

BODY REPAIRS – VEHICLE SPECIFIC INFORMATION AND TOLERANCE CHECKS

BODY AND FRAME – 110 (G2394537)

DESCRIPTION AND OPERATION

Measuring options



NOTE:

The same reference points must be chosen on both sides when checking for changed dimensions (e.g. bores, edges, beads/swage lines etc.).

- Comparison measurements can also be made on the outside of the body. Depending on the damage, comparison measurements and diagonal measurements can be completed using compass, telescopic rod, tape measure or ruler.
- A jig is required for accurate measurements of the body. The measuring systems are categorized by their means of operation:
 - Mechanical measuring system.
 - Optical measuring system.

Quick and accurate measuring results can be obtained using computerized measuring systems.

A minimum of three intact measuring points on the body are required for measurements of length, width and height dimensions.

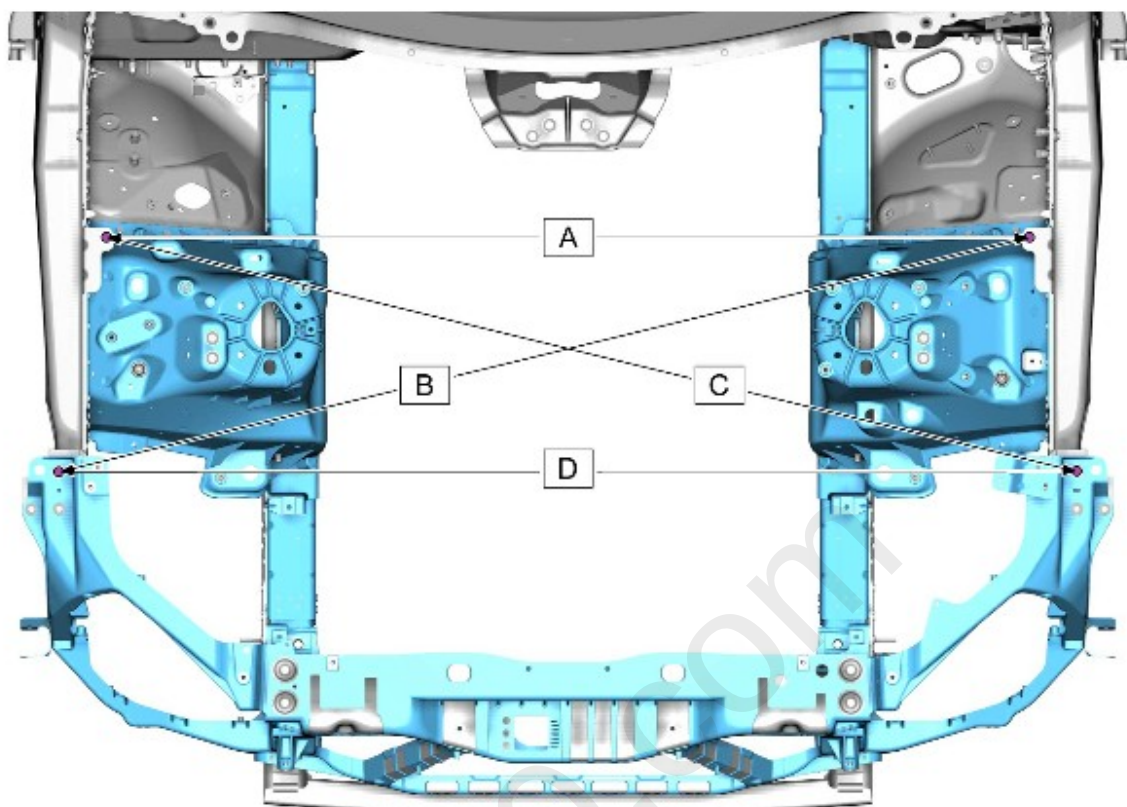
In some cases this may mean making the measuring points accessible. All of these measuring systems can be used to make body measurements, provided all the equipment is available.



NOTES:

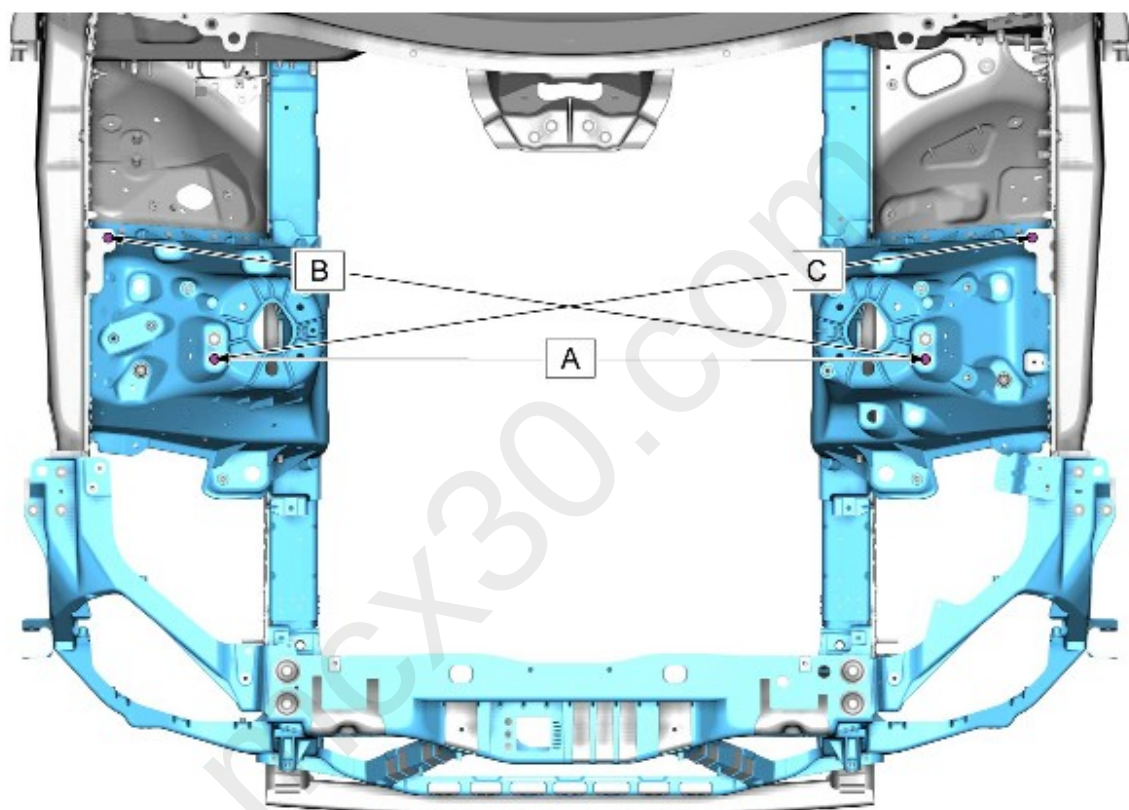
- All dimensions shown are in millimetres (mm).
- Dimensions shown to holes, are always taken from/to the hole centre. They are also always to the body panel surface, not to the top of bolts or components.

Front End Body Dimensions



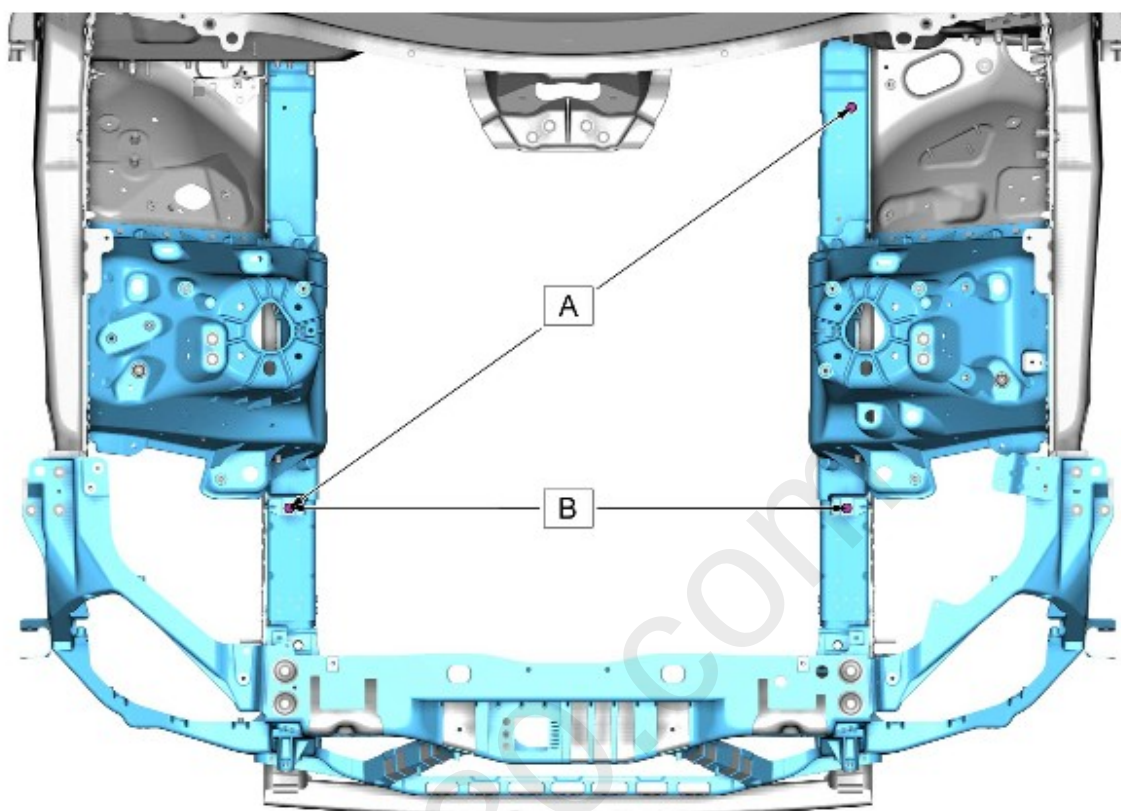
E255017

ITEM	FROM	TO	DIMENSION
A	Left fender rear fixing hole	Right fender rear fixing hole	1472
B	Right front end carrier rear fixing hole	Left fender rear fixing hole	1592
C	Left front end carrier rear fixing hole	Right fender rear fixing hole	1592
D	Left front end carrier rear fixing hole	Right front end carrier rear fixing hole	1624



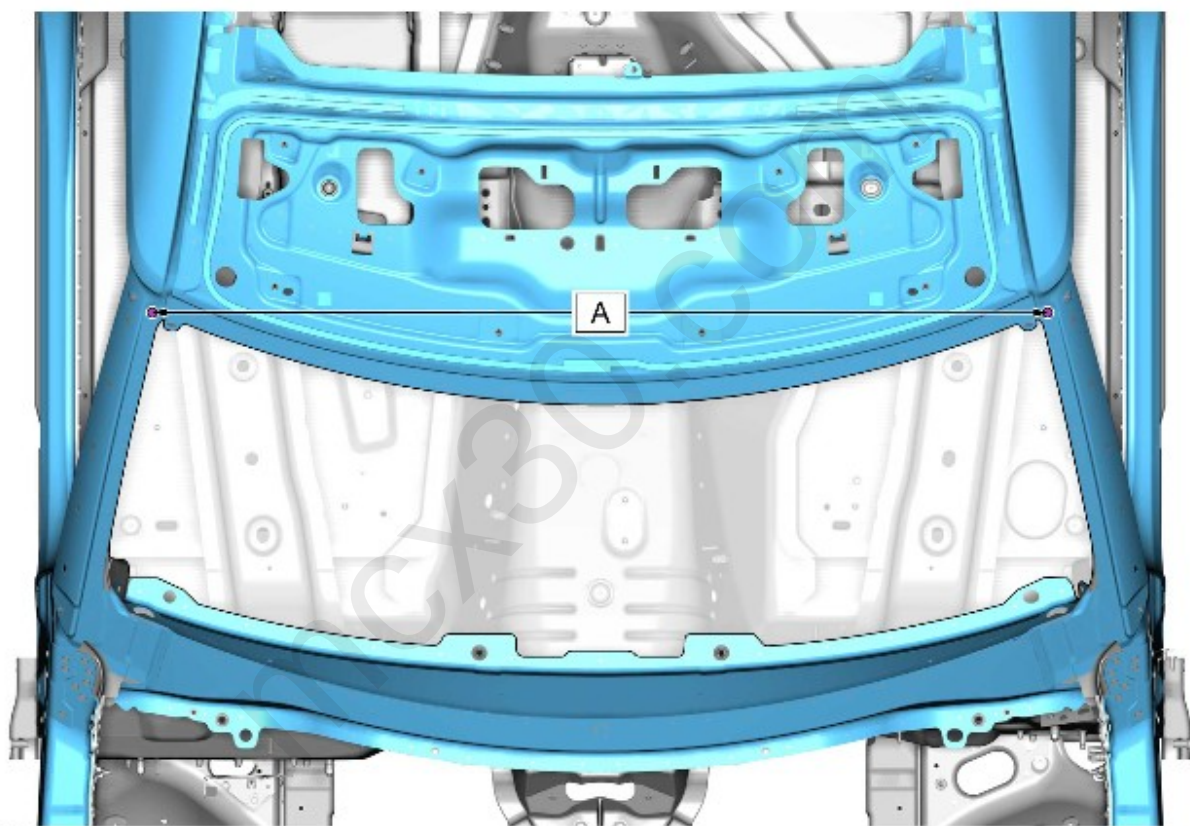
E255018

ITEM	FROM	TO	DIMENSION
A	Left suspension top mount front outboard fixing	Right suspension top mount Front outboard fixing	1135
B	Left suspension top mount Front outboard fixing	Right fender rear fixing hole	1317
C	Right suspension top mount Front outboard fixing	left fender rear fixing hole	1317



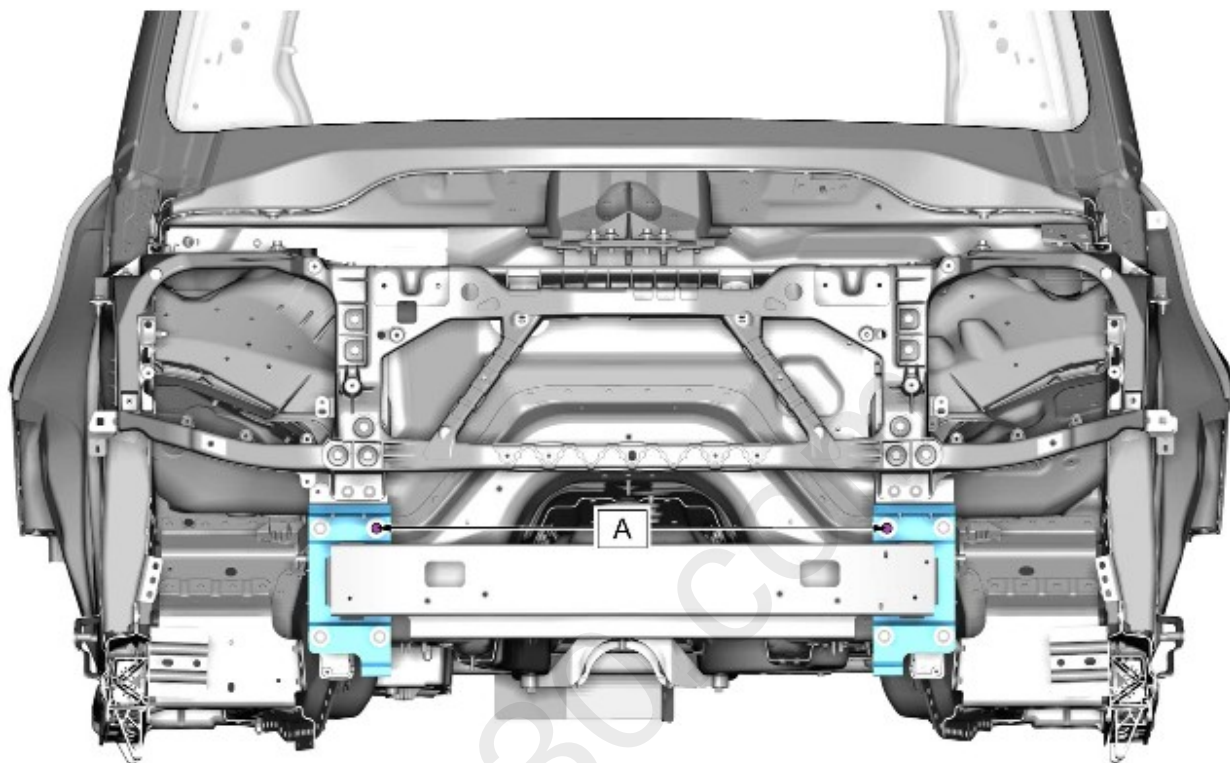
E255019

ITEM	FROM	TO	DIMENSION
A	Right suspension top mount front fixing hole	Left side member rear fixing hole	1102
B	Right suspension top mount front fixing hole	Left suspension top mount front fixing hole	890



E255020

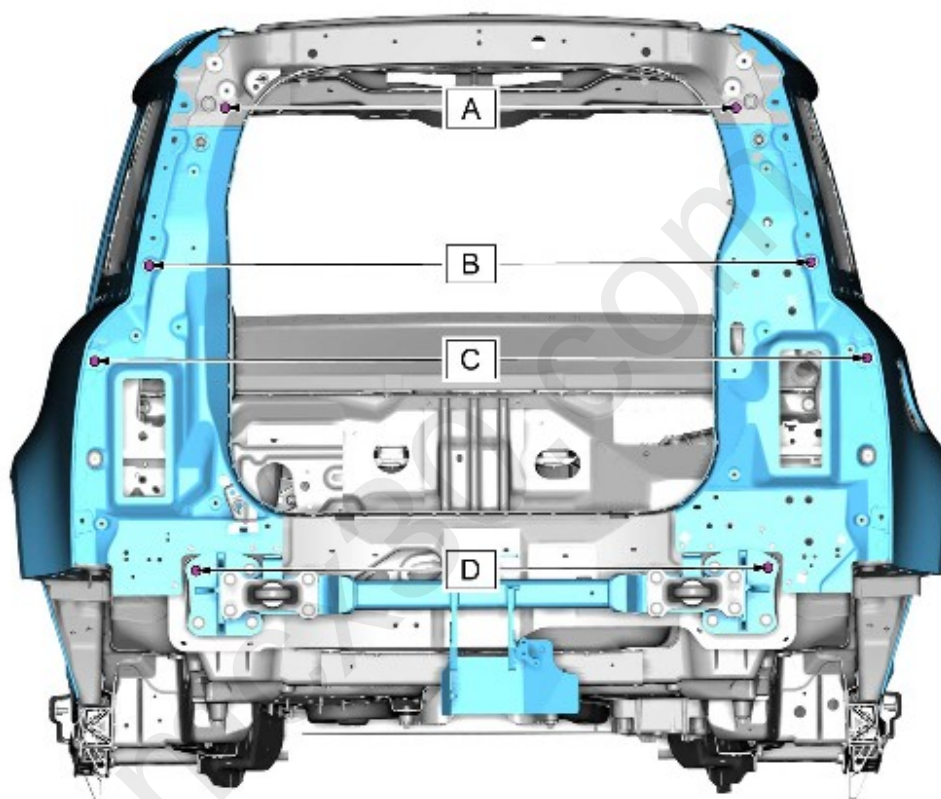
ITEM	FROM	TO	DIMENSION
A	Upper Left A pillar top fixing joint	Upper Right A pillar top fixing joint	1356



E255021

ITEM	FROM	TO	DIMENSION
A	Right upper inboard front bumper mounting	left upper inboard front bumper mounting	822

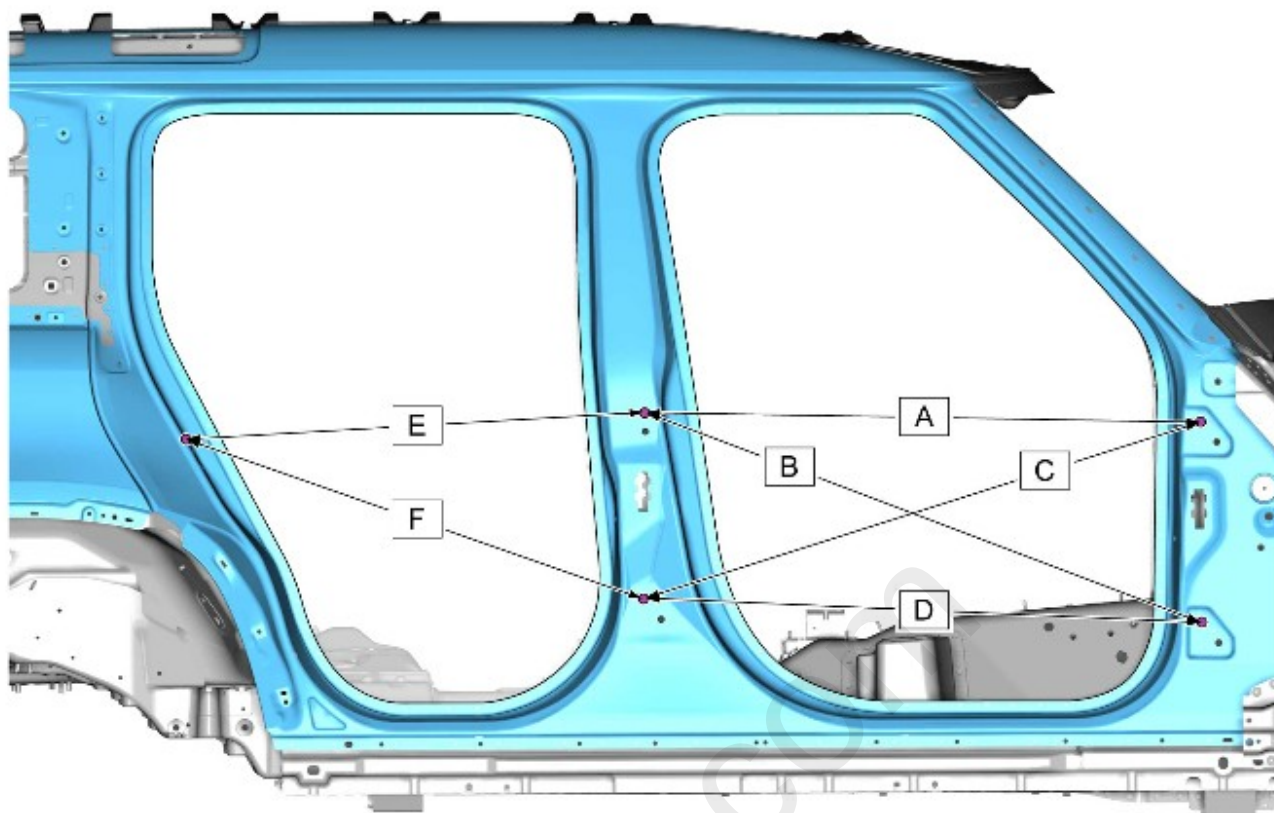
Rear End Body Dimensions



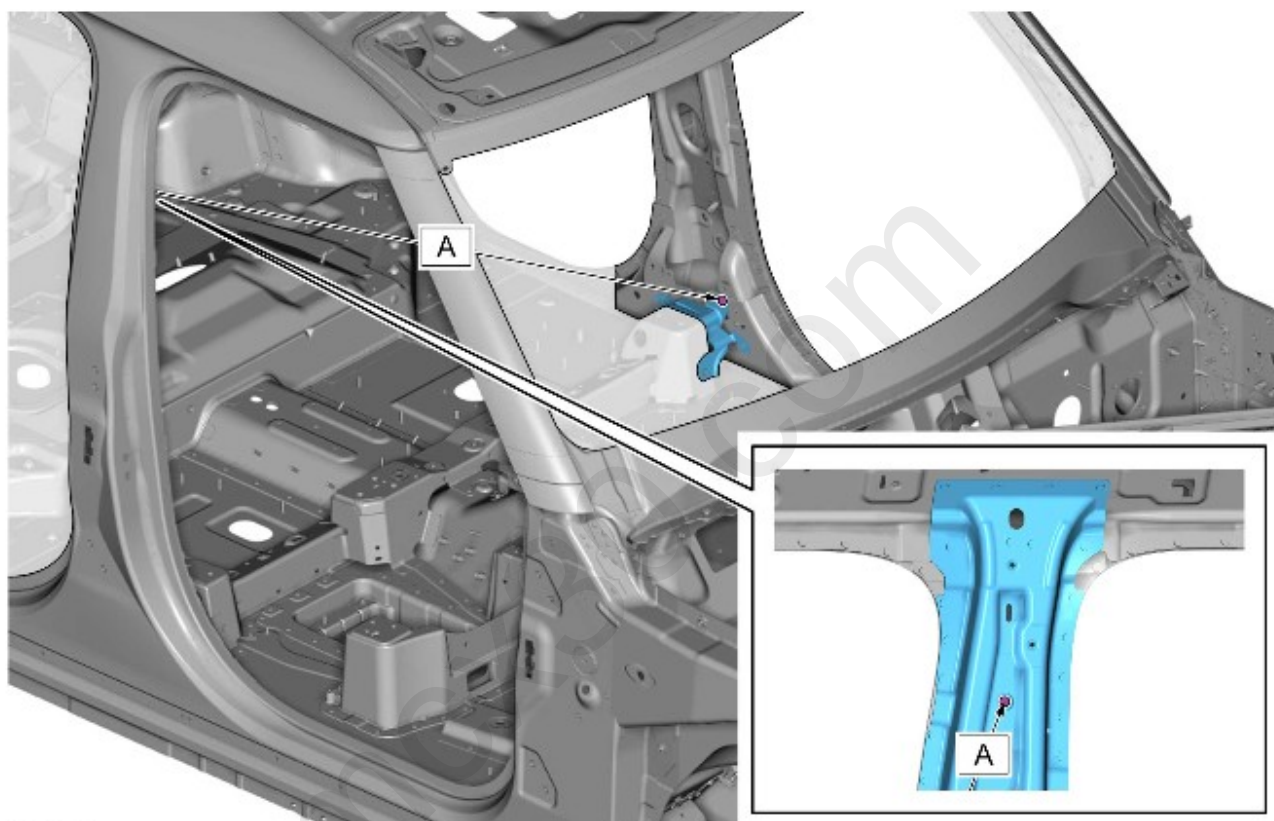
E255022

ITEM	FROM	TO	DIMENSION
A	Right side exterior trim finisher hole	Left side exterior trim finisher hole	1067
B	Right side exterior trim finisher hole	Left side exterior trim finisher hole	1386
C	Right side exterior trim finisher hole	Left side exterior trim finisher hole	1620
D	Rear armature outboard top left fixing hole	Rear armature outboard top right fixing hole	1200

Side Panel Body Dimensions

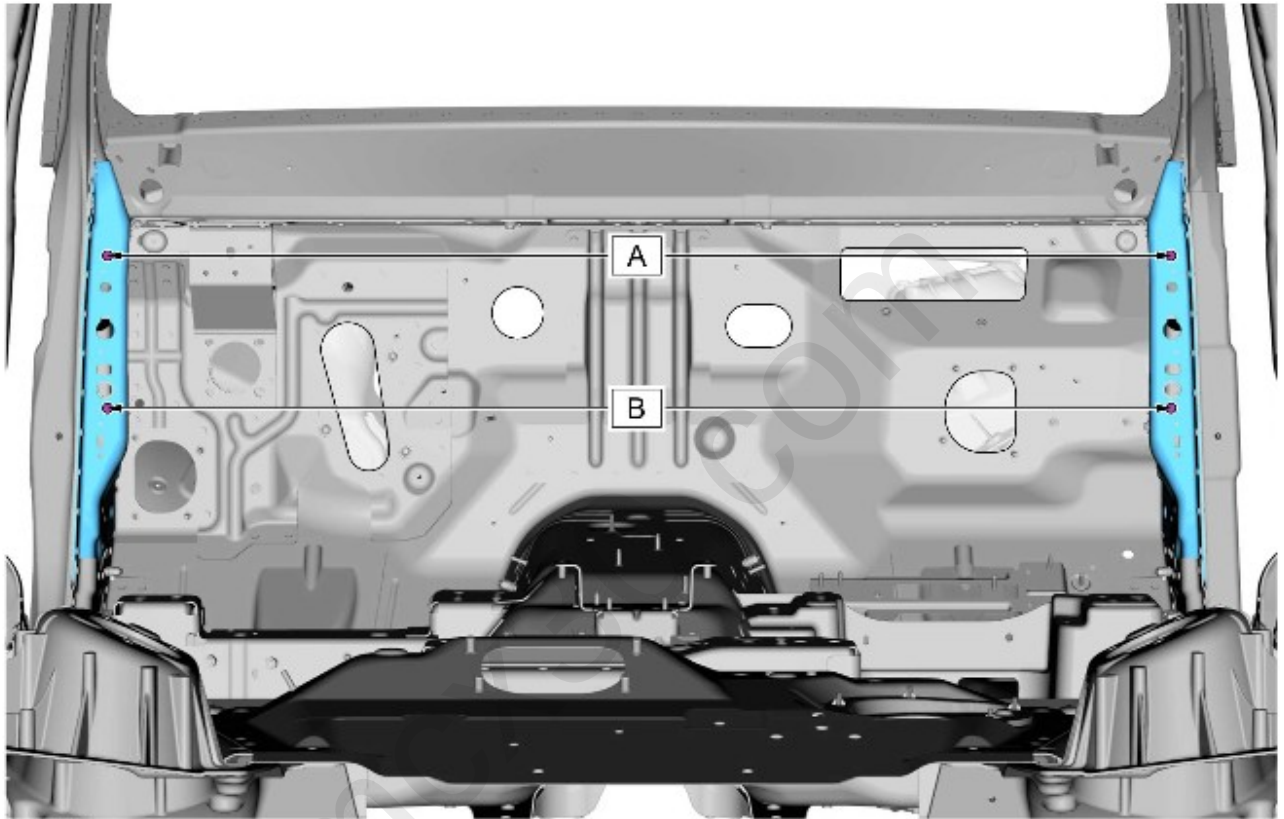


ITEM	FROM	TO	DIMENSION
A	Front door upper hinge upper fixing hole	Rear door upper hinge upper fixing hole	1100
B	Front door lower hinge upper fixing hole	Rear door upper hinge upper fixing hole	1176
C	Front door upper hinge upper fixing hole	Rear door lower hinge upper fixing hole	1158
D	Front door lower hinge upper fixing hole	Rear door lower hinge upper fixing hole	1106
E	Rear door striker upper fixing hole	Rear door upper hinge upper fixing hole	897
F	Rear door striker upper fixing hole	Rear door lower hinge upper fixing hole	937



E255024

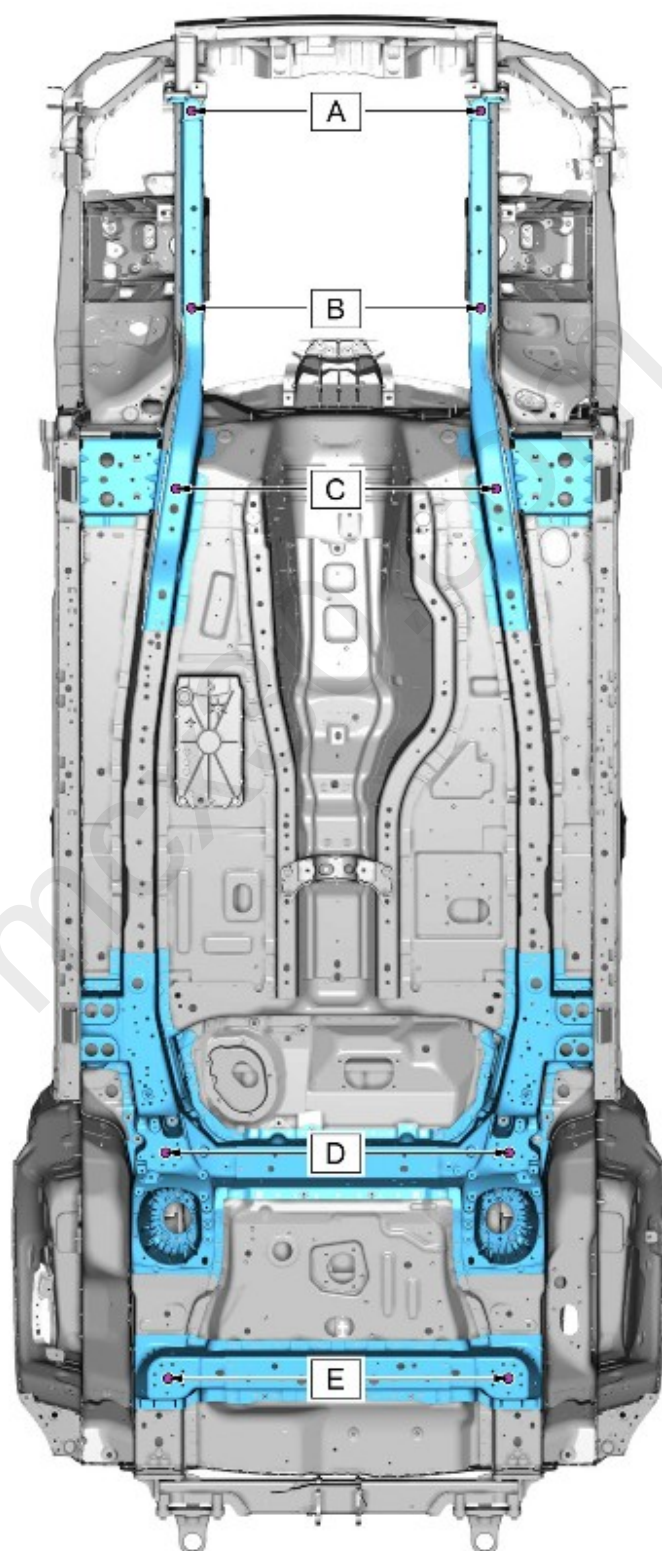
ITEM	FROM	TO	DIMENSION
A	Front seatbelt retractor fixing hole	Lower bracket upper fixing hole	1690



E255025

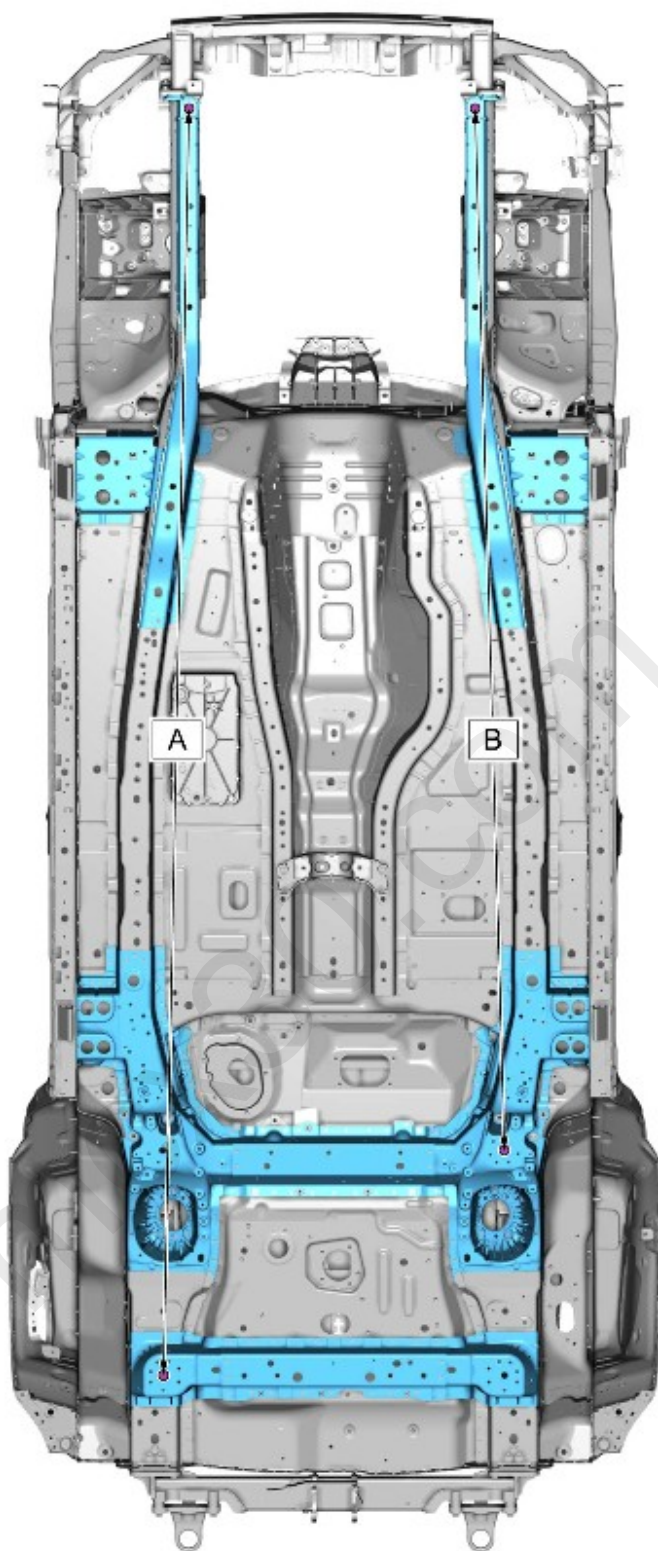
ITEM	FROM	TO	DIMENSION
A	Right side instrument panel carrier upper fixing hole	Left side instrument panel carrier upper fixing hole	1484
B	Right side instrument panel carrier lower fixing hole	Left side instrument panel carrier lower fixing hole	1484

Under Body Dimensions



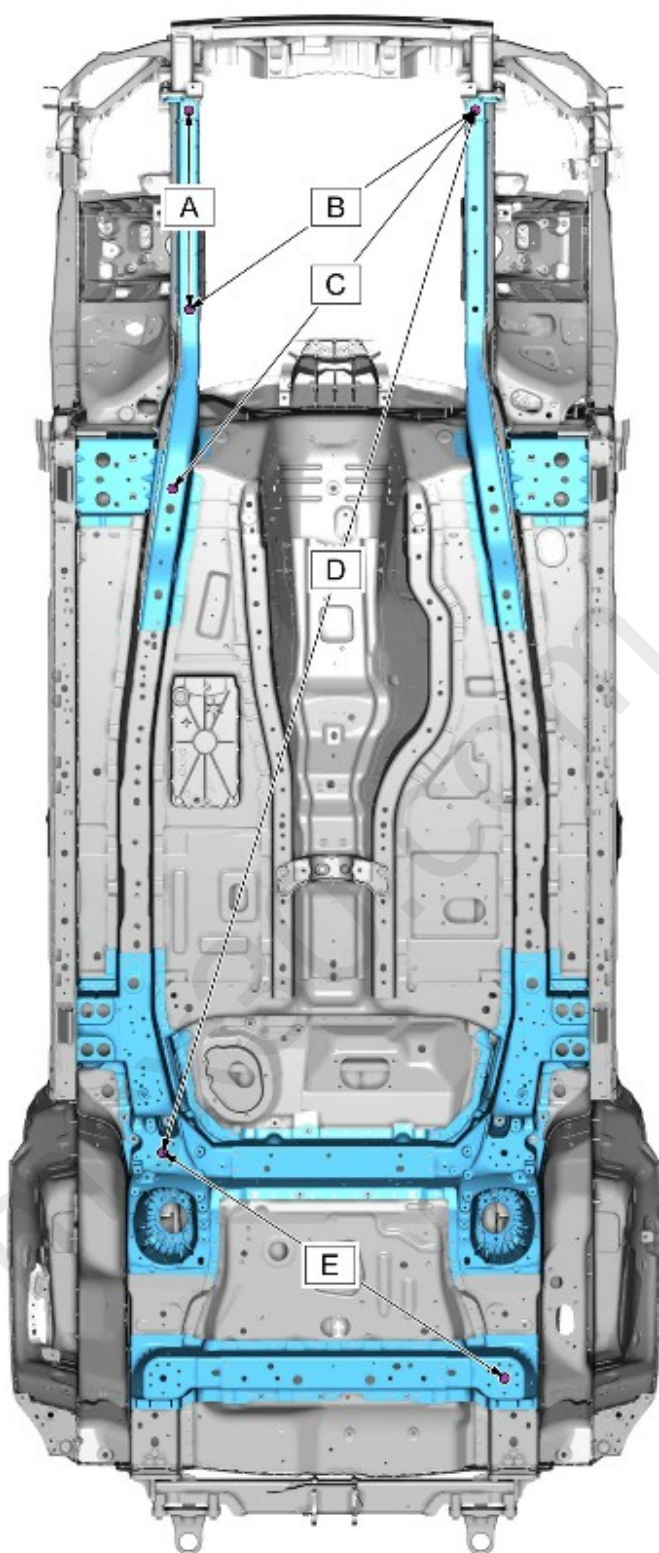
ITEM	FROM	TO	DIMENSION
A	Right side front subframe front fixing hole	Left side front subframe front fixing hole	861
B	Right side front subframe center fixing hole	Left side front subframe center fixing hole	861
C	Right side front subframe rear fixing hole	Left side front subframe rear fixing hole	959
D	Right side rear subframe front fixing hole	Left side rear subframe front fixing hole	1028
E	Right side rear subframe rear fixing hole	Left side rear subframe rear fixing hole	1028

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E255027

ITEM	FROM	TO	DIMENSION
A	Right side front subframe front fixing hole	Right side rear subframe rear fixing hole	3851
B	Left side front subframe front fixing hole	Left side rear subframe front fixing hole	3163



E255028

ITEM	FROM	TO	DIMENSION
A	Right side front subframe front fixing hole	Right side front subframe center fixing hole	603
B	Left side front subframe front fixing hole	Right side front subframe center fixing hole	1051
C	Left side front subframe front fixing hole	Right side front subframe rear fixing hole	1451

ITEM	FROM	TO	DIMENSION
D	Left side front subframe front fixing hole	Right side rear subframe front fixing hole	3300
E	Right side rear subframe front fixing hole	Left side rear subframe rear fixing hole	1238

Gap and Profile measurements

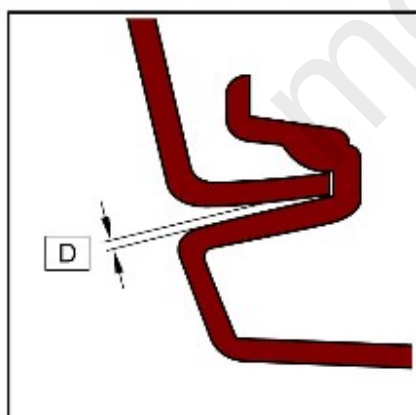
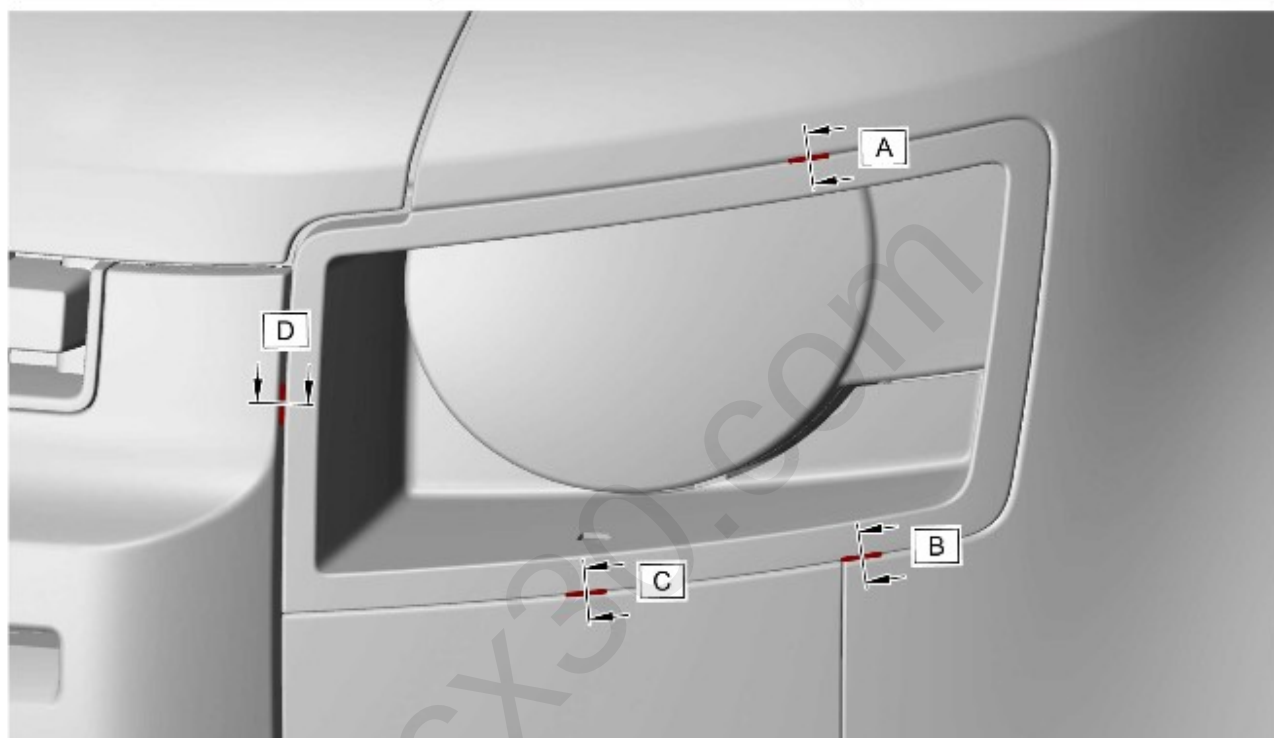
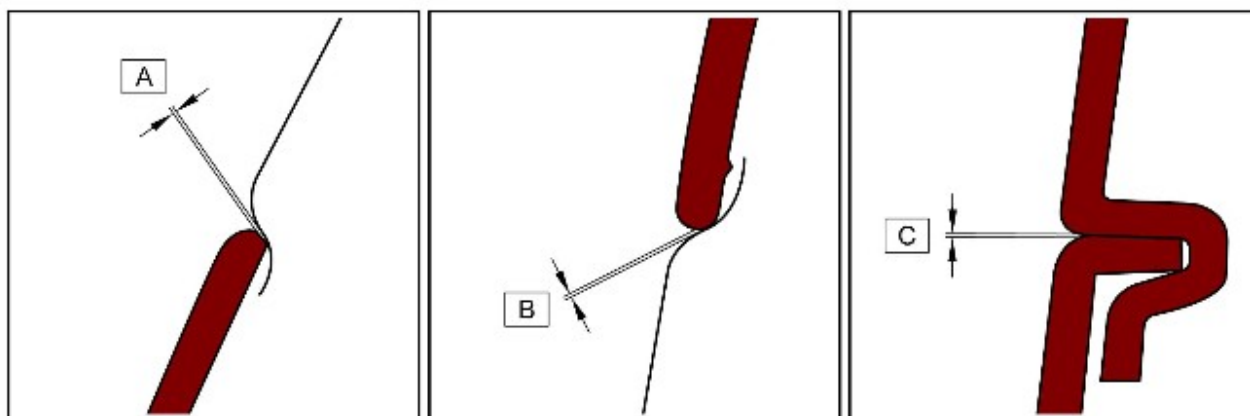


NOTE:

All dimensions shown are in millimetres (mm).

The following information is to be used as a guide to assist the technician in installing exterior body panels and trim items so as to achieve a correctly aligned and cosmetically acceptable vehicle.

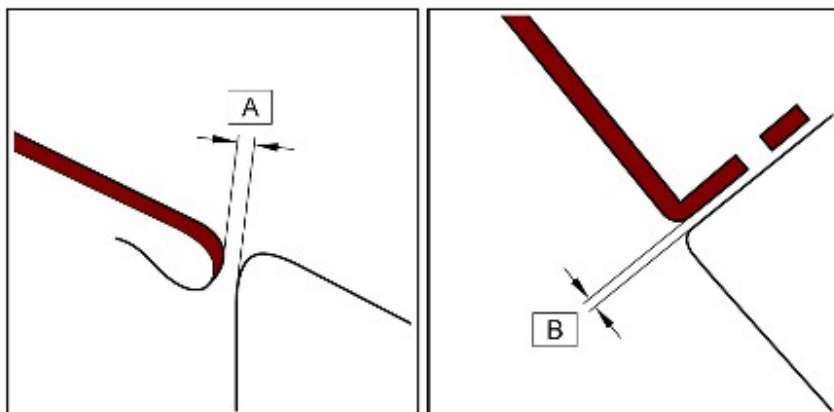
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E255785

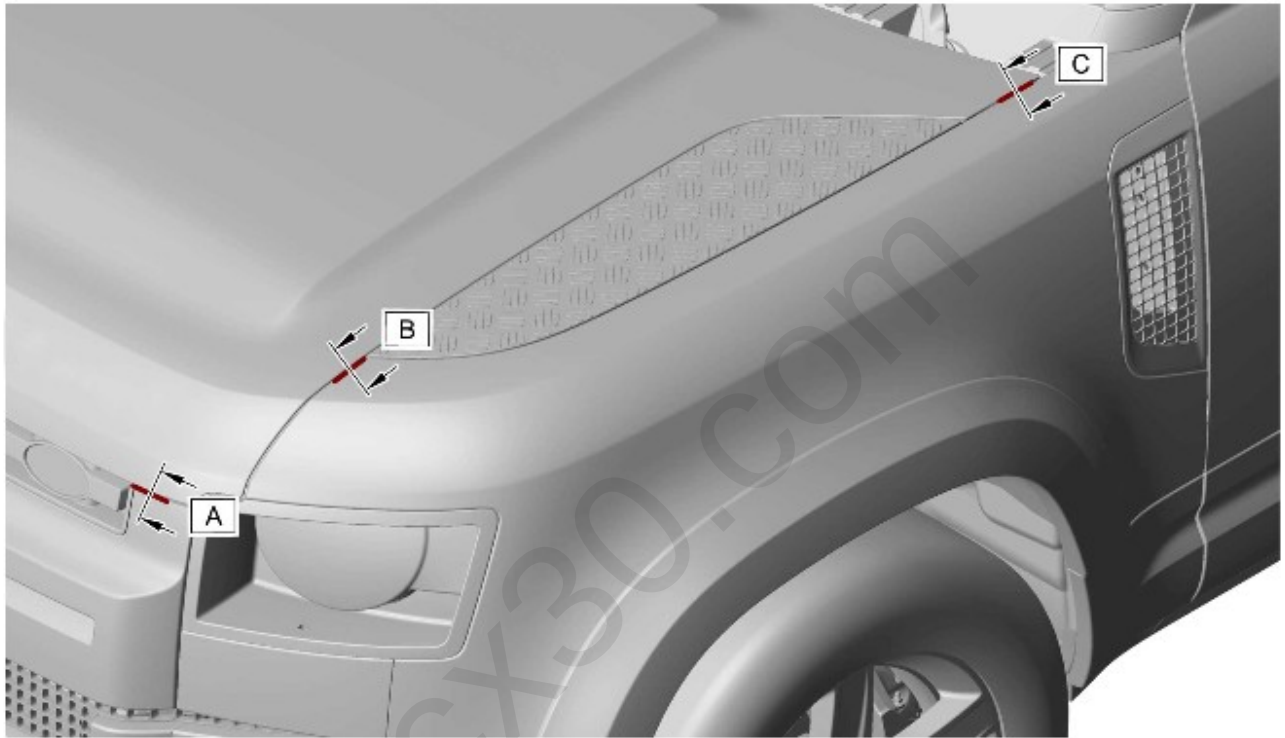
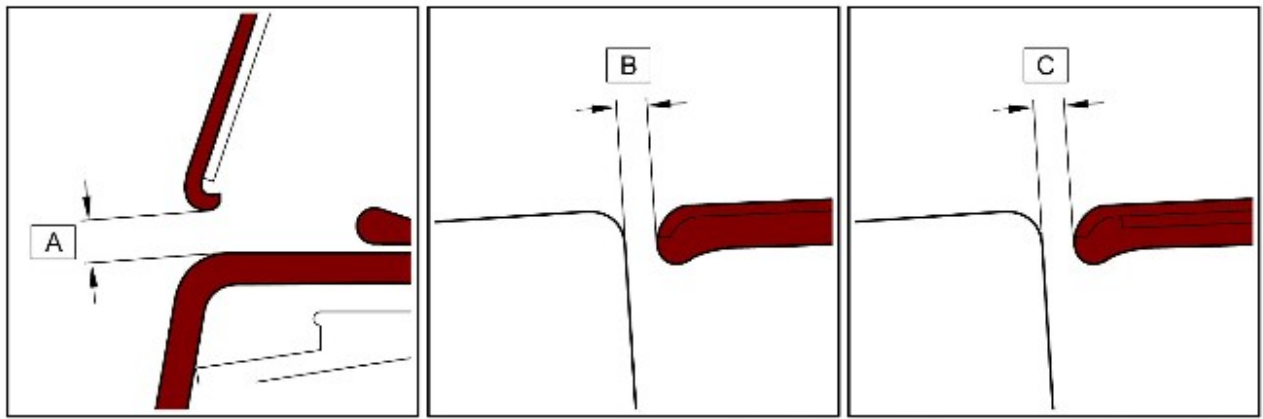
SECTION	DESCRIPTION	GAP	PROFILE
A	Fender to headlamp bezel upper	0.3 +0.5 -0.3	0.0 ± 1.0
B	Fender to headlamp bezel lower	0.3 +0.9 -0.3	0.0 ± 1.0
C	Bumper to headlamp bezel lower	0.0 +0.5 -0.0	0.0 ± 1.0

SECTION	DESCRIPTION	GAP	PROFILE
D	Bumper to headlamp bezel centre	3.0 ± 1.3	1.0 ± 1.0



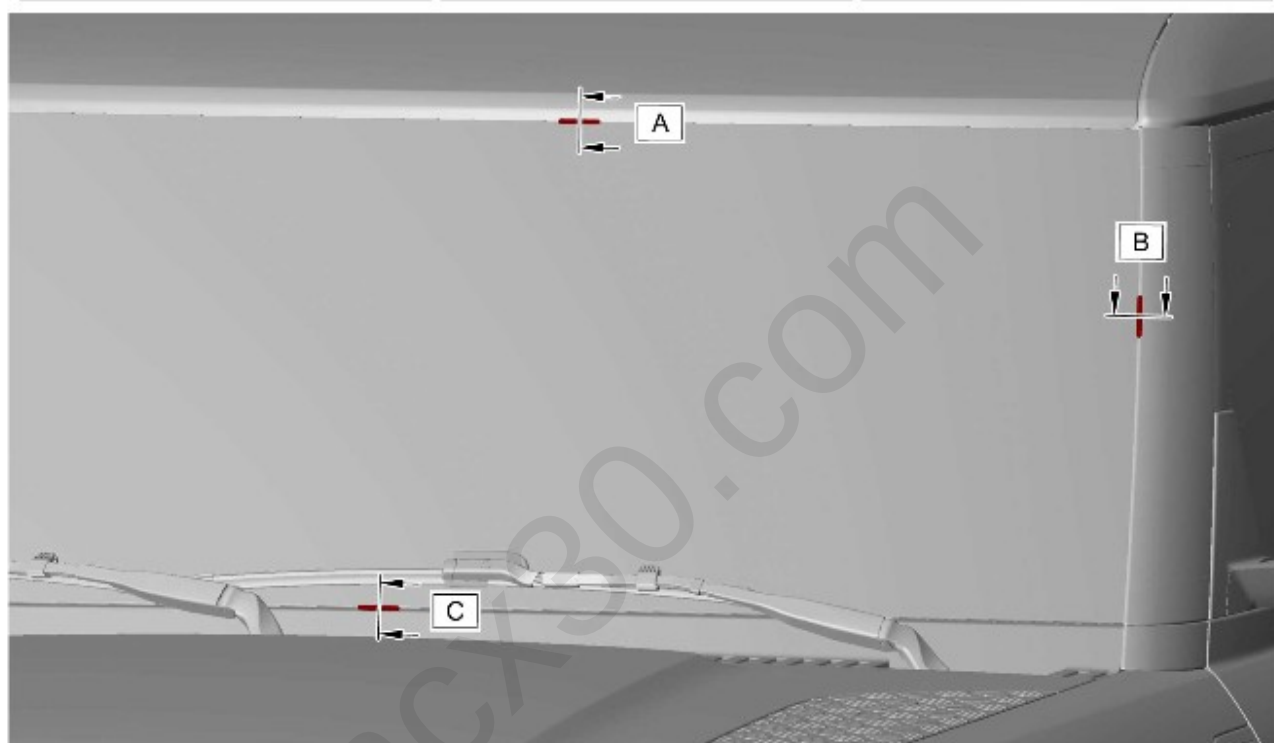
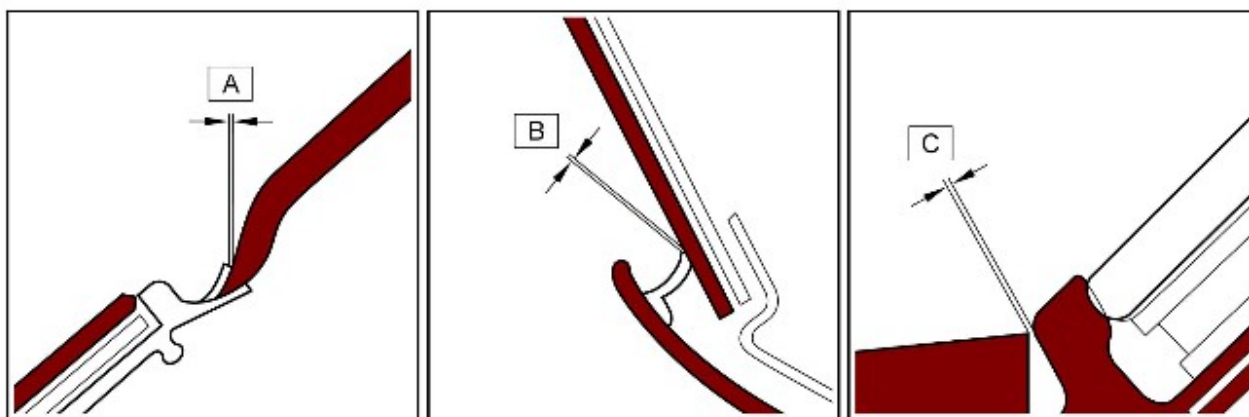
SECTION	DESCRIPTION	GAP	PROFILE
A	Fender to hood	3.2 ± 1.0	0.5 ± 1.0
B	Fender to bumper	$0.0 +0.5 -0.0$	0.0 ± 0.6

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E255787

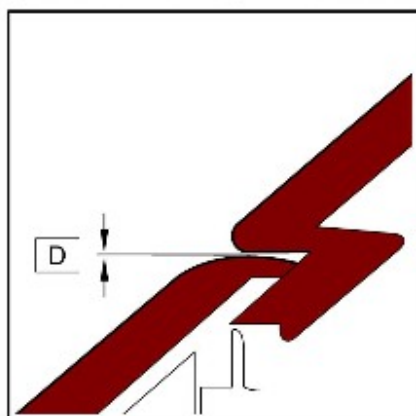
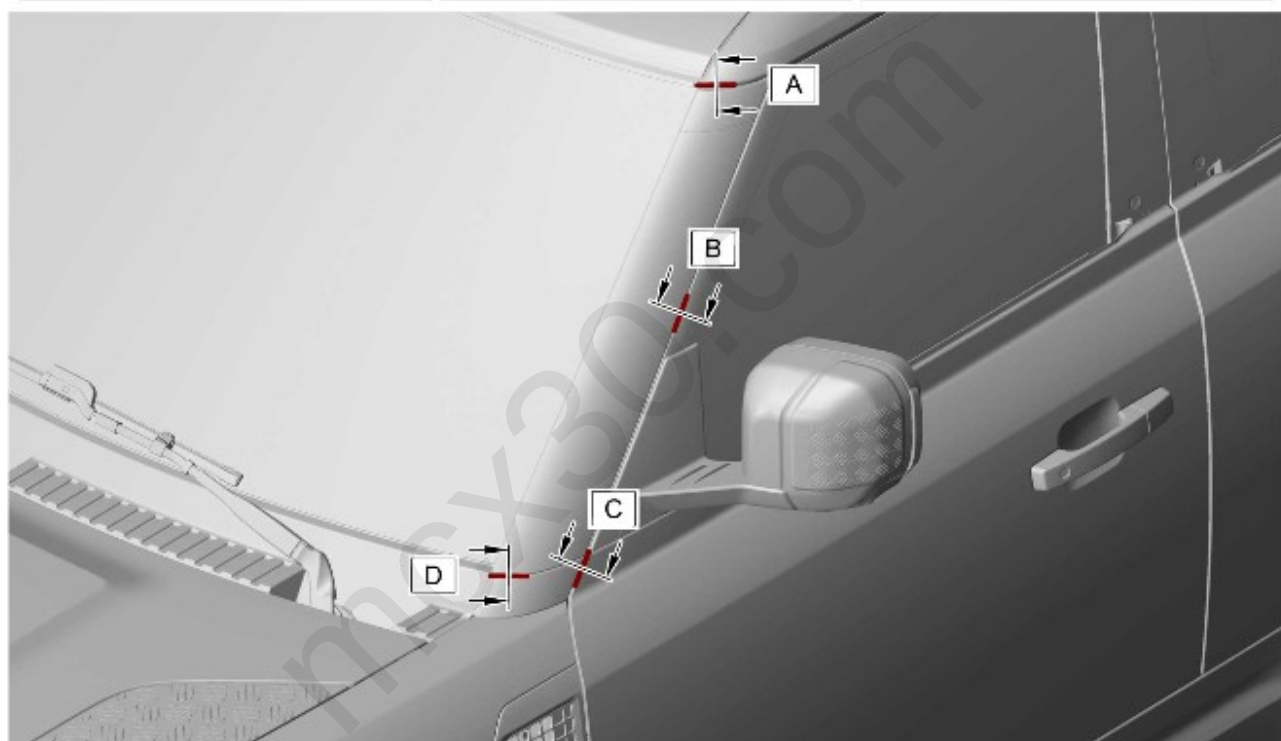
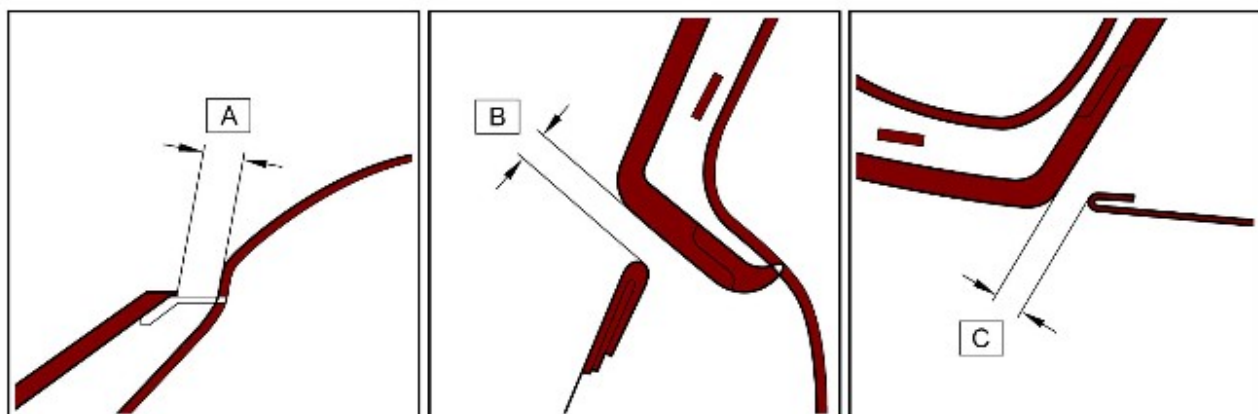
SECTION	DESCRIPTION	GAP	PROFILE
A	Bumper to hood	5.0 ± 1.6	-2.0 ± 1.2
B	Fender to hood front	3.0 ± 1.0	0.5 ± 1.1
C	Fender to hood rear	3.0 ± 1.1	0.7 ± 1.1



E255788

SECTION	DESCRIPTION	GAP	PROFILE
A	Windshield to roof	N/A	N/A
B	A-pillar finisher to windshield	N/A	N/A

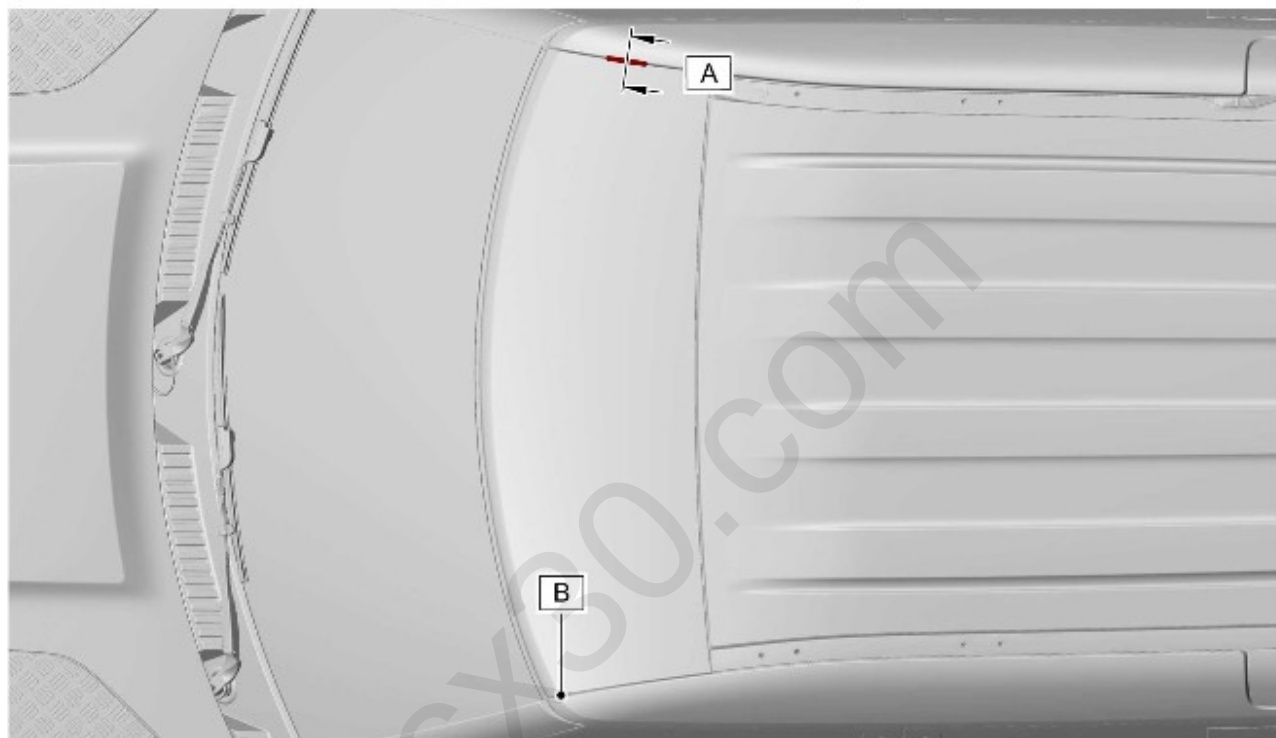
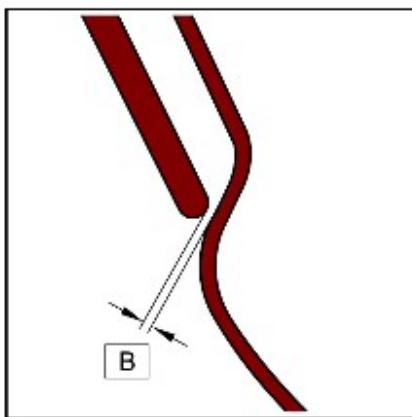
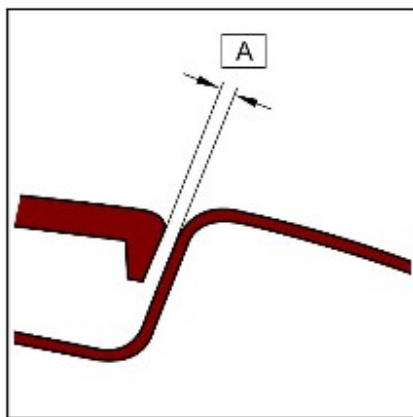
SECTION	DESCRIPTION	GAP	PROFILE
C	Cowl panel to windshield	0.5 ± 0.5	N/A



E255800

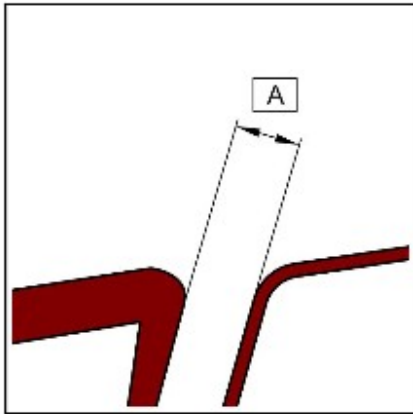
SECTION	DESCRIPTION	GAP	PROFILE
A	A-pillar finisher to cantrail	2.5 ± 1.8	N/A
B	Front door frame to A-pillar finisher	4.0 ± 1.0	-2.0 ± 1.5
C	Front door to A-pillar finisher	3.5 ± 0.9	-0.7 ± 1.4
D	A-pillar finisher lower to A-pillar	0.4 ± 0.4	0.0 ± 0.6

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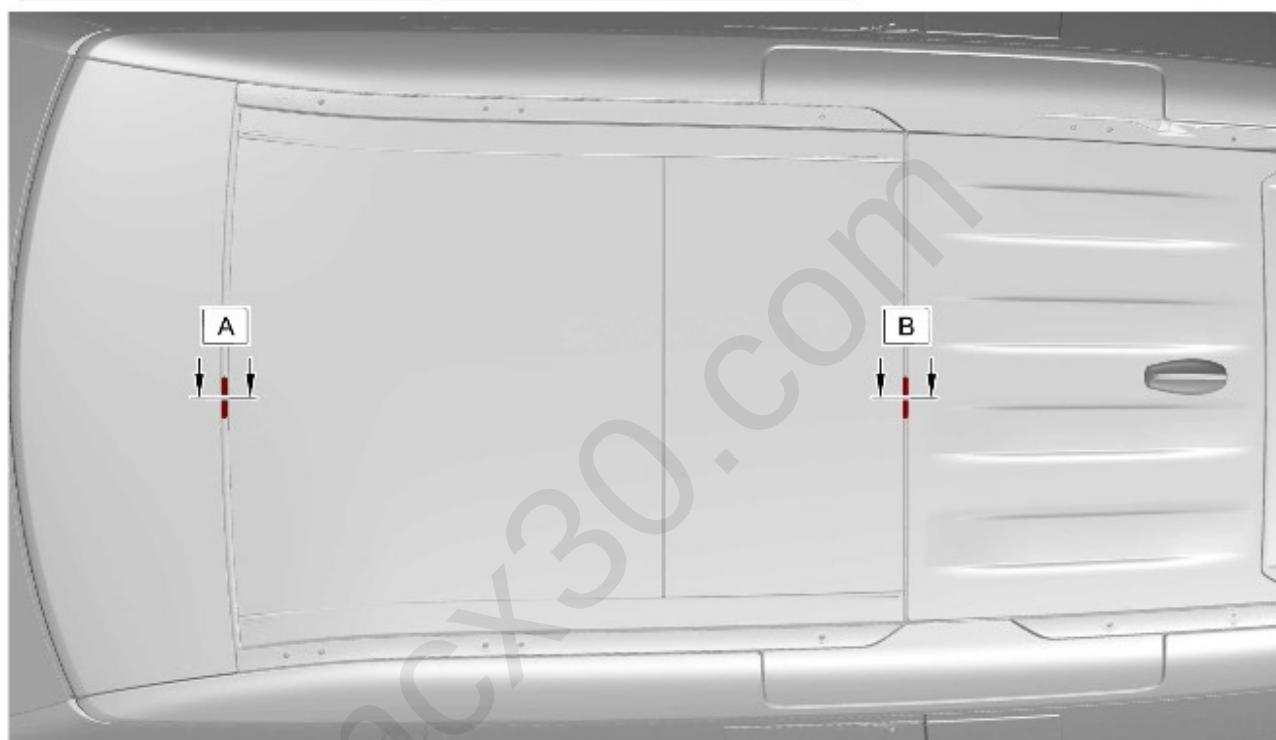
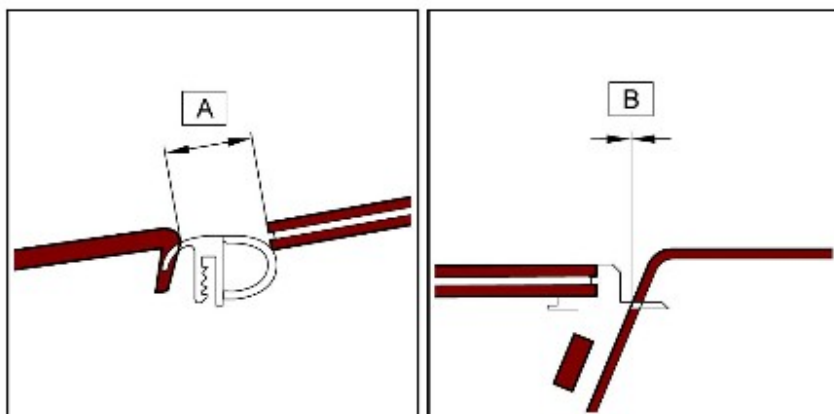
E255794

SECTION	DESCRIPTION	GAP	PROFILE
A	Front roof trim panel to cant rail	2.5 ± 1.5	-1.5 ± 1.0
B	Front roof trim panel to cant rail front	1.5 ± 1.5	-2.0 ± 1.5



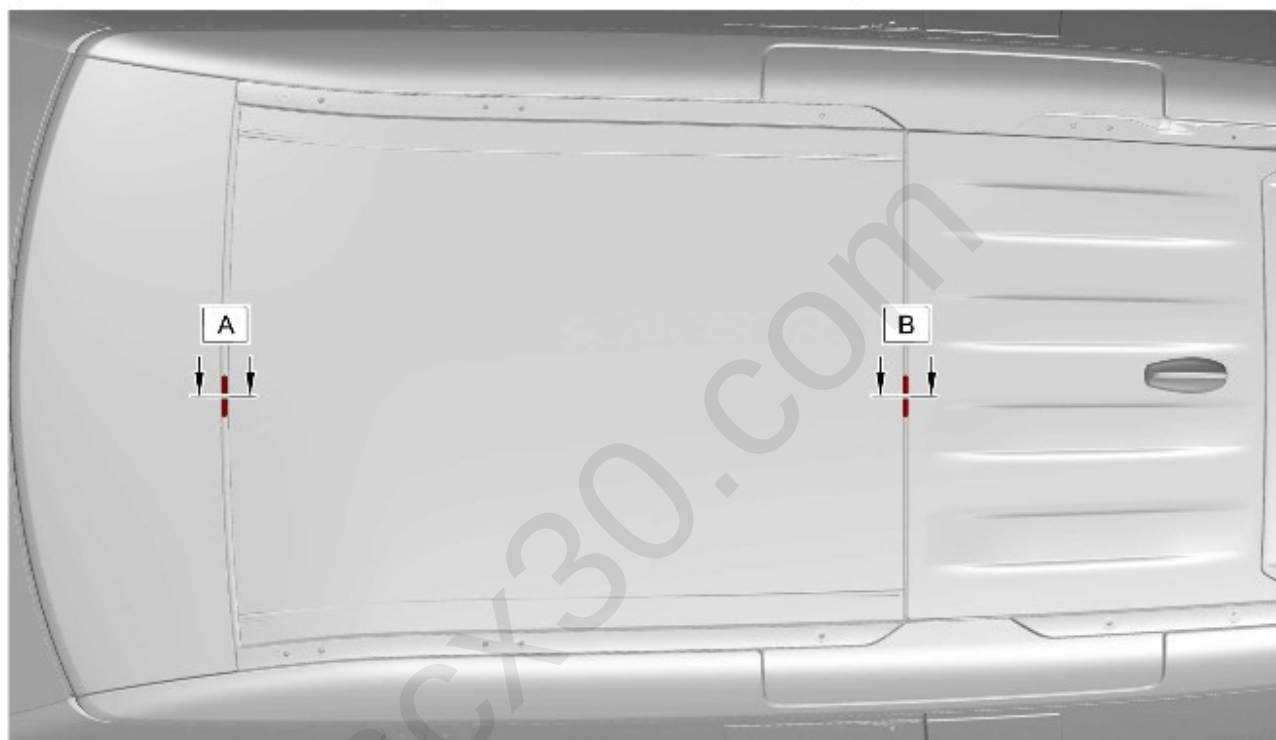
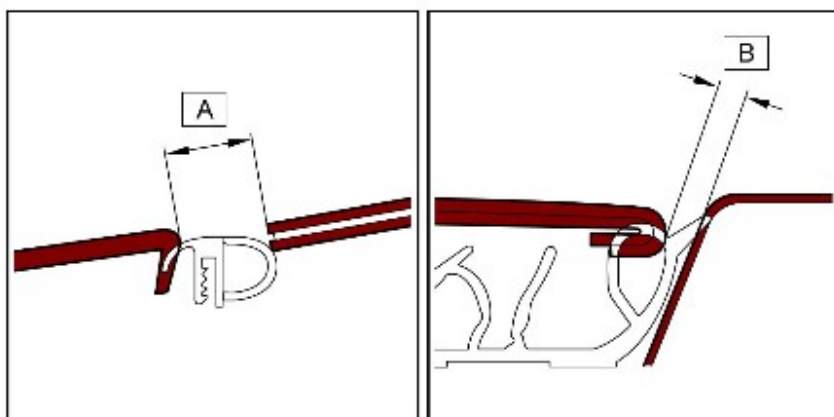
E255795

SECTION	DESCRIPTION	GAP	PROFILE
A	Front roof trim panel to fixed roof panel	5.0 ± 1.4	1.0 ± 0.8



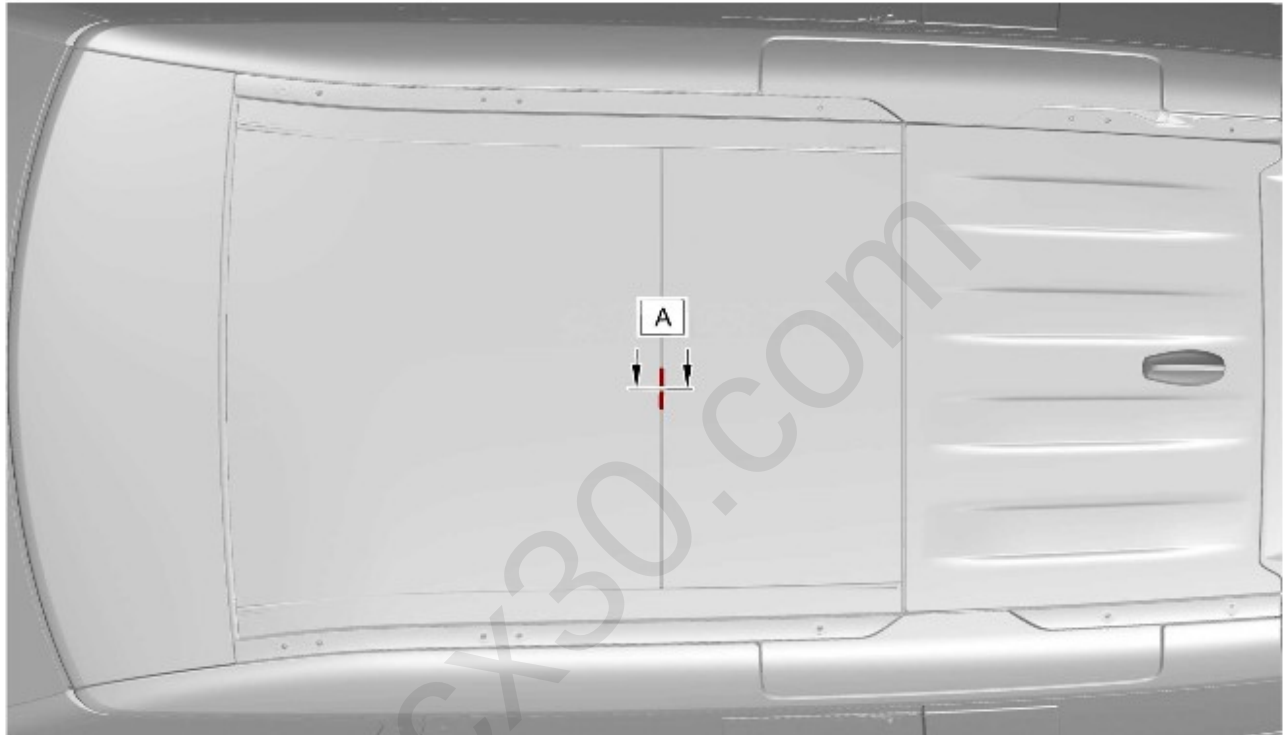
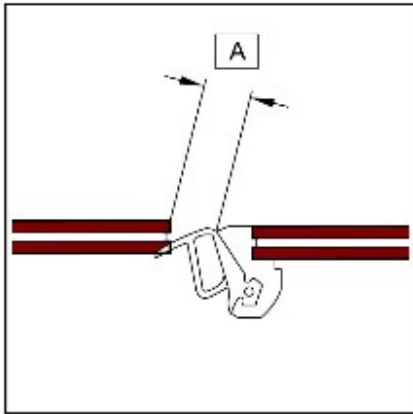
E255796

SECTION	DESCRIPTION	GAP	PROFILE
A	Front roof trim panel to front glass roof opening panel	14.7 ± 1.6	-2.0 ± 1.5
B	Rear roof panel to fixed glass roof rear panel	N/A	2.0 ± 1.6



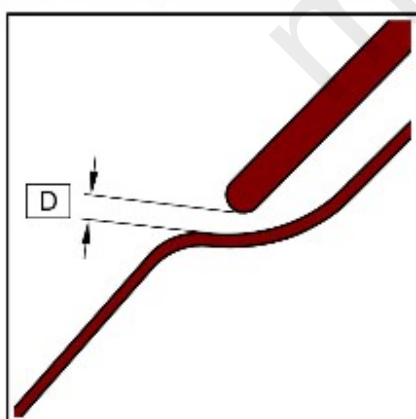
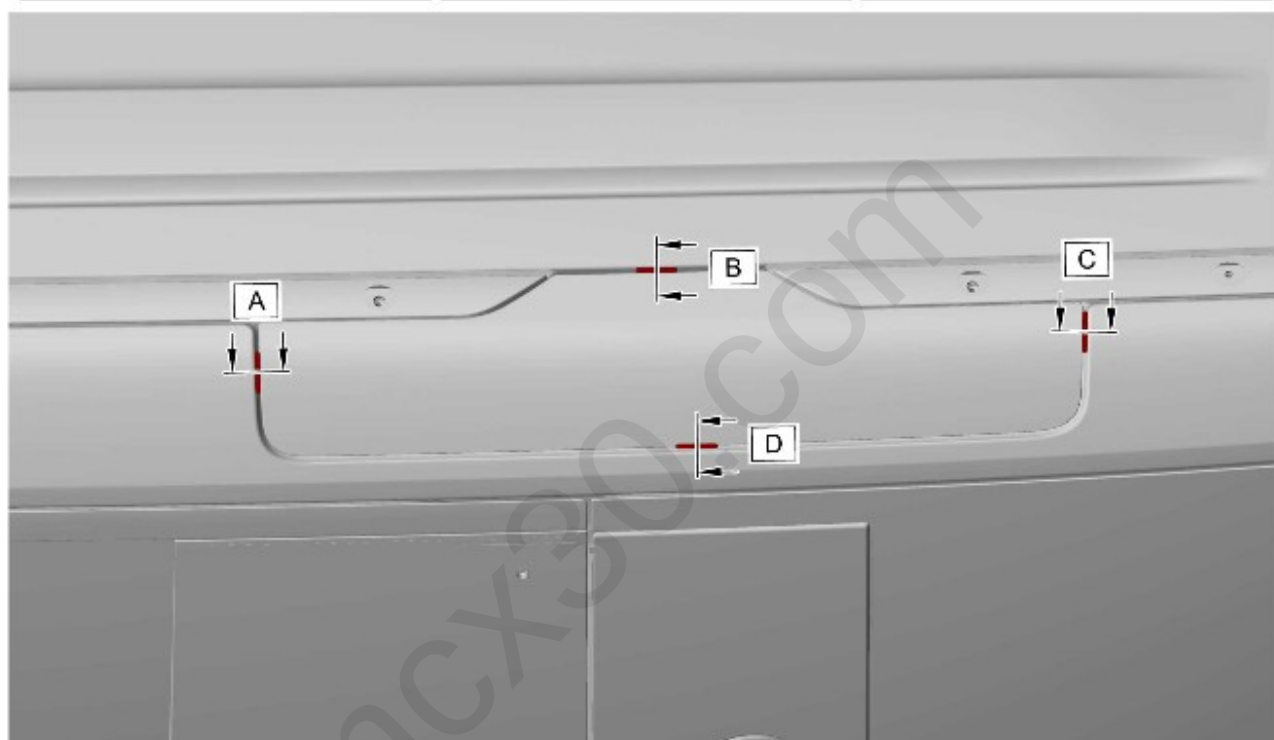
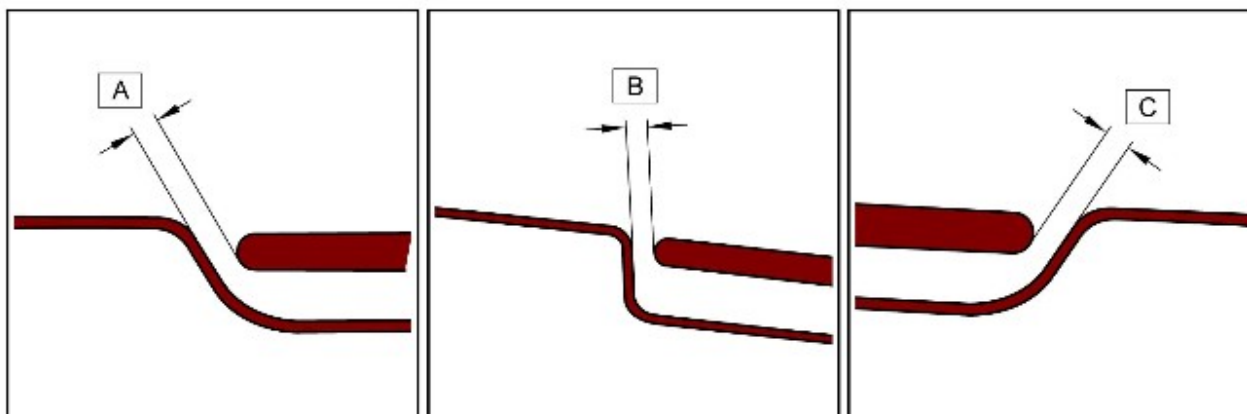
E255797

SECTION	DESCRIPTION	GAP	PROFILE
A	Front roof trim panel to folding canvas roof	15.0 ± 2.3	-4.5 ± 2.2
B	Rear roof panel to folding canvas roof	7.5 ± 2.1	-1.7 ± 2.0



E255798

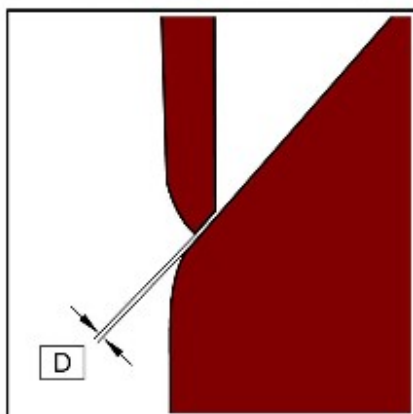
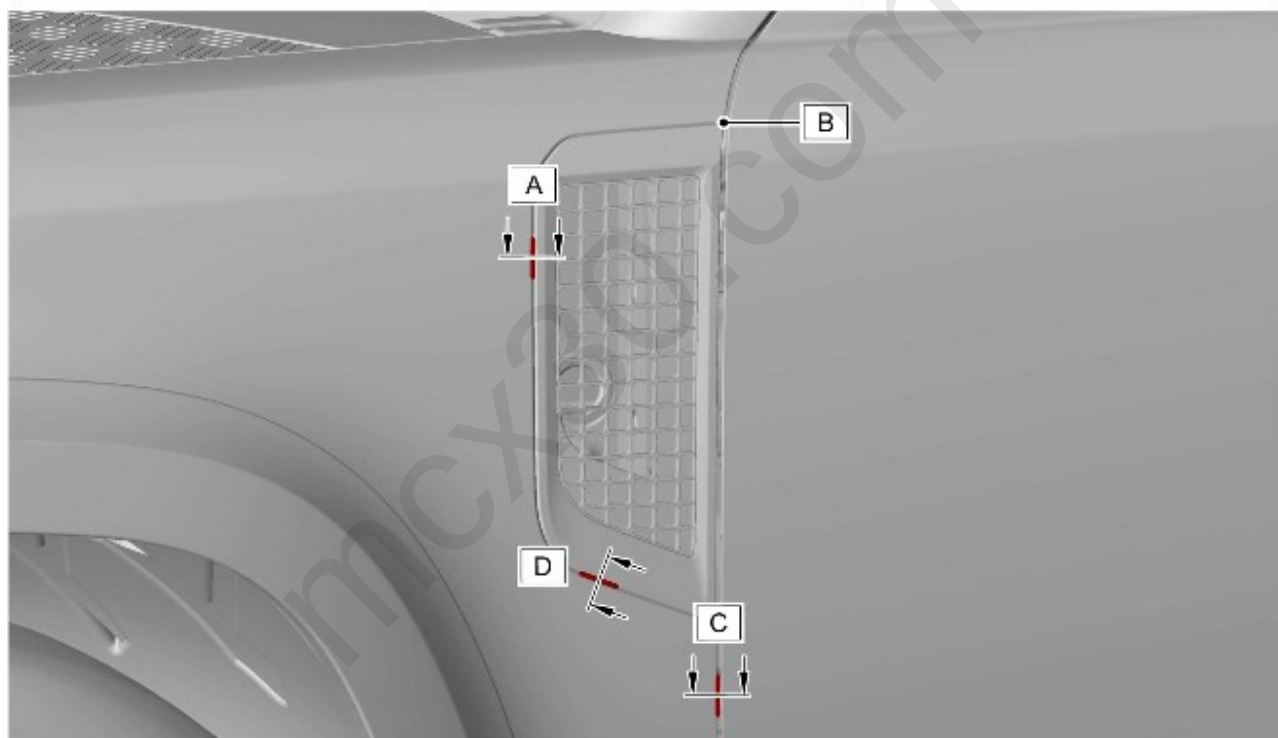
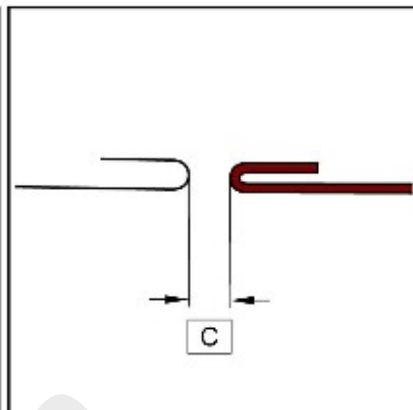
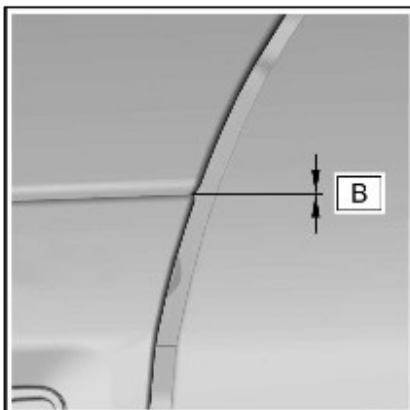
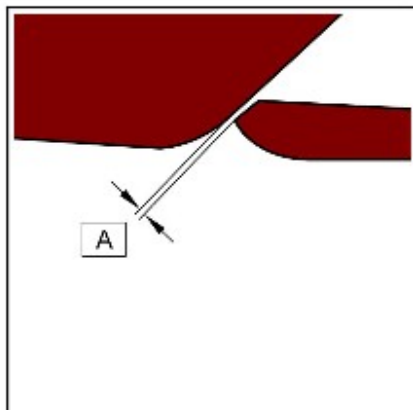
SECTION	DESCRIPTION	GAP	PROFILE
A	Front glass roof opening panel to fixed glass roof panel	4.0 ± 1.7	1.0 ± 1.8



E255793

SECTION	DESCRIPTION	GAP	PROFILE
A	Alpine light to cantrail front	2.5 ± 1.0	-1.0 ± 1.4
B	Alpine light to fixed roof panel upper	5.0 ± 1.2	-1.0 ± 1.6

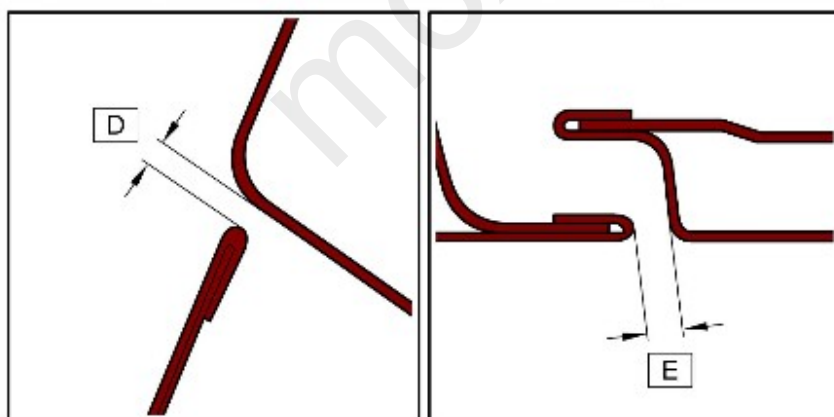
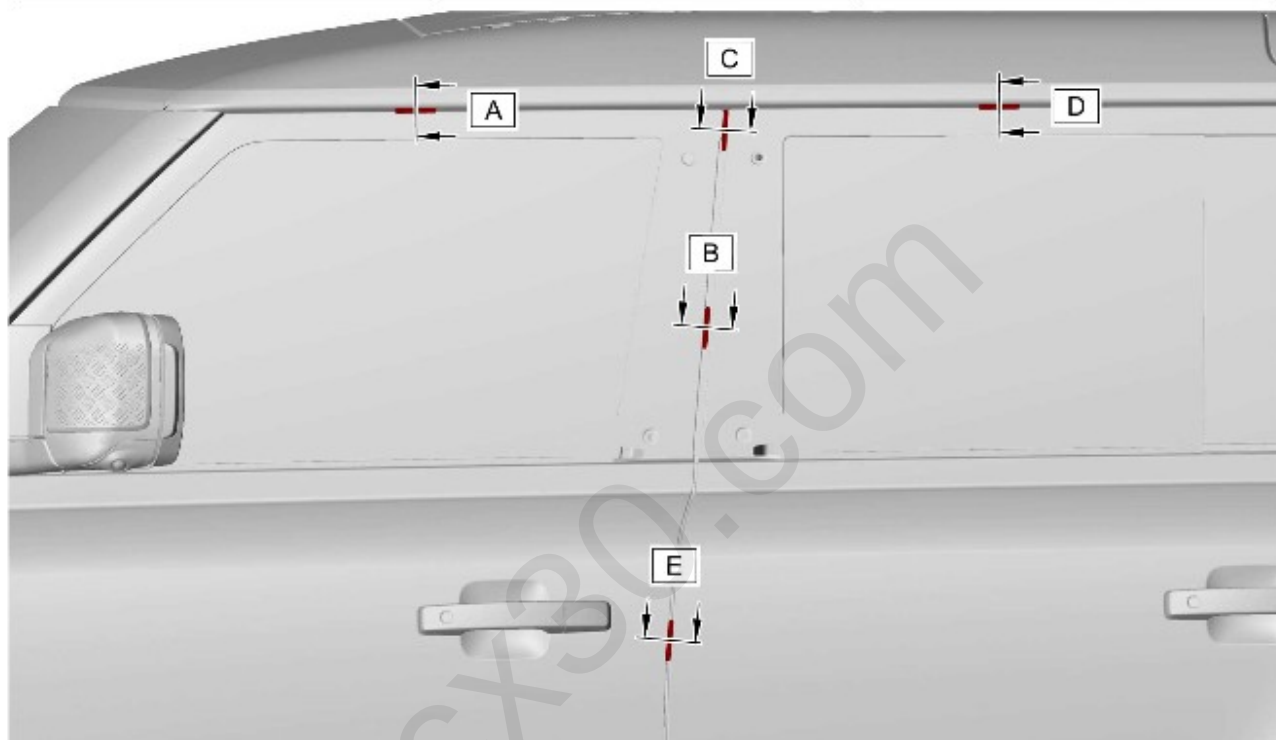
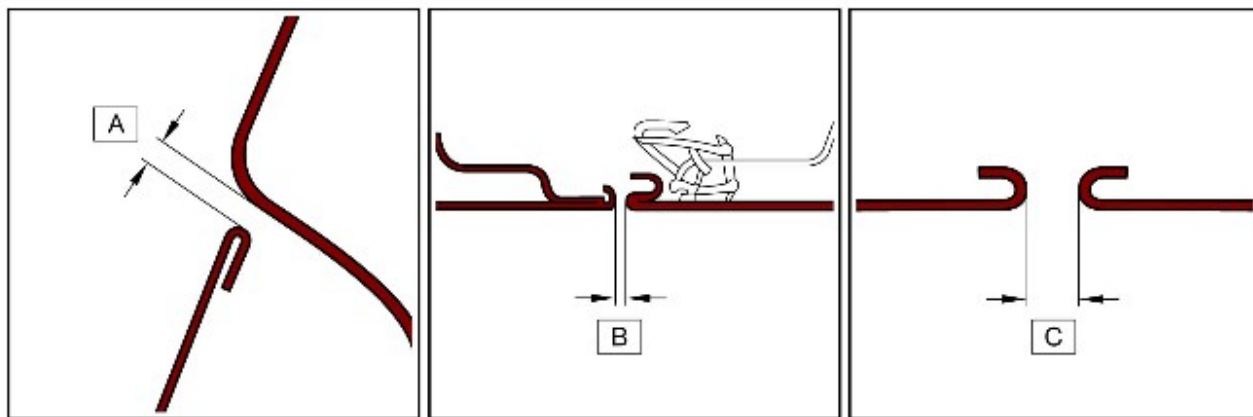
SECTION	DESCRIPTION	GAP	PROFILE
C	Alpine light to cantrail rear	2.5 ± 1.1	-1.0 ± 1.3
D	Alpine light to cantrail lower	2.5 ± 1.2	-1.0 ± 1.3



E255799

SECTION	DESCRIPTION	GAP	PROFILE
A	Fender louvre to fender	0.2 +0.5 -0.0	N/A
B	Fender louvre moulding to fender	N/A	-0.5 ± 0.6
C	Fender to front door	3.5 ± 0.6	0.0 ± 0.7
D	Fender louvre to fender lower	0.2 +0.5 -0.0	N/A

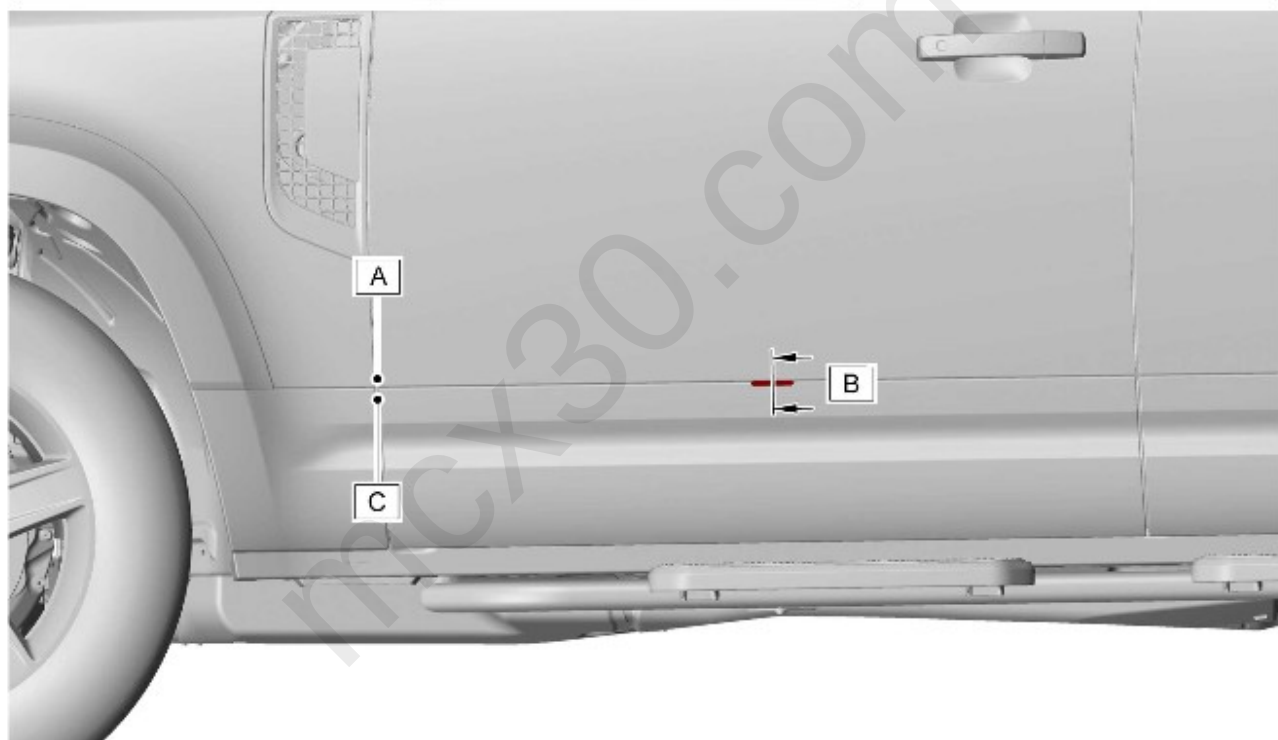
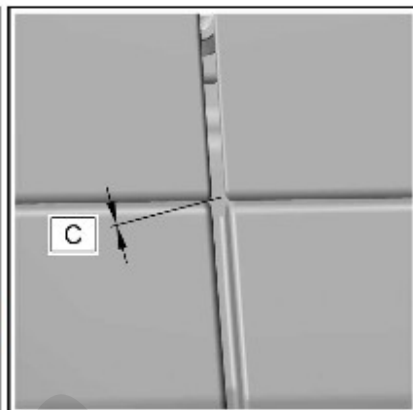
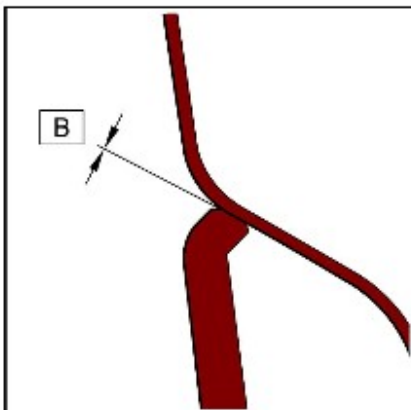
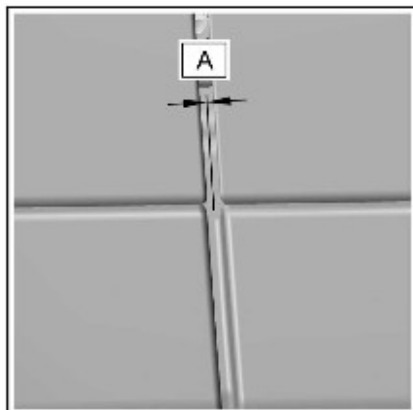
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E255801

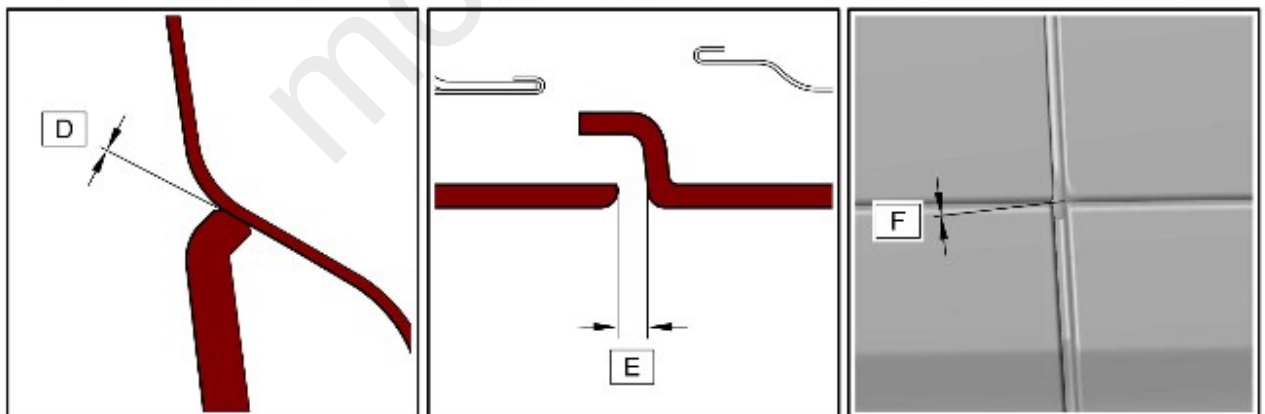
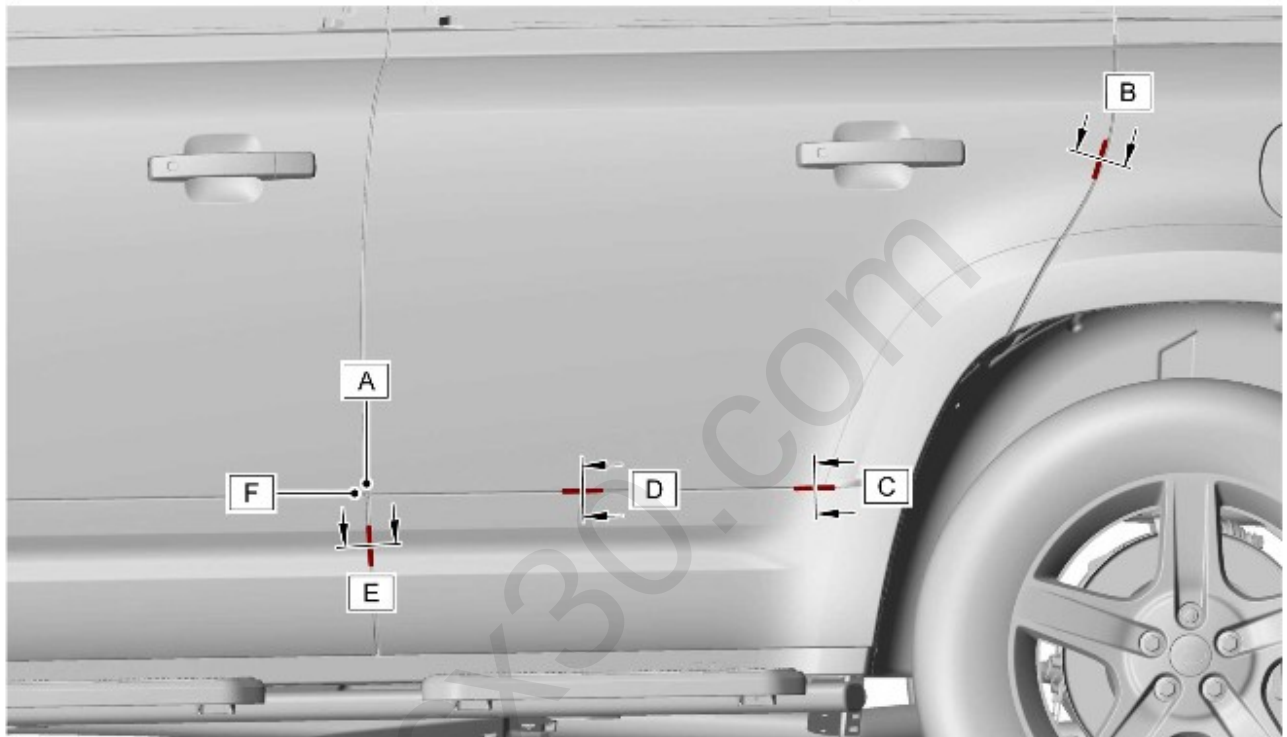
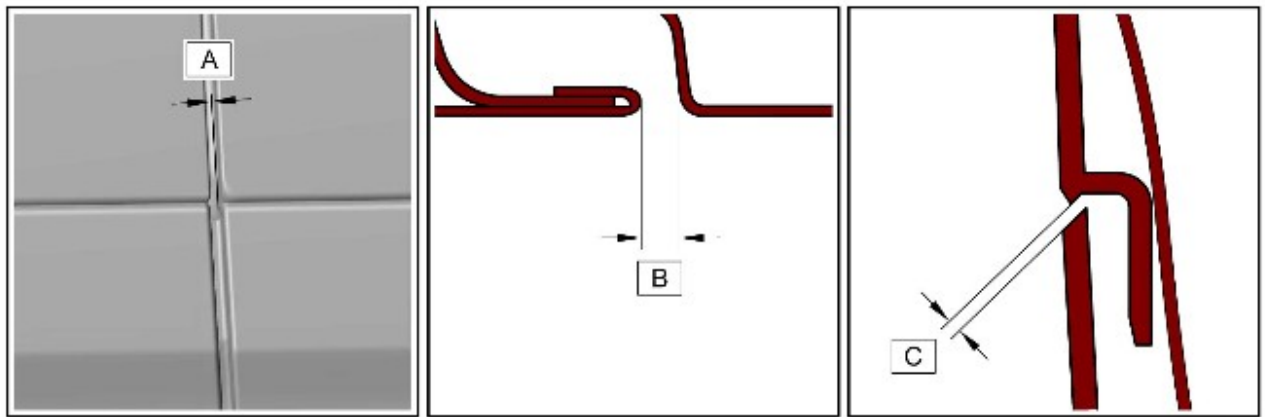
SECTION	DESCRIPTION	GAP	PROFILE
A	Front door frame to cantrail	4.3 ± 1.1	-4.3 ± 0.9
B	Front door B-pillar finisher to rear door B-pillar finisher	4.0 ± 1.5	0.0 ± 1.5
C	Front door to rear door upper	3.7 ± 1.2	0.0 ± 1.0

SECTION	DESCRIPTION	GAP	PROFILE
D	Rear door frame to cantrail	4.3 ± 1.0	-4.2 ± 1.5
E	Front door to rear door	$4.0 +0.75 -0.5$	0.0 ± 0.7



SECTION	DESCRIPTION	GAP	PROFILE
A	Fender moulding to front door moulding	N/A	0.0 +1.5 -0.9
B	Front door moulding to front door	0.3 ± 0.3	1.0 ± 0.8
C	Front door moulding to front door	N/A	-0.5 ± 1.1

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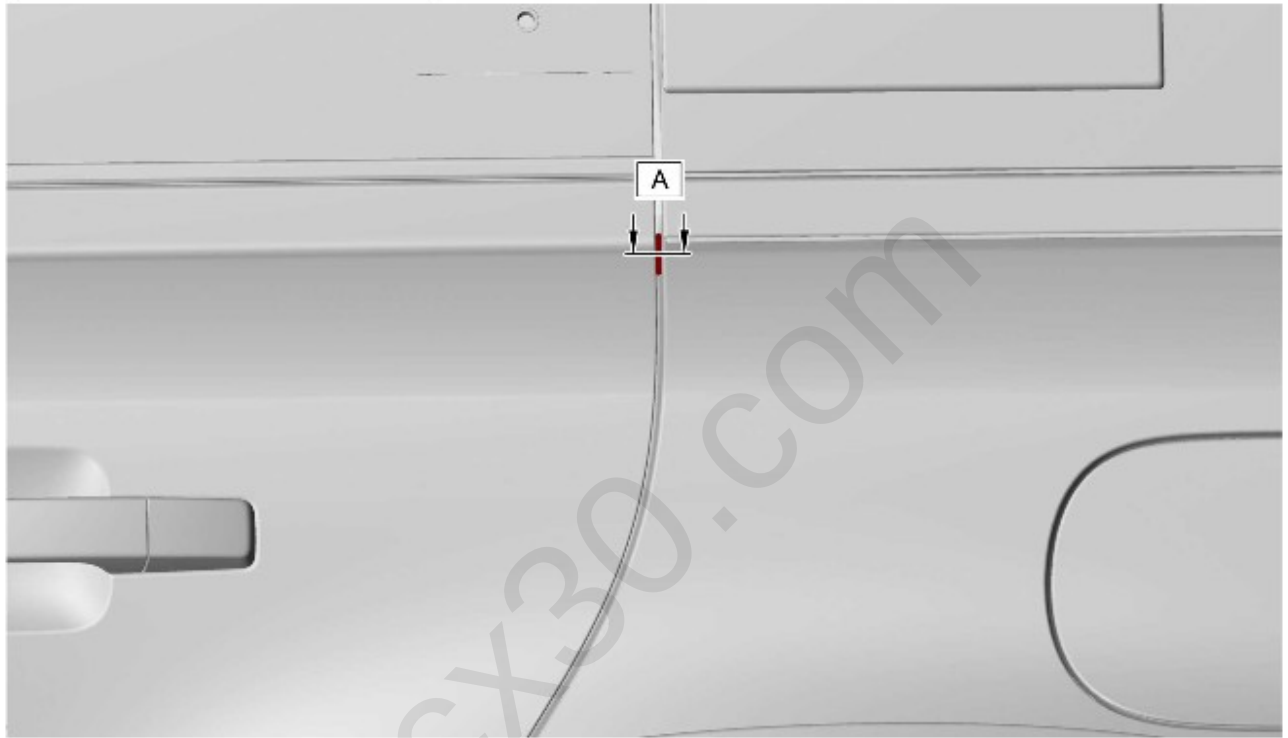
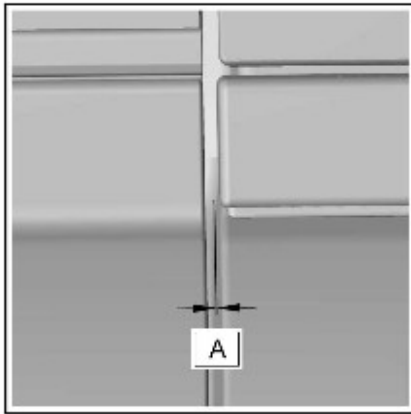


E255803

SECTION	DESCRIPTION	GAP	PROFILE
A	Front door moulding to rear door moulding	N/A	0.0 ± 1.1
B	Rear door to quarter panel	3.5 ± 0.7	0.0 ± 0.7
C	Rear door arch moulding to rear door moulding	1.2 ± 1.2	0.0 ± 0.9

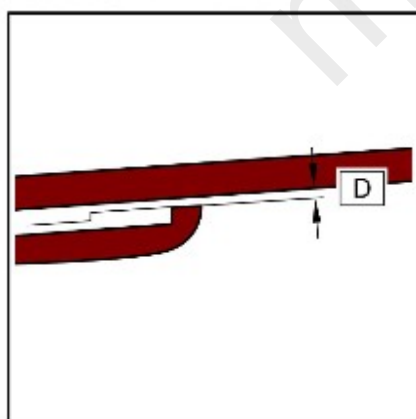
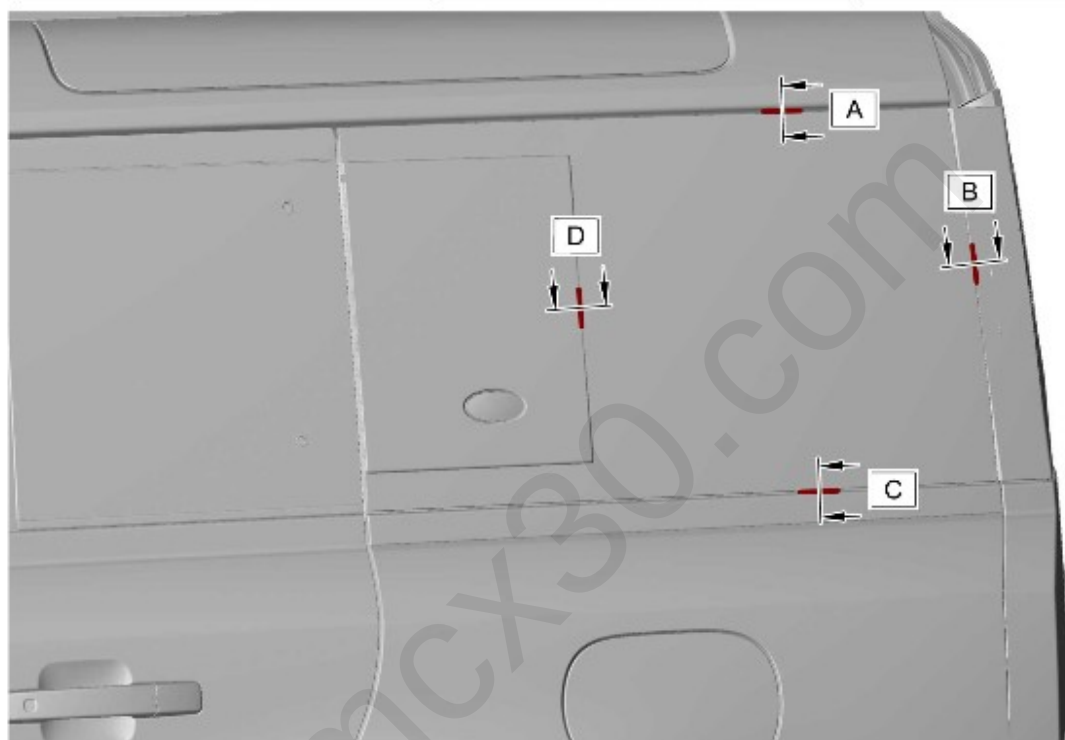
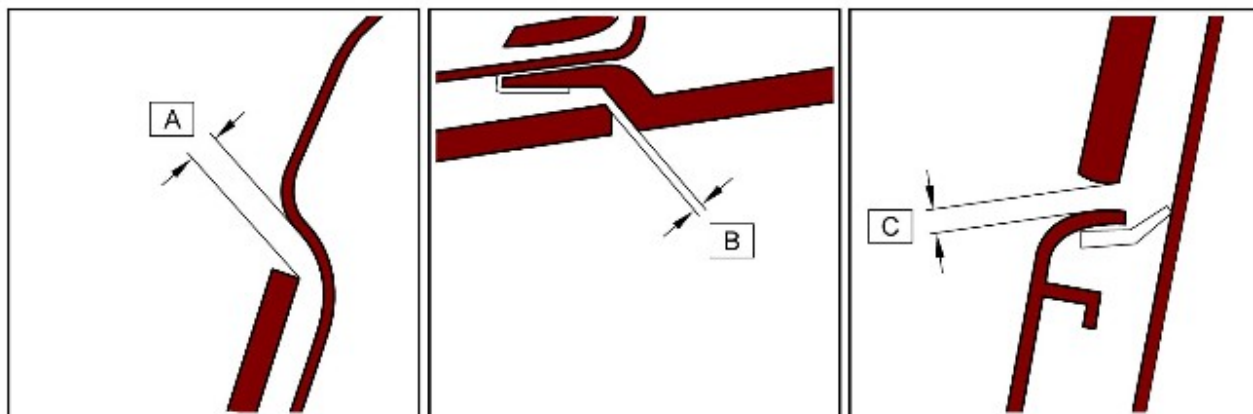
SECTION	DESCRIPTION	GAP	PROFILE
D	Rear door moulding to rear door	0.3 ± 0.3	1.0 ± 0.8
E	Front door moulding to rear door moulding	N/A	0.0 ± 1.2
F	Rear door moulding to rear door	N/A	-0.2 ± 1.0

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E255806

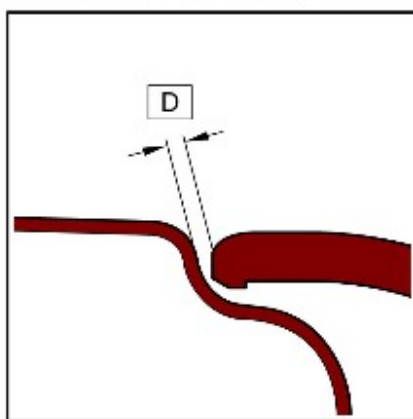
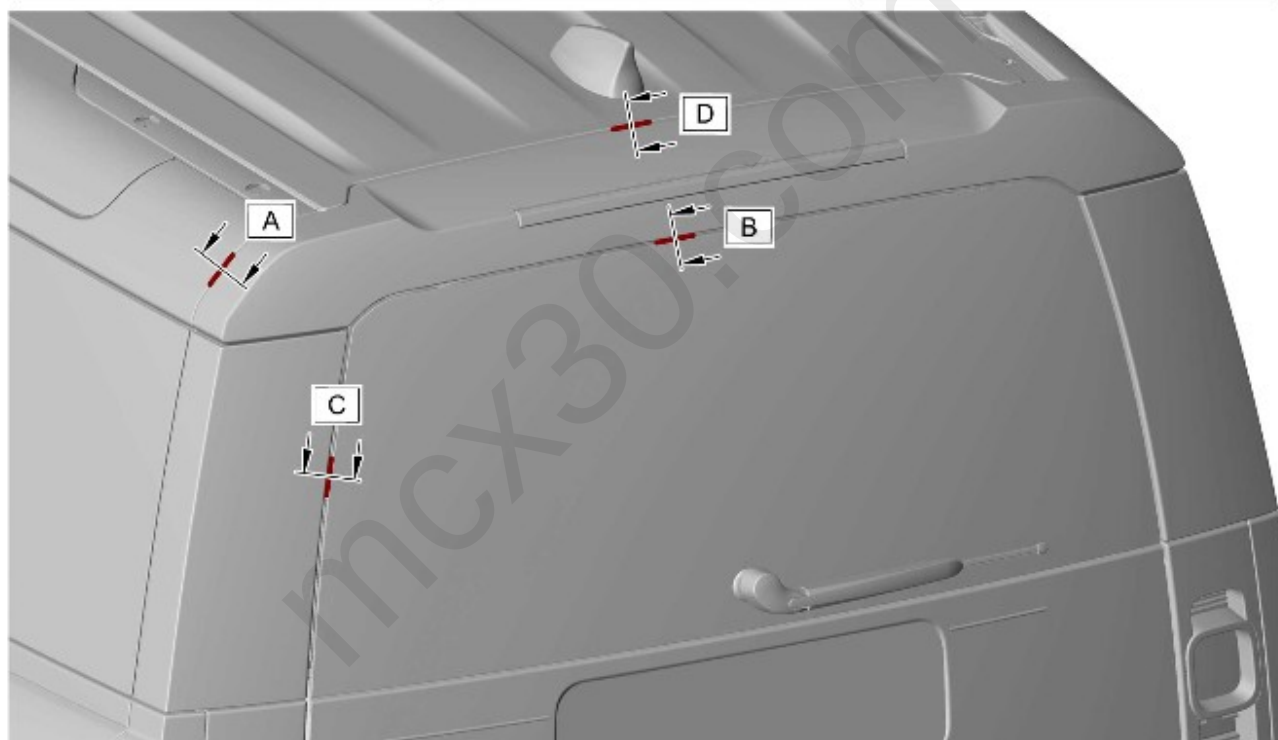
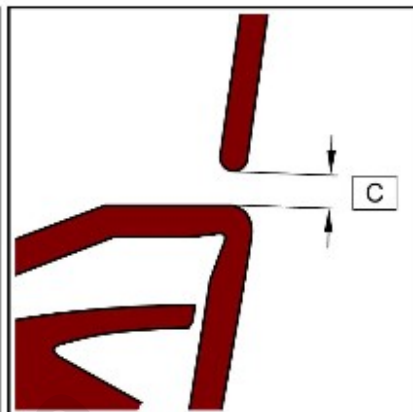
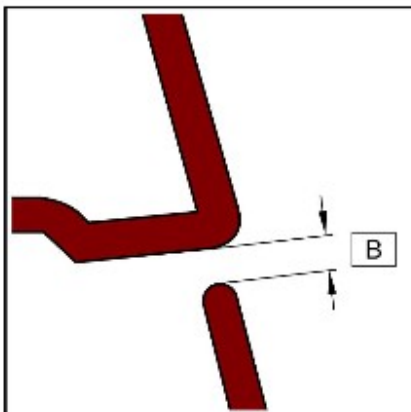
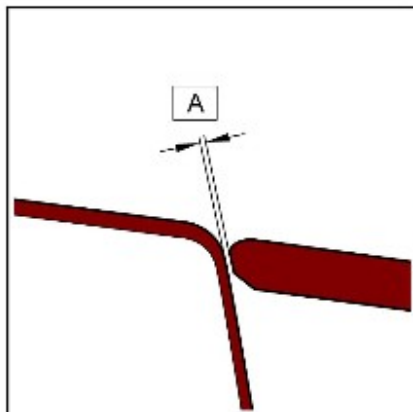
SECTION	DESCRIPTION	GAP	PROFILE
A	Rear door to quarter panel	N/A	0.0 ± 0.5



E255804

SECTION	DESCRIPTION	GAP	PROFILE
A	Quarter glass to cantrail	4.0 ± 1.2	N/A
B	Quarter glass to D-pillar finisher	2.3 ± 1.9	0.0 ± 1.4

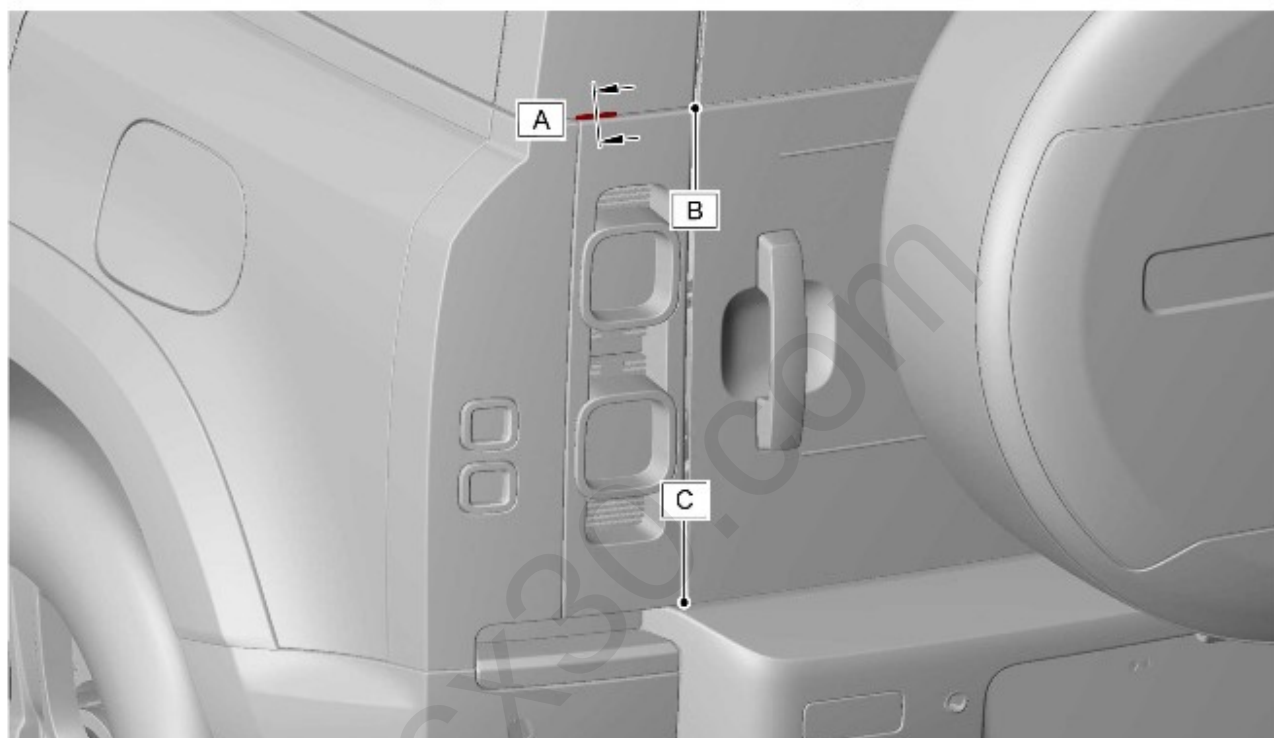
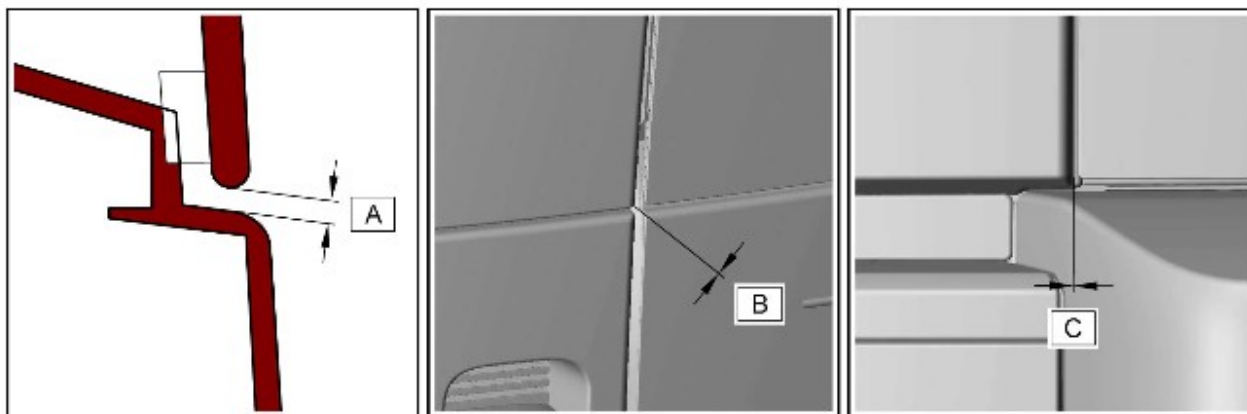
SECTION	DESCRIPTION	GAP	PROFILE
C	Quarter glass to quarter glass finisher	2.7 ± 1.1	2.4 ± 1.2
D	Quarter glass to C-pillar finisher	0.6 ± 0.2	N/A



E255792

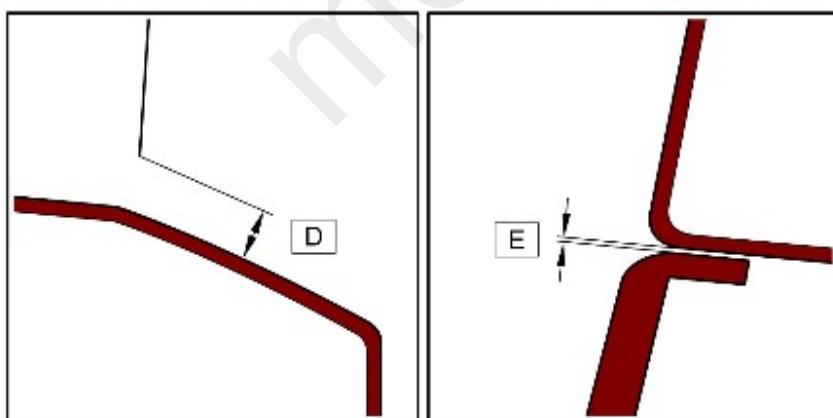
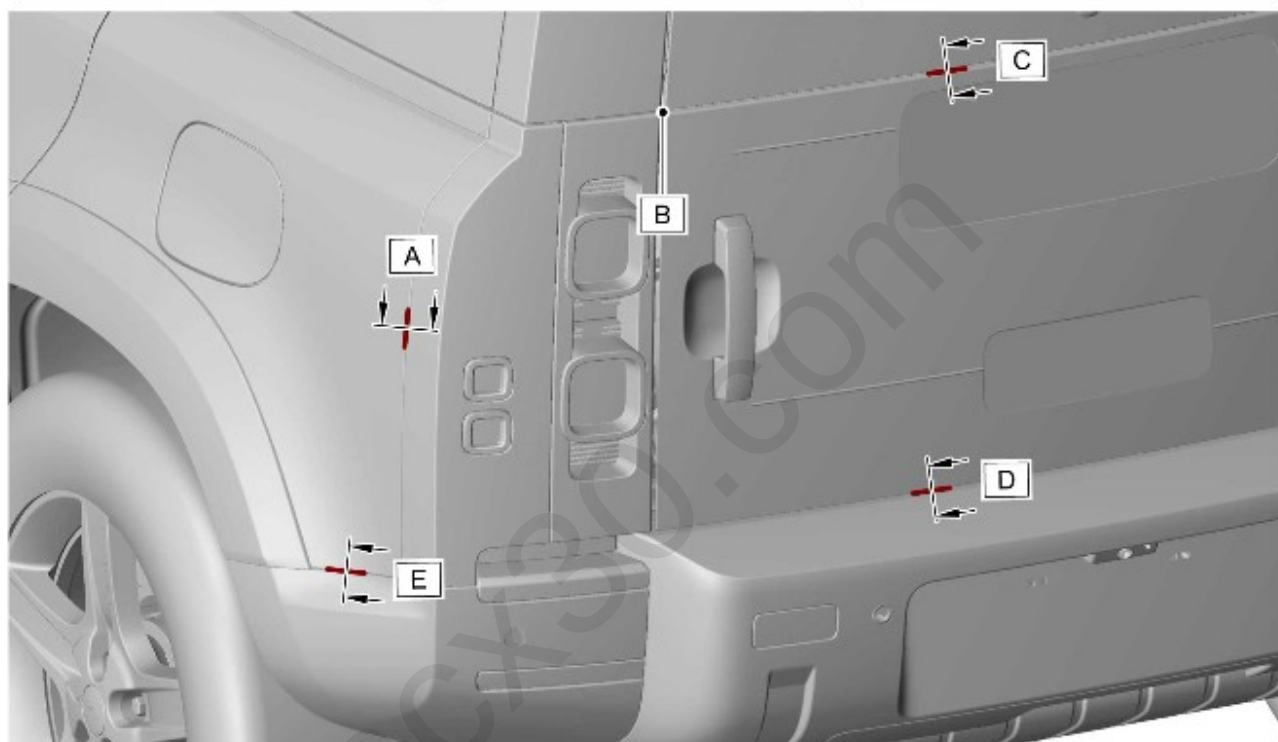
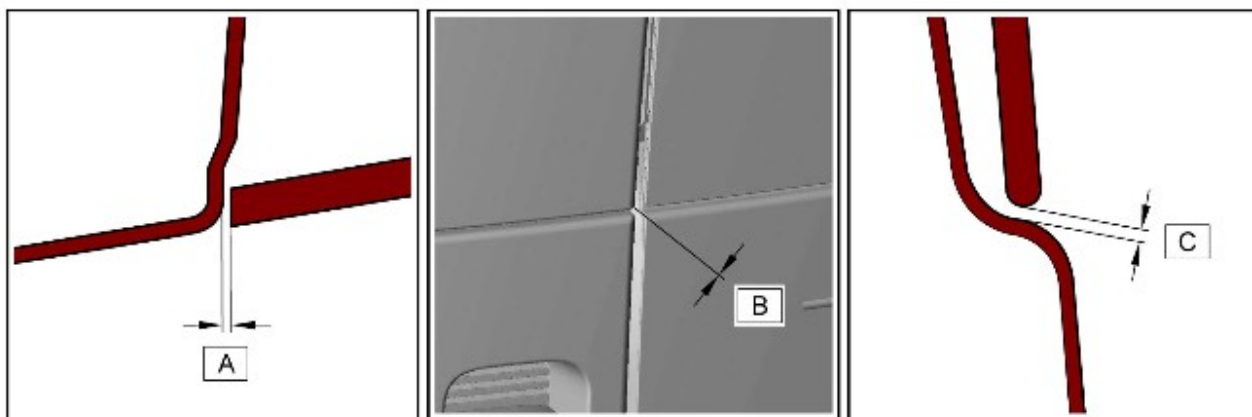
SECTION	DESCRIPTION	GAP	PROFILE
A	Rear roof finisher to cantrail	0.5 +1.2 -0.5	-0.5 ± 1.6
B	Tailgate glass to roof finisher	4.5 ± 2.5	-3.0 ± 2.2
C	D-pillar finisher to tailgate glass	4.5 ± 2.0	2.0 ± 2.0
D	Roof finisher to roof panel	1.7 ± 1.7	-0.5 ± 1.6

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E255790

SECTION	DESCRIPTION	GAP	PROFILE
A	D-pillar finisher to tail lamp finisher	2.4 ± 1.3	-1.5 ± 1.5
B	Tail lamp finisher to tailgate upper with spare wheel	N/A	0.5 ± 1.5
C	Tail lamp finisher to tailgate lower with spare wheel	N/A	0.0 ± 1.3

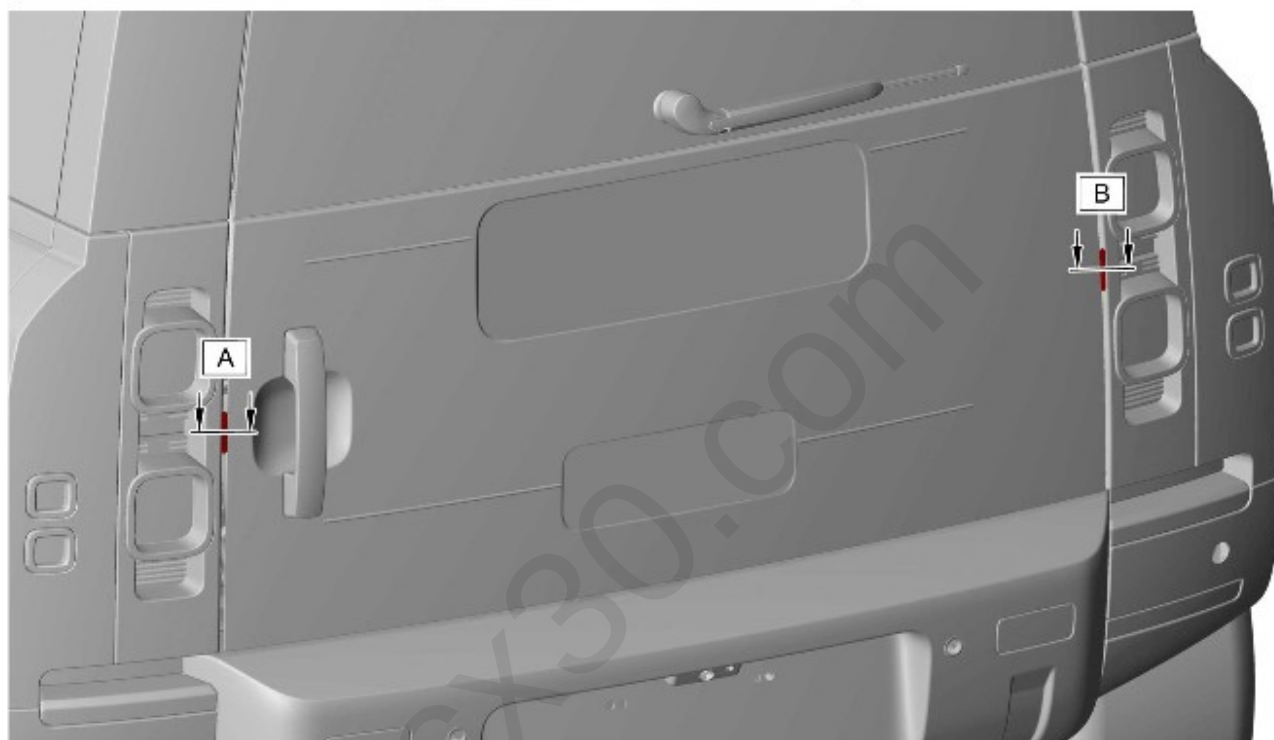
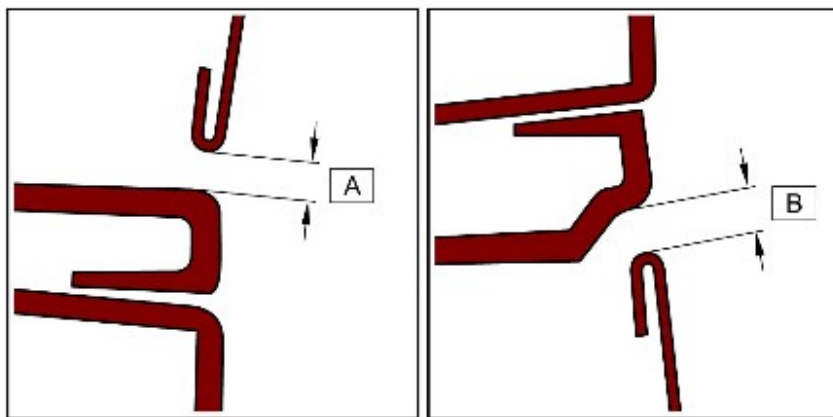


E255789

SECTION	DESCRIPTION	GAP	PROFILE
A	D-pillar finisher to quarter panel	0.5 +0.7 -0.5	-0.5 ± 0.8
B	Tail lamp finisher to tailgate upper without spare wheel	N/A	-0.3 +1.5 -1.1

SECTION	DESCRIPTION	GAP	PROFILE
C	Tailgate glass to tailgate	2.5 ± 1.0	-2.0 ± 1.0
D	Tailgate to bumper	10 ± 1.5	N/A
E	Quarter panel to bumper	0.0 ± 0.5	1.0 ± 0.7

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E255791

SECTION	DESCRIPTION	GAP	PROFILE
A	Tail lamp finisher to tailgate	5.0 ± 1.5	-1.5 ± 1.3
B	Tail lamp finisher to tailgate	5.0 ± 1.5	-1.5 ± 1.3

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