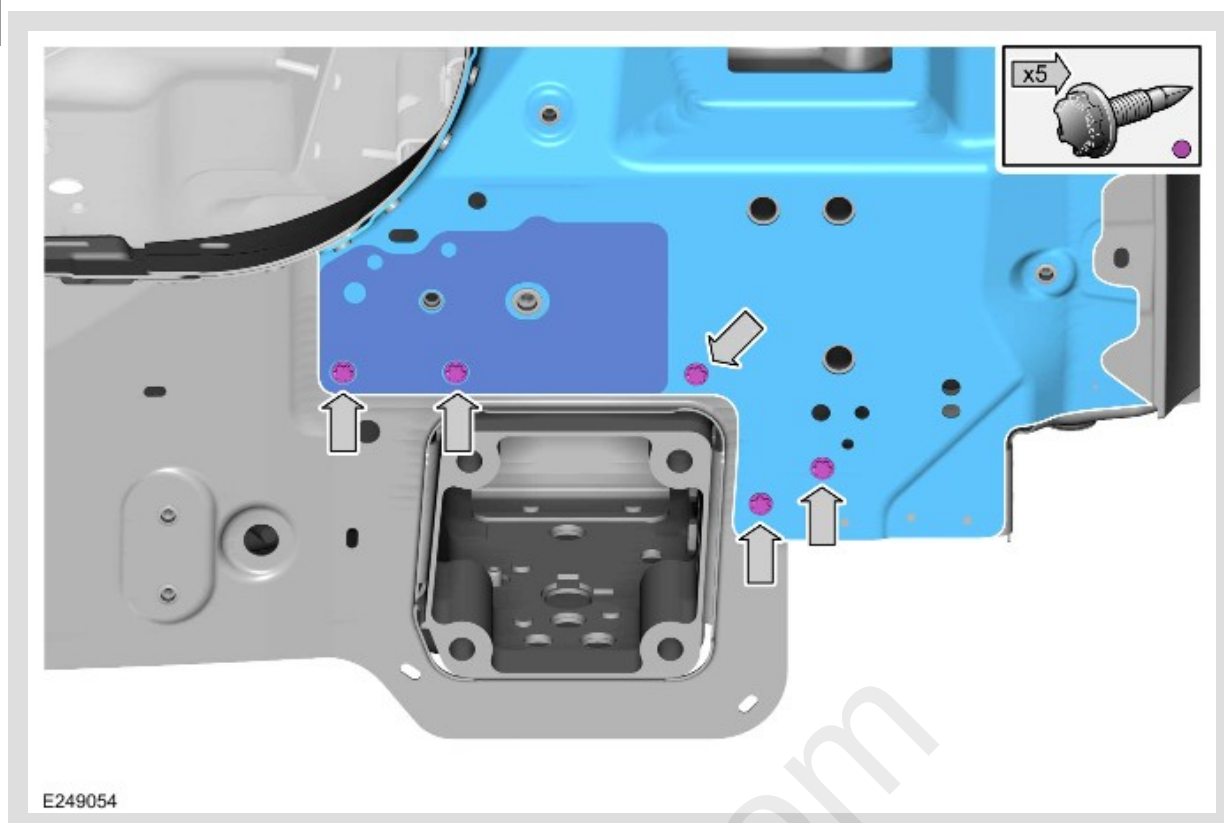
16. **⚠ CAUTION:**

Care should be taken not to cut through into the inner reinforcements.



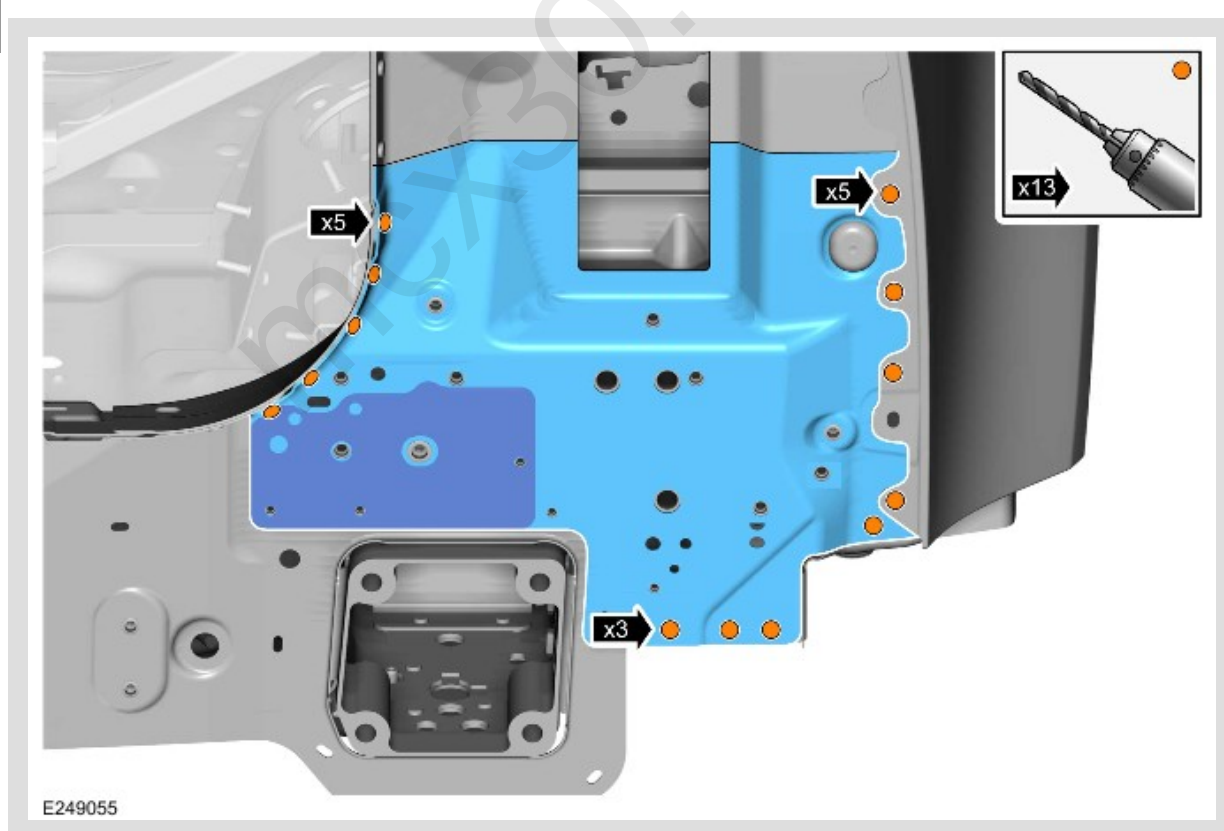
Measure, mark and cut the outer tail lamp outer panel, where the Metal Inert Gas (MIG) welded butt joints are to be made as indicated.

17.



Remove the friction drilling screws as indicated.

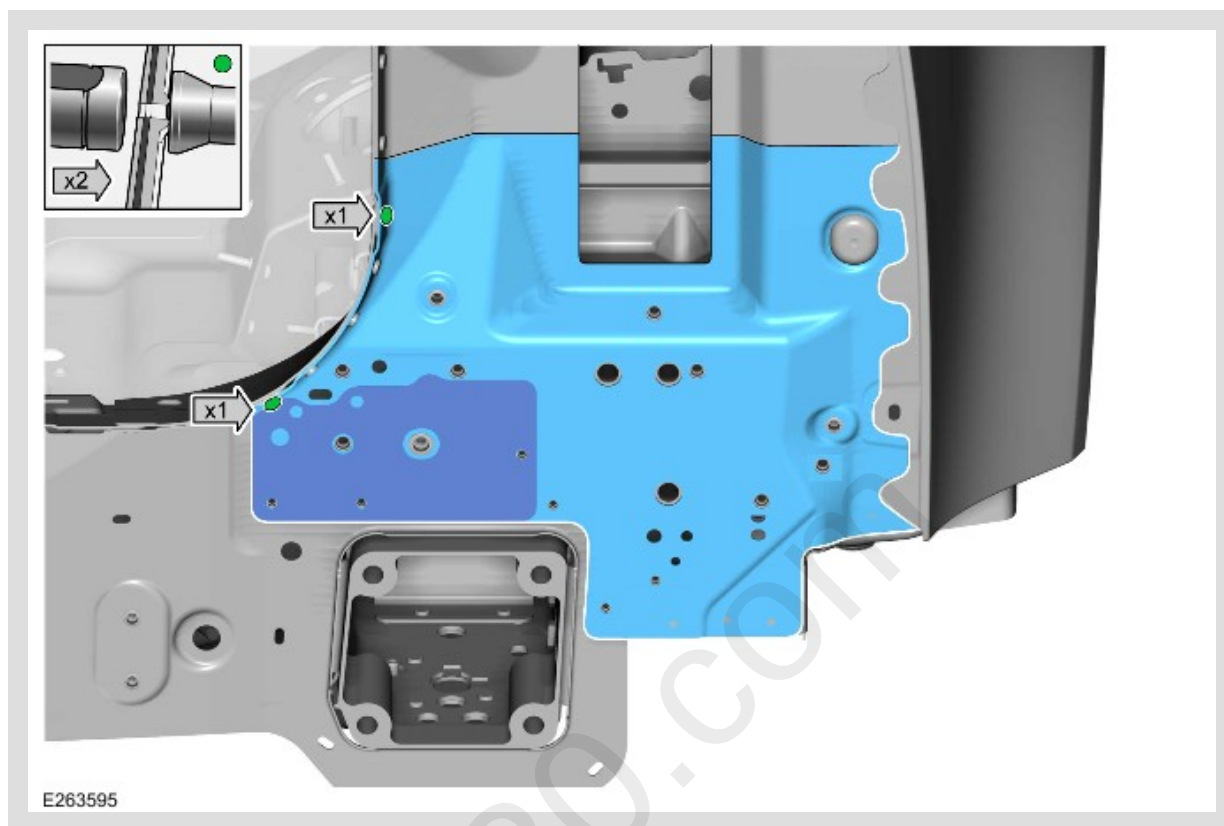
18.



Remove the self piercing rivets as indicated.

 NOTE:

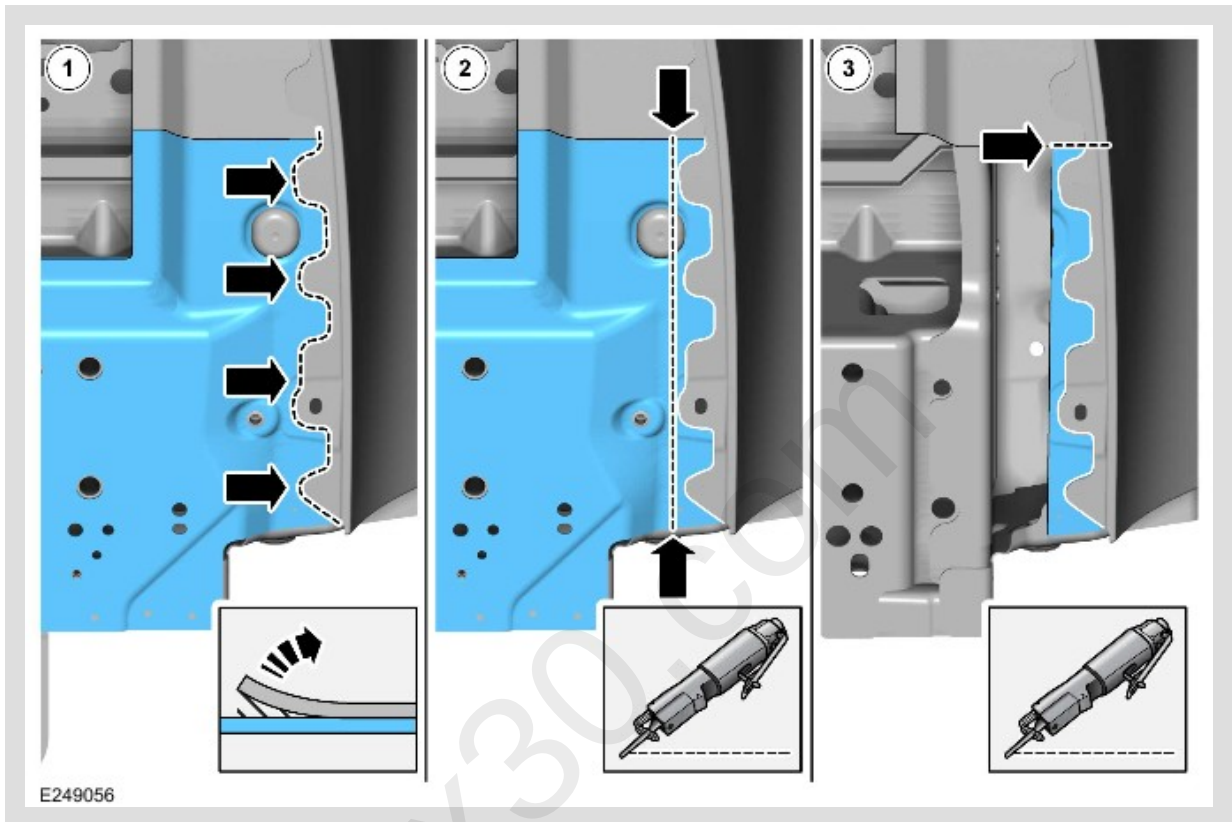
Where Flow Form Rivet (FFR) installation is indicated. Make sure that the panel is planished before removal.



Planish the panel as indicated.

NOTE:

- 1. Carefully separate the joints as indicated.
- 2. Measure, mark and cut the old outer tail lamp outer panel section as indicated and remove.
- 3. Complete the cut to the outer tail lamp outer panel section as indicated.



Carefully separate the joints and remove the outer tail lamp outer panel section remnants.

INSTALLATION

CAUTION:

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

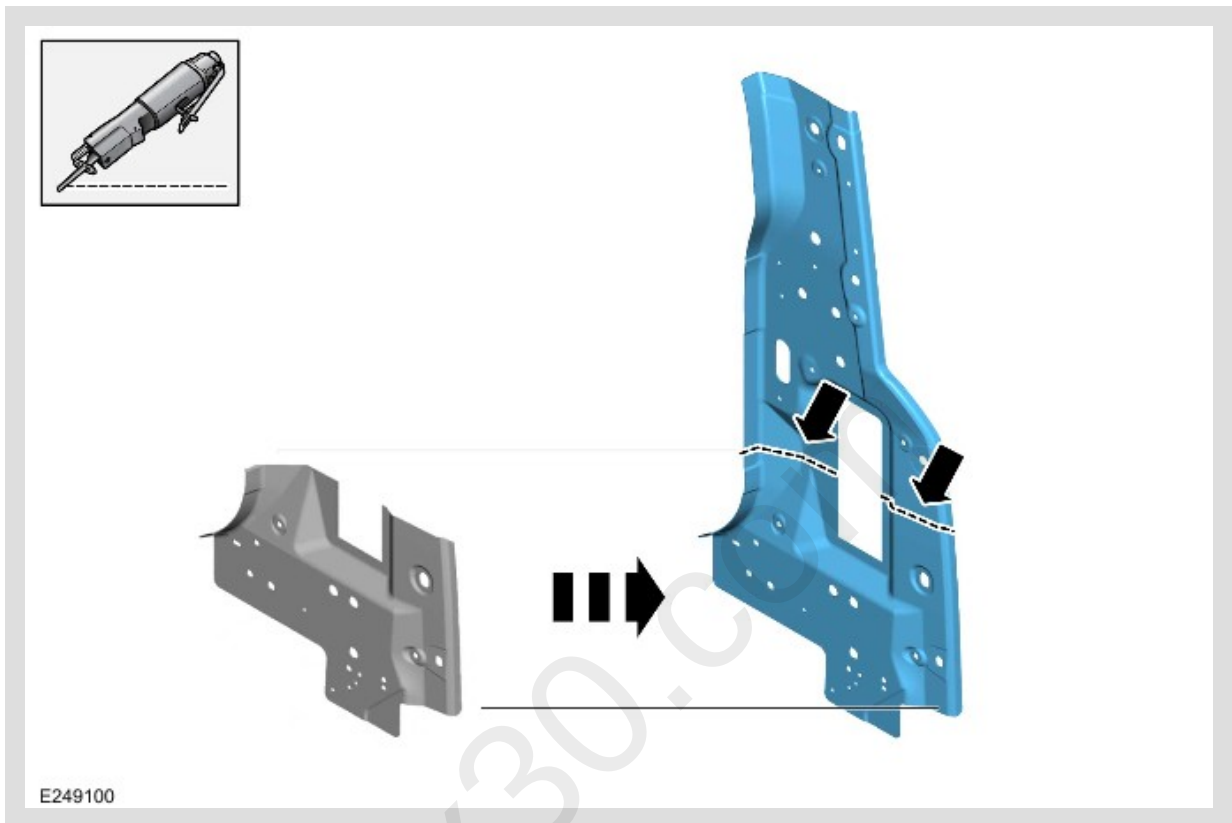
NOTES:

- 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.



Use the old outer tail lamp outer panel section as a guide. Measure, mark and cut the new outer tail lamp outer panel, where the MIG butt joints are to be made as indicated.

4.

 NOTE:

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

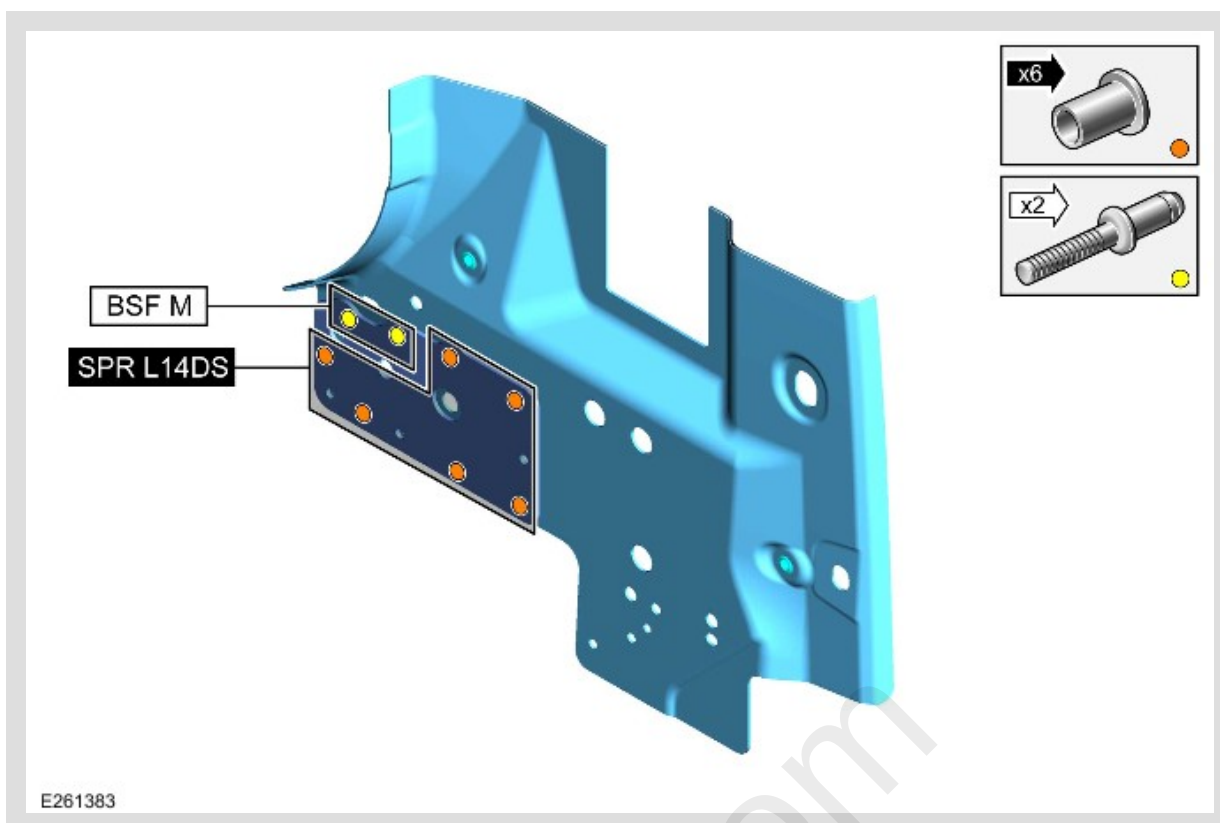


Apply a 5 mm zig zag bead of the JLR recommended bonding material as indicated.

5.

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

6.

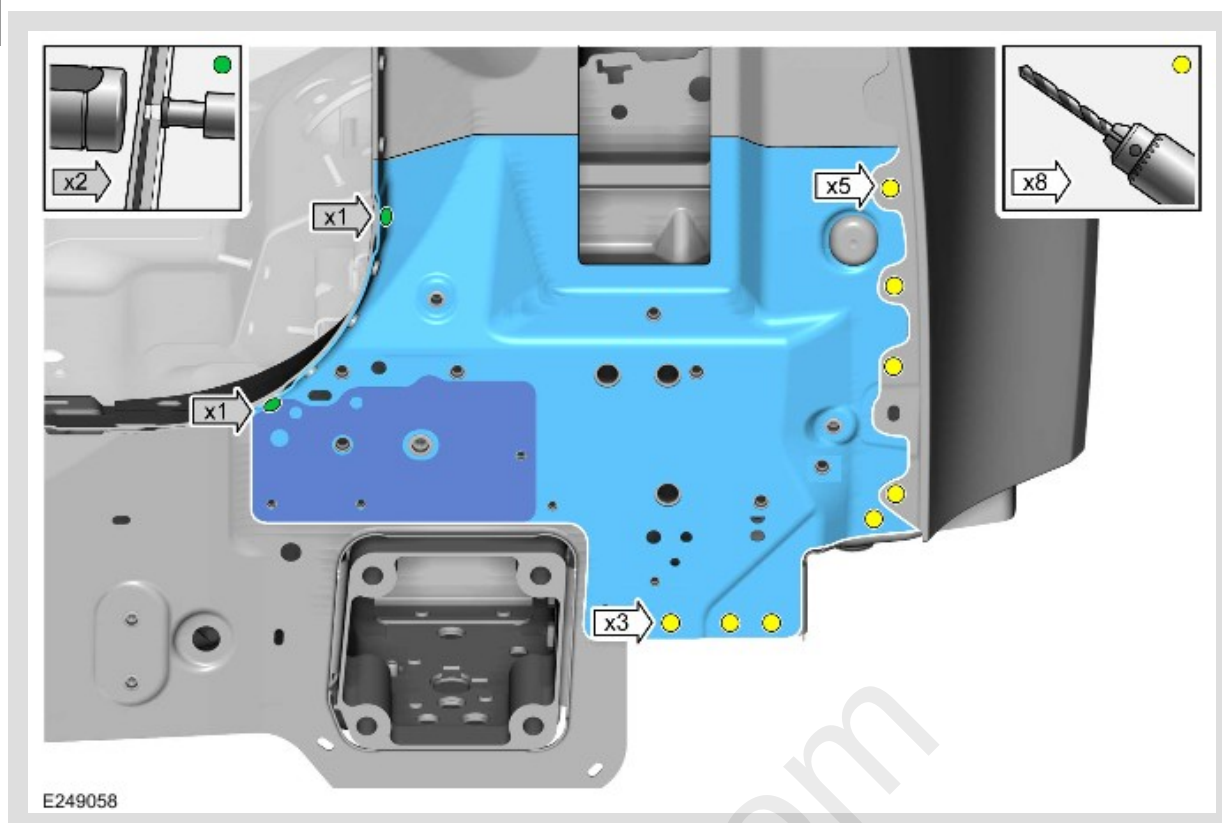


Install the Breakstem Fasteners (BSFs) and Self Piercing Rivets (SPRs) as indicated.

7.

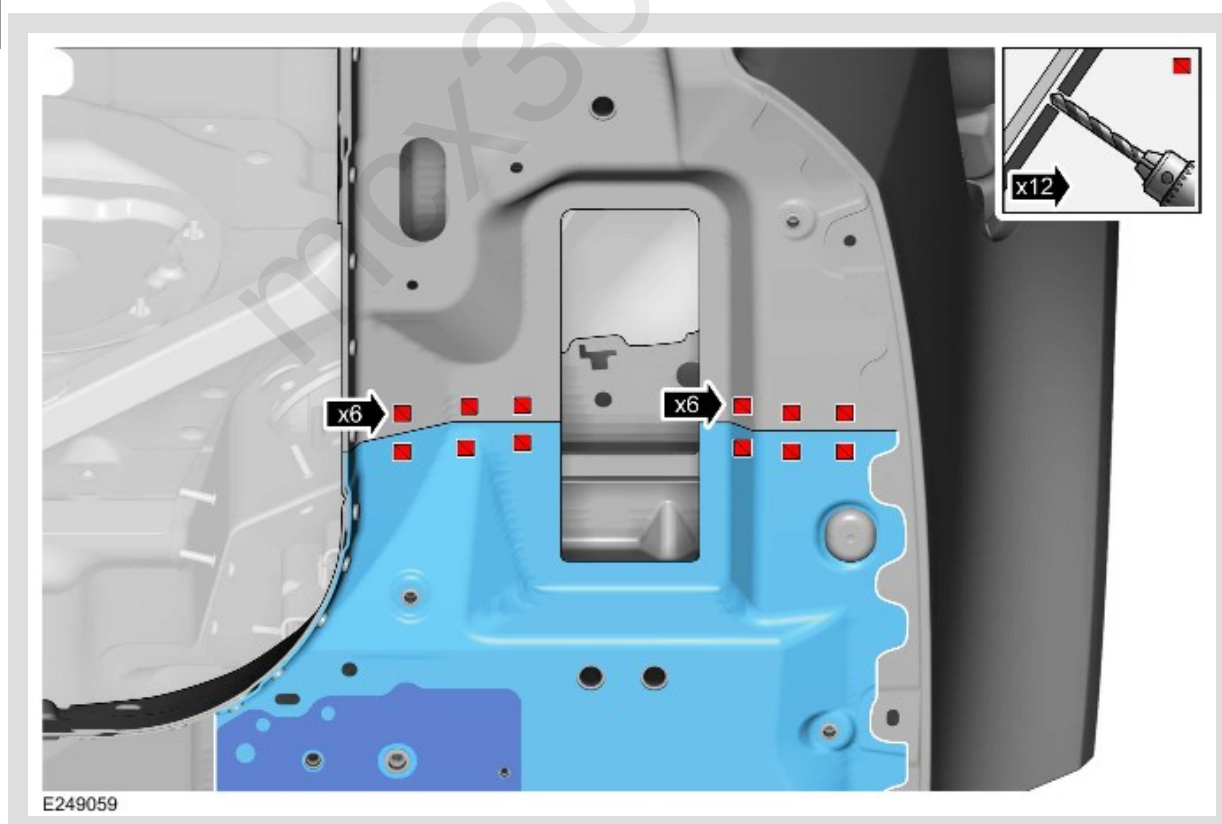
Offer up the new outer tail lamp outer panel section and clamp into position. Check alignment, if correct proceed to next step, if not rectify and check the alignment again before proceeding.

8.



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

9.



Drill holes where the backing plates are to be installed as indicated.

10. Remove the new outer tail lamp outer panel section.

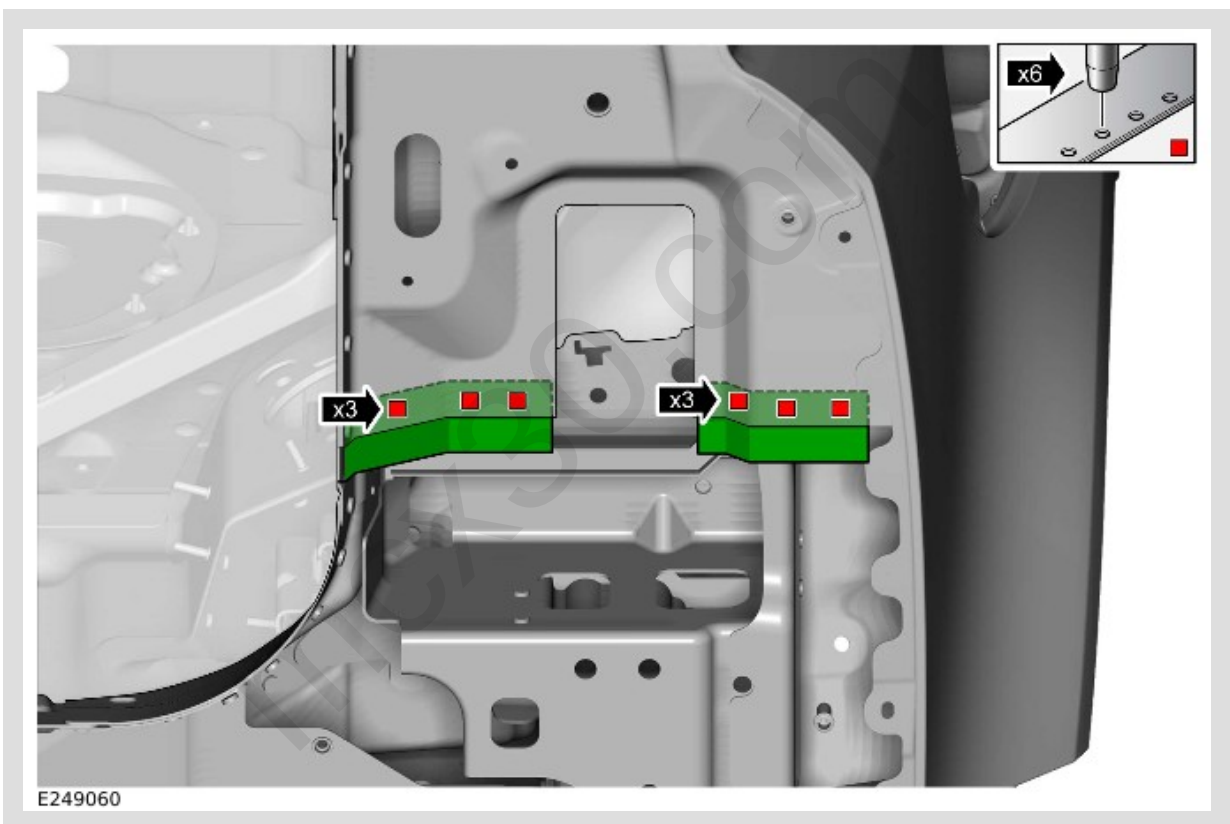
11. Deburr the drilled holes.

12. Measure and cut 2 backing plates 50 mm wide, 25 mm each side of the MIG butt joints from the outer tail lamp outer panel section remnant.

13. Cut 3 run on/run off tabs from the outer tail lamp outer panel section remnant.

14. Clean and prepare the panel surfaces.

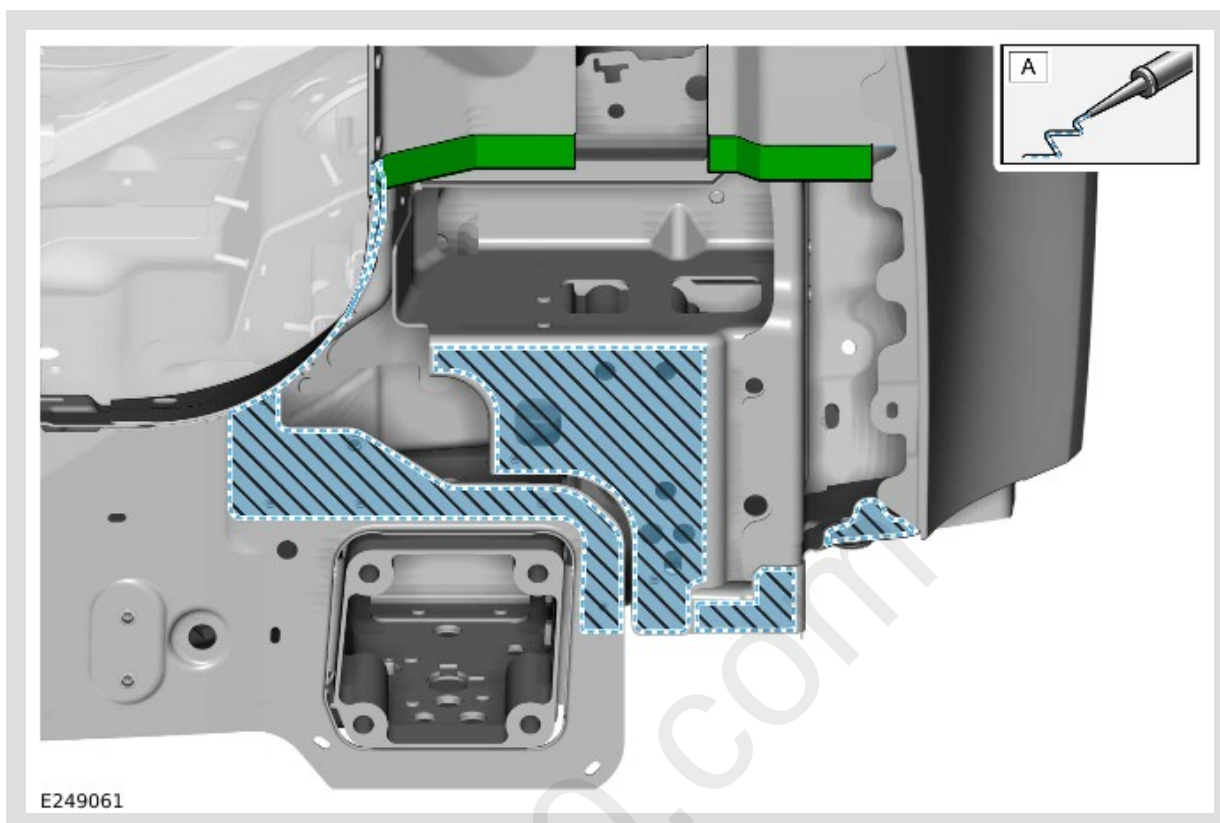
15.



Install and MIG plug weld the backing plates as indicated.

 NOTE:

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

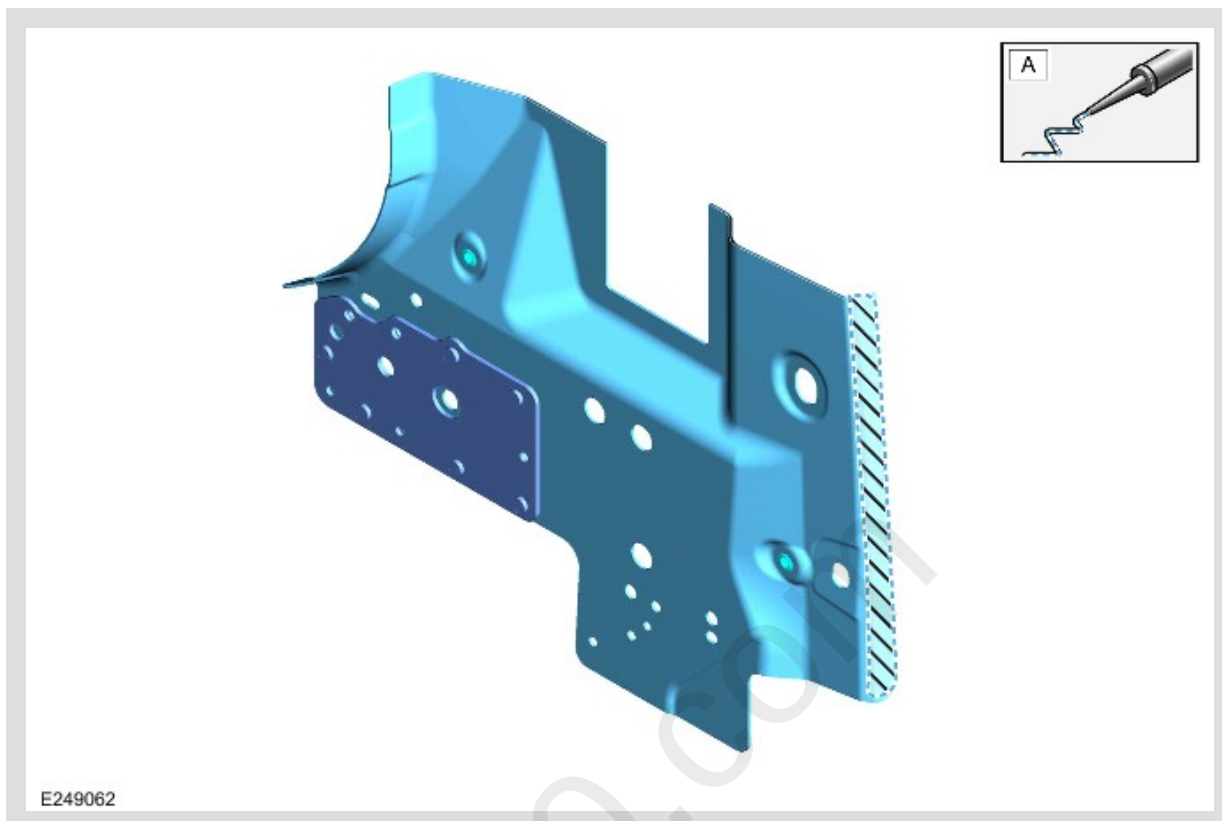


Apply a 5 mm zig zag bead of the JLR recommended bonding material as indicated.

17.

 NOTE:

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

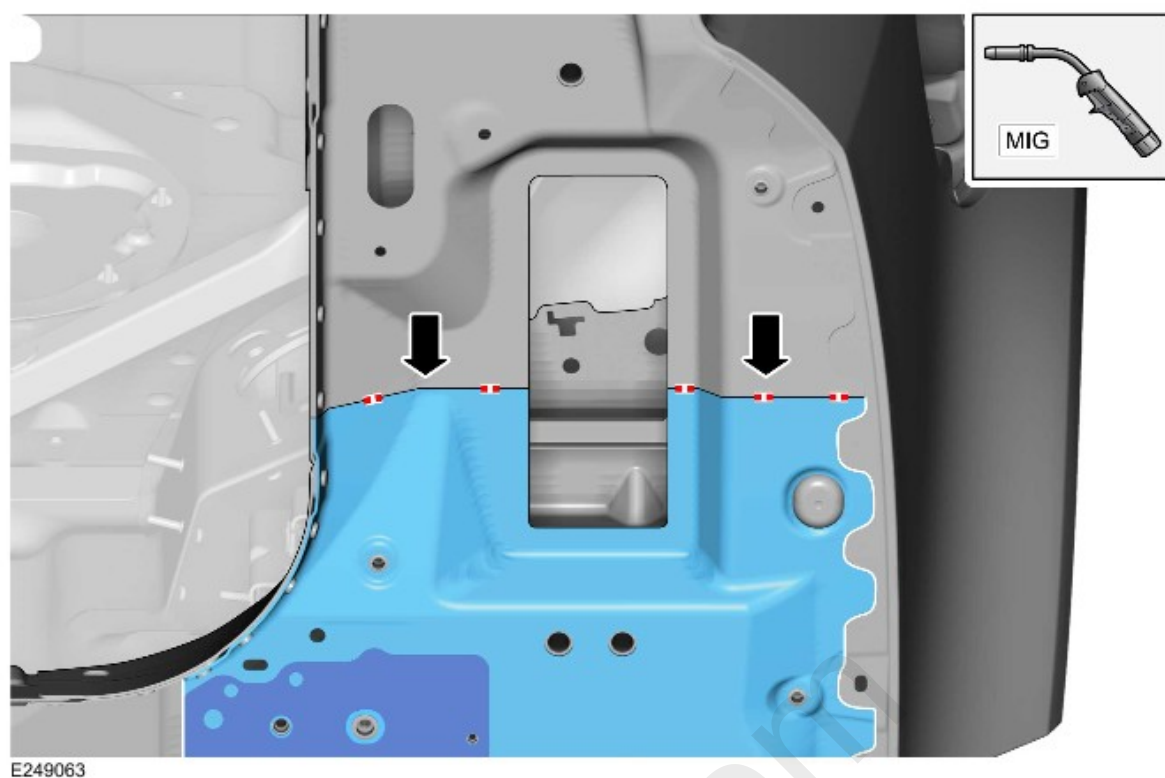


Apply a 5 mm zig zag bead of the JLR recommended bonding material as indicated.

18.

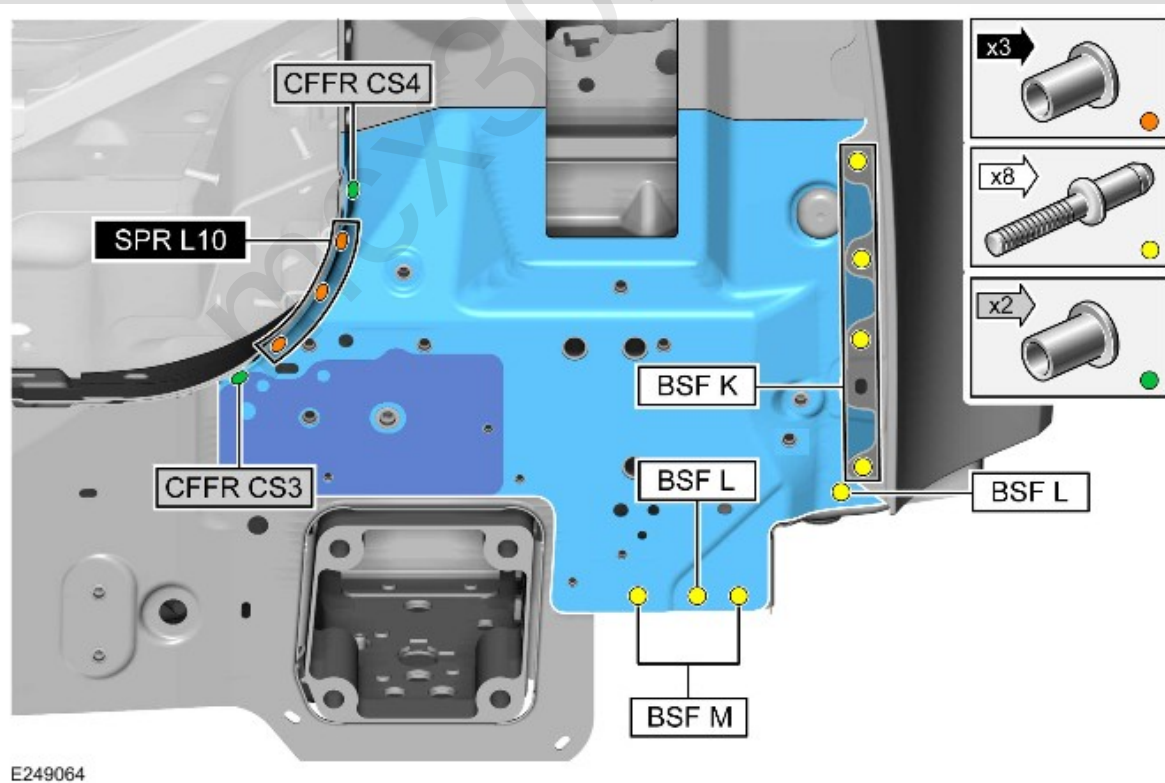
Offer up the new outer tail lamp outer panel section and clamp into position. Check alignment, if correct proceed to next step, if not rectify and check the alignment again before proceeding.

19.



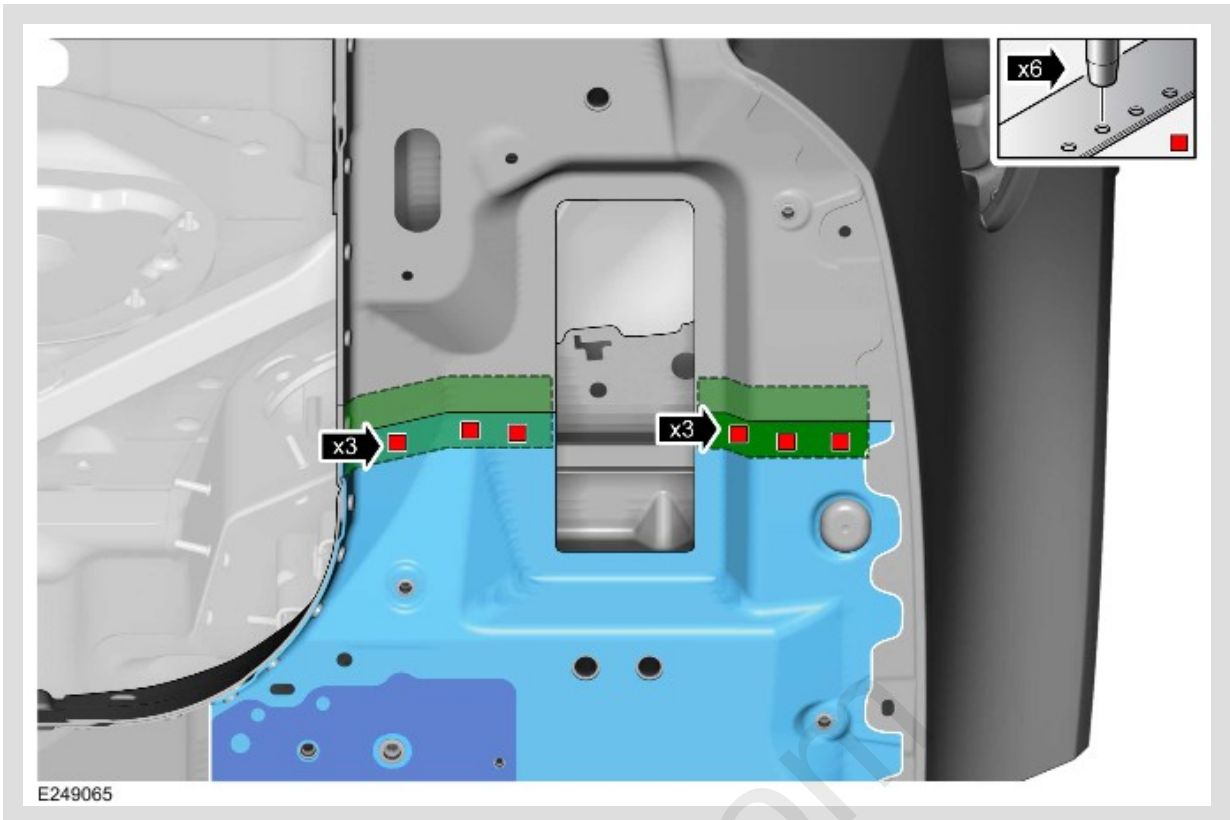
Tack MIG weld the butt joints as indicated.

20.



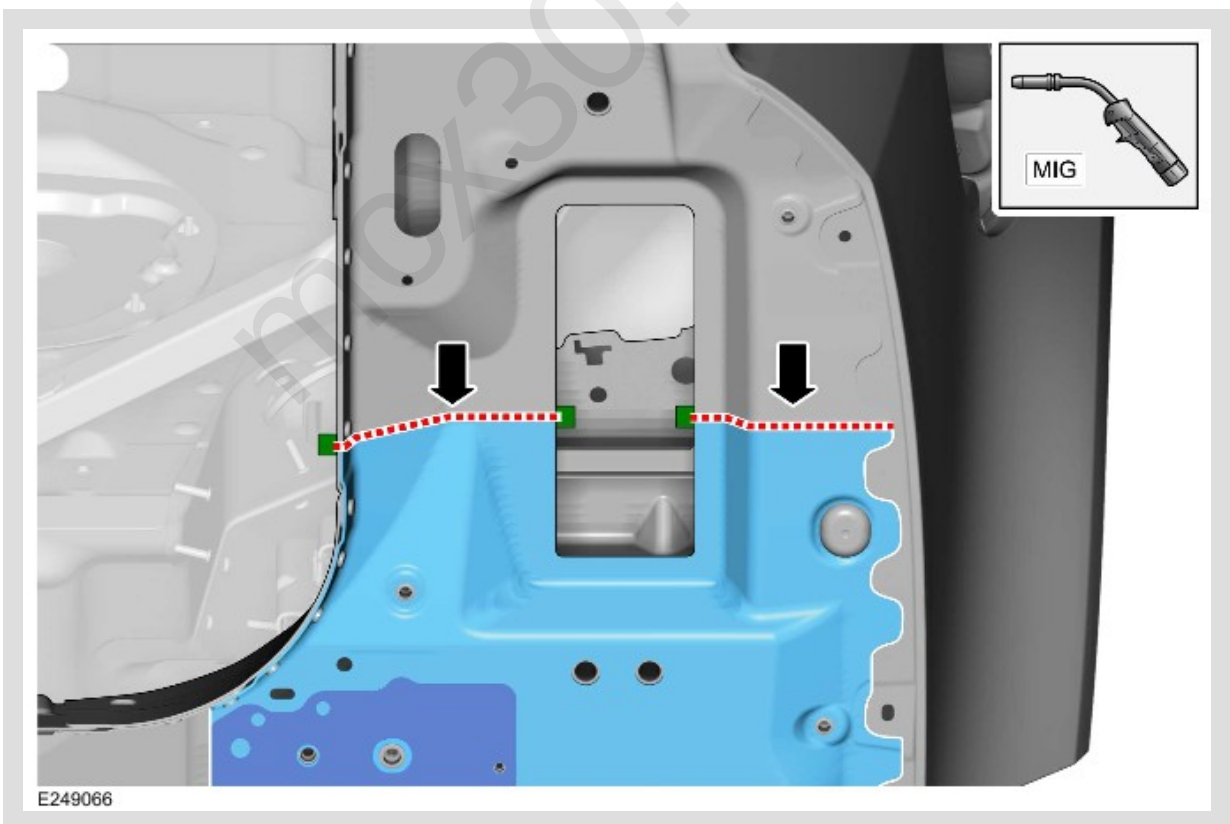
Install the BSFs, FFRs and SPRs as indicated.

21.



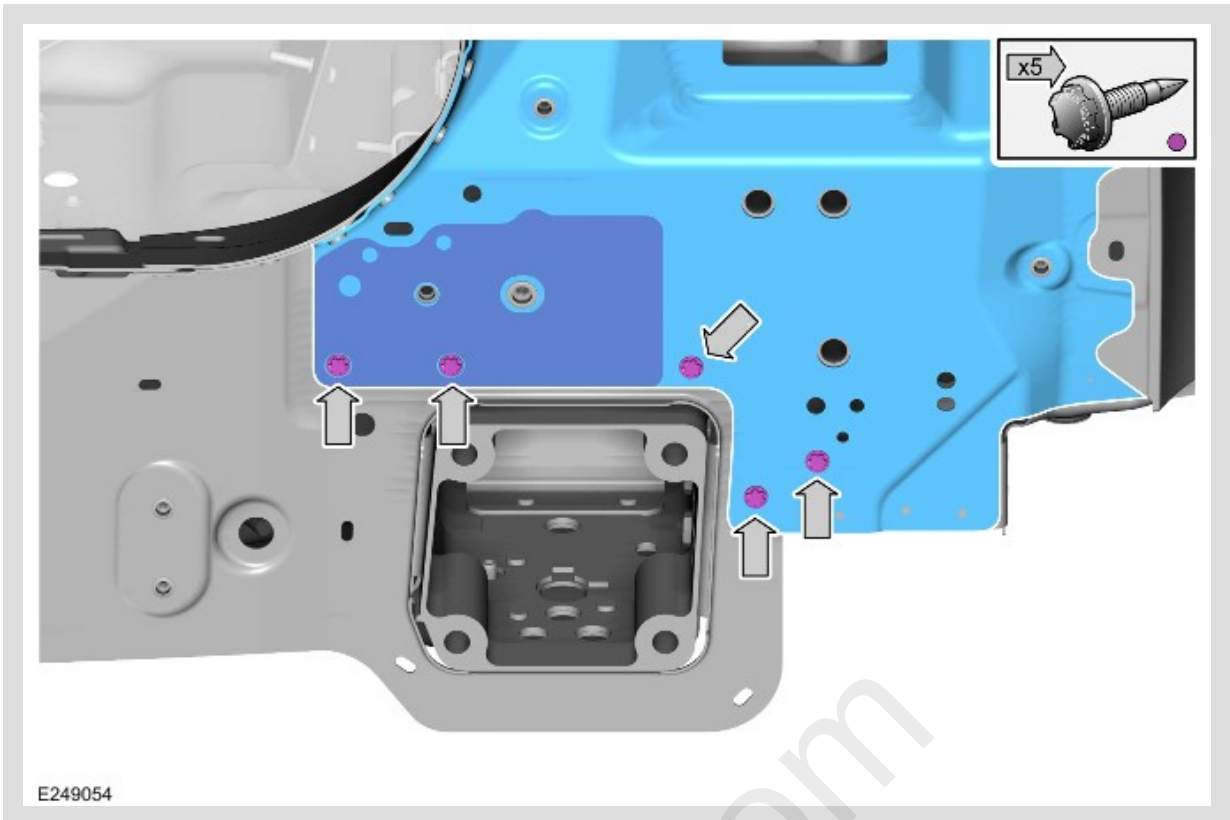
MIG plug weld the backing plates as indicated.

22.



Install the run on/run off tabs and MIG weld the butt joints as indicated.

23.



Install the new M6 friction drilling screws and tighten.

Torque: 10Nm

24. Dress all welds.

25. Remove the run on/run off tabs.

26. Complete a non-destructive crack inspection on the MIG butt joints. If correct proceed to next step, if not, rectify and check again before proceeding.

27. Remove any excess adhesive.

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

29. Install the tailgate lower hinge and tighten the bolts.

Torque: 60Nm

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

31. 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.

32. For additional installation information

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

33. For additional installation information

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

34. For additional installation information

Refer to: [Tailgate](#) (501-03 Body Closures, Removal and Installation).

35. For additional installation information

Refer to: [Tail Lamp Assembly](#) (417-01 Exterior Lighting, Removal and Installation).

36. For additional installation information

Refer to: [Rear Quarter Panel Moulding](#) (501-08 Exterior Trim and Ornamentation, Removal and Installation).

37. For additional installation information

Refer to: [Loadspace Upper Trim Panel - 90](#) (501-05 Interior Trim and Ornamentation, Removal and Installation).

38. For additional installation information

Refer to: [Rear Quarter Trim Panel - 90](#) (501-05 Interior Trim and Ornamentation, Removal and Installation).