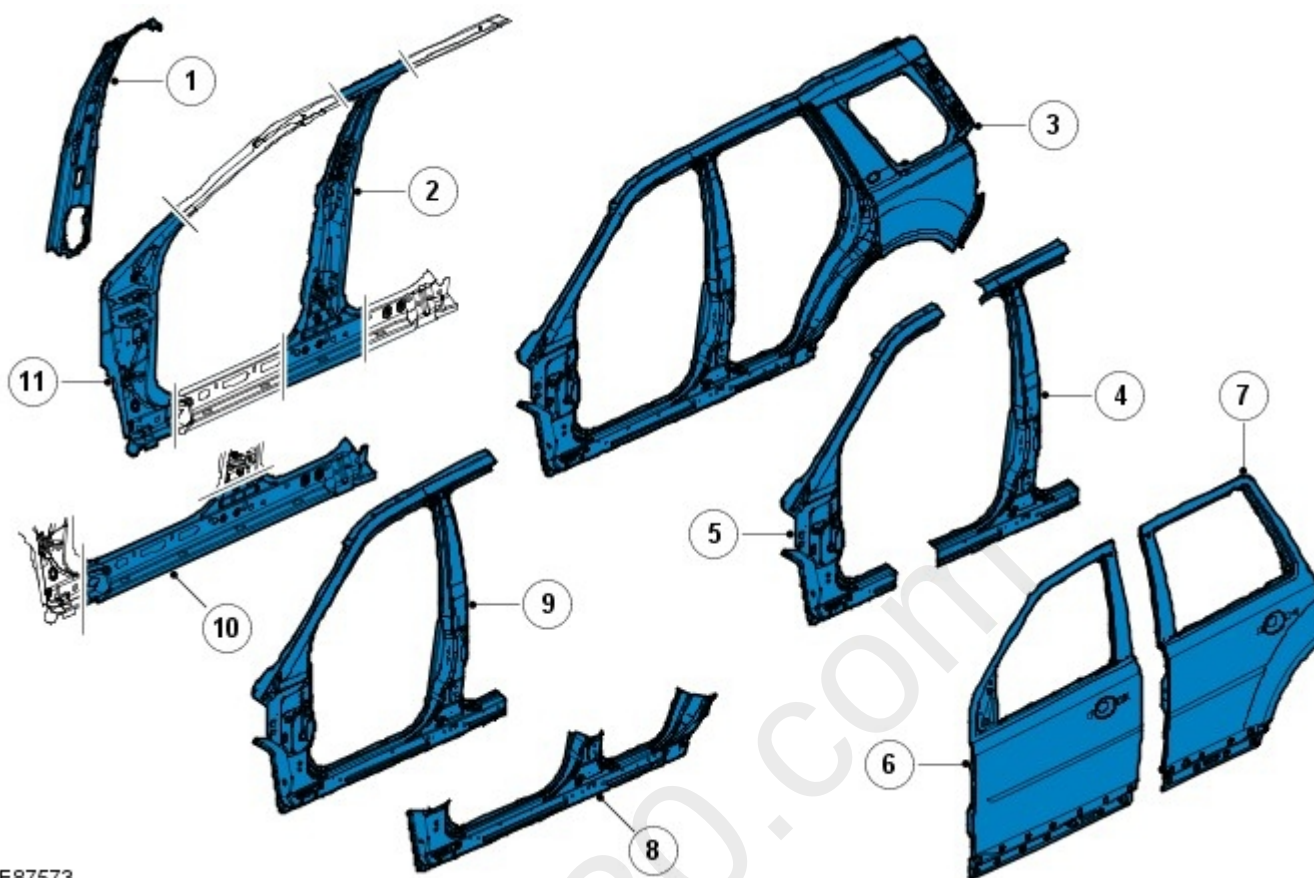


Side Panel Sheet Metal Repairs - Side Panel Sheet Metal

Description and Operation

Side service panels



E87573

Item	Description
1	B-Pillar inner panel
2	B-Pillar reinforcement
3	Side panel
4	B-Pillar outer panel
5	A-Pillar outer panel
6	Front door
7	Rear door
8	Rocker panel
9	Side panel front section
10	Rocker panel inner reinforcement
11	A-Pillar reinforcement

paragraph

Time schedules, side panels

The following schedules show the total time taken to replace single panels and also combinations of panels. The published times include the removal of Mechanical, Electrical and Trim, (MET), items, plus paint times based on Metallic Clear Over Base Paint, (blends to adjacent panels are not included). A corrosion protection time is included where appropriate.

The times were generated by Thatcham, (the Motor Insurance Repair Research Centre), and are to be used as a guide only, based on new undamaged panels. Job allowances are not included, as a guide Thatcham recommend 0.3 hours to be added to single panel times and 0.5 hours to be added to combination times.

Single panel times

Panel Description	Times
Front fender	5.5
Door front	6.9
Door rear	6.6
Rocker panel	L / H 22.8 R / H 22.7
Quarter panel	L / H 22.9 R / H 24.1
Instrument panel remove and install	6.2
Headliner remove and install	3.3
Windshield glass remove and install	1.9

Combination panel replacement times

Combination panel times

Panel Description	Times
Door front	
Front fender	
Total Time	
	L / H 8.9 R / H 8.9

Combination panel times

Panel Description	Times
Door rear	
Quarter panel	
Headliner remove and install	
Total Time	L / H 27.0 R / H 28.3

Combination panel times

Panel Description	Times
Door front	
Door rear	
B-Pillar outer panel	
B-Pillar reinforcement	
B-Pillar inner panel	
Headliner remove and install	
Total Time	L / H 39.0 R / H 39.2

Combination panel times

Panel Description	Times
Door front	
Door rear	
Front fender	
Quarter panel	
Headliner remove and install	
Total Time	L / H 32.2 R / H 33.5

Combination panel times

Panel Description	Times
Door front	
Front fender	
A-Pillar outer panel	
A-Pillar reinforcement	
Instrument panel remove and Install	
Headliner remove and Install	
Windshield glass remove and Install	
Total Time	
	L / H 37.2 R / H 37.5

Side Panel Sheet Metal Repairs - Side Panel

Removal and Installation

Removal



CAUTION: The side panel must be MIG slot brazed to its reinforcement, which contains DP600, (Dual Phase steel). **MIG plug welds / spot welds, must not be used.**

• **NOTE:** The side panel is serviced as a separate weld on panel, serviced less the fender mounting bracket, which is serviced separately.

• **NOTE:** There are NVH elements attached inside this panel, they are not serviced on the new panel. If damaged, new element/s will be required.

1. The side panel is replaced in conjunction with:

- Front bumper cover
- Front fender
- Hood
- Front door
- Rear door
- Quarter glass
- Instrument panel
- Windshield glass
- Headliner
- Rear bumper cover

2. For additional information relating to this repair procedure please see the following:

For additional information, refer to: [Body and Frame](#) (501-26 Body Repairs - Vehicle Specific Information and Tolerance Checks, Description and Operation) / [Standard Workshop Practices](#) (100-00 General Information, Description and Operation).

3. Remove the hood.

4. Remove the front fender.

5. Remove the front door.

For additional information, refer to: [Front Door](#) (501-03 Body Closures, Removal and Installation).

6. Remove the rear door.

For additional information, refer to: [Rear Door](#) (501-03 Body Closures, Removal and Installation).

7. Remove the headliner.

For additional information, refer to: [Headliner - Vehicles Without: Tilting Roof Opening Panel](#) (501-05 Interior Trim and Ornamentation, Removal and Installation) / [Headliner - Vehicles With: Tilting Roof Opening Panel](#) (501-05 Interior Trim and Ornamentation, Removal and Installation).

8. Remove the instrument panel.

For additional information, refer to: [Instrument Panel - TD4 2.2L Diesel](#) (501-12 Instrument Panel and Console, Removal and Installation).

9. Remove the windshield glass.

For additional information, refer to: [Windshield Glass](#) (501-11 Glass, Frames and Mechanisms, Removal and Installation).

10. Remove the rear quarter glass.

For additional information, refer to: [Rear Quarter Window Glass](#) (501-11 Glass, Frames and Mechanisms, Removal and Installation).

11. Remove the rear bumper cover.

For additional information, refer to: [Rear Bumper Cover](#) (501-19 Bumpers, Removal and Installation).

12. Remove the upper and lower door hinges from the A-Pillar, 4 x bolts.

13. Remove the upper and lower door hinges from the B-Pillar, 4 x bolts.

14. Remove the front door striker from the B-Pillar.

15. Remove the rear door striker from the C-Pillar.

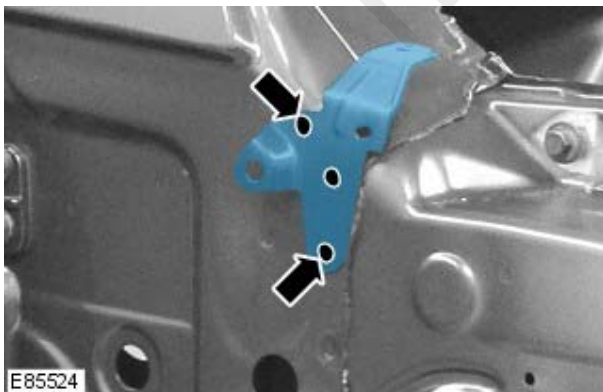
16. Remove the roof moulding, front and rear sections.

17. Remove the side air curtain module.

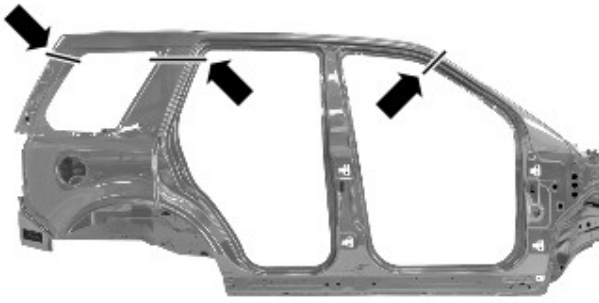
For additional information, refer to: [Side Air Curtain Module](#) (501-20B Supplemental Restraint System, Removal and

Installation).

18. Remove the front seat.
For additional information, refer to: [Front Seat](#) (501-10 Seating, Removal and Installation).
19. Remove the floor console.
For additional information, refer to: [Floor Console](#) (501-12 Instrument Panel and Console, Removal and Installation).
20. Remove the RH & LH rocker panel inner trims.
21. Remove the rear seat cushion.
For additional information, refer to: [Rear Seat Cushion](#) (501-10 Seating, Removal and Installation).
22. Remove the rear carpet section.
23. Remove the B-Pillar side impact sensor.
For additional information, refer to: [B-Pillar Side Impact Sensor](#) (501-20B Supplemental Restraint System, Removal and Installation).
24. Remove the front safety belt retractor.
For additional information, refer to: [Front Safety Belt Retractor](#) (501-20A Safety Belt System, Removal and Installation).
25. Remove the rear safety belt retractor.
For additional information, refer to: [Rear Safety Belt Retractor](#) (501-20A Safety Belt System, Removal and Installation).
26. Release and lay aside the front carpet section.
27. Remove the rear carpet section.
28. Remove the front wheel and tire. LINK
29. Remove the rear wheel and tire.
For additional information, refer to: [Wheel and Tire](#) (204-04 Wheels and Tires, Removal and Installation).
30. Remove the rocker panel outer moulding.
31. Remove the liftgate aperture weatherseal.
32. Remove the forced air extraction grille.
33. Release and lay aside the insulating material at the inner bulkhead.
34. Release and lay aside the insulating material at the inner quarter panel.
35. Release and lay aside the wiring harnesses at the A-Pillar, B-Pillar and rocker panel.
36. Release and lay aside the wiring harness along the inner quarter panel and back panel.
37. Release and lay aside the insulating material at the inner quarter panel.
38. RH side: Drain the fuel tank.
For additional information, refer to: [Fuel Tank Draining](#) (310-00 Fuel System - General Information, General Procedures).
39. RH side: Remove the fuel tank filler pipe.
For additional information, refer to: [Fuel Tank Filler Pipe](#) (310-01A Fuel Tank and Lines - I6 3.2L Petrol, Removal and Installation).
40. Remove the fender mounting bracket:
 - Mill out 3 spot welds. If not re-using the mounting the upper spot weld does not have to be removed.
 - Separate the mounting from the A-Pillar.
 - Retain the mounting if it is being reused, if not, discard.

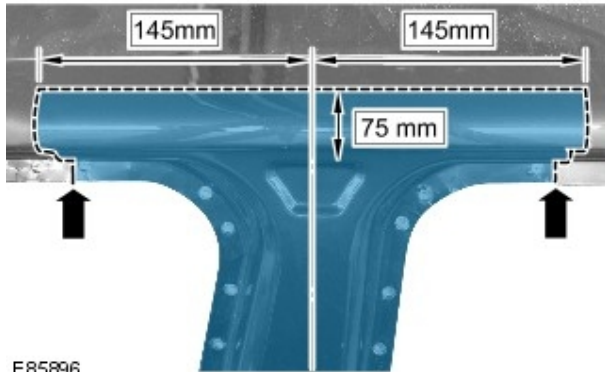


- 41.** Saw cut the old panel at the A-Pillar and rear quarter panel, using the new panel for reference, ensuring that the new panel overlaps the panel remaining on the vehicle.



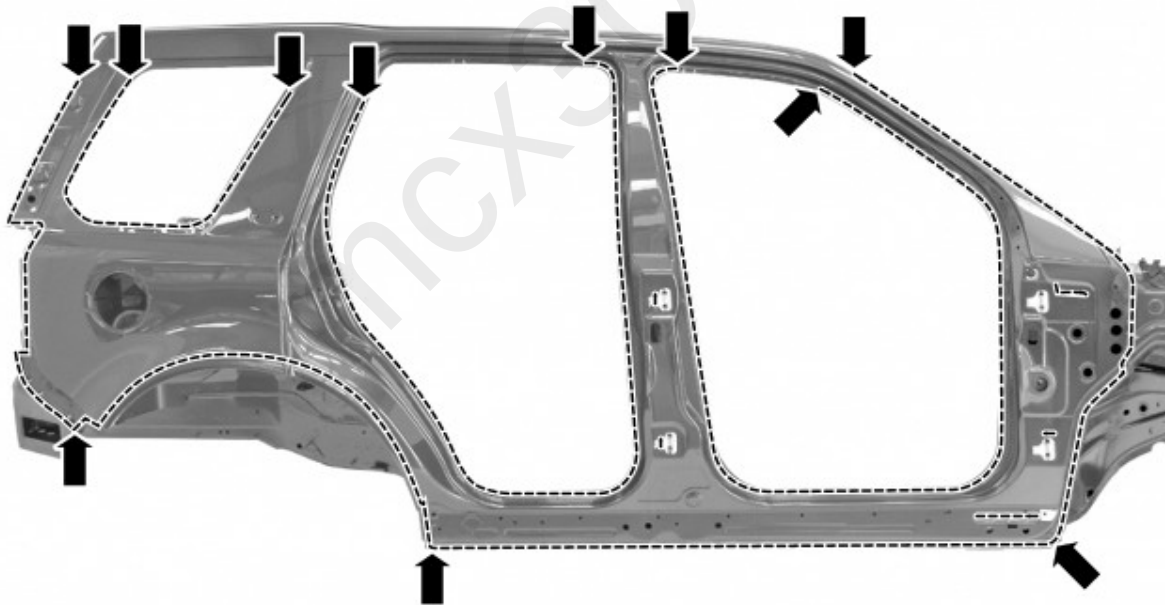
E89254

- 42.** Saw cut the old panel at the B-Pillar, as illustrated, observe the measurements to allow access to the B-Pillar reinforcement.



E85896

- 43.** Mill out the spot welds.



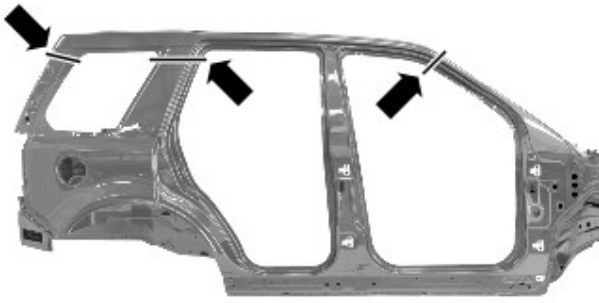
E89258

- 44.** Separate the joints and remove the old panel, also releasing the NVH elements.

Installation

- 1.** Offer up and align the new panel and clamp into position, overlapping the old panel remaining on the vehicle. Check alignment, if correct, proceed to next step, if not, rectify and recheck before proceeding.

2. Saw cut the new and old panels at the A-Pillar and rear quarter panel, ensuring that the new panel overlaps the panel remaining on the vehicle.



E89254

3. Saw cut through the new and old panels at the B-Pillar, where the MIG butt joint is to be made.

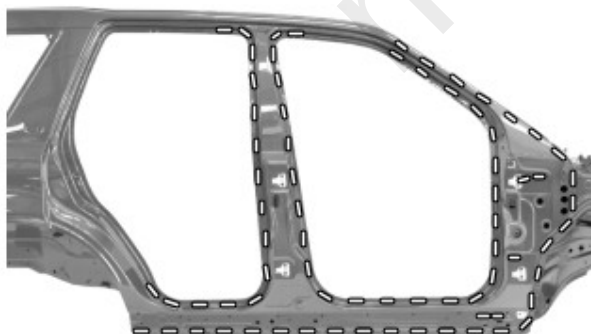
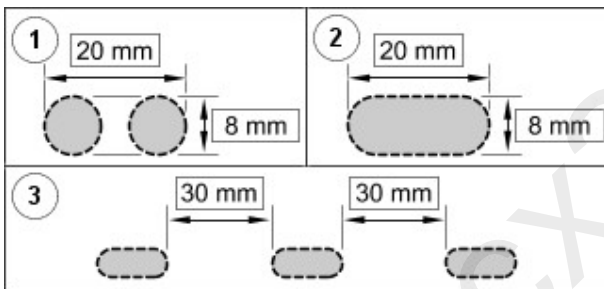


E85899

4. Remove the new panel and the old remnants.

5. NOTE: MIG slots should be installed in accordance with the spacing shown in the illustration. Where this is not possible, due to the indents in the panel, the slot should be made in the location of the original spot weld.

Cut slots in the new panel ready for MIG brazing.



E89257

6. Drill holes in the new panel ready for MIG plug welding.



E85934

7. Prepare the old and new panel joint surfaces.

8. If necessary, renew the NVH element/s.

9. Apply sealer adhesive to the NVH element at the A-Pillar.



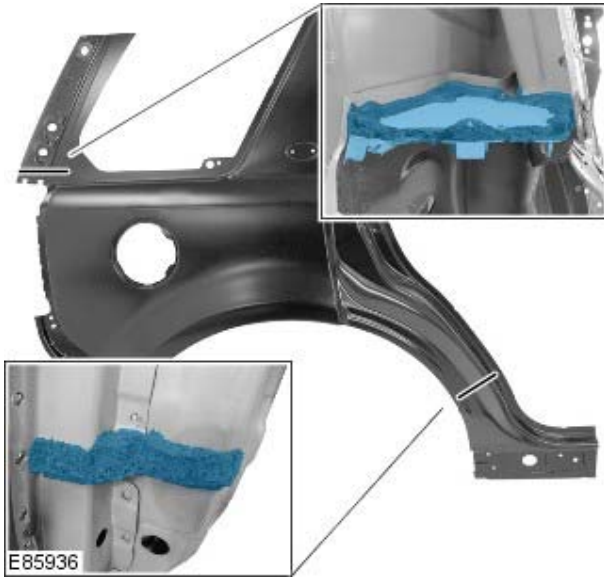
E85530

10. Apply sealer adhesive to the NVH element at the B-Pillar.

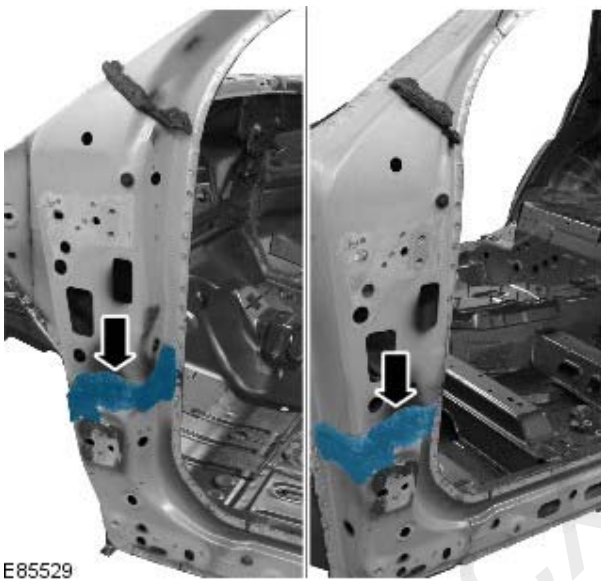


E85901

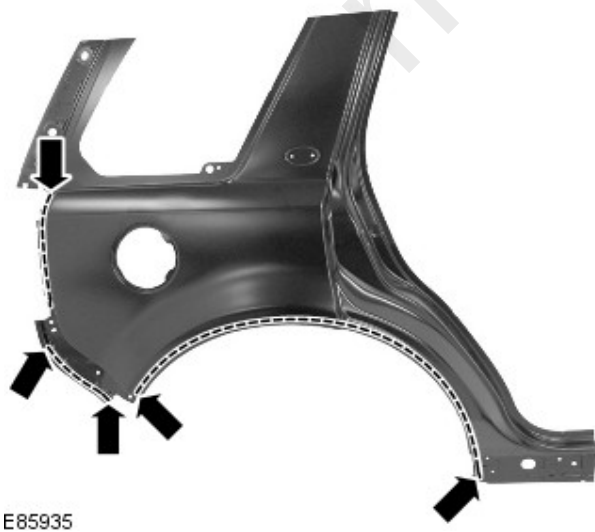
11. Apply sealer adhesive to the NVH elements at the quarter panel.



12. Apply adhesive to the A-Pillar as illustrated.



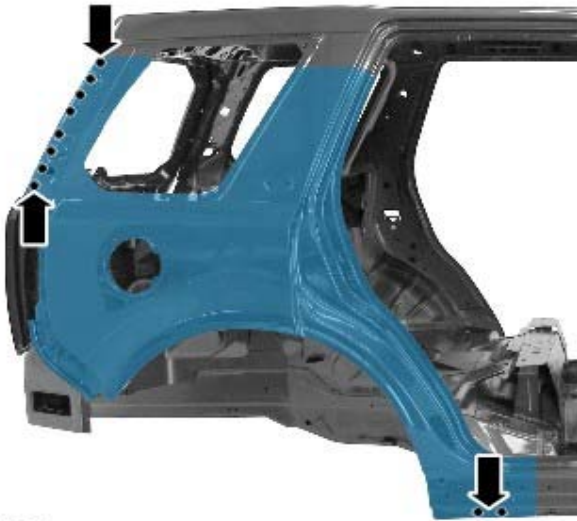
13. Apply adhesive to the quarter panel as illustrated.



14. Offer up the new panel and clamp into position.

15. Tack weld the butt joints.

16. MIG plug weld.

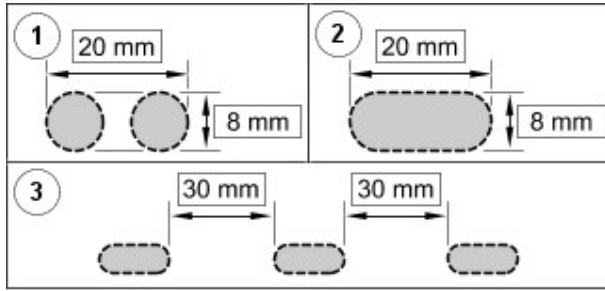


E85938

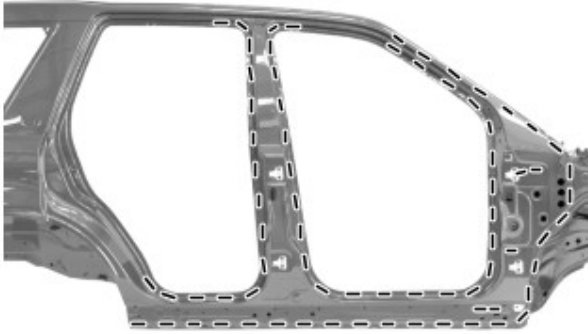
17. Spot weld.



E85937



18. MIG braze the slots.



E89253

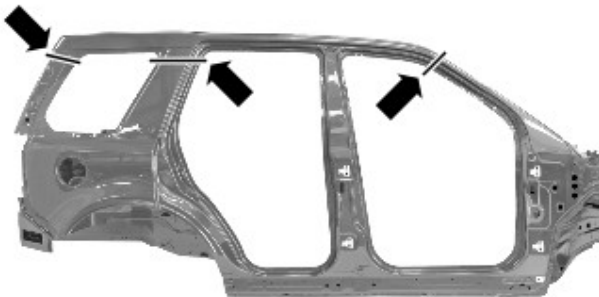
19. Dress the tack welds.

20. MIG weld the butt joint at the upper B-Pillar.



E85899

21. MIG weld the butt joints at the A-Pillar and quarter panel.



E89254

22. Dress all welded joints.

23. The installation of associated panels and mechanical components is the reverse of removal.

Side Panel Sheet Metal Repairs - Side Panel Front Section

Removal and Installation

Removal



CAUTION: The side panel front section must be MIG slot brazed to its reinforcement, which contains DP600, (Dual Phase steel). **MIG plug welds / spot welds, must not be used.**

• NOTE: The side panel front section is serviced as a separate weld on panel, serviced less the fender mounting bracket, which is serviced separately.

• NOTE: There are NVH elements attached inside this panel, they are not serviced on the new panel. If damaged, new element/s will be required.

1. The side panel front section is replaced in conjunction with:

- Front bumper cover
- Front fender
- Hood
- Front door
- Rear door
- Instrument panel
- Windshield glass
- Headliner

2. For additional information relating to this repair procedure please see the following:

For additional information, refer to: [Body and Frame](#) (501-26 Body Repairs - Vehicle Specific Information and Tolerance Checks, Description and Operation) / [Standard Workshop Practices](#) (100-00 General Information, Description and Operation).

3. Remove the hood.

4. Remove the front fender.

5. Remove the front door.

For additional information, refer to: [Front Door](#) (501-03 Body Closures, Removal and Installation).

6. Remove the rear door.

For additional information, refer to: [Rear Door](#) (501-03 Body Closures, Removal and Installation).

7. Remove the headliner.

For additional information, refer to: [Headliner - Vehicles Without: Tilting Roof Opening Panel](#) (501-05 Interior Trim and Ornamentation, Removal and Installation) / [Headliner - Vehicles With: Tilting Roof Opening Panel](#) (501-05 Interior Trim and Ornamentation, Removal and Installation).

8. Remove the instrument panel.

For additional information, refer to: [Instrument Panel - TD4 2.2L Diesel](#) (501-12 Instrument Panel and Console, Removal and Installation).

9. Remove the windshield glass.

For additional information, refer to: [Windshield Glass](#) (501-11 Glass, Frames and Mechanisms, Removal and Installation).

10. Remove the upper and lower door hinges from the A-Pillar, 4 x bolts.

11. Remove the upper and lower door hinges from the B-Pillar, 4 x bolts.

12. Remove the front door striker from the B-Pillar.

13. Remove the side air curtain module.

For additional information, refer to: [Side Air Curtain Module](#) (501-20B Supplemental Restraint System, Removal and Installation).

14. Remove the rear seat cushion.

For additional information, refer to: [Rear Seat Cushion](#) (501-10 Seating, Removal and Installation).

15. Remove the RH & LH rocker panel inner trims.

16. Remove the B-Pillar side impact sensor.

For additional information, refer to: [B-Pillar Side Impact Sensor](#)

(501-20B Supplemental Restraint System, Removal and Installation).

17. Remove the front safety belt retractor.

For additional information, refer to: [Front Safety Belt Retractor](#) (501-20A Safety Belt System, Removal and Installation).

18. Release and lay aside the front carpet section.

19. Remove the rear carpet section.

20. Remove the roof moulding, front and rear sections.

21. Remove the front wheel and tire.

For additional information, refer to: [Wheel and Tire](#) (204-04 Wheels and Tires, Removal and Installation).

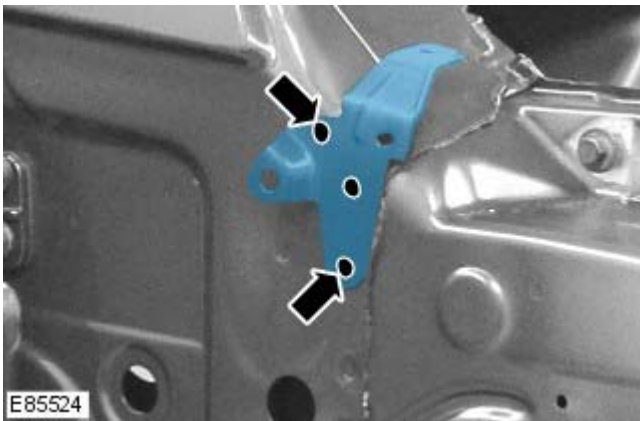
22. Remove the rocker panel outer moulding.

23. Release and lay aside the insulating material at the inner bulkhead.

24. Release and lay aside the wiring harnesses at the A-Pillar, B-Pillar and rocker panel.

25. Remove the fender mounting bracket:

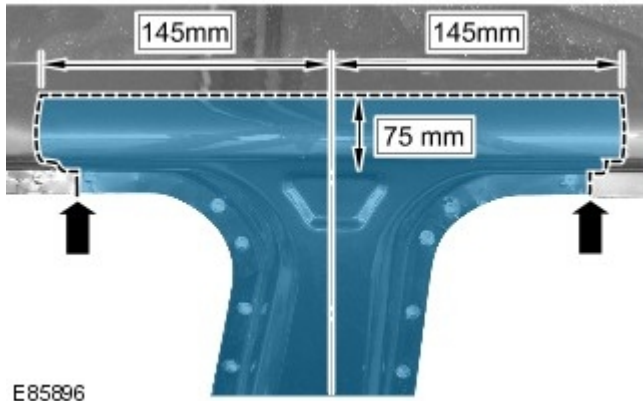
- Mill out 3 spot welds. If not re-using the mounting the upper spot weld does not have to be removed.
- Separate the mounting from the A-Pillar.
- Retain the mounting if it is being reused, if not, discard.



26. Saw cut the old panel at the A-Pillar and rocker panel, using the new panel for reference, ensuring that the new panel overlaps the panel remaining on the vehicle.



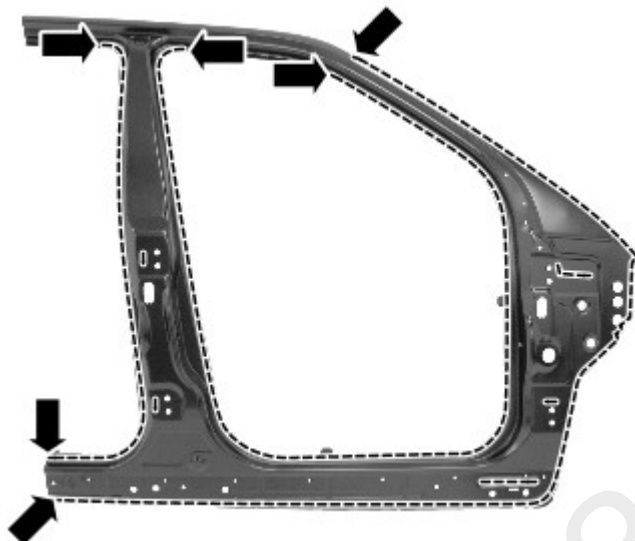
E89260



E85896

27. Saw cut the old panel at the B-Pillar, as illustrated, observe the measurements to allow access to the B-Pillar reinforcement.

28. Mill out the spot welds.



E89264

29. Separate the joints and remove the old panel, also releasing the NVH elements.

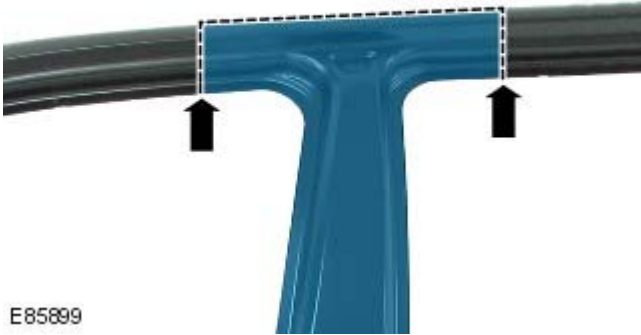
Installation

- 1.** Offer up and align the new panel and clamp into position, overlapping the old panel remaining on the vehicle. Check alignment, if correct, proceed to next step, if not, rectify and recheck before proceeding.
- 2.** Saw cut through the new and old panels at the rocker panel and A-Pillar, where the MIG butt joints are to be made.



E89260

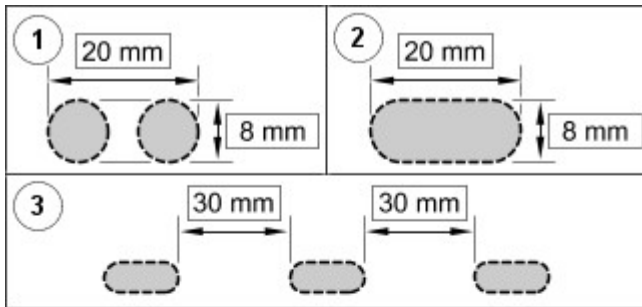
3. Saw cut through the new and old panels at the B-Pillar, where the MIG butt joint is to be made.



4. Remove the new panel and the old remnants.

5. NOTE: MIG slots should be installed in accordance with the spacing shown in the illustration. Where this is not possible, due to the indents in the panel, the slot should be made in the location of the original spot weld.

Cut slots in the new panel ready for MIG brazing.



E89266

6. Prepare the old and new panel joint surfaces.
7. If necessary, renew the NVH element/s.



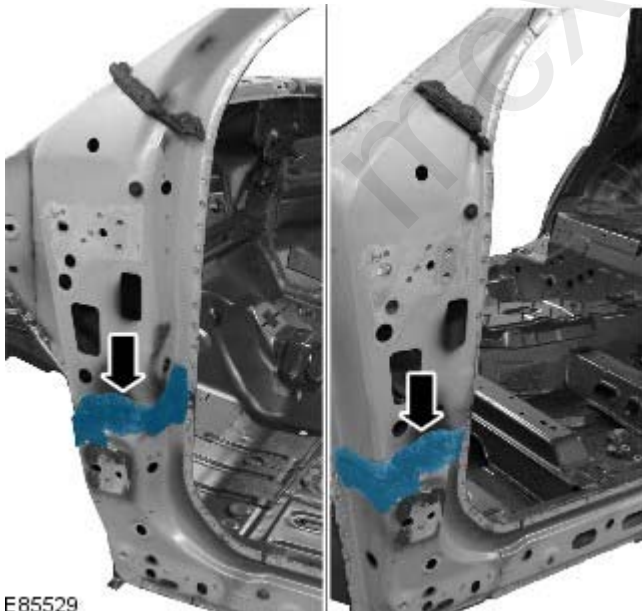
E85530

8. Apply sealer adhesive to the NVH element at the A-Pillar.



E85901

9. Apply sealer adhesive to the NVH element at the B-Pillar.



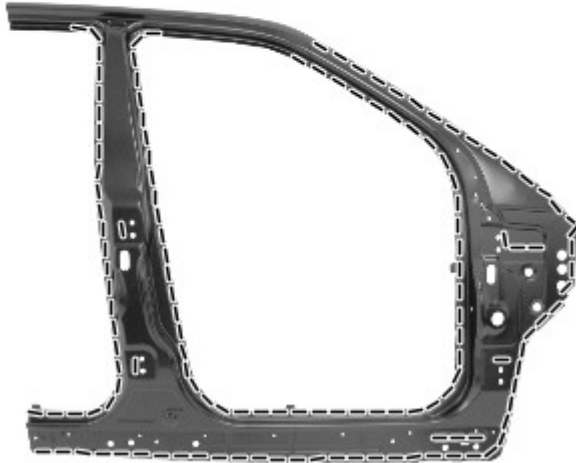
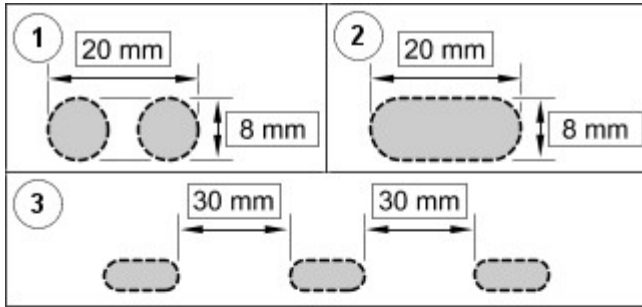
E85529

10. Apply adhesive to the A-Pillar as illustrated.

11. Offer up the new panel and clamp into position.

12. Tack weld the butt joints.

13. MIG braze the slots.



E89265

14. Dress the tack welds.

15. MIG weld the butt joint at the upper B-Pillar.



E85899

16. MIG weld the butt joints at the A-Pillar and rocker panel.



E89260

17. Dress all welded joints.

18. The installation of associated panels and mechanical components is the reverse of removal.

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Side Panel Sheet Metal Repairs - A-Pillar Outer Panel

Removal and Installation

Removal



CAUTION: The A-Pillar outer panel must be MIG slot brazed to the reinforcement, which is DP600, (Dual Phase steel). **MIG plug welds / spot welds, must not be used.**

• NOTE: The A-Pillar outer panel is serviced as a separate weld-on panel. The fender mounting bracket is serviced separately.

• NOTE: There are NVH elements attached inside this panel; they are not serviced on the new panel. If damaged, new element(s) will be required.

1. The A-Pillar outer panel is replaced in conjunction with:

- Front bumper cover
- Hood
- Front fender
- Front door
- Instrument panel
- Windshield glass
- Headliner

2. For additional information relating to this repair procedure please see the following:

For additional information, refer to: [Body and Frame](#) (501-26 Body Repairs - Vehicle Specific Information and Tolerance Checks, Description and Operation) / [Standard Workshop Practices](#) (100-00 General Information, Description and Operation).

3. Remove the hood.

4. Remove the front fender.

5. Remove the front door.

For additional information, refer to: [Front Door](#) (501-03 Body Closures, Removal and Installation).

6. Remove the headliner.

For additional information, refer to: [Headliner - Vehicles Without: Tilting Roof Opening Panel](#) (501-05 Interior Trim and Ornamentation, Removal and Installation) / [Headliner - Vehicles With: Tilting Roof Opening Panel](#) (501-05 Interior Trim and Ornamentation, Removal and Installation).

7. Remove the instrument panel.

For additional information, refer to: [Instrument Panel - TD4 2.2L Diesel](#) (501-12 Instrument Panel and Console, Removal and Installation).

8. Remove the windshield glass.

For additional information, refer to: [Windshield Glass](#) (501-11 Glass, Frames and Mechanisms, Removal and Installation).

9. Remove the upper and lower door hinges from the pillar, 4 x bolts.

10. Remove the rocker panel inner trim.

11. Remove the side air curtain module.

For additional information, refer to: [Side Air Curtain Module](#) (501-20B Supplemental Restraint System, Removal and Installation).

12. Remove the front wheel and tire.

For additional information, refer to: [Wheel and Tire](#) (204-04 Wheels and Tires, Removal and Installation).

13. Remove the rocker panel outer moulding.

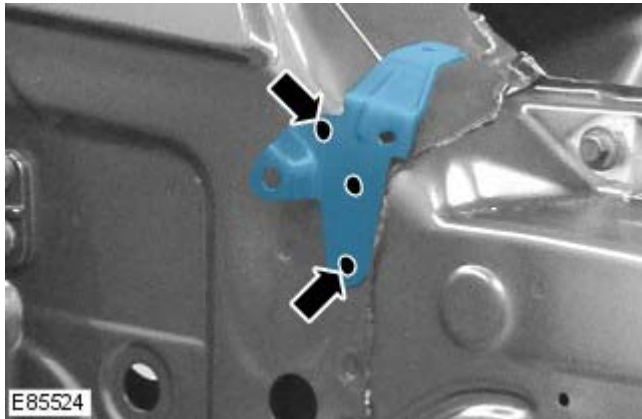
14. Release and lay aside the front carpet section.

15. Remove the rear carpet section.

16. Remove the roof moulding, front and rear sections.

17. Release and lay aside the wiring harness along the A-Pillar inner and inner rocker panel.

18. Release and lay aside the insulating material at the inner bulkhead.



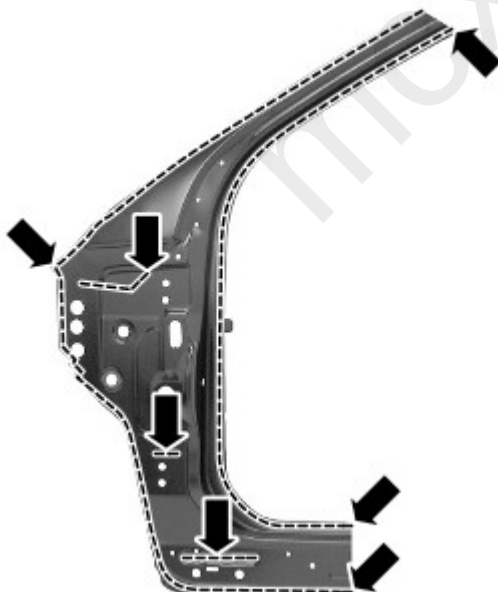
19. Remove the fender mounting bracket:

- Mill out 3 spot welds. If not re-using the mounting the upper spot weld does not have to be removed.
- Separate the mounting from the A-Pillar.
- Retain the mounting if it is being reused, if not, discard.

20. Saw cut the old panel at the points illustrated, using the new panel for reference, ensuring that the new panel overlaps the panel remaining on the vehicle.

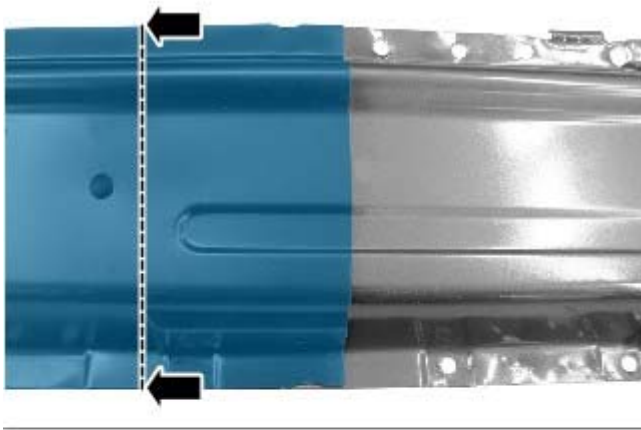


21. Mill out the spot welds.

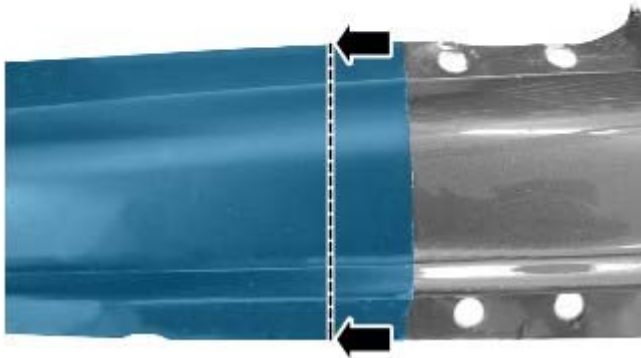


22. Separate the joints and remove the old panel, also releasing the NVH element.

Installation



1. Offer up and align the new panel and clamp into position, overlapping the old panel remaining on the vehicle. Saw cut through the new and old panels at the points where the MIG butt joints are to be made.

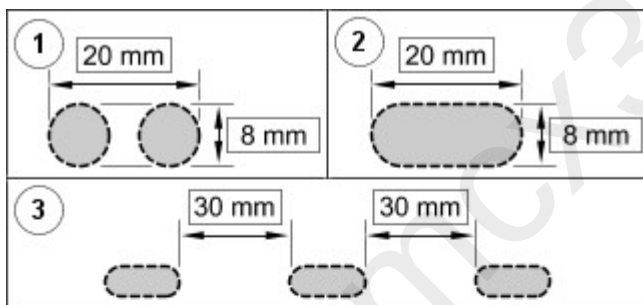


E85527

2. Remove the new panel and the old remnants.
3. Prepare the old and new panel joint surfaces.

4. NOTE: MIG slots should be installed in accordance with the spacing shown in the illustration. Where this is not possible, due to the indents in the panel, the slot should be made in the location of the original spot weld.

Cut slots in the new panel ready for MIG brazing.

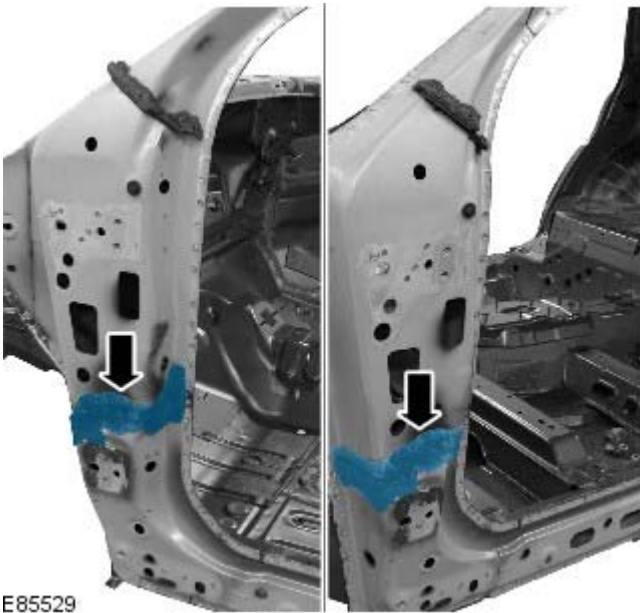


E89224

5. Offer up the new panel and clamp into position. Check alignment, if correct, proceed to next step, if not, rectify and recheck before proceeding.

6. Remove the new panel.

7. Apply adhesive to the areas illustrated.



8. If necessary, renew the NVH element.

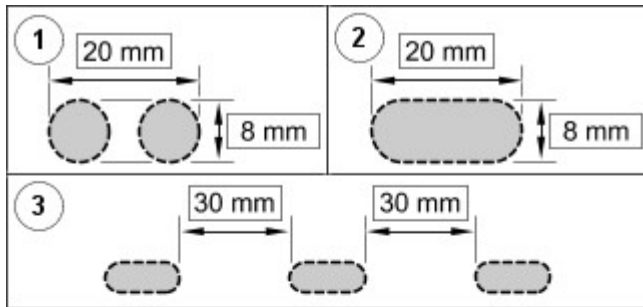
9. Apply sealer adhesive to the NVH element.



10. Offer up the new panel and clamp into position.

11. Tack weld the butt joints.

12. MIG braze the slots.



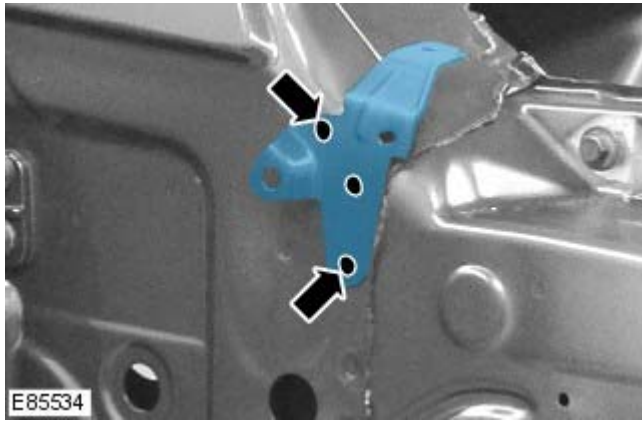
E85531

13. Dress the tack welds.

14. MIG weld the butt joint.



E85533



15. Install the fender mounting bracket, using the fender for alignment.

16. Dress all welded joints.

17. The installation of associated panels and mechanical components is the reverse of removal.

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Side Panel Sheet Metal Repairs - A-Pillar Reinforcement

Removal and Installation

Removal

• CAUTIONS:



The A-Pillar reinforcement is DP600, (Dual Phase steel) and must be MIG plug welded to the inner. **Spot welds must not be used.**



Ensure that all welded joints are suitably sealed and waterproofed, particularly in the areas where the original panel adhesive / sealer cannot be replicated. Where necessary, seal the joints prior to the fitment of outer panels.

• NOTE: The A-Pillar reinforcement is unpicked from the side panel reinforcement 'ring-frame', it is not serviced separately.

• NOTE: There are NVH elements attached inside this panel, they are not serviced on the new panel. If damaged, new element/s will be required.

1. The A-Pillar reinforcement is replaced in conjunction with:

- Front bumper cover
- Front fender
- Front door
- Instrument panel
- Windshield glass
- A-Pillar outer panel

2. For additional information relating to this repair procedure please see the following:

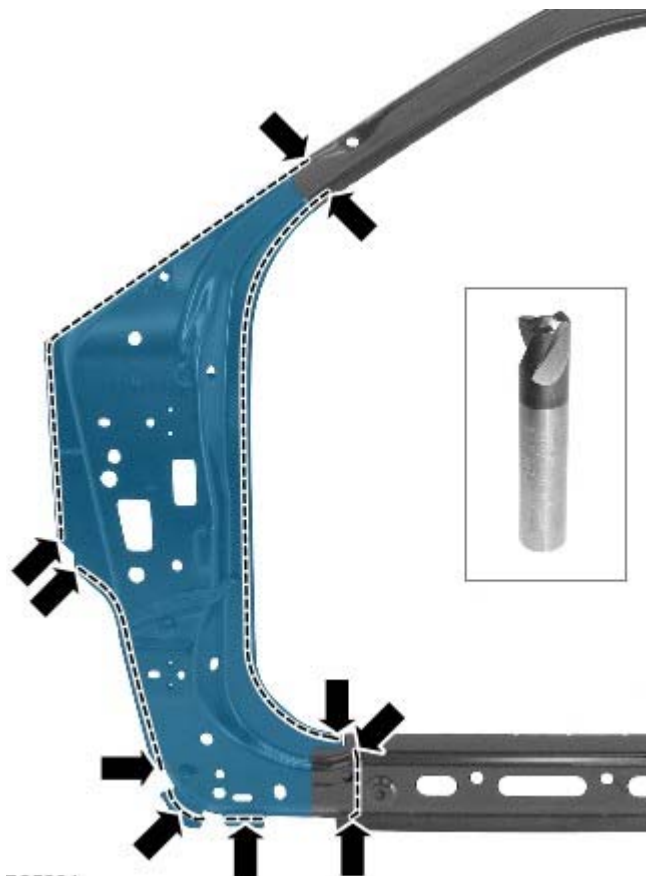
For additional information, refer to: [Body and Frame](#) (501-26 Body Repairs - Vehicle Specific Information and Tolerance Checks, Description and Operation) / [Standard Workshop Practices](#) (100-00 General Information, Description and Operation).

3. Remove the A-Pillar outer panel.

For additional information, refer to: [A-Pillar Outer Panel](#) (501-29 Side Panel Sheet Metal Repairs, Removal and Installation).

4. NOTE: Where possible, holes should be drilled through the A-Pillar reinforcement and the A-Pillar inner panel, (note that the reinforcement panel is DP600, (Dual Phase), steel and a HSS drill bit will be required). This enables MIG plug welds to be installed through the inner panel, where possible.

Mill out the spot welds, it will be necessary to use a HSS spot weld drill bit.

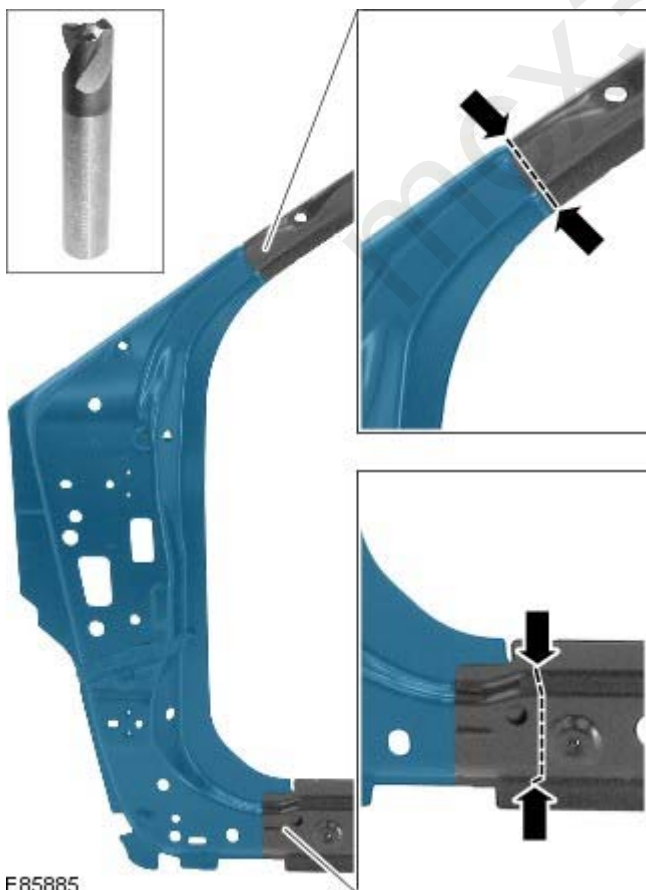


E85884

5. Separate the joints and remove the old panel, also releasing the NVH element.

Installation

1. Remove the A-Pillar reinforcement part from the ring-frame service panel. Mill out the spot welds using a HSS spot weld drill bit.



E85885

2. Drill the holes, not already made on removal, ready for MIG plug welding.



E89228

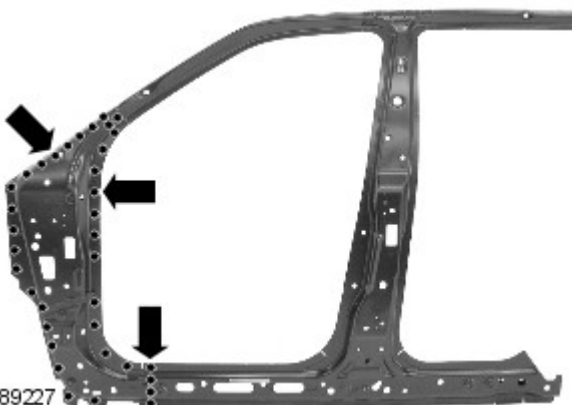
3. Prepare the old and new panel joint surfaces.
4. Offer up the new panel and clamp into position. Check alignment, if correct, proceed to next step, if not, rectify and recheck before proceeding.
5. Remove the new panel.
6. If necessary, renew the NVH element.
7. Apply sealer adhesive to the NVH element.



E85888

8. Offer up the new panel and clamp into position.
9. NOTE: MIG plug welds should be installed in the locations of the original spot welds and where possible, should be installed through the A-Pillar inner.

MIG plug weld.



E89227

10. Dress all welded joints.

11. The installation of associated panels and mechanical components is the reverse of removal.

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Side Panel Sheet Metal Repairs - B-Pillar Outer Panel

Removal and Installation

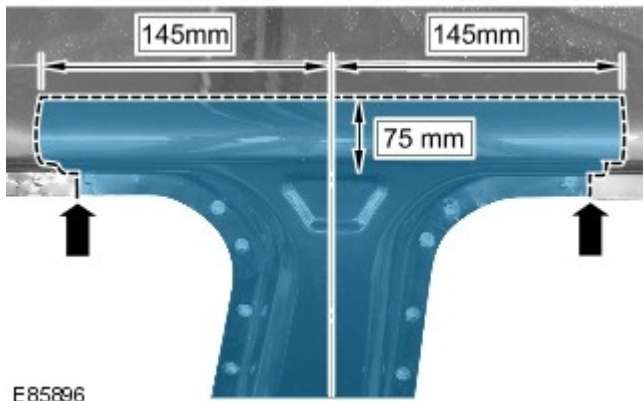
Removal



CAUTION: The B-Pillar outer panel must be MIG slot brazed to the B-Pillar reinforcement, which is BH300, (Bake Hardened steel) and the rocker panel inner reinforcement, which is DP600, (Dual Phase steel). **MIG plug welds / spot welds, must not be used.**

- NOTE: The B-Pillar outer panel is serviced as a separate weld-on panel.
- NOTE: There is an NVH element attached inside this panel, it is not serviced on the new panel. If damaged, a new element will be required.
- NOTE: If the B-Pillar outer is replaced without the B-Pillar reinforcement, the upper section butt joint can be made lower down the pillar if required.

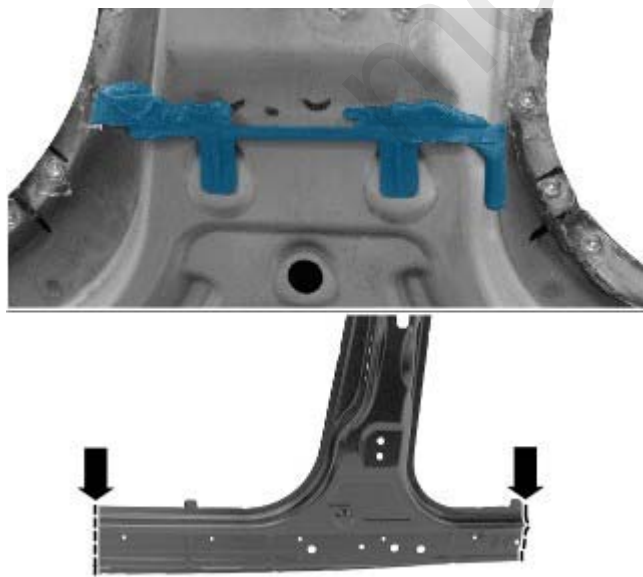
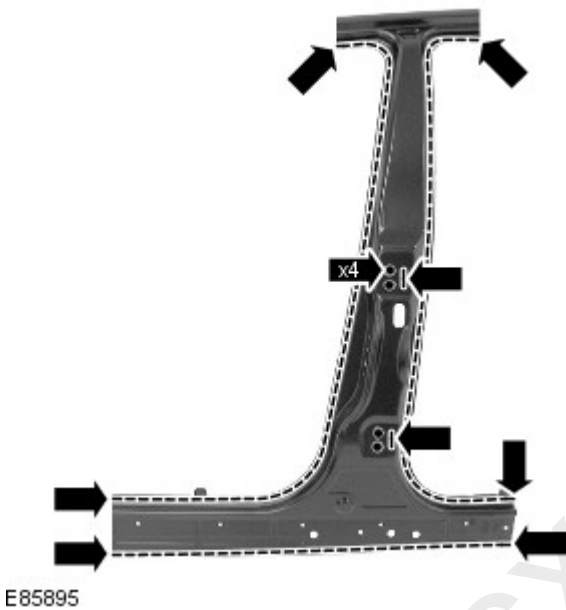
1. The B-Pillar outer panel is replaced in conjunction with:
 - Front door
 - Rear door
 - Headliner
2. For additional information relating to this repair procedure please see the following:
For additional information, refer to: [Body and Frame](#) (501-26 Body Repairs - Vehicle Specific Information and Tolerance Checks, Description and Operation) / [Standard Workshop Practices](#) (100-00 General Information, Description and Operation).
3. Remove the front door.
For additional information, refer to: [Front Door](#) (501-03 Body Closures, Removal and Installation).
4. Remove the rear door.
For additional information, refer to: [Rear Door](#) (501-03 Body Closures, Removal and Installation).
5. Remove the upper and lower door hinges from the B-Pillar, 4 x bolts.
6. Remove the front door striker from the B-Pillar.
7. Remove the front seat.
For additional information, refer to: [Front Seat](#) (501-10 Seating, Removal and Installation).
8. Remove the rear seat cushion.
For additional information, refer to: [Rear Seat Cushion](#) (501-10 Seating, Removal and Installation).
9. Remove the front safety belt retractor.
For additional information, refer to: [Front Safety Belt Retractor](#) (501-20A Safety Belt System, Removal and Installation).
10. Remove the headliner.
For additional information, refer to: [Headliner - Vehicles Without: Tilting Roof Opening Panel](#) (501-05 Interior Trim and Ornamentation, Removal and Installation) / [Headliner - Vehicles With: Tilting Roof Opening Panel](#) (501-05 Interior Trim and Ornamentation, Removal and Installation).
11. Remove the RH & LH rocker panel inner trims.
12. Remove the B-Pillar side impact sensor.
For additional information, refer to: [B-Pillar Side Impact Sensor](#) (501-20B Supplemental Restraint System, Removal and Installation).
13. Remove the side air curtain module.
For additional information, refer to: [Side Air Curtain Module](#) (501-20B Supplemental Restraint System, Removal and Installation).
14. Remove the roof moulding, front and rear sections.
15. Remove the rocker panel outer moulding.
16. Release and lay aside the front carpet section.
17. Remove the rear carpet section.
18. Release and lay aside the wiring harness along the B-Pillar inner and inner rocker panel.



19. Saw cut the old panel as illustrated, observe the measurements to allow access to the B-Pillar reinforcement.

20. Saw cut the old panel at its joints with the rocker panel, ensuring there is an allowance for the new panel to overlap, use the new panel for reference.

21. Mill out the spot welds.

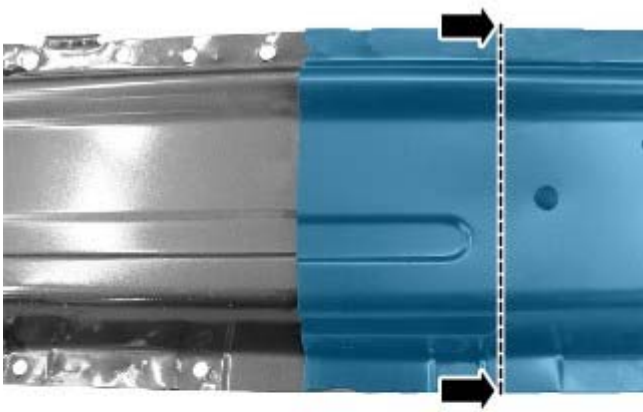


22. Separate the joints and remove the old panel, also releasing the NVH element.

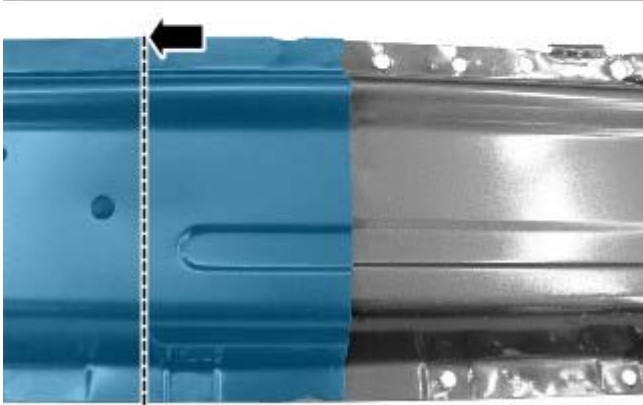
Installation

1. Offer up and align the new panel and clamp into position, overlapping the old panel remaining on the vehicle.

2. Saw cut through the new and old panels at the rocker panel, where the MIG butt joints are to be made.



E85898

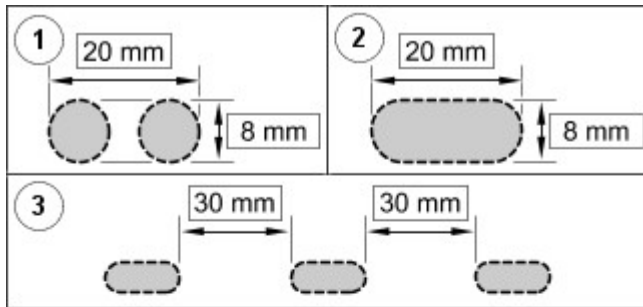


3. Saw cut through the new and old panels at the upper joint, where the MIG butt joint is to be made.



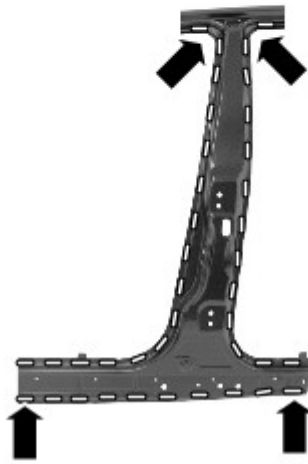
E85899

4. Remove the new panel and the old remnants.



5. NOTE: MIG slots should be installed in accordance with the spacing shown in the illustration. Where this is not possible, due to the indents in the panel, the slot should be made in the location of the original spot weld.

Cut slots in the new panel ready for MIG brazing.



E89230

6. Prepare the old and new panel joint surfaces.

7. If necessary, renew the NVH element.

8. Apply sealer adhesive to the NVH element.

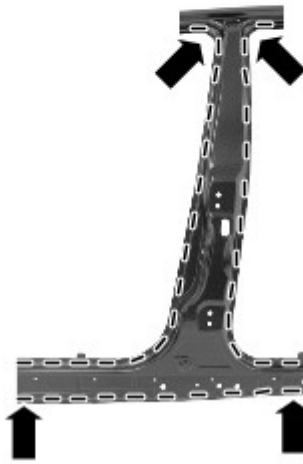
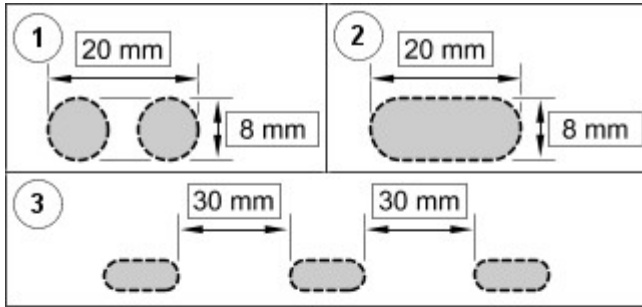


E85901

9. Offer up the new panel and clamp into position. Check alignment, if correct, proceed to next step, if not, rectify and recheck before proceeding.

10. Tack weld the butt joints.

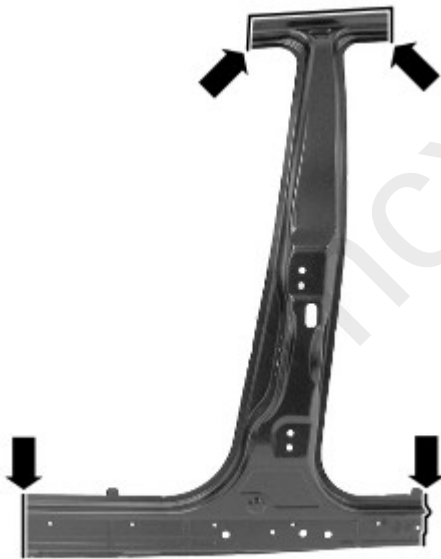
11. MIG braze the slots.



E89229

12. Dress the tack welds.

13. MIG weld the butt joints.



E85903

14. Dress all welded joints.

15. The installation of associated panels and mechanical components is the reverse of removal.

Side Panel Sheet Metal Repairs - B-Pillar Reinforcement

Removal and Installation

Removal

• CAUTIONS:



The B-Pillar reinforcement is BH300, (Bake Hardened steel). It must be MIG plug welded to the B-Pillar inner, the rocker panel inner reinforcement and the cantrail reinforcement. **Spot welds must not be used.**



Ensure that all welded joints are suitably sealed and waterproofed, particularly in the areas where the original panel adhesive / sealer cannot be replicated. Where necessary, seal the joints prior to the fitment of outer panels.

• NOTE: The B-Pillar reinforcement is unpicked from the side panel reinforcement, 'ring-frame', it is not serviced separately.

• NOTE: There is a NVH element located between the B-Pillar reinforcement and the B-Pillar inner.

1. The B-Pillar reinforcement is replaced in conjunction with:

- Front door
- Rear door
- Headlining
- B-Pillar outer panel

2. For additional information relating to this repair procedure please see the following:
For additional information, refer to: [Body and Frame](#) (501-26 Body Repairs - Vehicle Specific Information and Tolerance Checks, Description and Operation) / [Standard Workshop Practices](#) (100-00 General Information, Description and Operation).

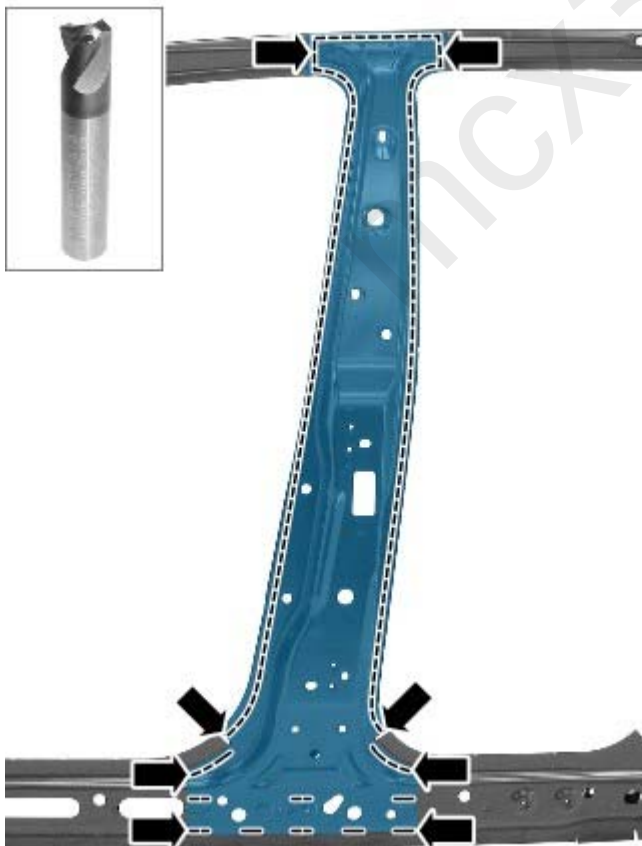
3. Remove the B-Pillar outer panel.

For additional information, refer to: [B-Pillar Outer Panel](#) (501-29 Side Panel Sheet Metal Repairs, Removal and Installation).

4. NOTE: It will be necessary to use a HSS spot weld drill bit on the A-Pillar upper / cantrail and rocker panel areas.

• NOTE: Holes should be drilled through the B-Pillar reinforcement and the B-Pillar inner panel at the door apertures. This enables MIG plug welds to be installed through the inner panel.

Mill out the spot welds.

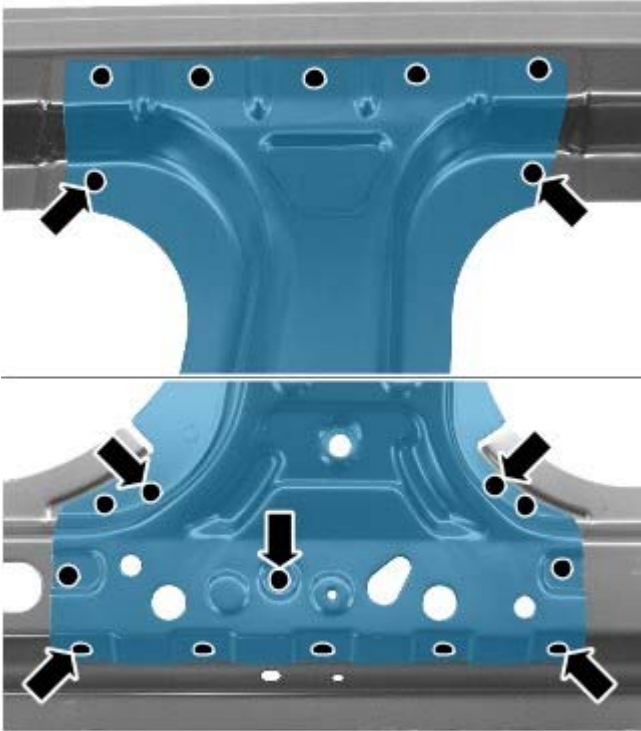


E85905

5. Separate the joints and remove the old panel, also releasing the NVH element.

Installation

1. Remove the B-Pillar reinforcement part from the ring frame service panel. Mill out the spot welds using a HSS spot weld drill bit.



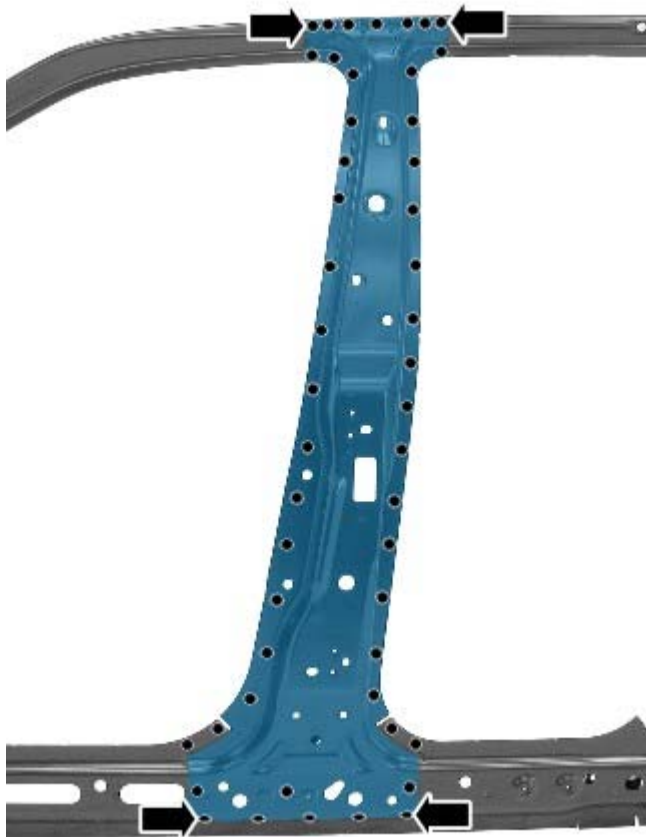
E85906

2. Prepare the old and new panel joint surfaces.
3. Offer up the new panel and clamp into position. Check alignment, if correct, proceed to next step, if not, rectify and recheck before proceeding.
4. Remove the new panel.
5. If necessary, renew the NVH element.
6. Apply sealer adhesive to the NVH element.



E85909

7. Offer up the new panel and clamp into position.



E89232

8. NOTE: Holes for MIG plugs would be created during the old panel removal and separation of the service panel.

- **NOTE:** MIG plug welds should be installed through the inner panel at the door apertures.

MIG plug weld.

9. Dress all welded joints.

10. The installation of associated panels and mechanical components is the reverse of removal.

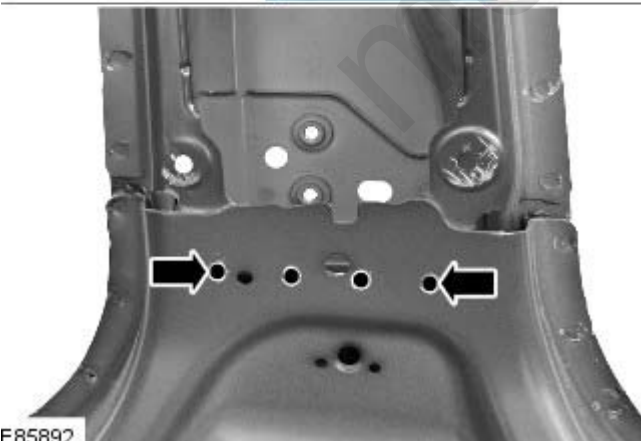
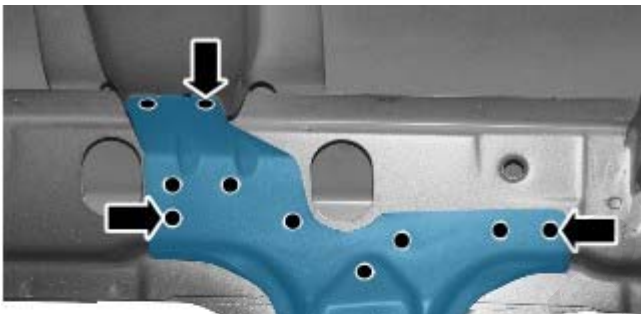
Side Panel Sheet Metal Repairs - B-Pillar Inner Panel

Removal and Installation

Removal

• NOTE: The B-Pillar inner panel is serviced as a separate weld-on panel.

1. The B-Pillar reinforcement is replaced in conjunction with:
 - Front door
 - Rear door
 - Headlining
 - B-Pillar outer panel
 - B-Pillar reinforcement
2. For additional information relating to this repair procedure please see the following:
For additional information, refer to: [Body and Frame](#) (501-26 Body Repairs - Vehicle Specific Information and Tolerance Checks, Description and Operation) / [Standard Workshop Practices](#) (100-00 General Information, Description and Operation).
3. Remove the B-Pillar reinforcement.
For additional information, refer to: [B-Pillar Reinforcement](#) (501-29 Side Panel Sheet Metal Repairs, Removal and Installation).
4. Mill out the spot welds.



5. Separate the joints and remove the panel.

Installation

1. Prepare the old and new panel joint surfaces.

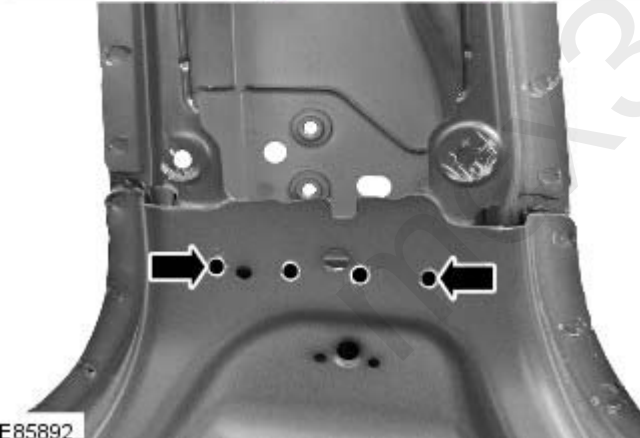
2. Drill holes in the new panel ready for MIG plug welding.



E85893

3. Offer up the new panel and clamp into position. Check alignment, if correct, proceed to next step. If not, rectify and recheck before proceeding.

4. MIG plug weld.



E85892

5. Dress all welded joints.

6. The installation of associated panels and mechanical components is the reverse of removal.

Side Panel Sheet Metal Repairs - Rocker Panel Inner Reinforcement

Removal and Installation

Removal

• CAUTIONS:



The rocker panel inner reinforcement is DP600, (Dual Phase steel) and must be MIG plug welded to the inner. **Spot welds must not be used.**



Ensure that all welded joints are suitably sealed and waterproofed, particularly in the areas where the original panel adhesive / sealer cannot be replicated. Where necessary, seal the joints prior to the fitment of outer panels.

• NOTE: The rocker panel inner reinforcement is unpicked from the side panel reinforcement 'ring-frame', it is not serviced separately.

1. The rocker panel inner reinforcement is replaced in conjunction with:

- Front bumper cover
- Front fender
- Front door
- Rear door
- Rocker panel

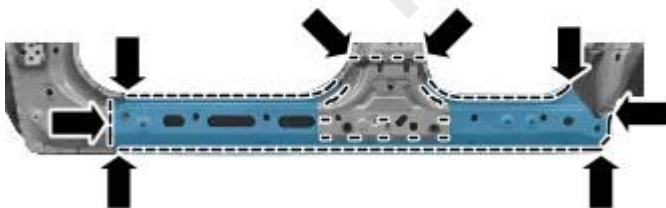
2. For additional information relating to this repair procedure please see the following:

For additional information, refer to: [Body and Frame](#) (501-26 Body Repairs - Vehicle Specific Information and Tolerance Checks, Description and Operation) / [Standard Workshop Practices](#) (100-00 General Information, Description and Operation).

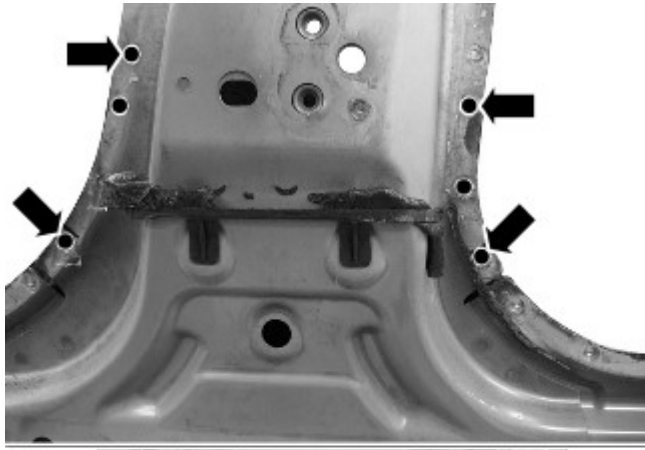
3. Remove the rocker panel.

For additional information, refer to: [Rocker Panel](#) (501-29 Side Panel Sheet Metal Repairs, Removal and Installation).

4. Mill out the spot welds, it will be necessary to use a HSS spot weld drill bit.

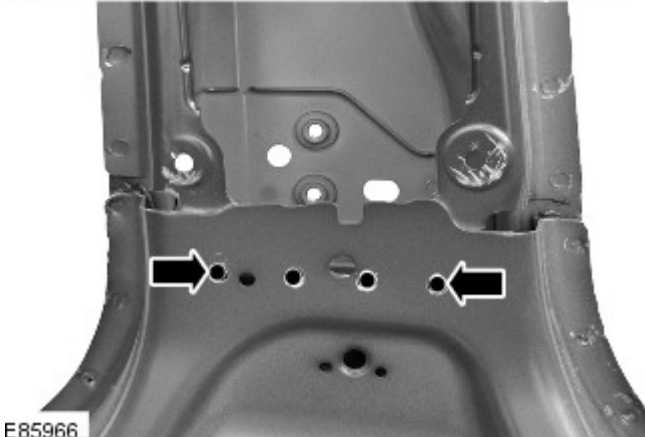


E85965



5. If the B-Pillar reinforcement has not been removed it will be necessary to release it.

- Mill out spot welds.
- Separate this joint and ease the B-Pillar reinforcement forward to allow the rocker panel inner reinforcement to be removed.

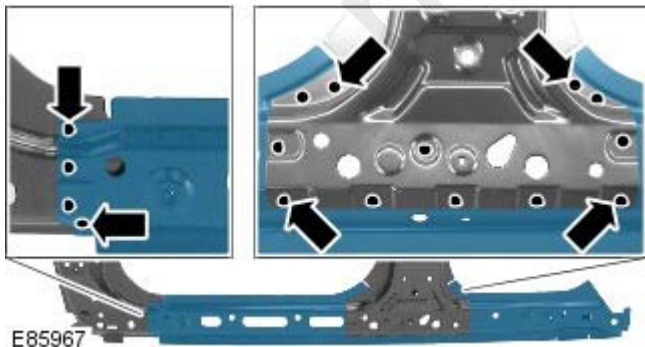


E85966

6. Separate the joints and remove the old panel.

Installation

1. Remove the rocker panel reinforcement part from the side panel reinforcement 'ring-frame', service panel. Mill out the spot welds using a HSS spot weld drill bit.



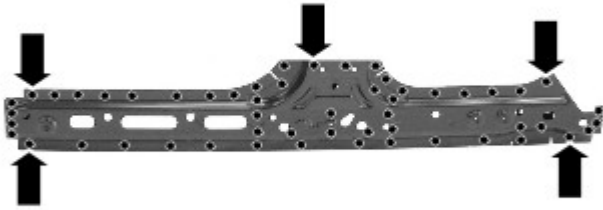
E85967

2. Prepare the old and new panel joint surfaces.
3. Offer up the new panel and clamp into position. Check alignment, if correct, proceed to next step, if not, rectify and recheck before proceeding.

4. NOTE: Holes for MIG plugs would be created during the old panel removal and separation of the service panel.

- NOTE: MIG plug welds should be installed in the locations of the original spot welds and where possible, should be installed through the rocker panel inner.

MIG plug weld.



E89243

5. Dress all welded joints.

6. The installation of associated panels and mechanical components is the reverse of removal.

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Side Panel Sheet Metal Repairs - Rocker Panel

Removal and Installation

Removal



CAUTION: The rocker panel must be MIG slot brazed to the rocker panel inner reinforcement, which is DP600, (Dual Phase steel). **MIG plug welds / spot welds must not be used.**

• **NOTE:** The rocker panel is serviced as a separate weld-on panel.

1. The rocker panel is replaced in conjunction with:
 - Front bumper cover
 - Front fender
 - Front door
 - Rear door
2. For additional information relating to this repair procedure please see the following:
For additional information, refer to: [Body and Frame](#) (501-26 Body Repairs - Vehicle Specific Information and Tolerance Checks, Description and Operation) / [Standard Workshop Practices](#) (100-00 General Information, Description and Operation).
3. Remove the fender.
4. Remove the front door.
For additional information, refer to: [Front Door](#) (501-03 Body Closures, Removal and Installation).
5. Remove the rear door.
For additional information, refer to: [Rear Door](#) (501-03 Body Closures, Removal and Installation).
6. Remove the front road wheel.
For additional information, refer to: [Wheel and Tire](#) (204-04 Wheels and Tires, Removal and Installation).
7. Remove the rear road wheel.
For additional information, refer to: [Wheel and Tire](#) (204-04 Wheels and Tires, Removal and Installation).
8. LH side: Remove the hood release handle.
9. Remove the front seat.
For additional information, refer to: [Front Seat](#) (501-10 Seating, Removal and Installation).
10. Remove the floor console.
For additional information, refer to: [Floor Console](#) (501-12 Instrument Panel and Console, Removal and Installation).
11. Remove the front door aperture weatherseal.
12. Remove the rear door aperture weatherseal.
13. Remove the cowl side trim panel.
For additional information, refer to: [Cowl Side Trim Panel](#) (501-05 Interior Trim and Ornamentation, Removal and Installation).
14. Remove the B-Pillar upper trim.
For additional information, refer to: [B-Pillar Upper Trim Panel](#) (501-05 Interior Trim and Ornamentation, Removal and Installation).
15. Remove the RH & LH B-Pillar lower trims.
For additional information, refer to: [B-Pillar Lower Trim Panel](#) (501-05 Interior Trim and Ornamentation, Removal and Installation).
16. Remove the rear quarter trim panel.
For additional information, refer to: [Rear Quarter Trim Panel](#) (501-05 Interior Trim and Ornamentation, Removal and Installation).
17. Remove the RH & LH rocker panel inner trims.
18. Remove the rocker panel outer moulding.
19. Remove the back panel inner trim.
20. Remove the rear seat cushion.
For additional information, refer to: [Rear Seat Cushion](#) (501-10 Seating, Removal and Installation).
21. Remove the front safety belt retractor.

For additional information, refer to: [Front Safety Belt Retractor](#) (501-20A Safety Belt System, Removal and Installation).

22. Remove the rear carpet section.

23. Release and lay aside the front carpet section.

24. Remove the B-Pillar side impact sensor.

For additional information, refer to: [B-Pillar Side Impact Sensor](#) (501-20B Supplemental Restraint System, Removal and Installation).

25. Remove the C-Pillar side impact sensor.

For additional information, refer to: [C-Pillar Side Impact Sensor](#) (501-20B Supplemental Restraint System, Removal and Installation).

26. Release and lay aside the bulkhead inner insulation.

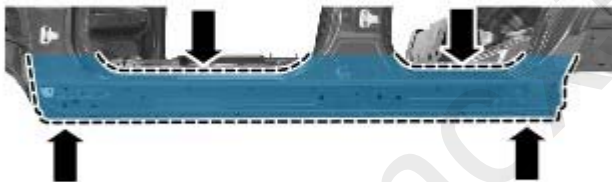
27. Release and lay aside the wiring harness along the inner rocker panel.

28. Saw cut the old panel at its joints with the A-Pillar, B-Pillar and quarter panel, ensuring there is an allowance for the new panel to overlap. Use the new panel for reference.



E85959

29. Mill out the spot welds.



E85958

30. Separate the joints and remove the old panel.

Installation

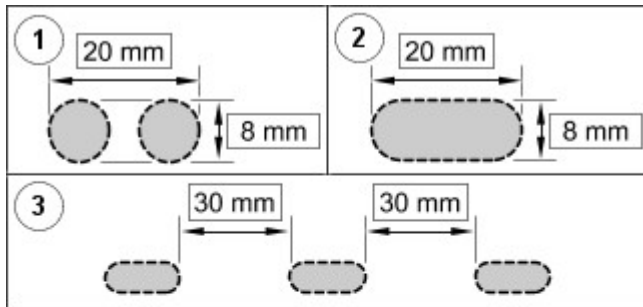
1. Offer up and align the new panel and clamp into position, overlapping the old panel remaining on the vehicle.

2. Saw cut through the new and old panels at the A-Pillar, B-Pillar and quarter panel, where the MIG butt joints are to be made.



E85959

3. Remove the new panel and the old remnants.



4. NOTE: MIG slots should be installed in accordance with the spacing shown in the illustration. Where this is not possible, due to the indents in the panel, the slot should be made in the location of the original spot weld.

Cut slots in the new panel ready for MIG brazing.



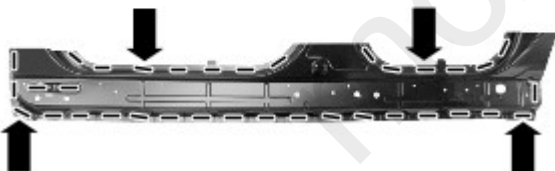
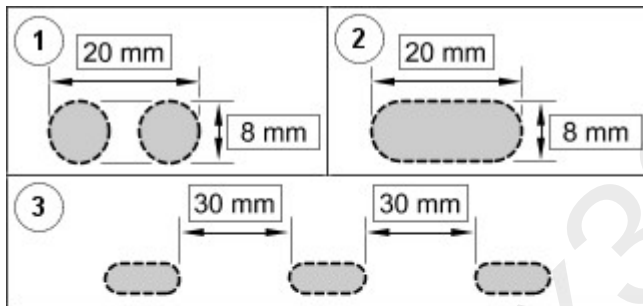
E89242

5. Prepare the old and new panel joint surfaces.

6. Offer up the new panel and clamp into position. Check alignment, if correct, proceed to next step, if not, rectify and recheck before proceeding.

7. Tack weld the butt joints.

8. MIG braze the slots.



E89241

9. Dress the tack welds.

10. MIG weld the butt joints.



E85963

11. Dress all welded joints.