TECHNICAL SERVICE BULLETIN No. 04/2022

04/09/2023

Heavy Commercial Vehicles

Information bulletin to be circulated to:	Service Manager	Warranty Manager	Parts Manager	Master Technician	Service Consultant	BMIS
	✓	✓	✓	✓	✓	✓

Subject	Installing of Parking Cooler
Model	H625
Abstract	In case the installation of a Parking Cooler it should be assembled as specified in the Service Procedure section.

Labour

For vehicles manufactured before 2020 LP2 (01.07.2020)

Labour Code	Labour Name	Time
26C026 JJ	PARKING COOLER ASSEMBLY (FULL)	6 h

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For vehicles manufactured after 2020 LP2 (01.07.2020)

Labour Code	Labour Name	Time
26C026 J	INSTALLATION OF PARKING COOLER / FOR VEHICLES MANUFACTURED AFTER 2020 LP2 (01.07.2020)	2h

Parts to be Used

Part Number	Part Name	Number of Parts to be Used	Description
LC46 19B555 AA34X1	Parking Cooler	1	For All Vehicles
LC46 19F650 AA	Fittings kit	1	For All Vehicles
LC46 19A865 AA	Connection Bracket	2	For All Vehicles
KC46 E466B12 AA34X1	Bezel	1	For All Vehicles
W505581-S442	Bezel bolt	12	For All Vehicles
LC46-10655-AA	Battery (210 Ah. AGM)	2	For All Vehicles
MC46 14293 DA*	Electrical Installation Kit – Front Console	1	For vehicles manufactured before 2019 LP3
MC46 14293 EA**	Electrical Installation Kit – Roof	1	For vehicles manufactured before 2020 LP2

* For vehicles manufactured after 2019 LP3 (02.12.2019), the Front Console Electrical Installation Kit (MC46 14293 DA) is available in F-MAX vehicles. The location and image of the 40A fuse on the fuse box is shown in Figure 13 & Figure 14.

* Vehicles manufactured before 2019 LP3 (02.12.2019) are not equipped with Front Console Electrical Installation Kit (MC46 14293 DA). Check whether there is a 40A fuse in slot 4 of the fuse box and if there is no 40A fuse, the electrical installation kit with part number MC46 14293 DA must be ordered.

** Preparation of electrical installation for parking cooler is available in all F-MAXs manufactured after 2020 LP2 (01.07.2020). The locations and images for roof connection connectors of parking cooler on the vehicle are shown in Figure 17.

** Vehicles manufactured before 2020 LP2 (01.07.2020) do not have roof installation (MC46 14293 EA) connections for parking cooler. After removing the roof ventilation cover, it is expected that the two connection connectors on the parking cooler will be located in this area. In case of absence of connectors for parking cooler connections, MC46 14293 EA electrical installation kit must be ordered.

Service Procedure

Below mentioned steps should be followed to install a parking cooler to the relevant vehicle. The recommended battery type to be used together with the parking cooler is 210 Ah AGM battery. If the customer wants, he/she may choose to use the existing battery until it runs out, however, the battery that ran out will not be covered by the warranty.

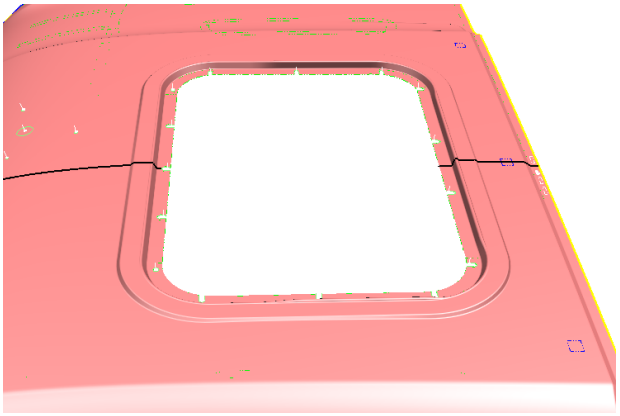


Figure 1: Embossed area on the roof panel

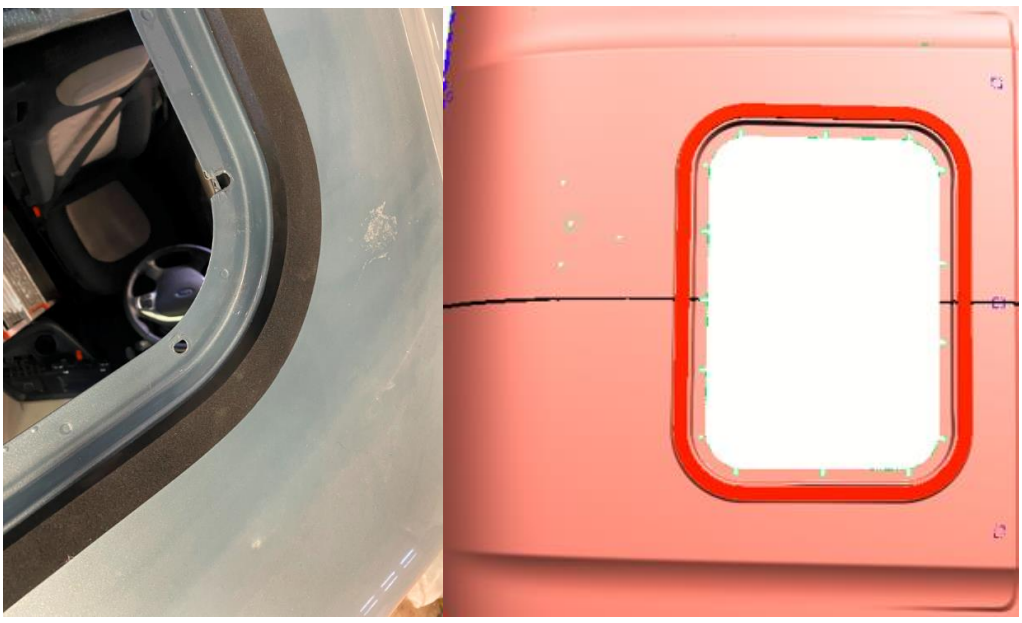


Figure 2: Sealing gasket

The sealing gasket will be attached to the area on the ceiling roof as shown in Figure 1 & 2 without leaving any gaps.

Figure 3 : Carrying the parking cooler on the car top

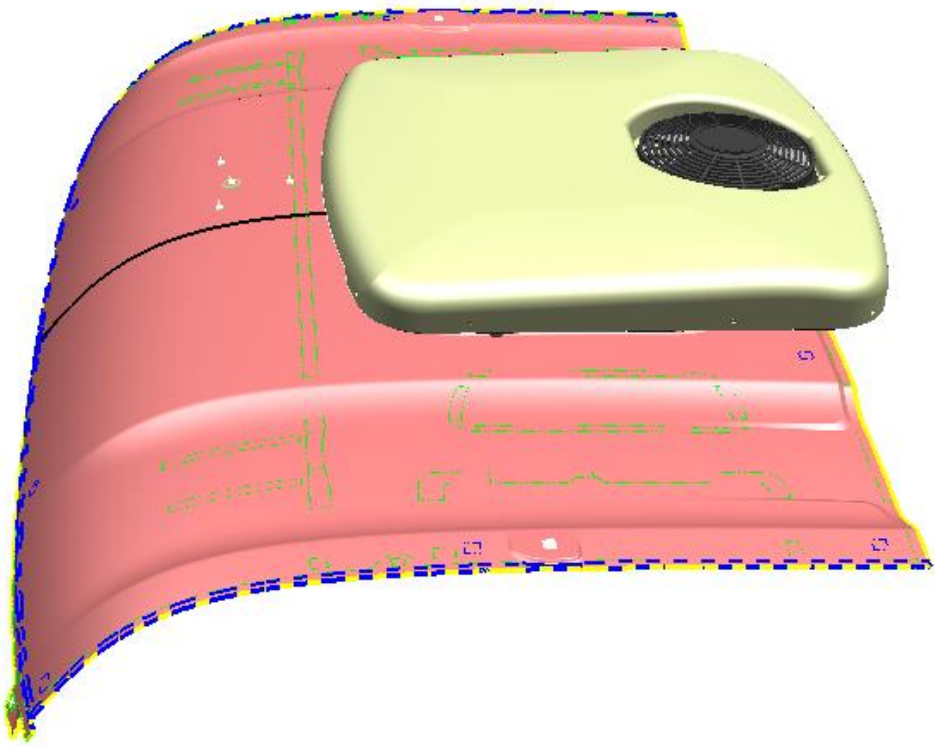


Figure 4: Positioning the part (External)

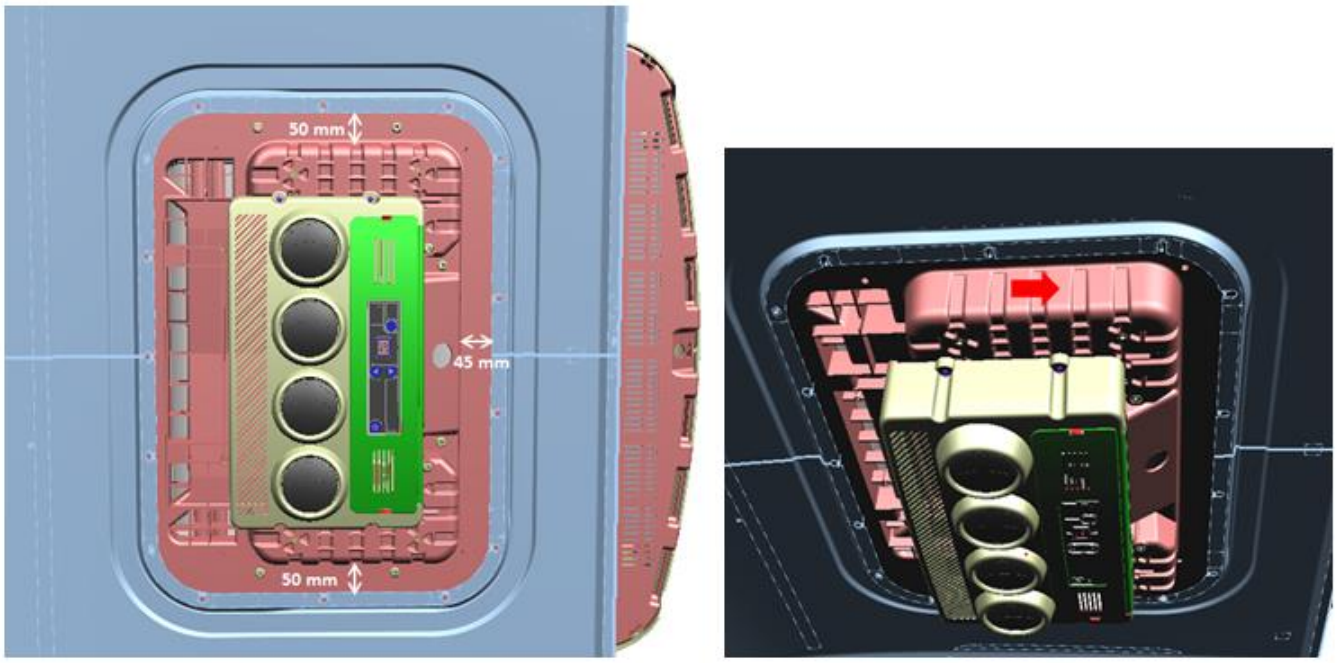


Figure 5: Positioning the part (Internal)

The part will be installed as shown in Figure 4 such that the fan of the part will be located behind the car. It will be installed by leaving an internal distance with the sheet of 50mm both from the left and right, and 45mm from the rear side. Reference surface is shown by a red arrow.

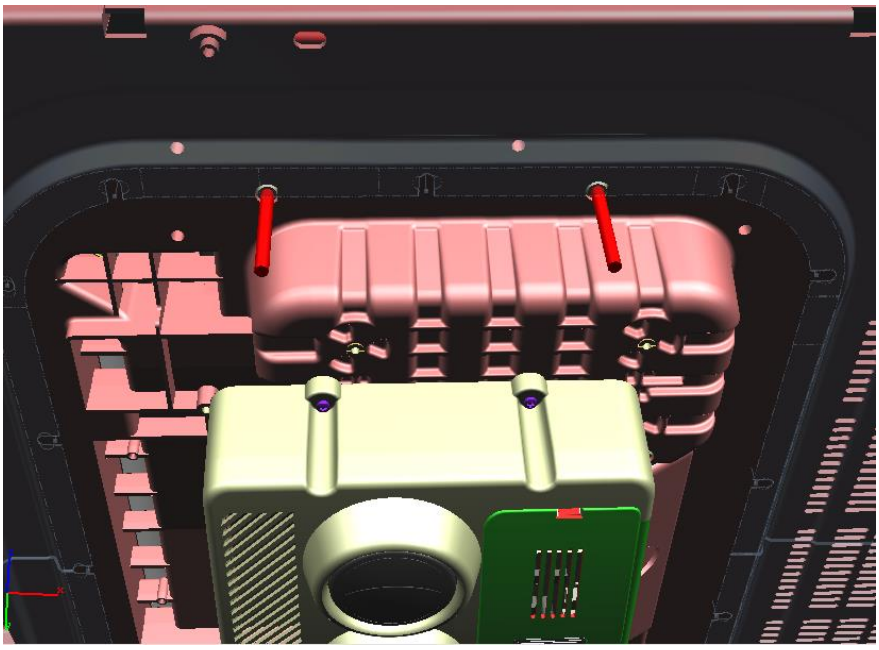


Figure 6: M8 Stud

M8 studs will be attached to the metal inserts shown in Figure 6. (4 Pcs)

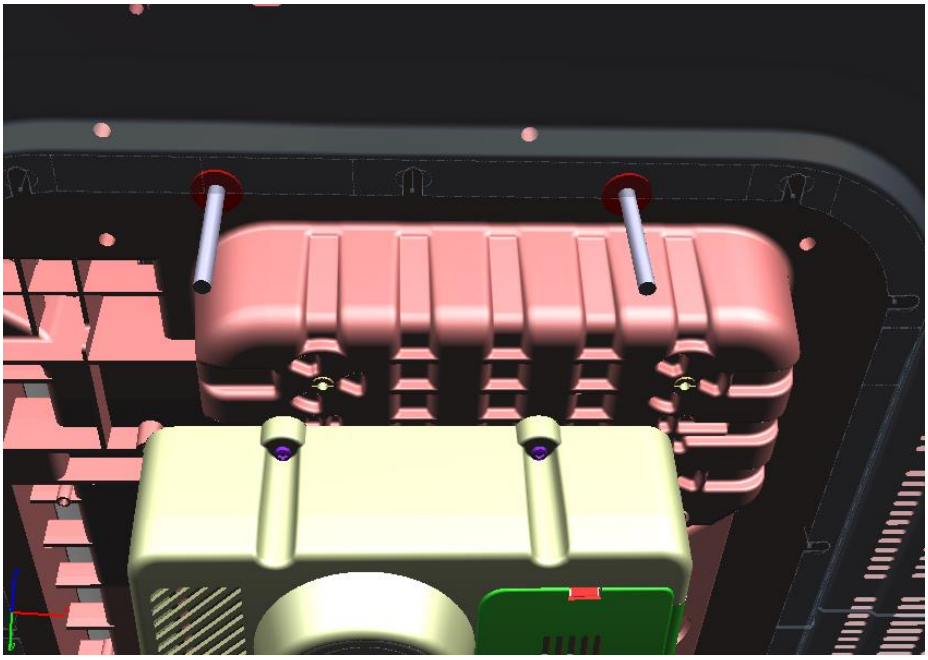


Figure 7: Sealing gasket

Sealing gaskets (rubber) will be attached on the studs shown in Figure 6.

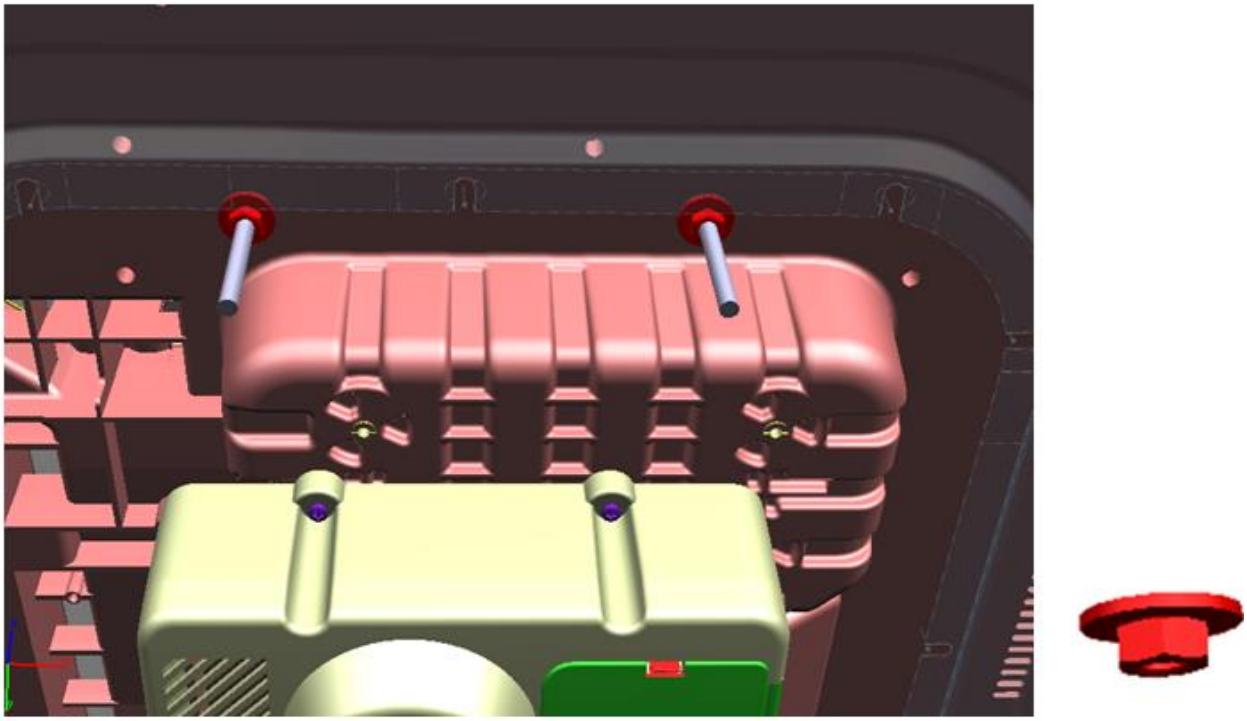


Figure 8: Scaly Nut

The nuts show in Figure 8 will be attached on the sealing gaskets shown in Figure 7 and then tightened to 4 Nm.

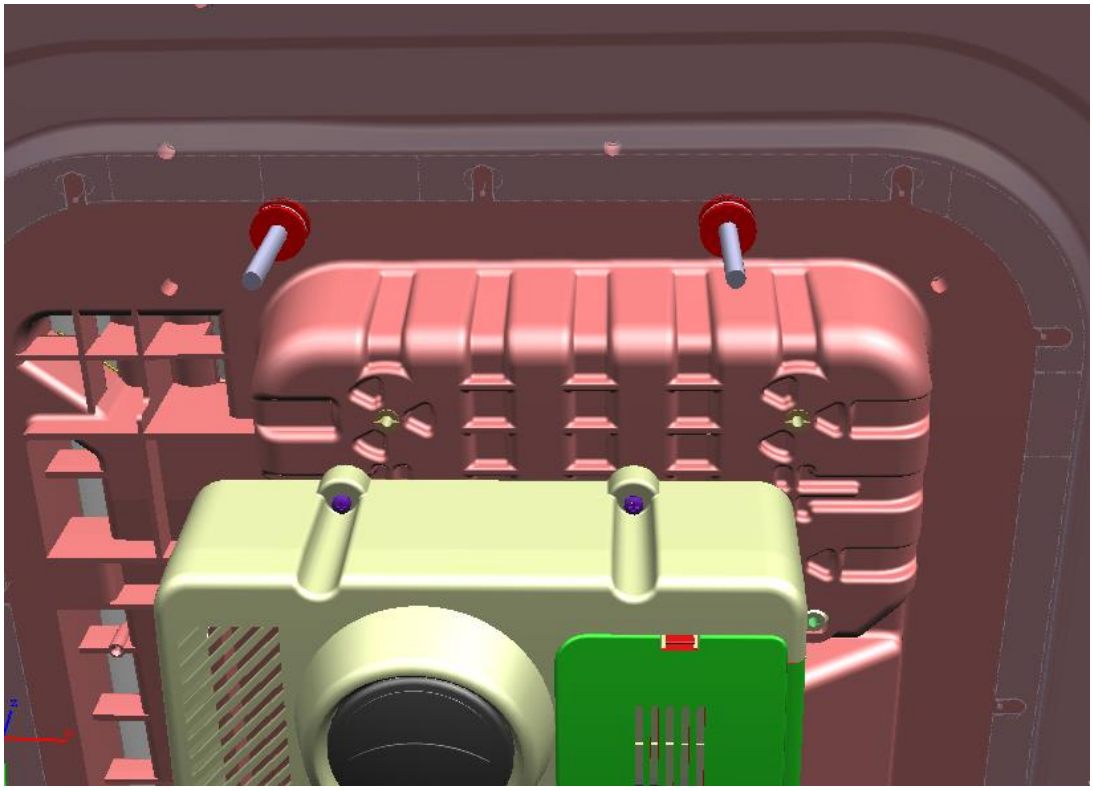


Figure 9: Washer

The washers show in Figure 9 will be attached on the sealing gaskets shown in Figure 7.

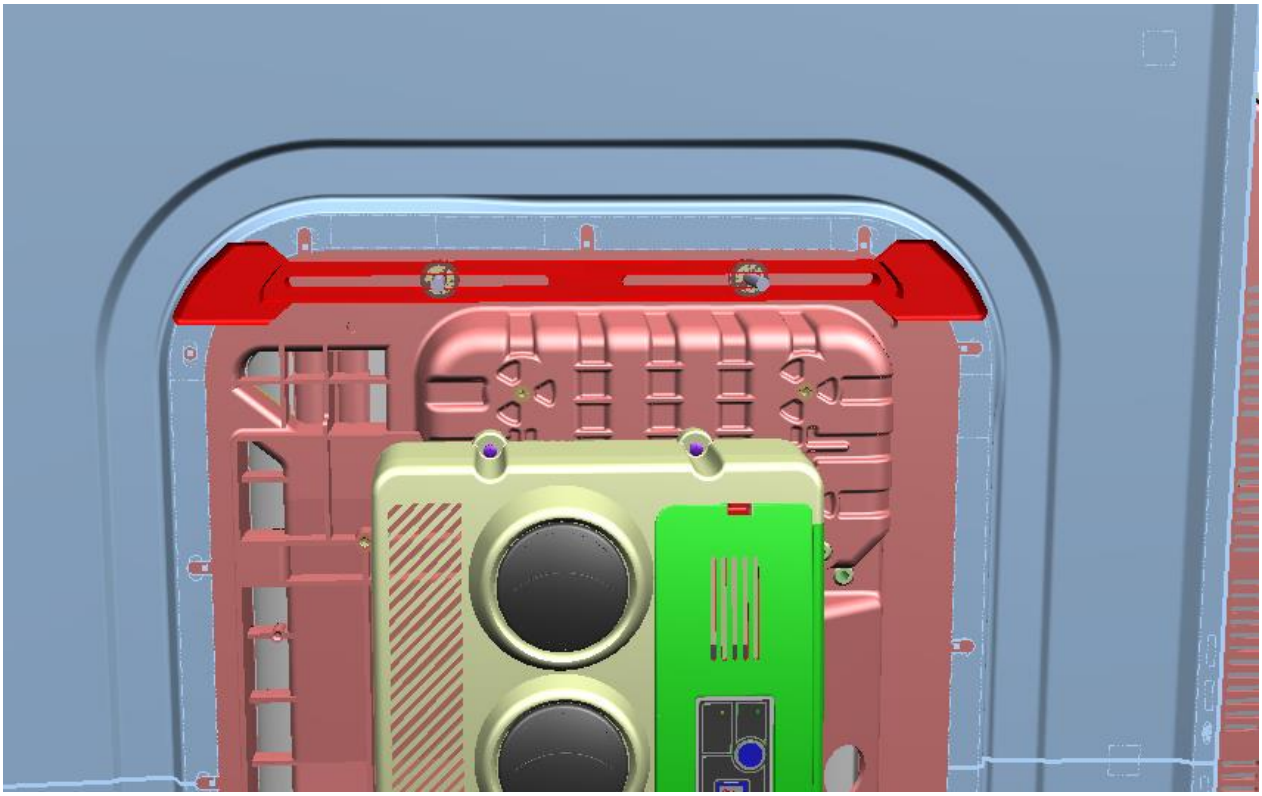


Figure 10: Bracket

Brackets will be attached on the studs as shown in Figure 10.

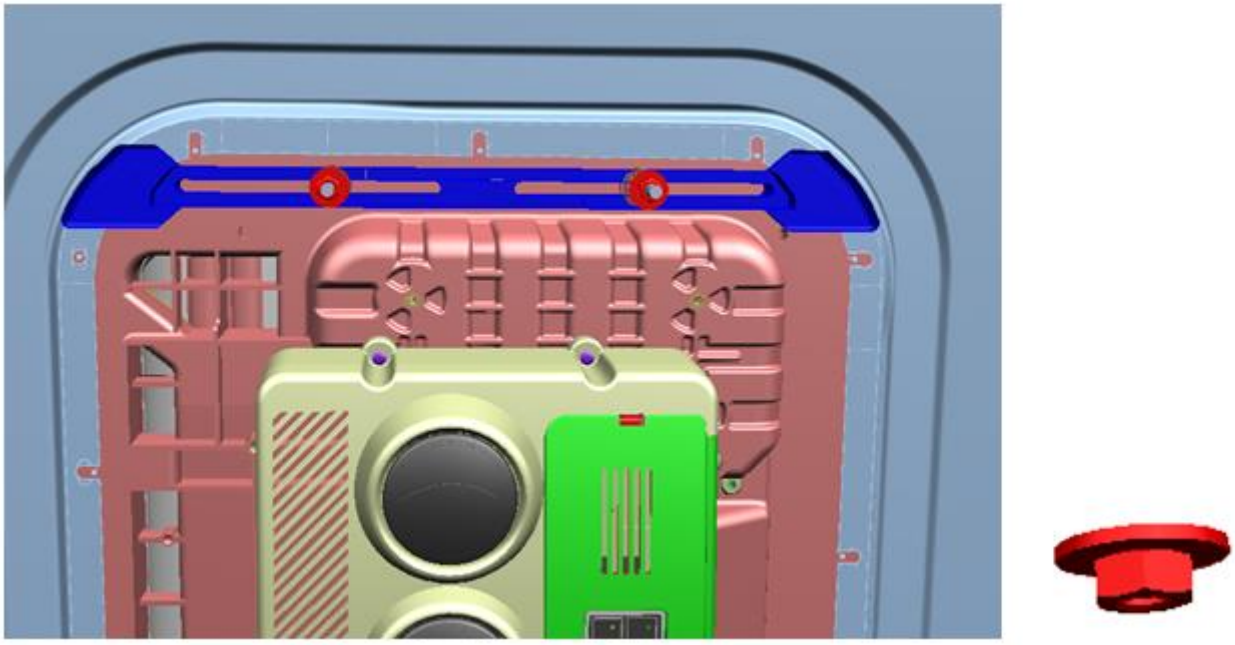


Figure 11: Scaly Nut

M8 scaly nuts shown in Figure 11 will be attached on the bracket shown in Figure 10 and then, tightened to 17 Nm.

Figure 12: Bezel

The bezel shown in Figure 12 will be attached and the bolts will be tightened. The bolts shown with a red colour will be torqued to 1.5 Nm and the ones with blue colour will be torqued to 4.1 Nm.

Modifications on the Electrical Installation

The modifications to be done on the electrical installation of the car are aligned in below mentioned steps. Regarding the installation of parking cooler, the right side A-post trim in the cab, the plastic trim part in the junction of the A-post and the console, the rear overhead cabinets, door top trims, over-bed cabinets should be disassembled.

1) At first, the fuse box on the front console should be checked. As seen in the below figure, the presence of a 40A fuse in the slot no. F004 should be checked. If 40A fuse is present, continue with step 4, otherwise, continue with step 2. The 40A fuse specified with the 2019 LP3 package is now available on all F-Max vehicles, pre-2019 LP3 vehicles do not have this fuse.

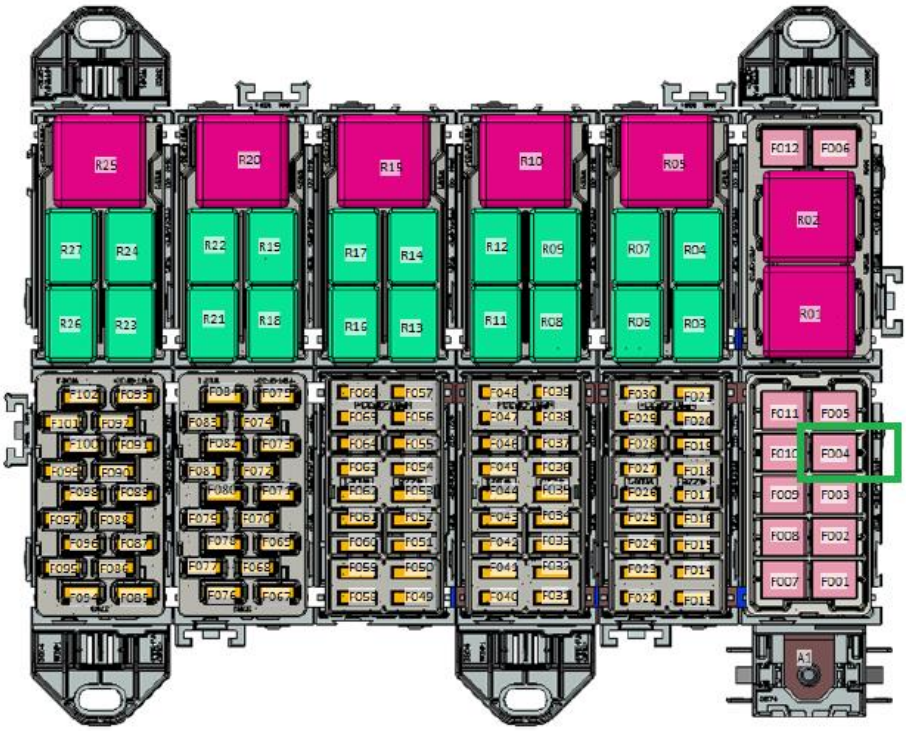


Figure 13: Fuse Box

2) The part of the cable from the kit with part number MC46-14293-DA, that is labelled as the fuse box, should be attached to the slot of the fuse box shown below with a red box. The figure below is the rear appearance of the fuse box. When the fuse terminal is attached, the 40A fuse in the kit should be attached to the slot no.4.

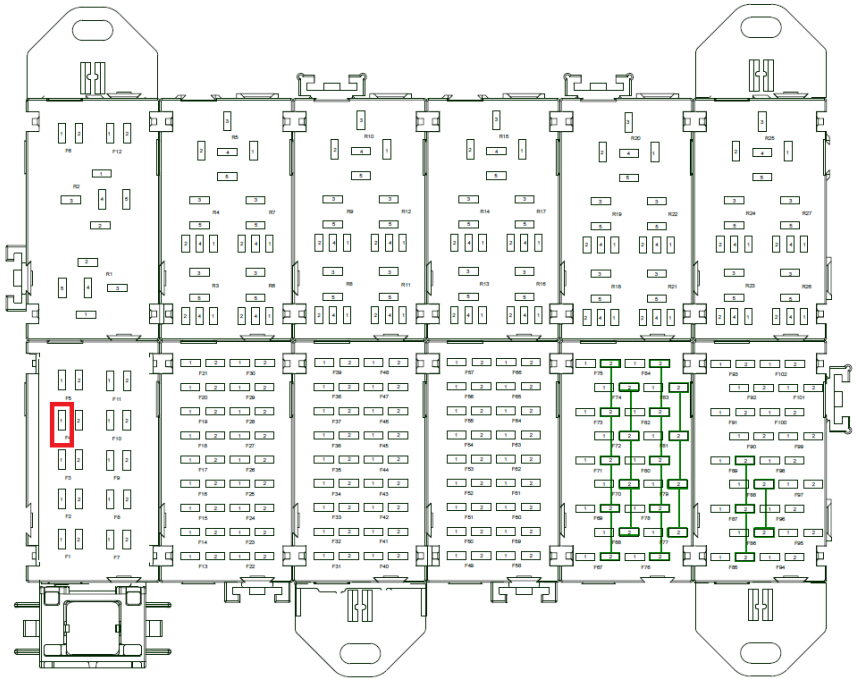


Figure 14: Rear side of the Fuse Box

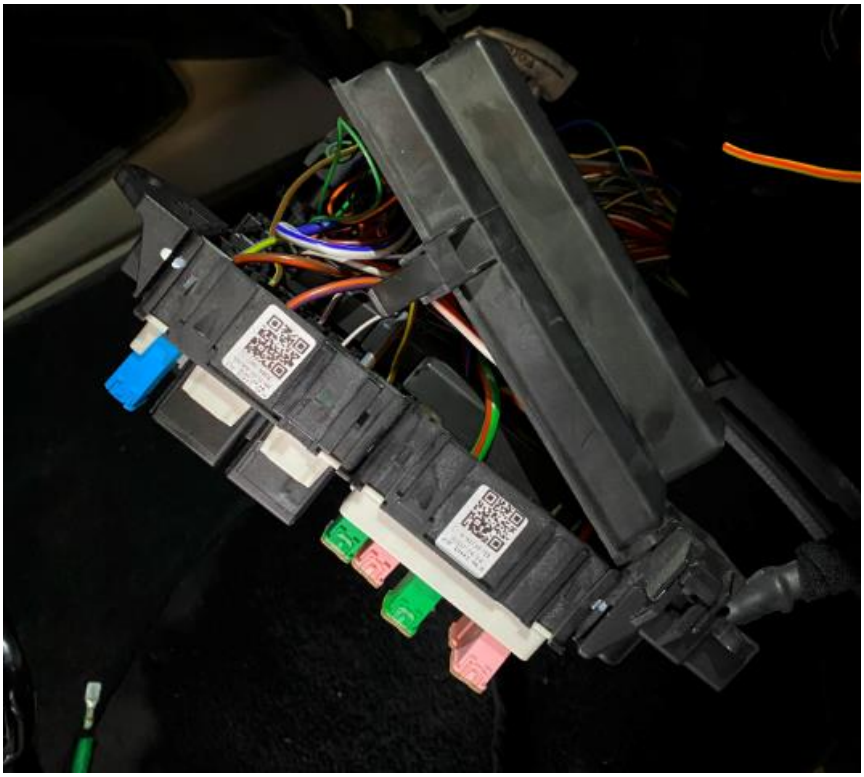


Figure 15: Opening the Fuse Box

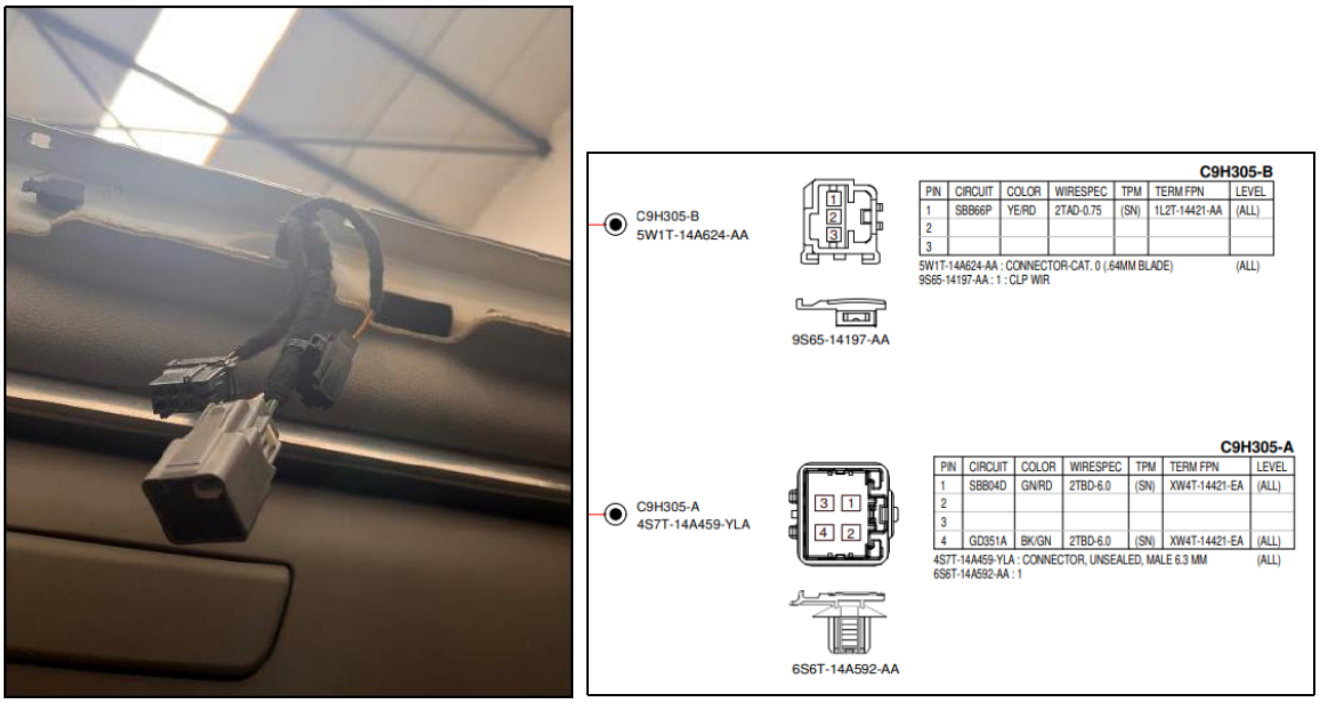
3) The other end of the kit should be led to the inline connector (C22-A2) of the roof installation over the console installation that is located in the area where the console and right A-pillar are combined. It should be attached

to the slot no 30. During this process, a strap should be attached every 15-20 centimetres. A 6 mm2 cable with the correct terminals printed on both sides and wrapped with fabric tape, will come out from the kit.

Figure 16: Leading the other end of the kit to the inline connector

4) It should be checked whether there are two connectors as shown in Figure 17 where the parking cooler connections will be plugged in the roof area where the parking cooler is installed. If the connectors are located in the existing roof installation, the connectors of the parking cooler will be plugged into the existing matching connectors on the roof, and the electrical connection will be provided.

   The electrical changes described in the remainder of the document will not need to be applied.



C9H305-B

PIN	CIRCUIT	COLOR	WIRESPEC	TPM	TERM FPN	LEVEL
1	SBB66P	YE/RD	2TAD-0.75	(SN)	1L2T-14421-AA	(ALL)
2						
3						

5W1T-14A624-AA : CONNECTOR-CAT. 0 (.64MM BLADE) (ALL)
9S65-14197-AA : 1 : CLP WIR

C9H305-A

PIN	CIRCUIT	COLOR	WIRESPEC	TPM	TERM FPN	LEVEL
1	SBB04D	GN/RD	2TBD-6.0	(SN)	XW4T-14421-EA	(ALL)
2						
3						
4	GD351A	BK/GN	2TBD-6.0	(SN)	XW4T-14421-EA	(ALL)

4S7T-14A459-YLA : CONNECTOR, UNSEALED, MALE 6.3 MM (ALL)
6S6T-14A592-AA : 1

Figure 17: Roof connectors where the parking cooler connectors will be plugged

5) When parking cooler connectors are not available in the roof area of the vehicle, the kit with part number MC46-14293-EA should be ordered. Among the cables coming out from the kit no. MC46-14293-EA, the terminal end of the long cable should be attached to the pin no 30 of the console inline connector (C22-A1) of the roof installation. The 1.5 mm2 cable in the same part and the cable without a terminal at the end should be entered in addition to the cable on the pin no. 39 of the roof installation - console inline connector (C22-A1).

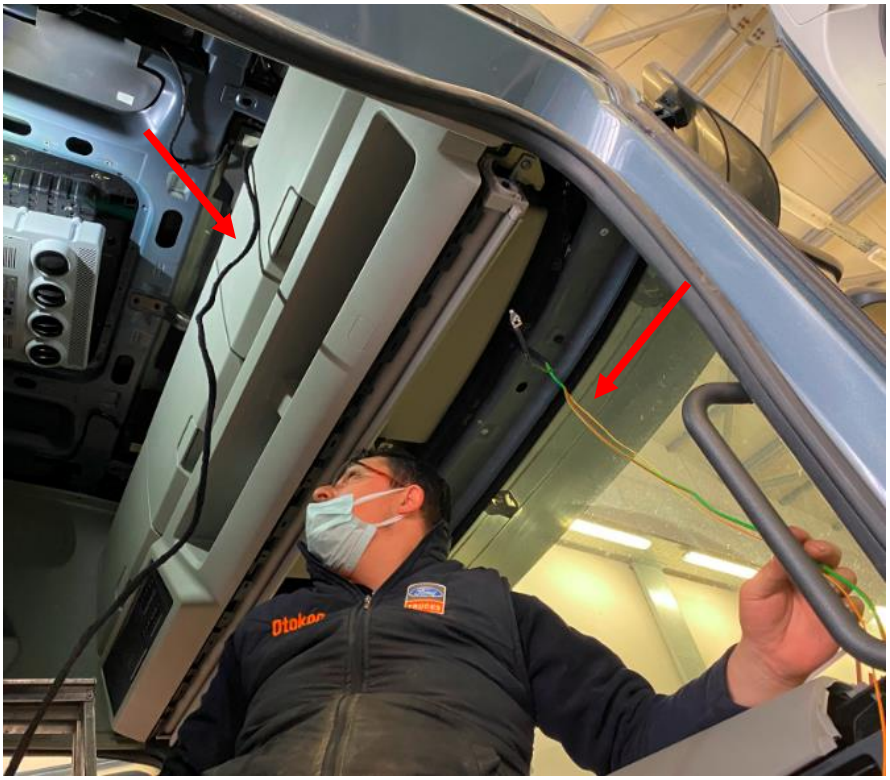


Figure 18: Bypass of the cable from the roof rack

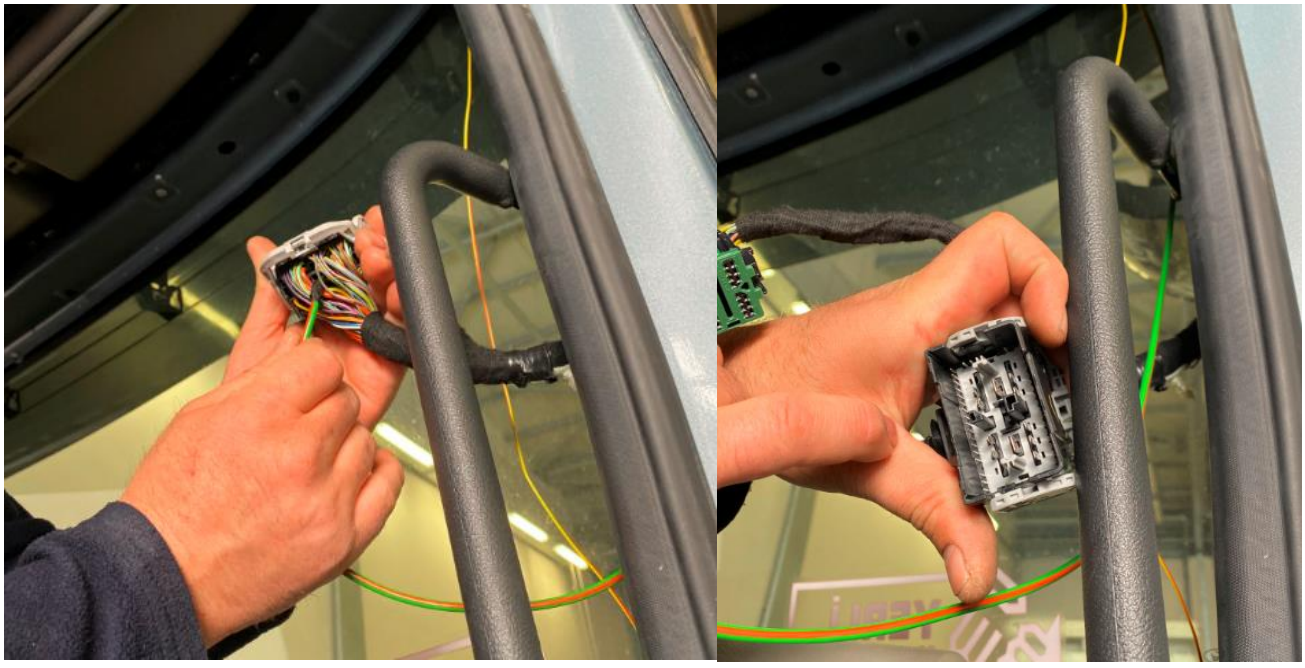


Figure 19: Attaching the terminal to the relevant pin of the connector

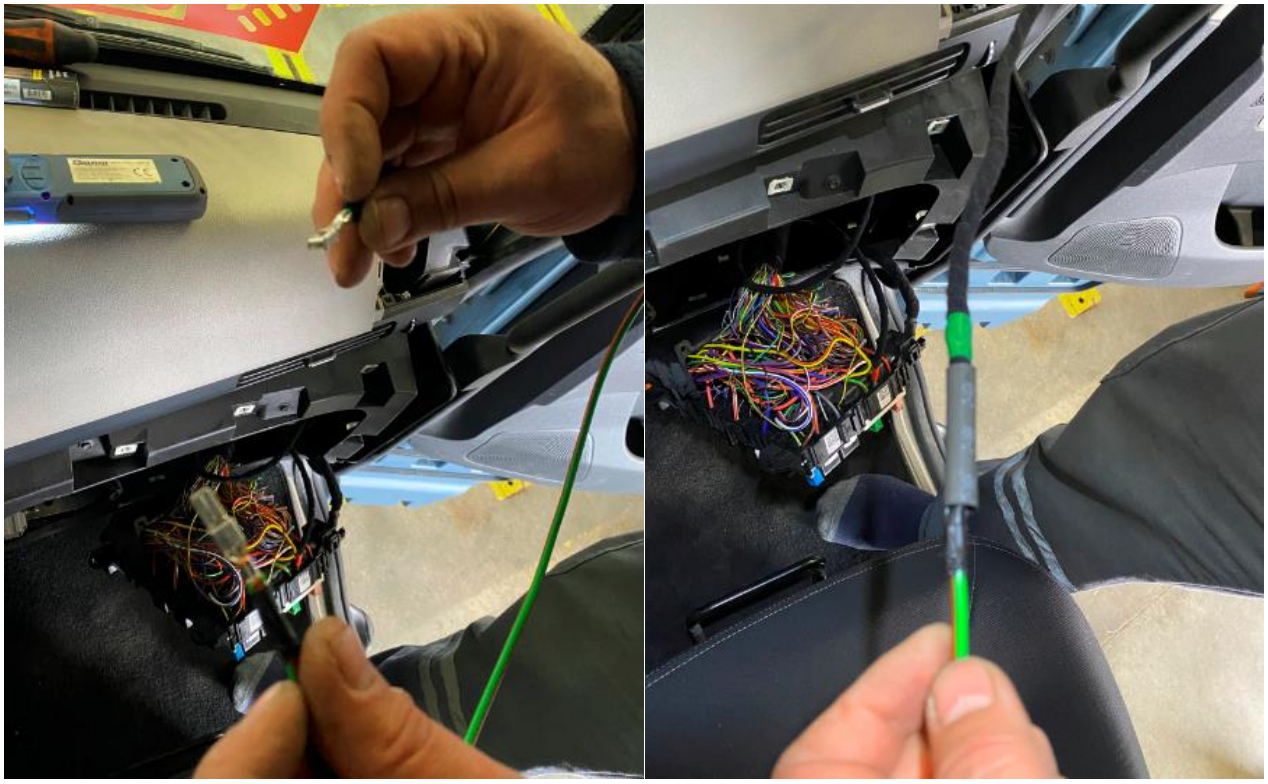


*****Figure 20: Connecting the terminals by using a tube**

****** If no access to the connectors could be obtained due to the congestion in the area, the terminals can be directly connected to each other by surrounding them with an elastic tube as shown above. However, this cable should be strapped to the relevant areas afterwards.***

6) The cable should be strapped every 15 centimetres and led till the parking cooler as shown in the figure below.

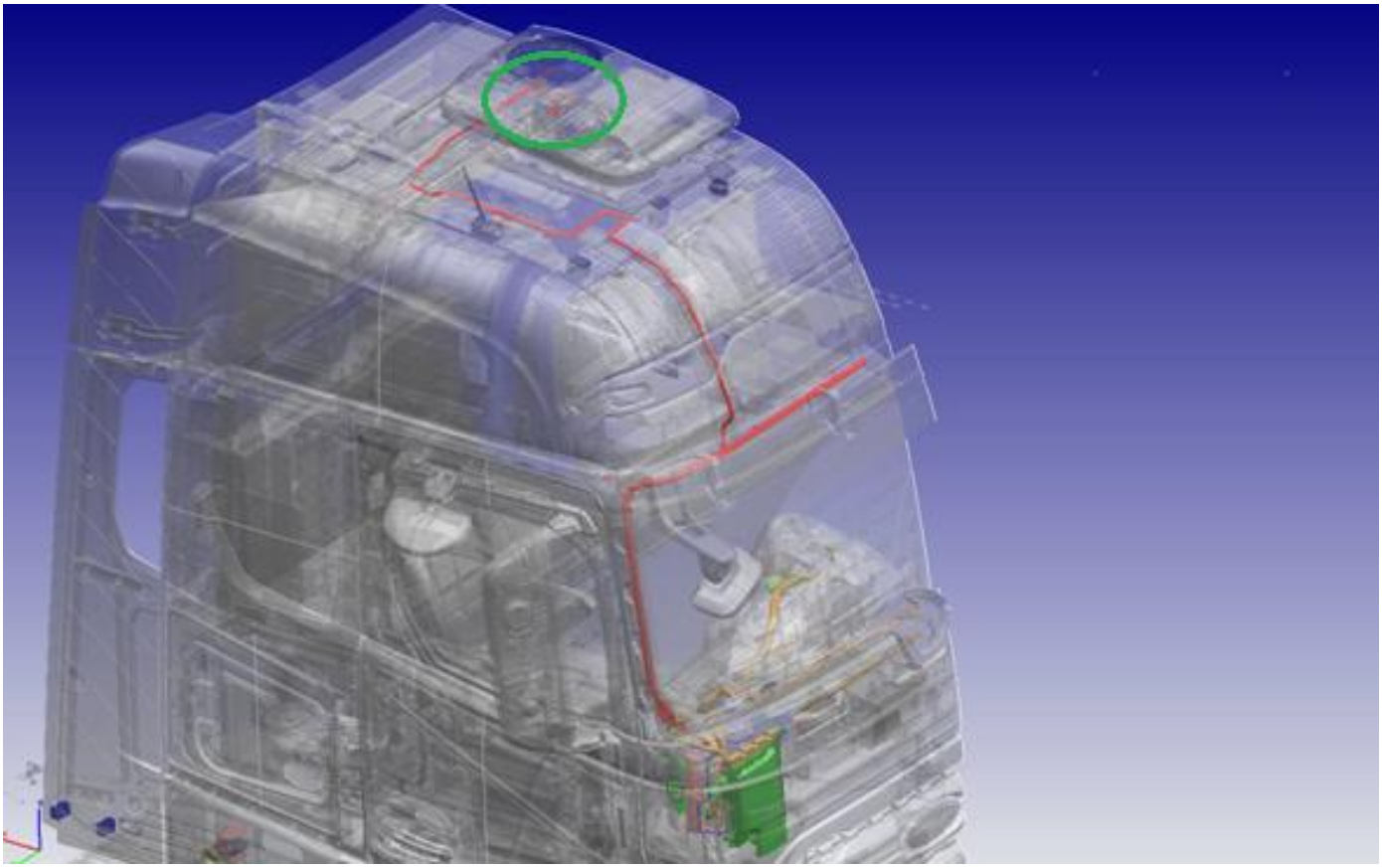


Figure 21: Connecting the cable to the connector of the parking cooler

7) The black cable having a black coloured grounding terminal that is located at the end of the 4-pin parking cooler power connector, should be taken to the grounding location. The sheet metal of the car in the grounding area should have a slot as shown in the figure.

   This cable will be provided in the EA kit, has two installation connectors that lead to the parking cooler, you will see this cable as attached to the 4-pin connectors. The location in the figure is the upper side of the right door.

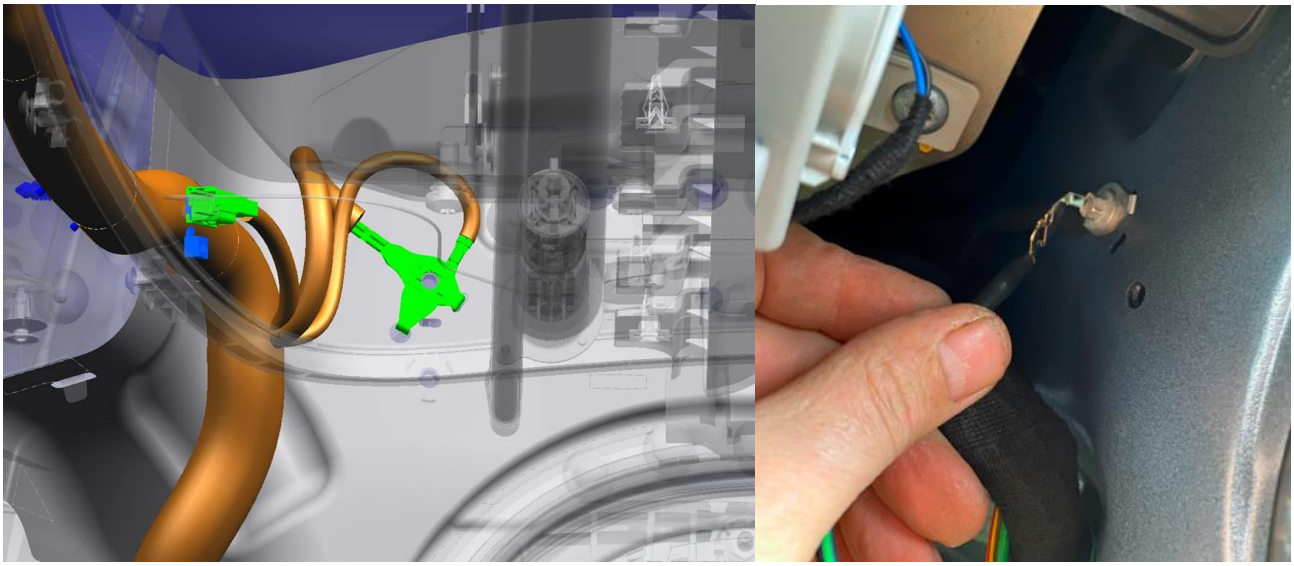


Figure 22: Connecting the cable to the connector of the parking cooler

8) In this figure, the current grounding connection should be disassembled and in the new situation, both grounding connections should be torqued successively.

9) After the completion of these processes, the parking cooler should be plugged in. Then, the cab parts should be assembled to their previous positions.

Figure 23: Installation of parking cooler

Figure 24: Completed installation of the parking cooler from the inside of the vehicle.

Regards,
Ford Trucks Service Engineering