Category	Technical	Ref. No.	Page
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Coverage	Date Issued
☐ Distributor only ■ Please inform your dealers	July 30, 2007
Please convey this information to your ☐ Director ■ General Manager ■ Warranty Dept. ■ Parts Dept. ■ Training Dept. ■ Field Rep.	Date Revised July 28, 2010

Applicable Models	Applicable Countries or Specifications
All model vehicles	Europe

REVISED

Subject: Blister & Rust Repair Procedure for Hem (Liftgate, Door, Bonnet, Trunk Lid)

Revision Notes:
Table with corrosion Level Criteria on page 3 has been changed to fit with new policy.
P/N information has been modified.
Guidelines for corrosion level assessment of corresponding components have been implemented as "APPENDIX – A" displayed on pages 32 - 41.
The updated sections are highlighted.

Note: This Service information supersedes E004/06.

This service information provides you with the repair criteria and the repair procedure against the blister & rust / perforation on the hem of the liftgate, door, bonnet and/or trunk lid, in order to promote the proper repair.

When you encounter a customer complaint on this concern, first check the level of blister & rust/perforation, and then repair the hem of them according to the criteria and procedure mentioned in the following pages.

Shinji Kanai
Manager, Technical Information Gr.
Technical Service Dept.
Mazda Motor Corp.

How to evaluate the Corrosion Level on a vehicle brought into your workshop?

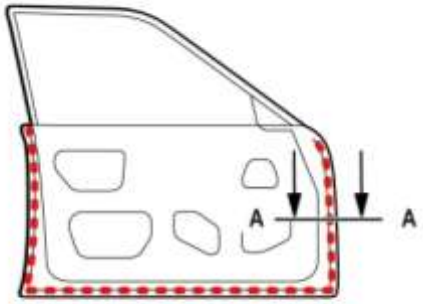
The following tables will show you sample pictures of different Corrosion Levels that can appear at the clinched flange of door and lift gate/tailgate or at the rear fender panel. Use these tables as a guideline and to judge the present Corrosion Level on vehicles brought into your dealership.

- If you will get into trouble with the judgment of corrosion Level with regards to make a clear statement if the corrosion visible on a car is Corrosion Level 1 or Corrosion Level 2, please contact your local Prior Approval Operator.
- To simplify the process of the judgment for your Prior Approval Operator, please provide meaningful pictures, which are representing the current situation on the component you need to judge.
- Deliver all known facts about warranty status and the history of previous measures that has been done to the vehicle and especially to the component you need to judge.

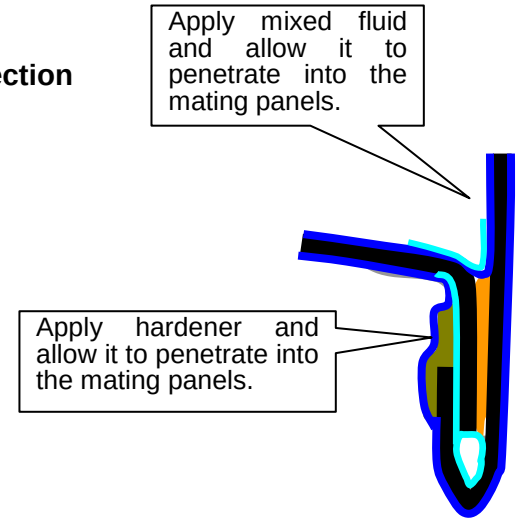
Corrosion Repair for Liftgate, Door, Bonnet, Trunk Lid

Why This Repair is Effective:

The hardener has nature that absorbs the water then hardens, which shut off water supply and stop rust from spreading even if water has already entered.



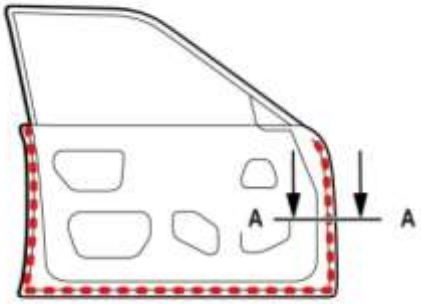
A-A Section



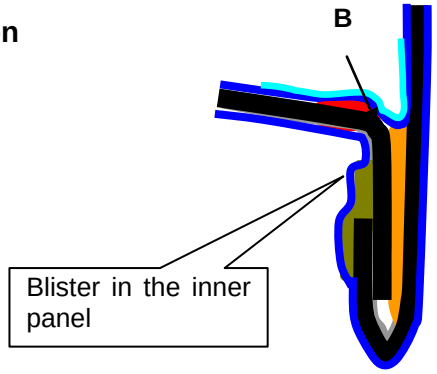
Vital Points of Repair:

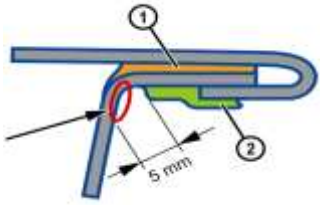
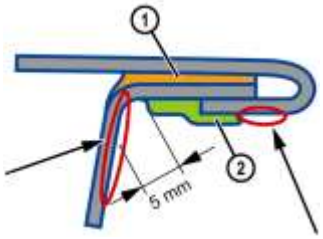
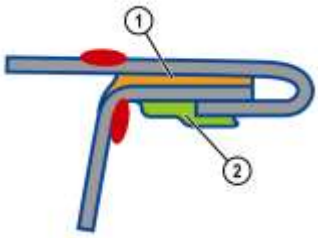
Apply mixed fluid without any breaks in Location **B**.

If rust has already appeared in the inner panel, apply the mixed fluid so that it fully covers the rust.



A-A Section



Corrosion Level	Evaluation Criteria for Door, Liftgate / Tailgate		Action Required
Level - 0	**No visible blisters/peeling/corrosion on the outside/inside of clinched flange.**		**-**
Level - 1	**· No visible blister on the outside of the clinched flange.** **AND** **· Visible blisters in an area less than or equal to 5mm from paint sealer.**	1 Adhesive Sealer 2 Paint Sealer 	**Repair**
Level-2	**· Visible blister on the outside of the clinched flange.** **OR** **· Visible blisters in an area more than 5mm from paint sealer or corrosion even within 5mm from paint sealer.**	1 Adhesive Sealer 2 Paint Sealer 	**Repair**
Level-3	**· Perforation on inner/outer clinched flange**	1 Adhesive Sealer 2 Paint Sealer 	**Replace**

NOTE: Find the detailed guidelines for corrosion level assessment explained in "Appendix A" at the end of this Service Information on pages 32 - 41.

Material to be used

No.	Material Short Text	Supplier	Brand	Brand Name	Mazda Part No.	Remark
I	Corrosion Protection Primer	DuPont	Standox	Etching Adhesion Primer		
			DuPont Refinish	Etching Primer 635R		
			Spies-Hecker	Priomat Wash Primer 4075		
		PPG	NEXA Autocolor	P565-9850		
			PPG	D831		
		AKZO NOBEL	Sikkens	Washprimer EM CF		
			Lesonal	2K Etch Primer		
		BASF	R-M	Eurofill		
			Glasurit	283-150 VOC		
II	Primer Surfacer	To avoid any incompatibility, please apply a Primer Surfacer that is recommended to use with the paint material and already applied Corrosion Protection Primer used in your workshop (for details contact your local paint manufacture).				
III	Paint Sealer	Henkel	Teroson	Terostat 9120		
		WUERTH	saBesto	BOND+SEAL ALL-IN-ONE		
				Clinched Flange Sealer	DD10-FS-001	-
IV	Cleaning Agent	To avoid any incompatibility, please use a cleaning agent that is recommended by the supplier of your paint materials used in your workshop. (for details contact your local supplier manufacture).				
V	Application Kit	Contains: Tube 400mm-6mmx4mm Tube 100mm-4mmX2mm 3 Syringe 1 pair medical gloves (medium)			R001-00-KIT	One kit per vehicle
VI	Hardener			Hardener 1L Can	R001-SL-271	1 can per 19 vehicles
VII	Clear Coat			Clear Coat 1L Can	R001-CC-290	1 can per 34 vehicles
VIII	Vinyl Tape	Thickness 0.15mm Length 33m			R001-TE-100	1 unit per 10 vehicles

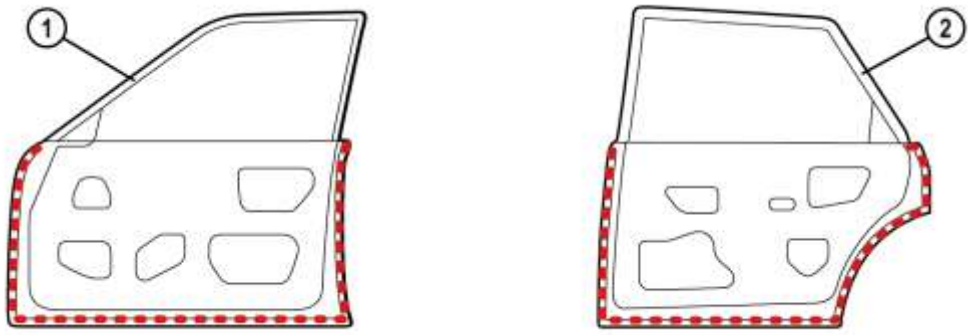
Level 1 Repair procedure of Doors

Outline of Repair Procedure

- Application of mixed fluid “A” of hardener (VI) and clear coat (VII).
- Apply the mixed fluid “A” to the inner door cleavage through the inside of the door. (front & rear side of the door)

NOTE: Even if the inside of the door is waxed, apply the mixed fluid “A” over the wax.

NOTE: If the inside of the door is dry, remove any dust from the groove by using a fine stick. If the inside of the door is wet, first dry using ahot air gun, then remove dust from the groove by using a fine stick and a vacuum cleaner.



MSP1_024

1 Front door

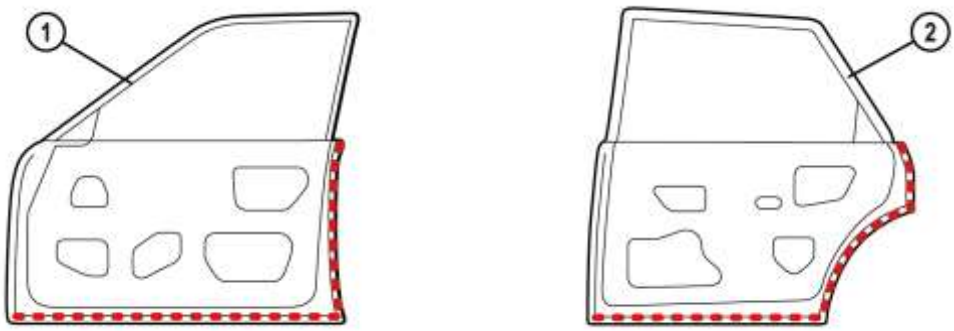
2 Rear door

PURPOSE: The main purpose of this procedure is to cover the very upper area of the factory applied adhesive sealer to ensure, no water can enter the clinched flange from the upper area of the door any longer. In addition to that, the surplus mixed fluid “A” will rinse downward along the inner cleavage and cover the factory applied adhesive sealer. In a consequence, water cannot enter the clinched flange from inner side of the door via damages in the factory applied adhesive sealer. Already existing corrosion inside the clinched flange will be sealed-off from the atmospheric oxygene and humidity.

- Application of Mixed fluid “B” (hardener (VI) and clear coat (VII))

  Apply the Mixed fluid “B” along the visible area of the clinched flange of the door. (front & rear side of the door)

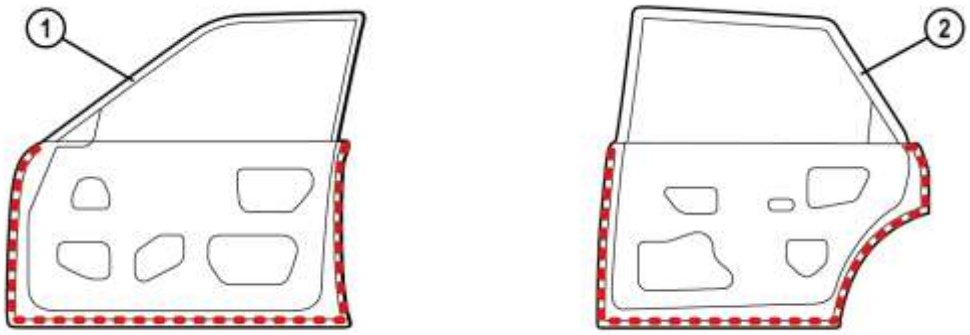
NOTE: Clean and degrease the location where the Mixed fluid “B” will be applied.



1 Front door

2 Rear door

NOTE: If the corrosion evaluation will detect one or more doors with corrosion Level 1 (small blister could be found), the area of application for mixed fluid “B” on those doors will also include the front area of the door as shown in the illustration below.



MSP1_024

Enlarged area of application for doors showing Level 1 corrosion

1 Front door

2 Rear door

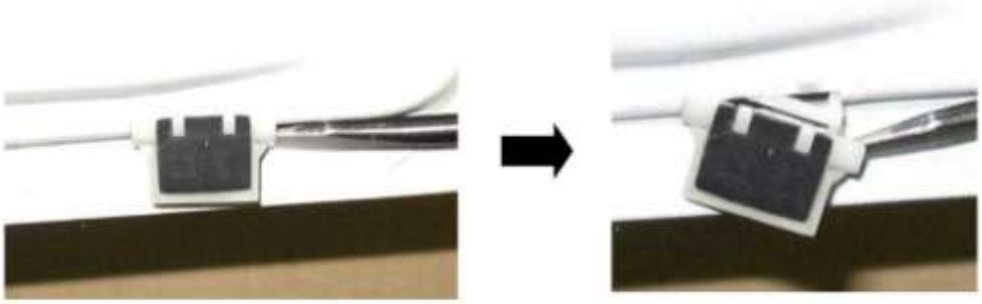
Application of Mixed Fluid “A” to the inside of the Front and Rear Door

1. Remove the one-way valves at the lower area of the door.

MSP1_026

1 One-way valve

NOTE: Insert a flat screwdriver in between the one-way valve and door body, and then try to remove the one-way valve.



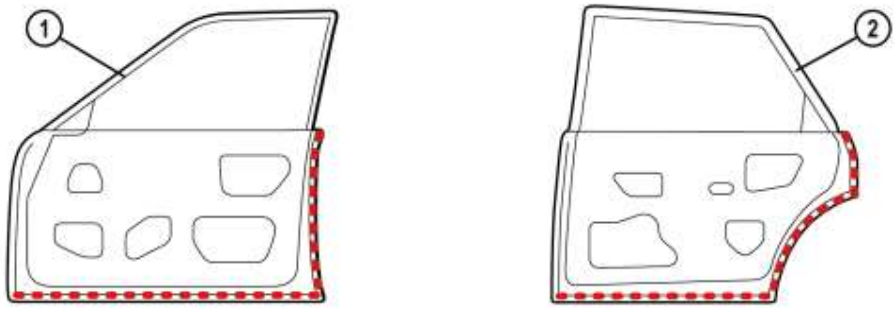
MSP1_027

2. Remove the door trim according to the Workshop Manual.

MSP1_028

1 Door trim

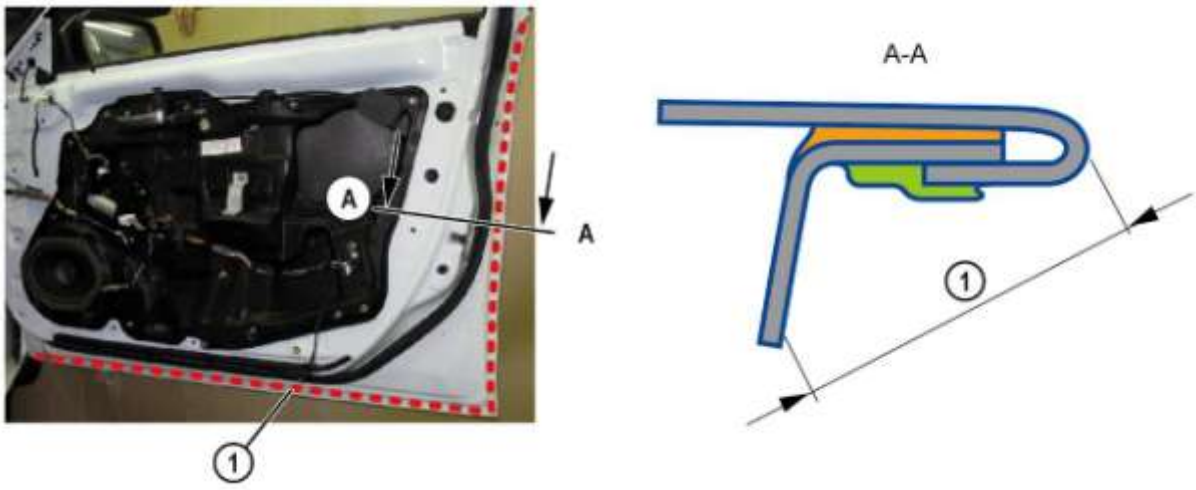
3. Clean and degrease the door hem (the location where the mixed fluid “B” will be applied later on) in order to achieve good adhesion of mixed fluid “B”



MSP1_025

1 Front door

2 Rear door

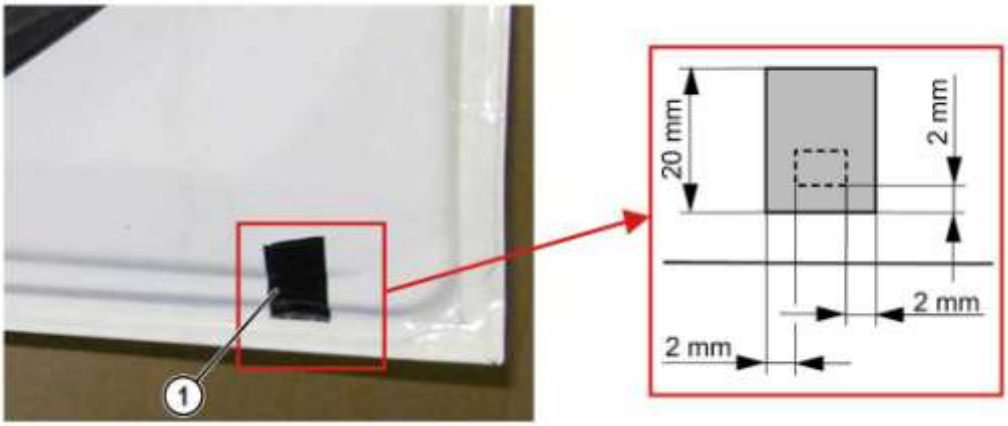


MSP1_029

1 Clean/degrease this area.

4. Cover the water drain holes with vinyl tape..

NOTE: Make sure that the size of the masking tape exceeds the size of the drain holes by approx. 2 mm. If the tape will peel off unintended, the mixed fluid will be leaking, therefore make sure the tape adheres well.



MSP1_030

1 Vinyl tape

5. Remove the securing bolts of the window glass according to Workshop Manual. Slide the glass upward, and then secure it on the upper door sash as shown in the picture by using masking tape and cloth.

MSP1_033

NOTE: The cloth should be used to avoid residues of the masking tape from sticking on the black colored door sash.

6. Write down the Radio Stations currently tuned and ensure you have the Keycode for the Audio Unit.
7. Disconnect the negative battery cable.

8. Remove the speaker and all harness and bolts from the door module.

MSP1_034

9. Move the door module downward to ensure the workspace.

MSP1_035

10. Clean the inside of the door. Remove any dust from the groove by using a fine stick. If the inside of the door is wet, dry it by using a hot air gun. Afterwards remove all dust from the grooves by using a fine stick and a vacuum cleaner.

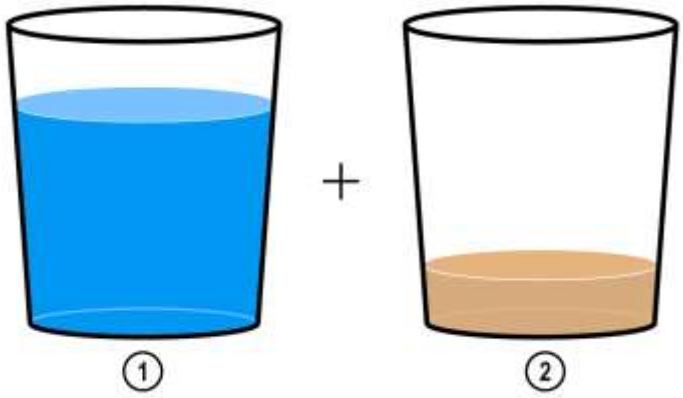
NOTE: Even if the inside of the door is waxed, apply the mixed fluid over the wax.
(There is a possibility that wax has already been run out. So be sure to apply mixed fluid “A” in all cases.)

11. Bring the mixed fluid “A” to the inside of the door hem by using a syringe. For details please refer to the following procedure.

– 11-1 Mix hardener (VI) (40 ml) and clear coat (VII) (10 ml) and stir well. (Mixture Ratio is 4:1)

CAUTION: Read instruction manual of the liquids prior to the operation.

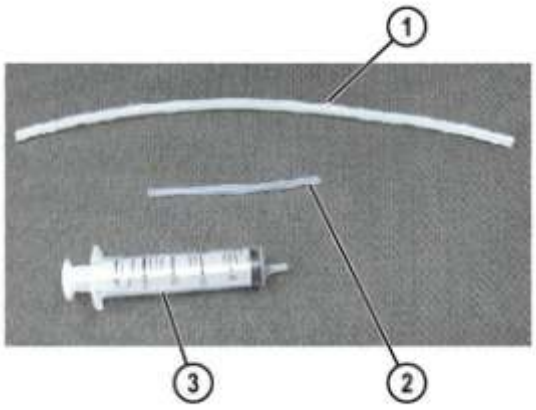
NOTE: The mixed fluid “A” will harden very quick. Use it within 30 minutes**.**



MSP1_036

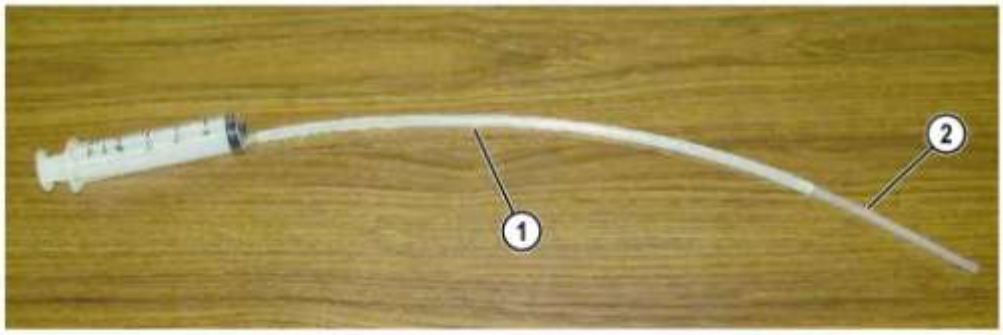
1 Hardener (VI) (40 ml)
2 Clear coat (VII) (10 ml)

– 11-2 Assemble the large and the small tube as shown on the picture below then install the tube to the syringe.



MSP1_037

1 Large tube, 400 mm
2 Small tube, 100 mm
3 Syringe, 20 ml



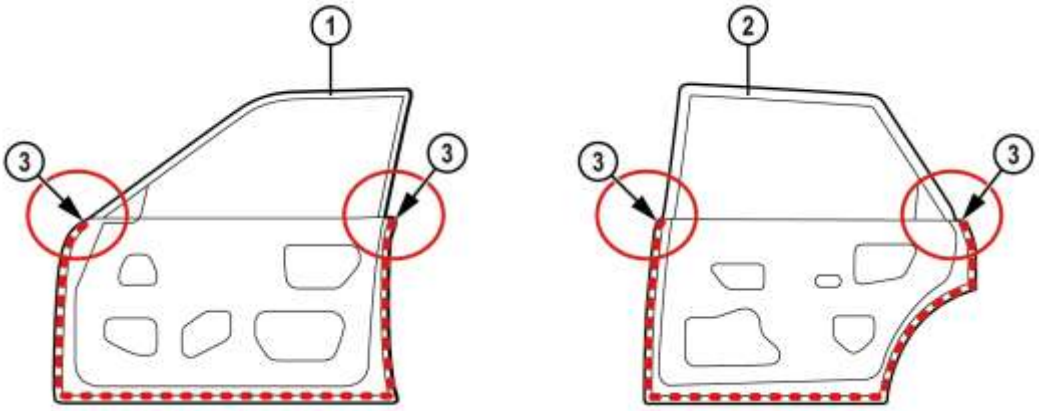
MSP1_038

1 Large tube, 400 mm

2 Small tube, 100 mm

– 11-3 Fill up the syringe with the mixed fluid “A” through the tube.

– 11-4 Place the end of the small tube to the areas shown in the below pictures, then inject slowly 2 ml of the mixed fluid “A” to the front-side and 4 ml to the rear-side of each door.



MSP1_039

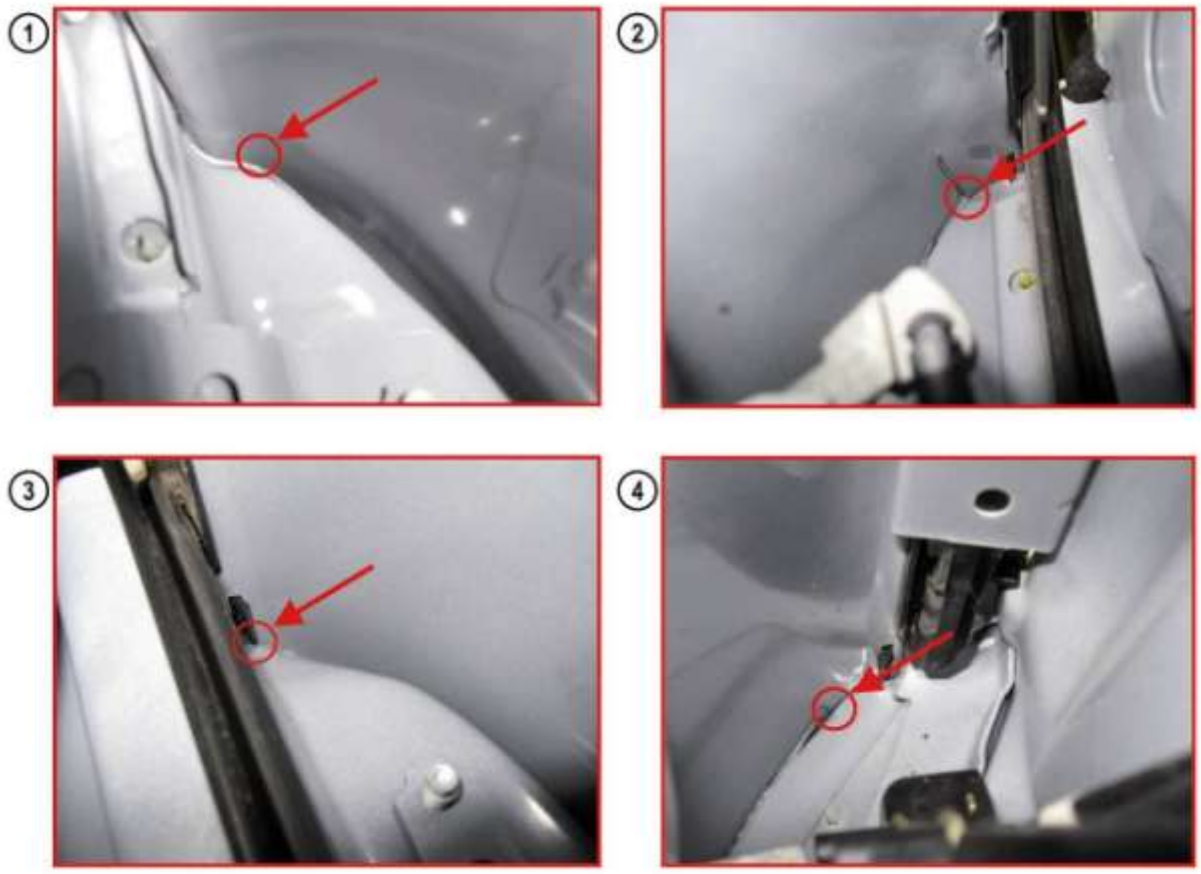
Location where Mixed Fluid “A” is applied

1 Front door
2 Rear door
3 Bring in from here

MSP1_040

1 Mixed fluid “A” (2 ml)
2 Front-side of door
3 Mixed fluid “A” (4 ml)
4 Rear-side of door

Mazda6

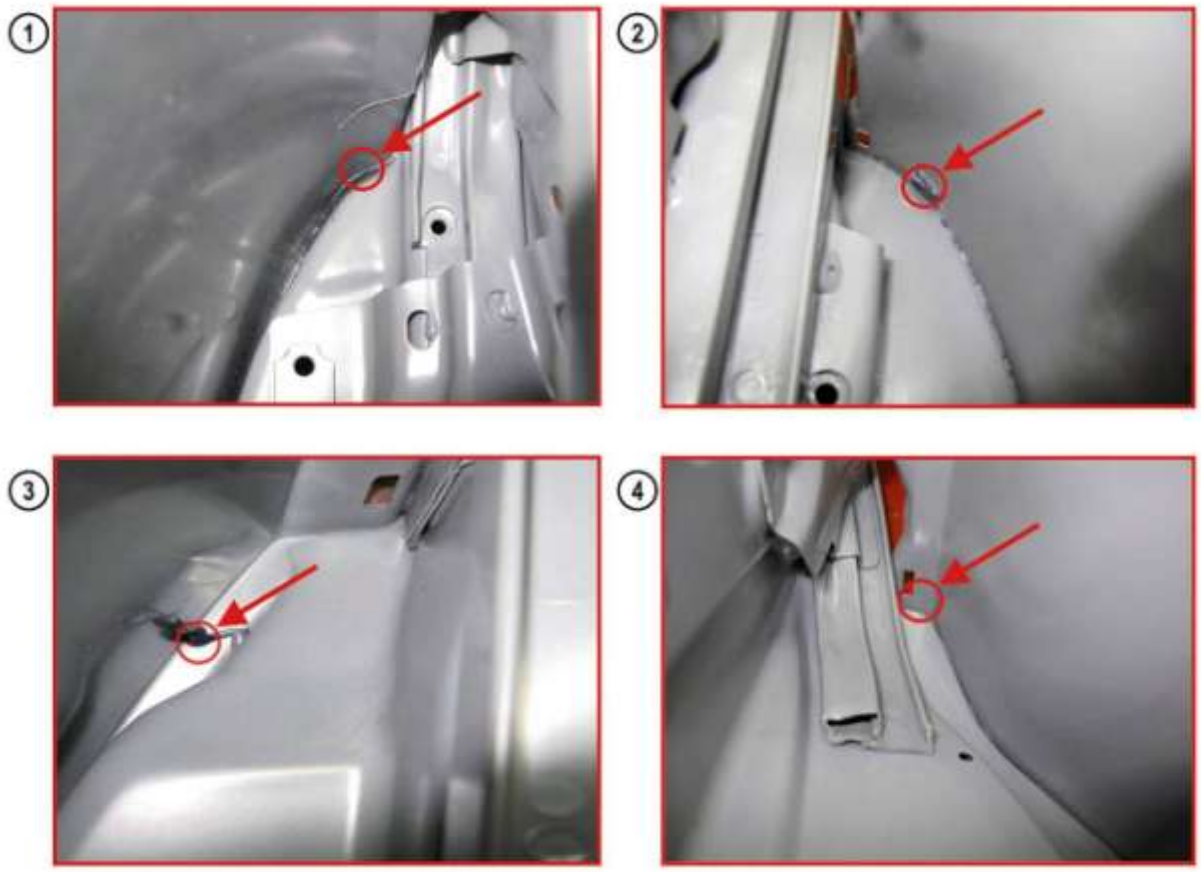


MSP1_041

View to the inside of the door

1 Front-side of front door
2 Rear-side of front door
3 Front-side of rear door
4 Rear-side of rear door

Mazda3



MSP1_042

View to the inside of the door

1	Front-side of front door	3	Front-side of rear door
2	Rear-side of front door	4	Rear-side of rear door

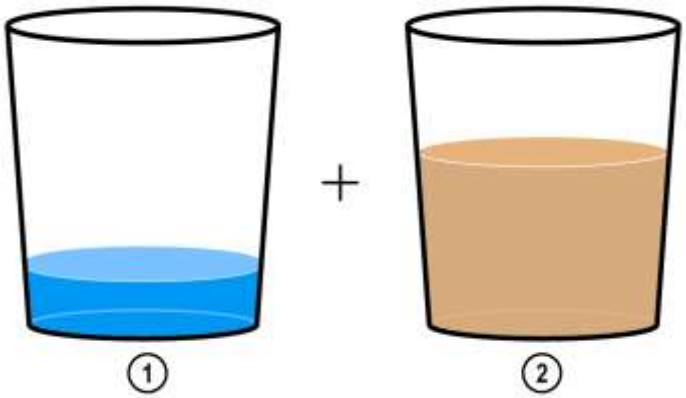
12. Make a visual inspection to see that the mixed fluid “A” has penetrated all areas of the inner door cleavage properly and the adhesive selaer is fully covered by the mixed fluid “A”.

NOTE: Caused by gravity forces or a quickly application, the mixed fluid “A” tends to use the shortest way down to the lower area of the door.Therefore, it could happen that the mixed fluid “A” will NOT follow exactly the run of the adhesive sealer on the inner cleavage after first application. If you can verify such a behavior on any door, it is necessary to apply an extra portion of 1ml of mixed fluid “A” to the inner cleavage of the door right above that area not covered by the mixed fluid “A”.

13. Reinstall the door module.
14. Reinstall the window glass and trim regarding to the Workshop Manual.

Application of Mixed Fluid “B” to the visible hemming area of the Front and Rear Door

15. Mix hardener (VI) (3 ml) and clear coat (VII) (9 ml), and stir well. (Mixture ratio is 1:3)



MSP1_060

1 Hardener (VI) (3 ml) 2 Clear coat (VII) (9 ml)

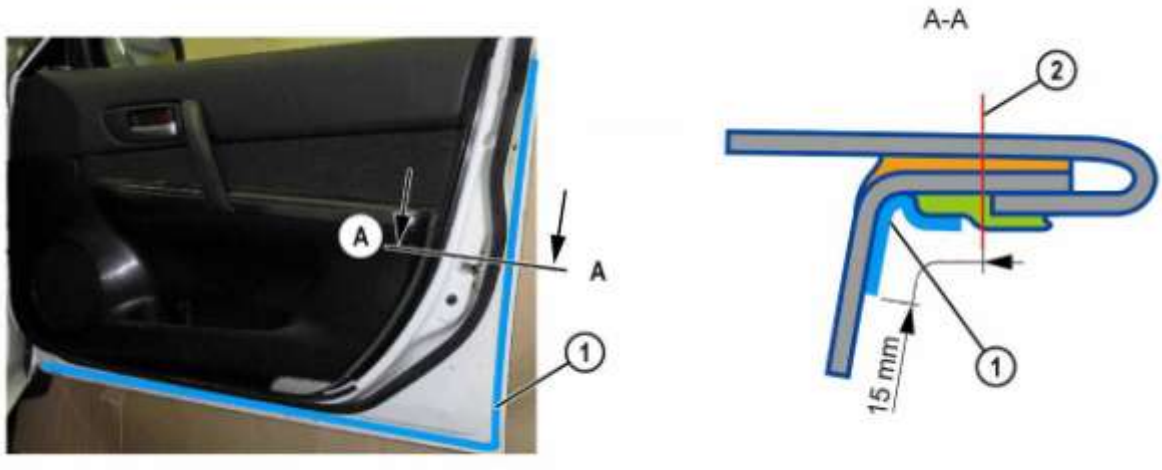
NOTE: The mixed fluid “B” will harden very quick. Use it within 30 minutes**.**
NOTE: Mix the two kinds of liquid, then SLOWLY stir them by not allowing bubbles in the mixed liquid.

16. Using a brush, apply mixed fluid “B” to the door flange.

Area to be applied: Approx. 15 mm from the center of the sealant. (See the picture below.)

MSP1_061

NOTE: Use a 10 mm-length tip of brush. Use soft one. If the tip of brush is soaked with too much liquid, there is a possibility that the liquid drips while applying. Place the tip of the brush on the edge, then paint along with the sealant. It will make the finish appearance good.



MSP1_061

1 Mixed fluid B

2 Center of sealant

17. Remove the masking tape from the water drain holes.

NOTE: When removing the tape, spread a waste cloth under the drain holes because residues of the mixed fluid will may drop out of the drain holes.

18. Wait for 2 or 3 minutes until the mixed fluid stops dripping. Then reinstall the one-way valves to the drain holes.
19. Reconnect the negative battery cable.
20. Proceed initialization of all window regulator where necessary to ensure the Auto-Function is available.
21. Enter the Radio Keycode and rearrange the Radio Stations you wrote down in step 6.

Level 1 Repair Procedure of Lift gate/Tail gate/Trunk lid

Outline of Procedure

- Application of mixed fluid “A” (hardener (VI) and clear coat (VII))
  - Apply the mixed fluid “A” to the innerr cleavage of lift gate/tail gate/trunk lid via the opening of the removed rear combination lamps.

NOTE: Even if the inside of the lift gate is waxed, apply the mixed fluid on top of the wax.

MSP1_049

NOTE: The main purpose of this procedure is to cover those areas of the factory applied adhesive sealer where water can enter the clinched flange from the inside of the lift gate/tail gate/trunk lid. The mixed fluid “A” will rinse along the inner cleavage and cover the factory applied adhesive sealer. In a consequence, water cannot enter the clinched flange from inner side of the lift gate/tailgate and already existing corrosion inside the clinched flange will be sealed-off from the atmospheric oxygene and humidity.

- Application of Mixed fluid “B” (hardener (VI) and clear coat (VII))
  - Apply the Mixed fluid “B”along the visible area of the clinched flange of the lift gate/tailgate/trunk lid

NOTE: Clean and degrease the location where the Mixed fluid “B” will be applied.

MSP1_050

View from under the rear combination lamp location

Application of mixed fluid “A” to the inner cleavage of the forward area of clinched flange of lift gate/tail gate/trunk lid

22. Remove both of the rear combination lamps from the lift gate according to the Workshop Manual.

MSP1_051

1 Rear combination lamp

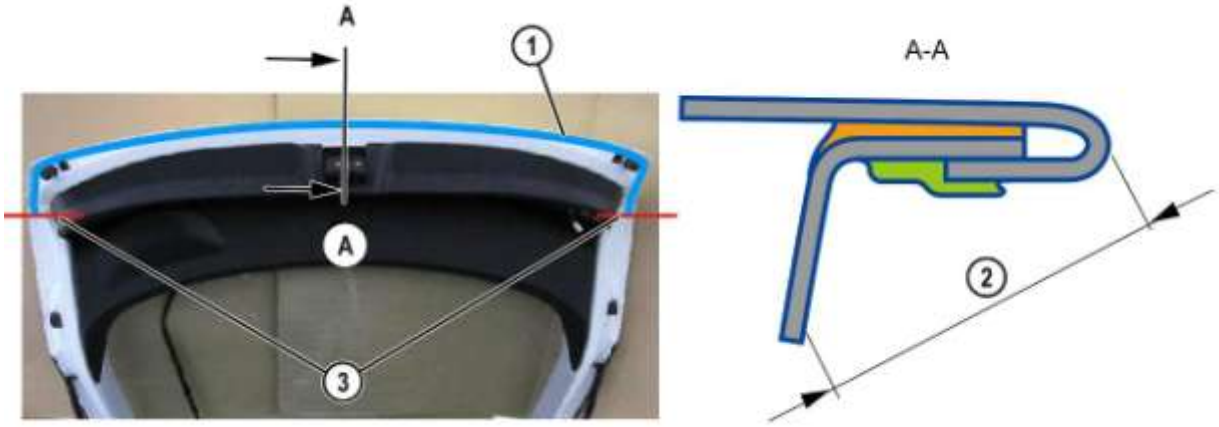
23. Remove the water drain hole valves and stoppers.

MSP1_052

1 Drain Hole Valve

2 Stopper

24. In order to ensure good adhesion, clean and degrease the hem of the lift gate at the areas where the mixed fluid “B” will be applied.



MSP1_053

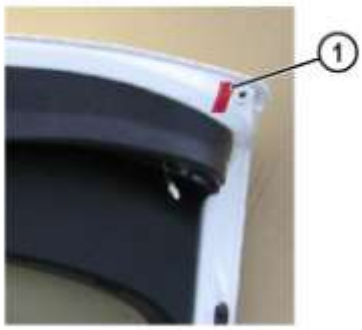
1 Apply Mixed fluid “B” to this area.

2 Clean/degrease this area.

3 Bottom Line of Rear Combination Lamp Installation Position.

25. Cover the water drain holes by applying masking tape.

NOTE: Make sure that the size of the masking tape exceeds the size of the drain holes by approx. 2 mm. If the tape will peel off unintended, the mixed fluid “A” will be leaking, therefore make sure the tape adheres well.

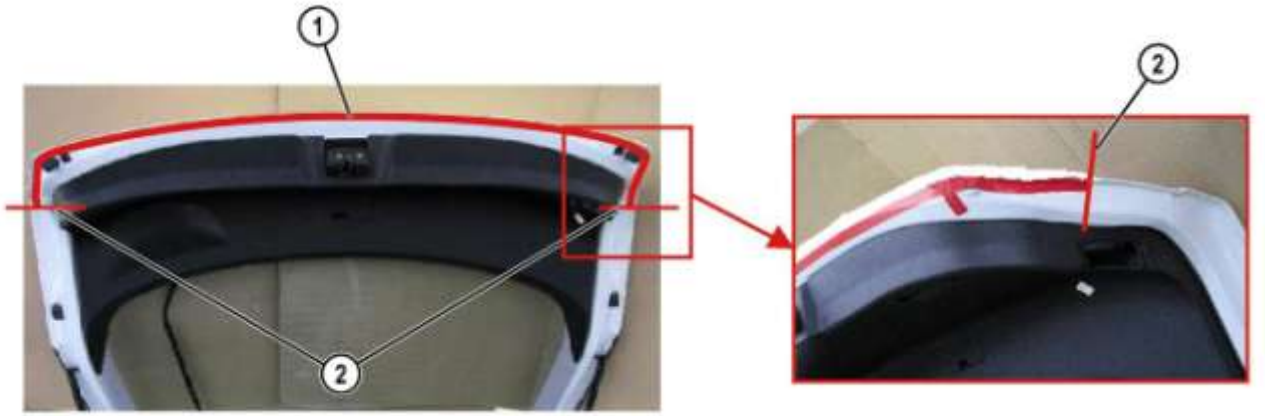


MSP1_054

1 Masking tape

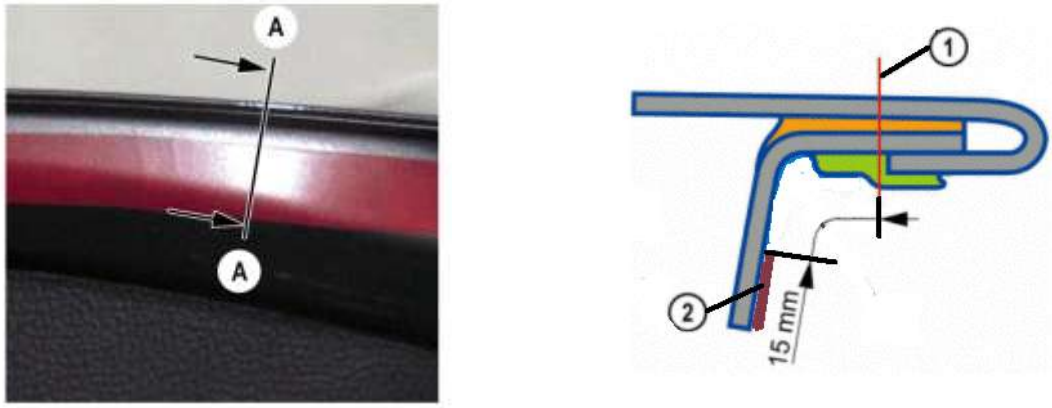
26. Apply vinyl tape (VIII) along to the flange between the bottom lines of the rear combination lamps.

NOTE: Apply vinyl tape (VIII) by approx. 15 mm from the center of the factory applied paint sealer.



MSP1_063

1 Apply vinyl tape to this area
2 Vinyl tape (VIII)
3 Bottom line of rear combination lamp



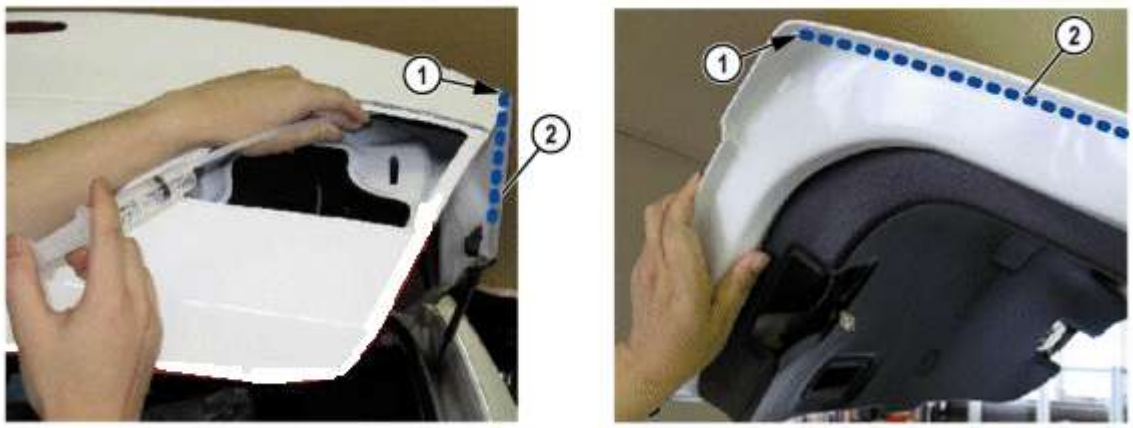
MSP1_064

1 Center of sealant
2 Vinyl tape (VIII)

27. Set the lift gate to half-opened position.
28. Insert the tube of the syringe to the inner cleavage via the opening of the rear combination lamps to bring the mixed fluid “A” into the lift gate.

NOTE: Even if the inside of the liftgate is waxed, apply the mixed fluid “A” on top of the wax. (There is a possibility that the wax is not applied completely. Be sure to apply the mixed fluid “A” in all cases.)

29. Bring in a portion of 2 ml of mixed fluid “A” to each side of the lift gate by aiming a little to the foreward area of the corner iside the lift gate.



MSP1_058

1 Pour from here

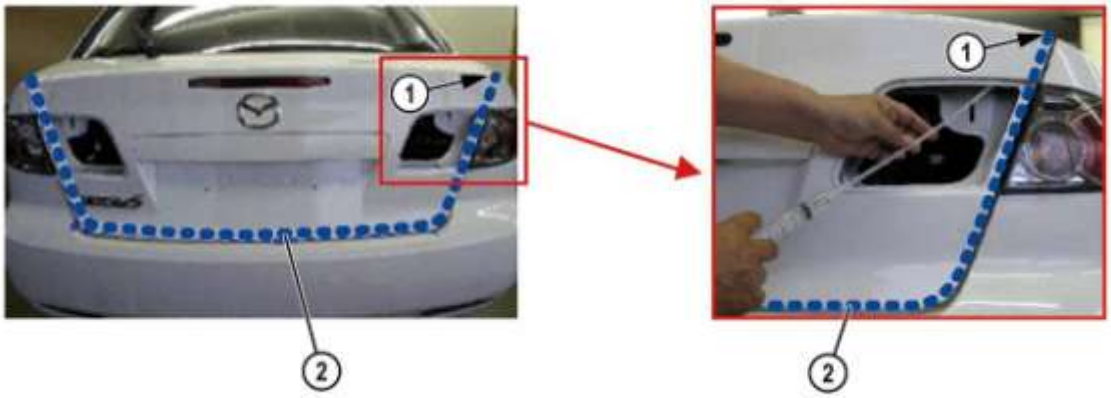
2 Mixed Fluid “A”

30. After injecting the mixed fluid “A” into both sides, leave the lift gate fully opened for approximately 30 seconds to allow the mixed fluid “A” to rinse along the adhesive sealer.
31. Close the lift gate.

NOTE: To prevent the paint on the rear bumper from getting damage by mixed fluid, place some cloth to those areas where the drain holes of the lift gate are located.

Application of mixed fluid “A” to the inner cleavage of the lower area of clinched flange of liftgate./tailgate/trunk lid

32. Set the liftgate to fully closed position.
33. Bring in a portion of 2 ml of mixed fluid “A” to each side of the liftgate by aiming to the lower area of the corner.
34. Make sure that the mixed fluid “A” has been applied properly to the lower area.



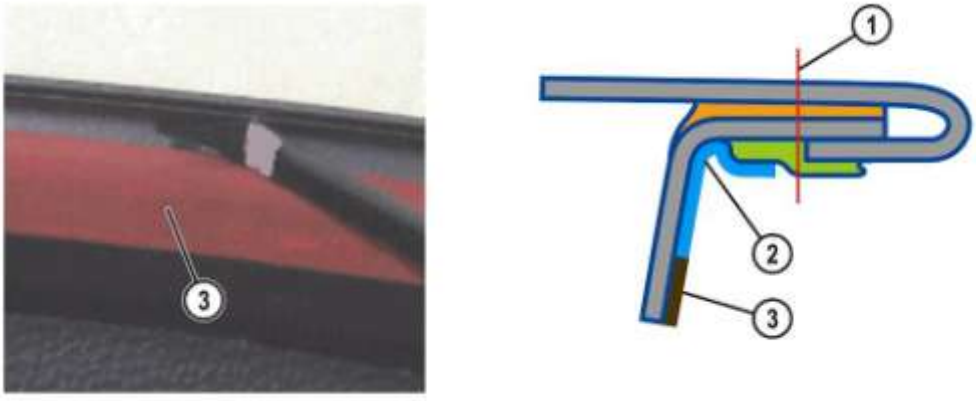
MSP1_066

1 Pour from here
2 Application area for Mixed Fluid “A”

Application of mixed fluid “B” along the clinched flange of the lift gate/tailgate/trunk lid

35. Using a brush, apply mixed fluid “B” to the visible area of the clinched flange.

NOTE: Area to be applied: From the center of sealant to vinyl tape (VIII). (See the picture below.)



MSP1_067

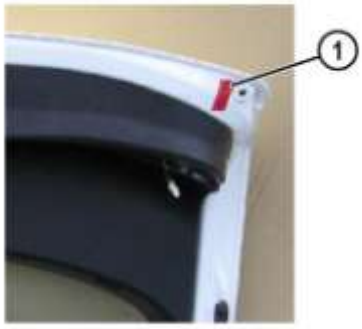
1 Center of Paint Sealer
2 Mixed Fluid “B”
3 Vinyl Tape (VIII)

NOTE: Use a 10 mm-length tip of brush. Use a soft one. If the tip of brush is soaked with too much liquid, there is a possibility that the liquid drips while applying. Place the tip of the brush on the edge, then paint along with the sealant. It will make the finish appearance good.

36. Remove the vinyl tape (VIII) from the liftgate/tailgate/trunk lid. Directly after application.

NOTE: Do NOT remove the masking tape from the water drain holes at this stage. Ohterwise the mixed fluid “A” can drip out and will contaminate the vehicles paint. Leave the masking tapes on the drain holes for a minimum of 1hour from the beginning of apllication of mixed fluid “A”.

37. Reassemble the rear combination lamps.
38. Allow the mixed fluid “A” to dry for about one hour and peel off the masking tape from the water drain holes



MSP1_54

1 Masking tape

39. Make sure that the mixed fluid “A” is not dripping, then reinstall the valves to the water drain holes.
40. Allow the mixed fluid “B” to dry for about 3 hours., or use a hot air to shorten the cure time.

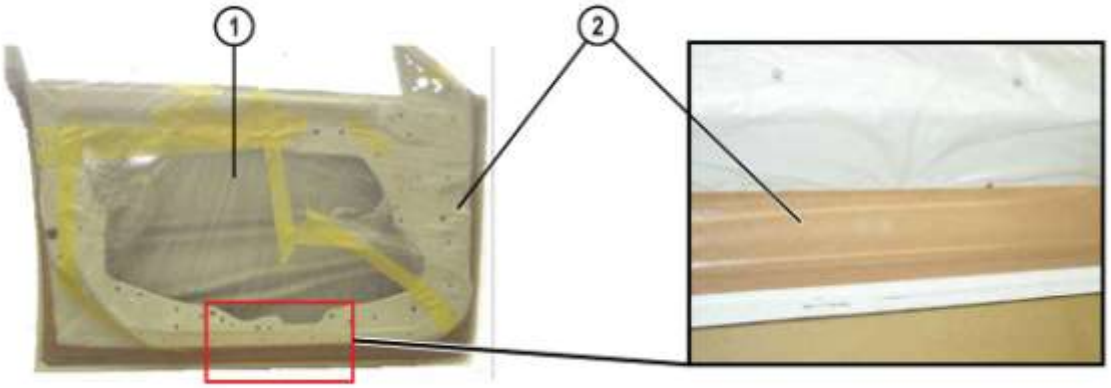
NOTE: Before returning the vehicle to the customer, be sure to pay attention to the following. It will take approximately three hours until the mixed fluid “A” and “B” are completely dry. Do not allow any water to enter the inside of the door untill the mixed fluid “A” has completely dried.

Level 2 Repair Procedure of Doors/Lift gate/Tail gate/Trunk lid

1. Detach all components such as mouldings and the lock from the part concerned (tailgate, door, hood and/or luggage compartment lid) which is to be repaired.
2. Detach the part to be repaired from the vehicle and carefully put it down on a suitable surface.

NOTE: Be careful not to allow any damage on the paint surface of the parts to repair.

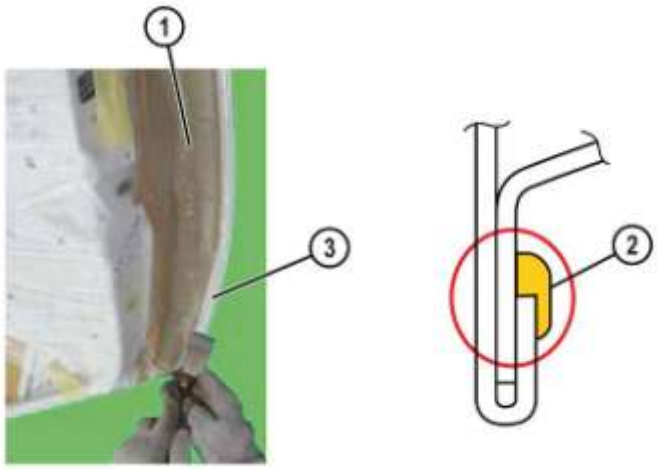
3. Also mask off the inside of the edge of the flange to protect all the surrounding painted surfaces. Mask the adjoining area with plastic adhesive tape to avoid damaging the painted areas when the flange sealer is removed.



BL-1010_02042

1 Masking tape and film
2 Plastic adhesive tape

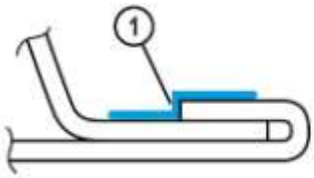
4. While warming up the paint sealer, remove the whole paint sealer from the hem by using a scraper or a suitable spatula.



BL-1010_02044

1 Plastic adhesive tape
2 Scrape off production flange sealer
3 Production flange sealer

5. If paint sealer residue still remains on the connecting area, use a sharp-edged tool and completely remove.



BL-1010_02045

1 Clean this area thoroughly

6. Using air-blow or waste cloth, completely remove dust.
7. Heat the entire clinched flange with a hot air gun. This will remove any moisture and also dry the inside of the clinched flange. In addition, the hardener can spread more easily in the next step.
8. Using a syringe, bring the hardener (VI) to the visible joint of the clinched flange. Position the parts accordingly to ensure the hardener (VI) can deeply penetrate into the joint surface of the clinched flange. (10-15 ml per door will be required.)

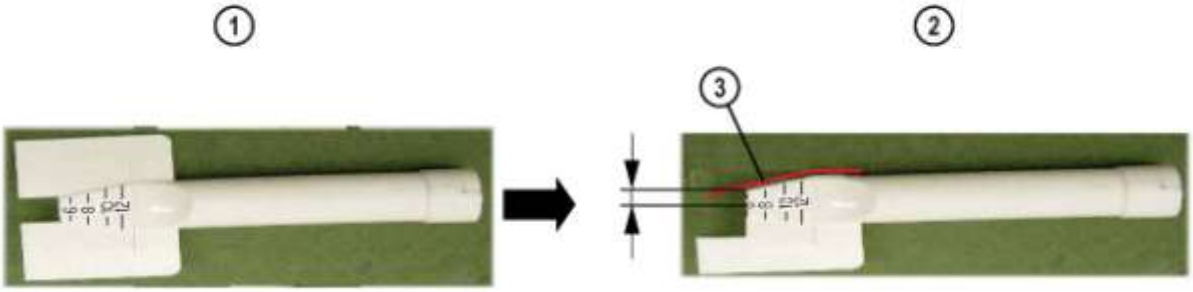
NOTE: Allow the hardener (VI) to penetrate for at least 30 minutes.

9. Wipe off surplus hardener (VI) by using a suitable cleaning agent (IV)
10. Apply corrosion protection primer (I) over the entire repair area and make sure that all the bare metal surfaces are treated.

11. After the Corrosion protection primer (I) has dried, lightly sand the surface with (400 grit) abrasive paper to reduce the coating thickness. Then apply the primer surfacer (II) over the repair area and let it dry. Lightly sand the surface on which the finishing paint will be applied later using (500 grit) abrasive paper and then clean it.

12. Fabricate a special nozzle to apply the paint sealer (III) to seal the flange.

NOTE: The quality of the application of paint sealer (III) depends on the shape of the nozzle. Before applying the paint sealer(III), check the application conditions and trim the nozzle accordingly.

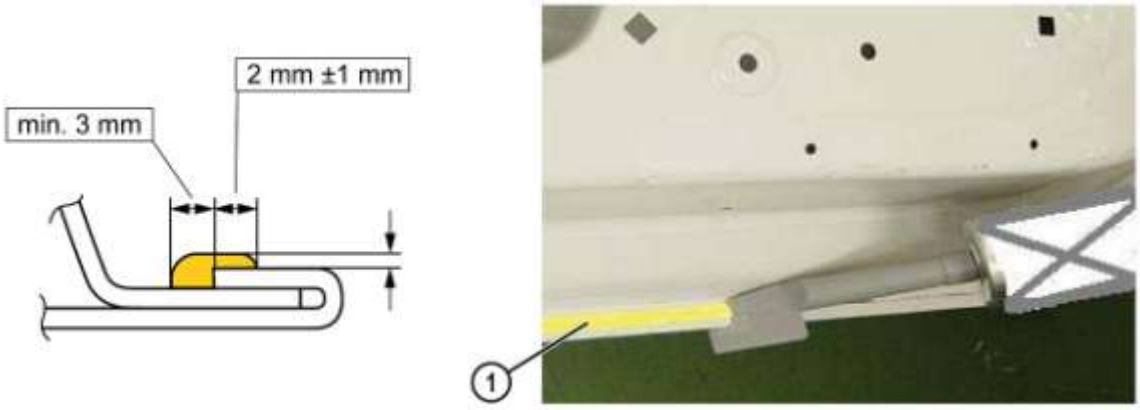


BL-1010_02050

1 Vaned nozzle as supplied
2 Trimmed nozzle with one vane serving as guide
3 Cut off one vane

13. Apply the paint sealer (III) so that the edge of the flange is covered completely, and smooth with a spatula, knife or brush as necessary.

NOTE: Apply the paint sealer (III) uniformly without any gaps. If there are any gaps or air is trapped under the paint sealer (III), rectify with a spatula, knife or equivalent. Apply the paint sealer (III) to all the repaired joint edges.



BL-1010_02051

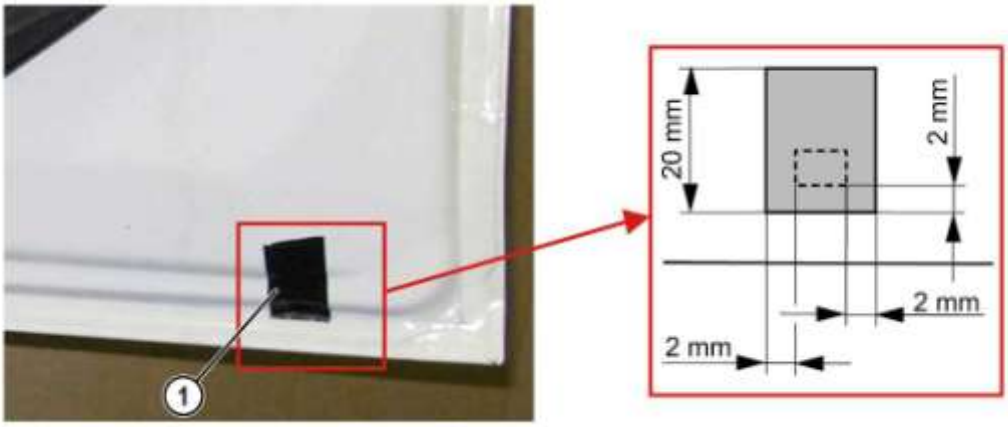
1 Flange paint sealer(III)

14. After the applied paint sealer (III) has dried, mask the area in which no finishing paint is to be applied.When the paint sealer has dried, apply the topcoat.

15. After the topcoat gets dry, remove all masking material.

16. Cover the water drain holes with vinyl tape.

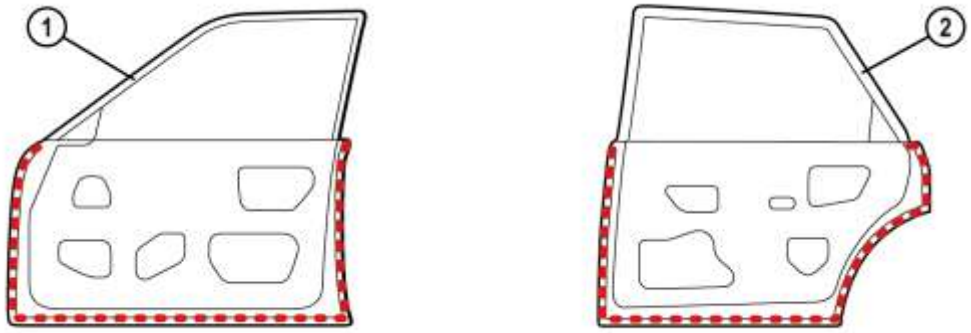
NOTE: Make sure that the size of the masking tape exceeds the size of the drain holes by approx. 2 mm. If the tape will peel off unintended, the mixed fluid “A” will be leaking, therefore make sure the tape adheres well.



MSP1_030

1 Vinyl tape

17. Apply the mixed fluid “A” to the inside of the door. Please refer to Level 1 Repair Procedure 11, 12.



MSP1_024

1 Front door

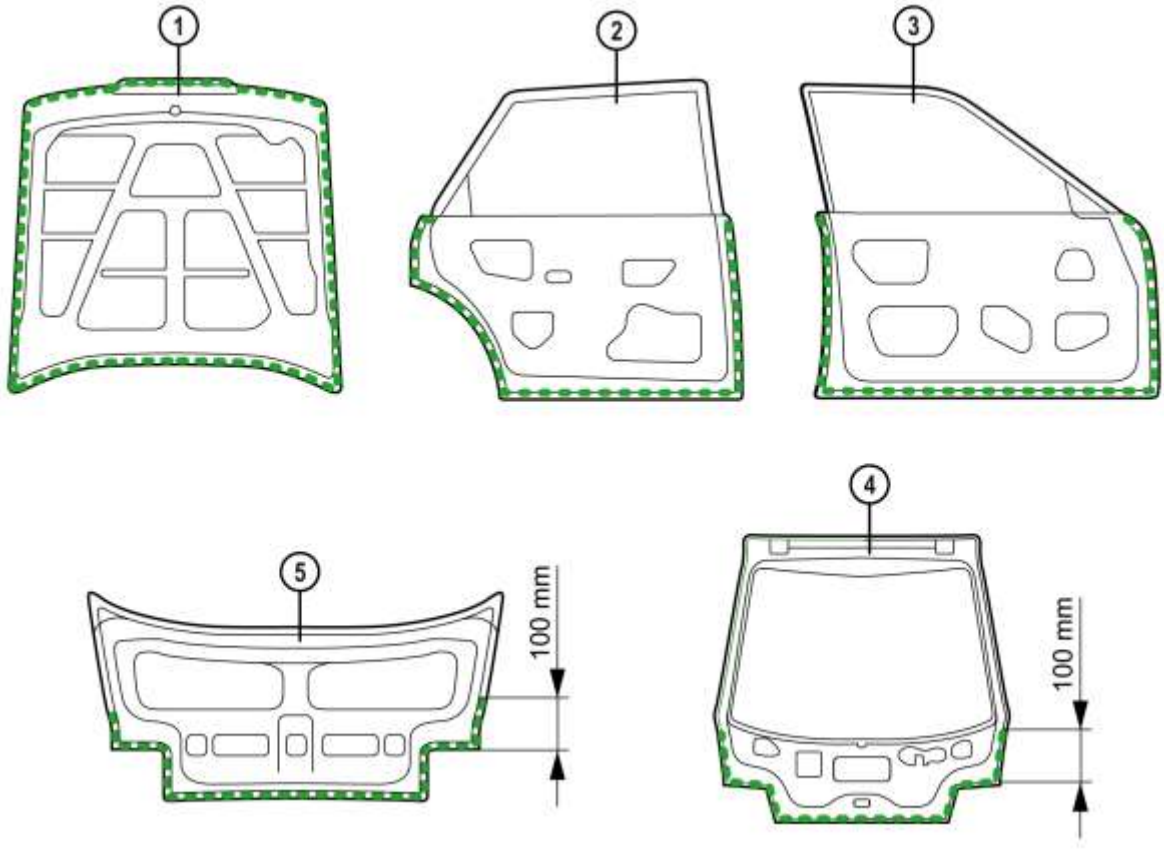
2 Rear door

BL-1010_02052

1 Apply mixed fluid “A”

2 Apply mixed fluid “A” specifically in this area

NOTE: Make a visual inspection to see that the mixed fluid “A” has penetrated all areas of the inner sealer seam properly.



BL-1010_02053

1 Hood
2 Rear door
3 Front door
4 Tailgate
5 Luggage compartment lid

18. Leave the doors and the lift gate for about 60 minutes to allow the mixed fluid “A” to penetrate.
19. Reinstall and reassamble the doors. Wait untill the mixed fluid “A” stops dripping out ot the lower drain holes and then reassable the drain valves.

NOTE: Because of the thickness of the applied top coating, it is NOT necessary to apply mixed fluid “B” along the visible area of the clinched flange on repaired doors.

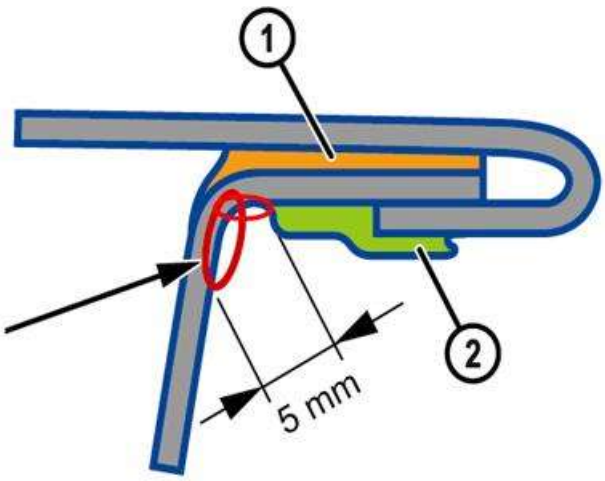
Repair procedure for Doors/Lift gate/Tail gate/Trunk lid replacement

1. Replace the parts according to the Workshop Manual.
2. If the paint sealer has not been applied to the replacement parts yet, proceed as shown from step 12 of the level 2 Repair Procedure and apply paint sealer accordingly.

NOTE: Due to improvements regarding application of adhesive sealer in production process and change of the material for door and liftgate/tailgate, it is not necessary to apply the mixed fluid “A” to the inner cleavage of new doors.

APPENDIX A – Guideline for Corrosion Level Assessment

Definition of Corrosion Level - 1



① Adhesive Sealer, ② Paint Sealer

No visible blisters in the area between edge of paint sealer and outer edge of the door.

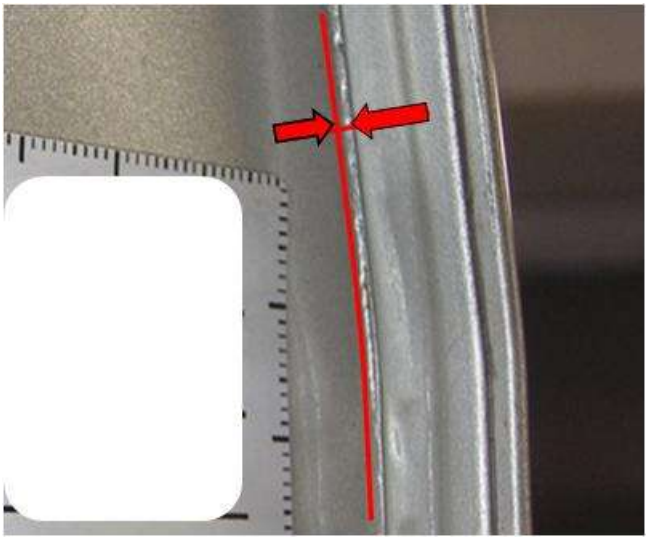
AND

Visible blisters in an area less than or equal to 5mm from edge of paint sealer to the inside of door. Don't measure the 5mm along the shape of the flange. Measure straight-away at right angle to sealer seam.

(Please refer to below sample photos)

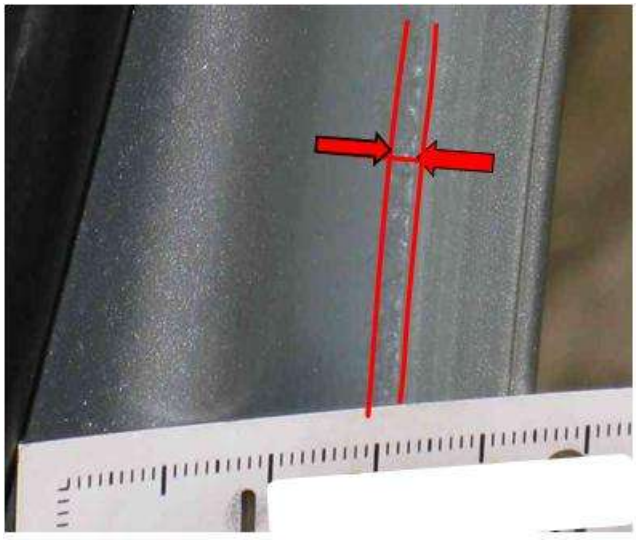
NOTE: Blisters along the inner edge of the paint sealer but within the 5mm limit, will not automatically lead to a corrosion level-2 as long as the paint surface is not burst open or red rust is not visible.

Photo #1



Maximum width of blisters is less than or equal to 5mm from inner edge of paint sealer.

Photo #2

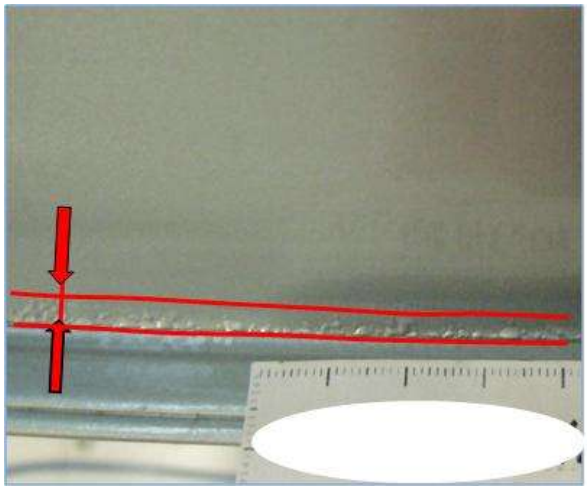


Maximum width of blisters is less than or equal to 5mm from inner edge of paint sealer.

Photo #3

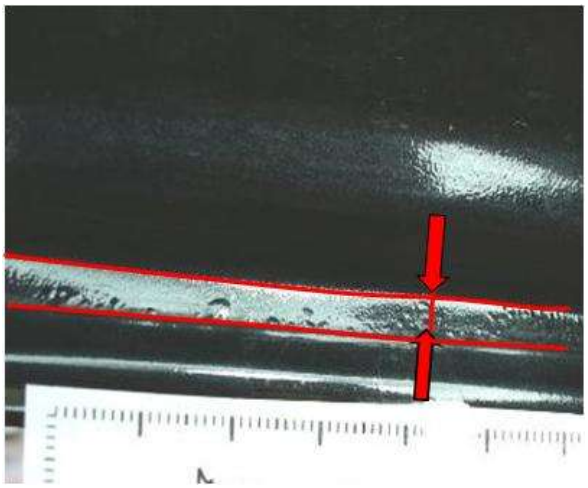
Maximum width of blisters is less than or equal to 5mm from inner edge of paint sealer.

Photo #4



Maximum width of blisters is less than or equal to 5mm from inner edge of paint sealer.

Photo #5

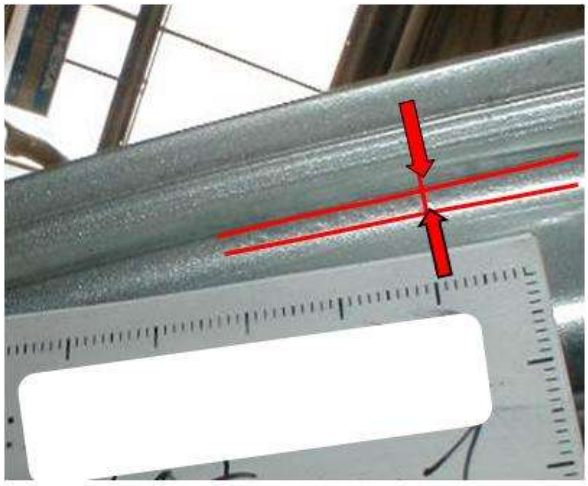


Maximum width of blisters is less than or equal to 5mm from inner edge of paint sealer.

Photo #6

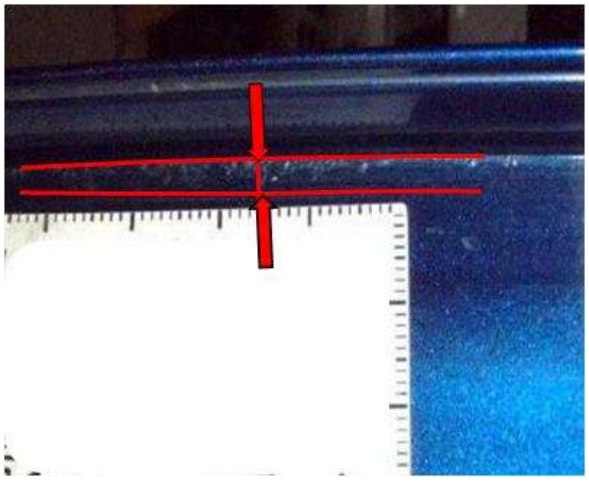
Maximum width of blisters is less than or equal to 5mm from inner edge of paint sealer.

Photo #7



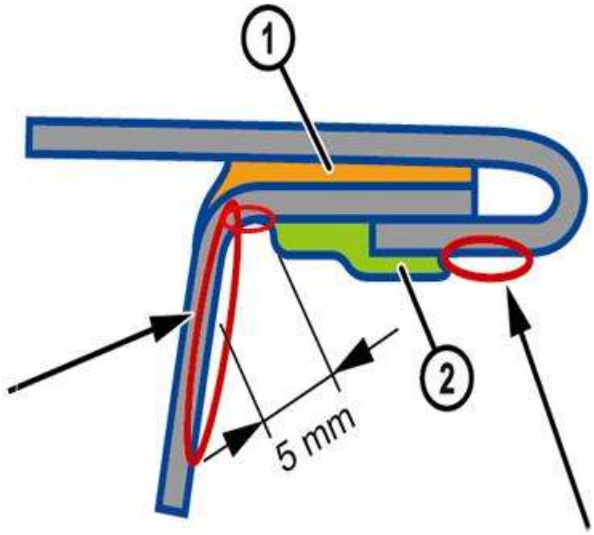
Maximum width of blisters is less than or equal to 5mm from inner edge of paint sealer.

Photo #8



Maximum width of blisters is less than or equal to 5mm from inner edge of paint sealer.

Definition of Corrosion Level – 2



① Adhesive Sealer, ② Paint Sealer

Visible blisters have spread more than 5mm from inner edge of paint sealer

AND/OR

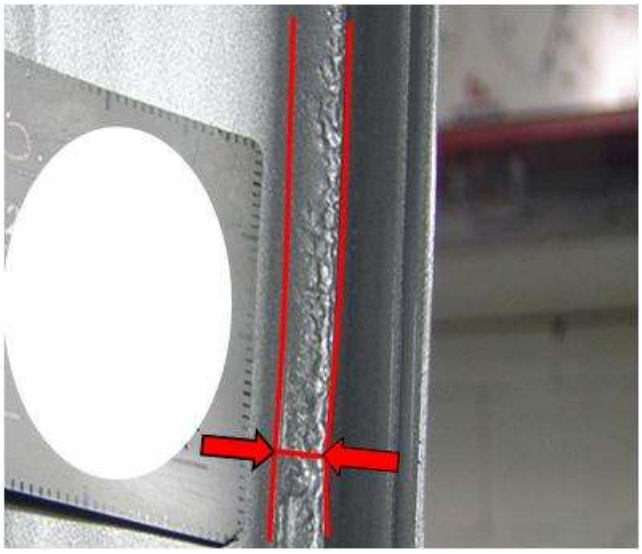
Blisters burst open without external influence and/or visible red rust even if appearance range is below 5mm from inner edge of paint sealer

AND/OR

Visible blisters between outer edge of sealer and outer edge of door.

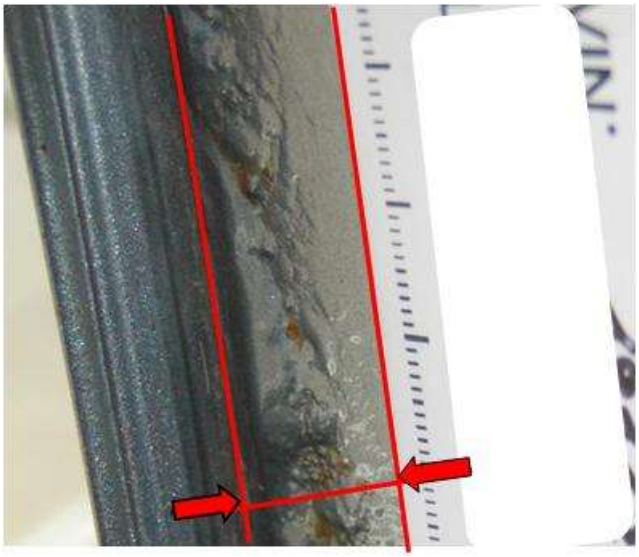
NOTE: Blisters along the inner edge of the paint sealer but within the 5mm limit, will not automatically lead to a corrosion level-2 as long as the paint surface is not burst open or red rust is not visible.

Photo #1



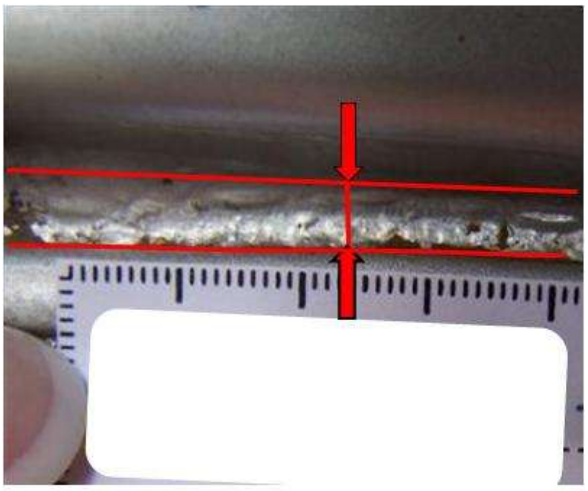
Visible blisters have spread more than 5mm from inner edge of paint sealer

Photo #2



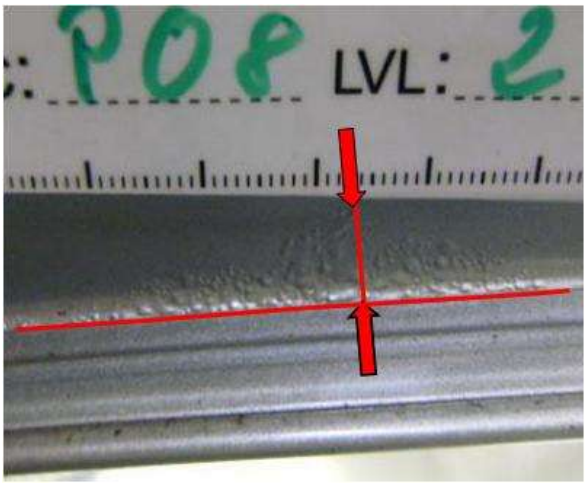
Visible blisters have spread more than 5mm from inner edge of paint sealer, gentle red rust visible.

Photo #3



Visible blisters have spread more than 5mm from inner edge of paint sealer

Photo #4



Visible blisters have spread more than 5mm from inner edge of paint sealer

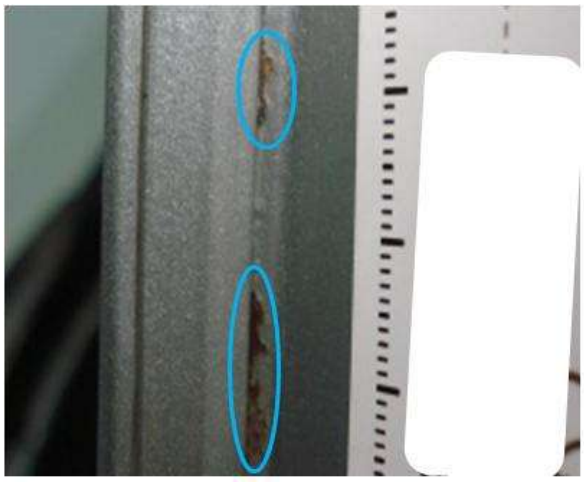
Photo #5

Blisters burst open without external influence and red rust becomes visible. In this case, width of blisters is not longer main criteria.

Photo #6

Visible blisters appearing between outer edge of sealer and lower outer edge of door.

Photo #7



Blisters burst open without external influence and red rust becomes visible. In this case, width of blisters is not longer main criteria.

Photo #8

Blisters burst open without external influence and red rust becomes visible. In this case, width of blisters is not longer main criteria.

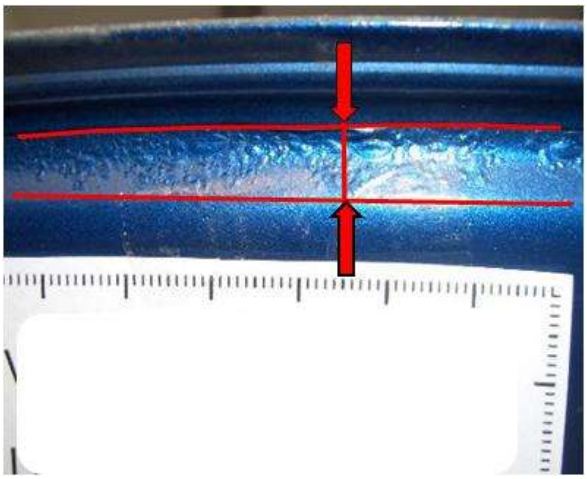
Photo #9

If you find visible corrosion or blister inside door and/or edge of drain hole, please ask NSC how to handle this case.

Photo #10

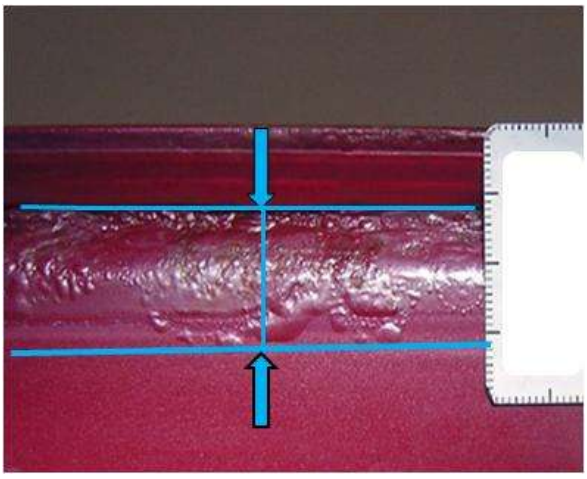
If you find visible corrosion or blister inside door and/or edge of drain hole, please ask NSC how to handle this case.

Photo #11



Visible blisters have spread more than 5mm from inner edge of paint sealer

Photo #12

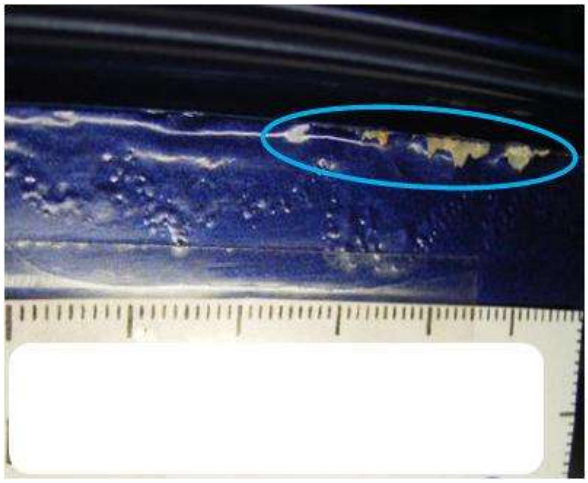


Visible blisters have spread more than 5mm from inner edge of paint sealer

Photo #13

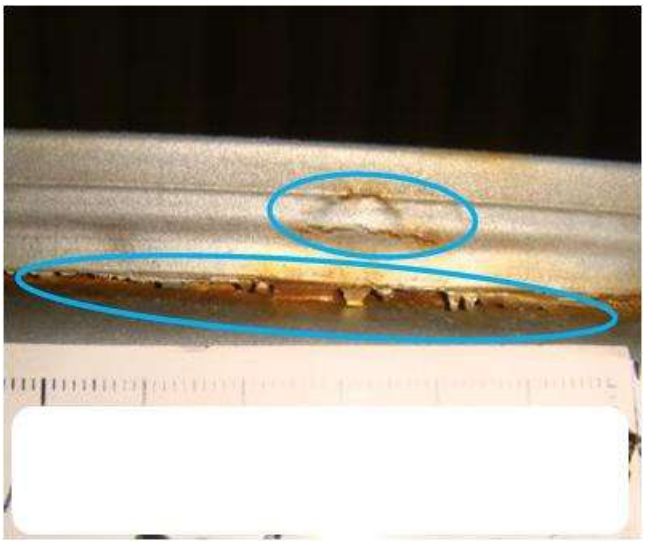
Blisters burst open without external influence and red rust becomes visible. In this case, width of blisters is not longer main criteria.

Photo #14



Blisters burst open without external influence and red rust becomes visible. In this case, width of blisters is not longer main criteria.

Photo #15



Blisters burst open without external influence and red rust becomes visible. In this case, width of blisters is not longer main criteria.

Photo #16

Blisters burst open without external influence and red rust becomes visible. In this case, width of blisters is not longer main criteria.

Definition of Corrosion Level – 3

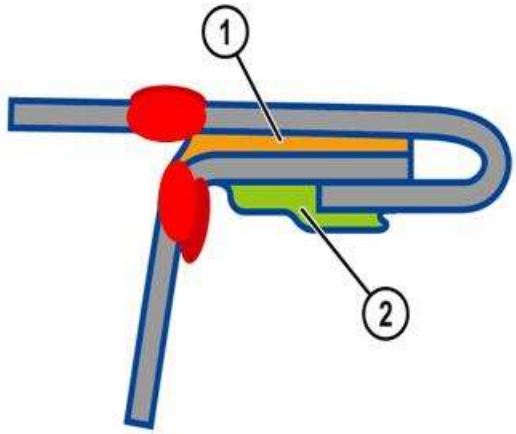
 ① Adhesive Sealer, ② Paint Sealer	**Door/liftgate metal sheets are perforated from inside to the outside of clinched flange.** **AND/OR** **Perforation from inside of door/liftgate to outer surface of door.** **(Please refer to below sample photos)**

Photo #1

<Before removing paint and corrosion>

No visible perforation corrosion can be detected with the initial inspection, which leads to a level-2 assessment in the first step.

Photo #2

<After removing paint and corrosion>
Perforation becomes visible under the severe corrosion shown on photo #1. Those perforations are justifying an assessment for level-3 because is starts from the inside of the clinched flange.

Photo #3

<Before removing paint and corrosion>
No visible perforation can be detected with the initial inspection, which leads to a level-2 assessment in the first step.

Photo #4

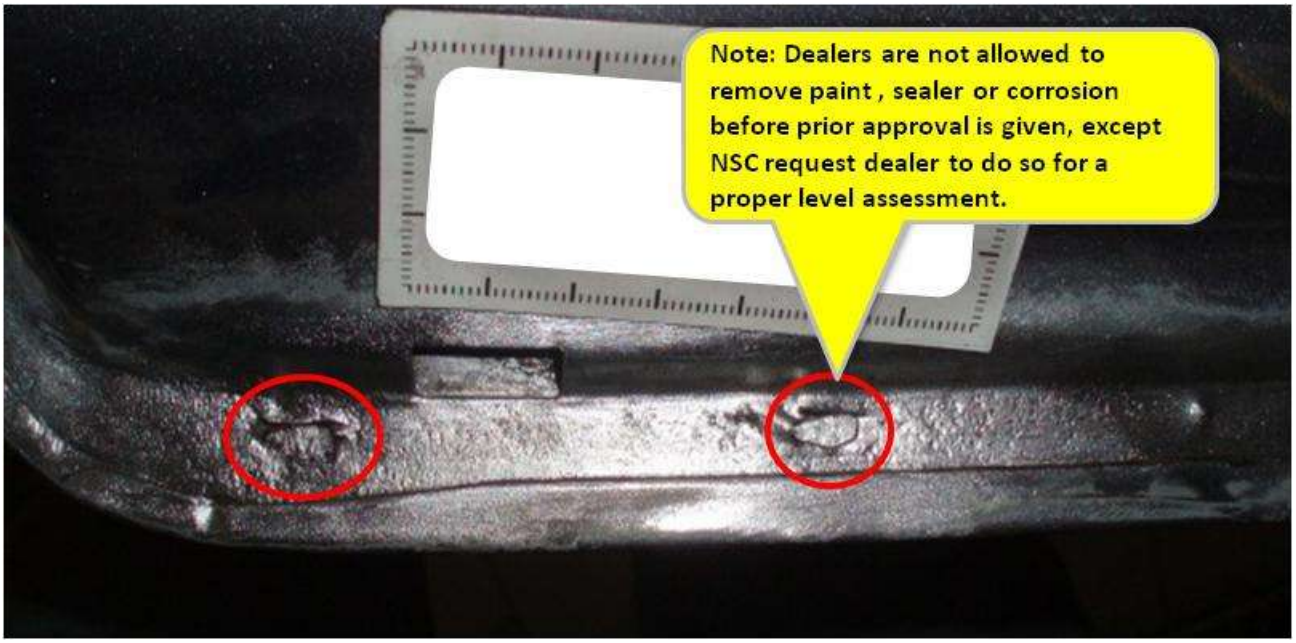
<After removing paint and corrosion>
Perforation becomes visible under the severe corrosion shown on photo #3. This perforation justifies an assessment for level-3 because is starts from the inside of the door.

Photo #4

<Before removing paint and corrosion>

No visible perforation can be detected with the initial inspection, which leads to a level-2 assessment in the first step.

Photo #5



<After removing paint and corrosion>

Perforation becomes visible under the severe corrosion shown on photo #5. This perforation justifies an assessment for level-3 because it starts from the inside of the clinched flange.

Photo #6

<Before removing paint and corrosion>

No visible perforation can be detected with the initial inspection, which leads to a level-2 assessment in the first step.

Photo #7

<After removing paint and corrosion>

Perforation becomes visible under the severe corrosion shown on photo #7. This perforation justifies an assessment for level-3 because it starts from the inside of the clinched flange.