



**** SOLUTION ****

Title Correct Aftermarket Installation Of Permanent Electronic Log Devices (ELD) (Qualcomm, PeopleNet, Omnitrac, GPS, Location Tracker, Etc.) RP1226 connection On The Data Link; Installation Instructions And Information For Third Party (Aftermarket) Devices Connected To The Data Link - **US17+OBD16 And Newer Emissions, Models Built up to Week 37 (9/13) 2019.**

Mack Models

Mack Model AN - Anthem , GR - Granite , PI - Pinnacle

Volvo Models

Volvo Model VN , VNL , VNR , VNX , VAH , VHD

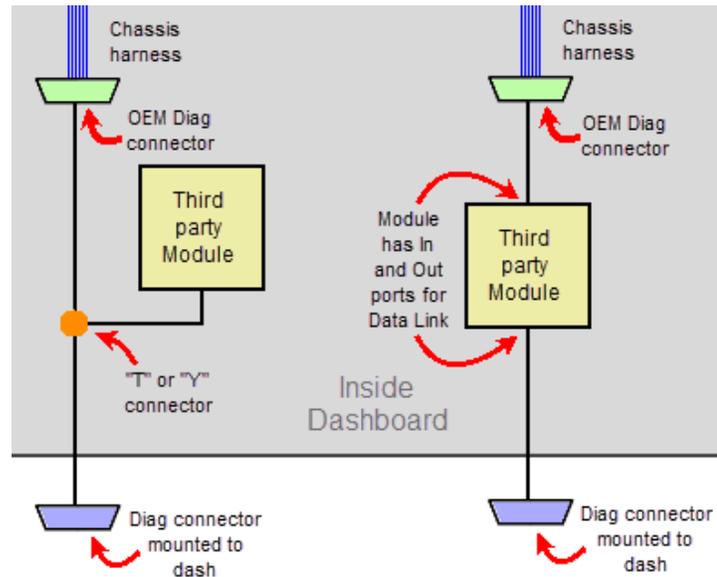
Emission Standard

Emission Standard US17 , US17+OBD16 , US17+OBD18 , US17+OBD19

**** SOLUTION ****

Cause An aftermarket device improperly installed on the data link can cause a variety of symptoms. Various Data Link codes can be generated from any modules connected to the affected circuit. In addition, interference can create a variety of physical symptoms that may or may not seem to be related. Some examples are intermittent loss of throttle, incorrect or no readings from instrument cluster gauges, regeneration failure, and derate.

Recent models of third party devices in many cases utilize either a "T" or "Y" connector that connects to the OEM Diagnostic connector, or will place the module in-line so the diagnostic connector mounted to the dash is in fact a diagnostic connector from the third party device. A diagram showing these two situations can be seen below:



Solution

IMPORTANT:

- Do not daisy chain more than 2 overlay harnesses.
 - 3rd party connecting harness length should not be more than 1 meter in length.
 - 3rd party devices must not be connected to the main diagnostic connector under the steering wheel.
 - 3rd party devices must be listen-only or passive mode.
 - 3rd party devices must not use power with key off to avoid battery drain.
 - The truck must maintain all factory install terminating resistors in the harness.
- All newer trucks will have the RP1226 connector installed on the Cab Harness DL5 located in the FRC.**

An OEM overlay harness is available that should always be utilized to connect modules meeting the above specifications to the vehicle data link. Refer to the pictures and part numbers below.

23295912 = Connects to the vehicle and terminates to a RP1226 connector.



23295906 = From the RP1226 to a 9 pin connector.



23295908 = From the RP1226 to a 16 pin connector.



Installation instructions and information for the overlay harness can be found by searching for Operation [3751-03-02-08 Datalink Overlay Harness, New](#)

Install. [Electronic Logging Device Harness, Installation](#) in the Service tab of Impact. ([Mack](#), [Volvo](#))

If the operation does not show up when using the VIN, remove the VIN and enter the chassis model.

Note: Make certain the harness is connected to DL1 and not DL3.

Solution visibility	Dealer distribution
Function(s)/component(s) affected	
Function affected	Diagnostic tool , electricity
Function Group	
Function Group	375 cable system, cab , 881 instrument and radio panel
Customer effect	
Main customer effect	power supply , diagnostics/methodology , efficiency/abnormal behavior , fault code/display
Conditions	
Vehicle operating mode	when driving , when stationary
Frequency of occurrence of problem	always
Other conditions	after a workshop procedure on the vehicle
Administration	
Author	RU2761V
Dealer ID	RU4469V
Last modified by	A241298
Creation date	16-10-2018 15:10
Date of last update	03-02-2020 21:02
Review date	01-07-2019 00:07
Status	Published
Average score	0
Number of scores	1
NA_Reviewer	UT5061H

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Service

Chassis ID	Path
	3751/Repair//Datalink Overlay Harness, New Install. Electronic Logging Device Harness
Model	Identity
VN	142974426
Publish date	ID/Operation
9/21/2018	3751-03-02-08

37552-2 Datalink Overlay Harness, New Install

Electronic Logging Device Harness



Illustrations may differ slightly from the actual vehicle being serviced. However, key components addressed in this information are represented as accurately as possible.



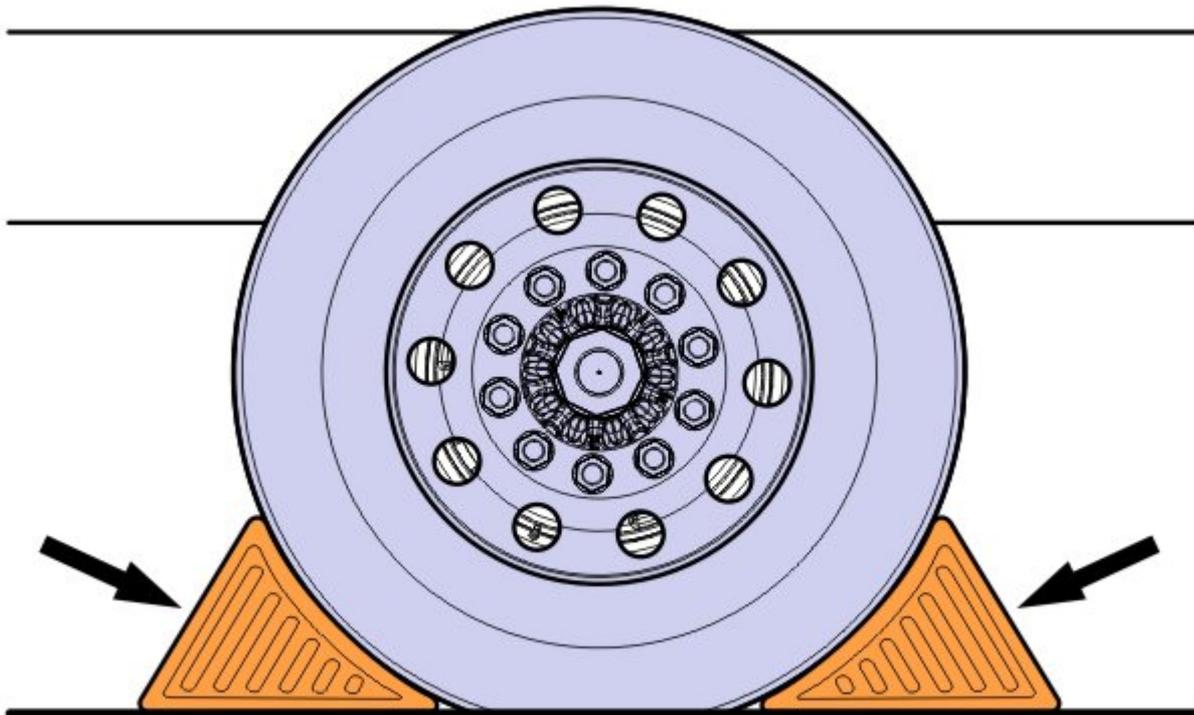
All threaded fasteners that do not have a tightening torque specification in the information are tightened to a standard torque. Standard torques are available in the following specification. ►►
[Standard Tightening Torques](#)

1 Park the vehicle on a level surface with the steering wheel in the straight ahead position.

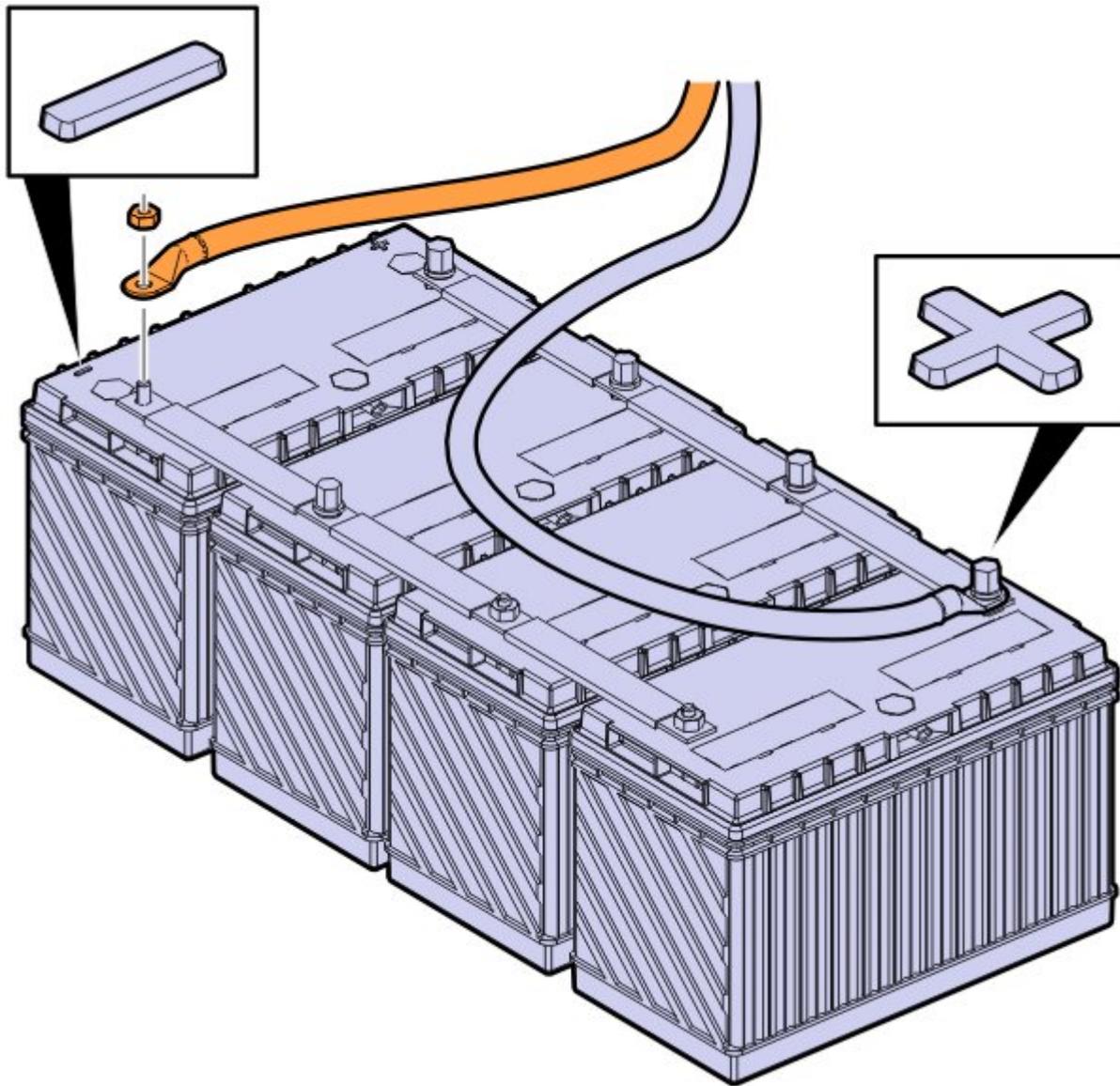
2 Apply the parking brake.

3 Place the gear lever in neutral.

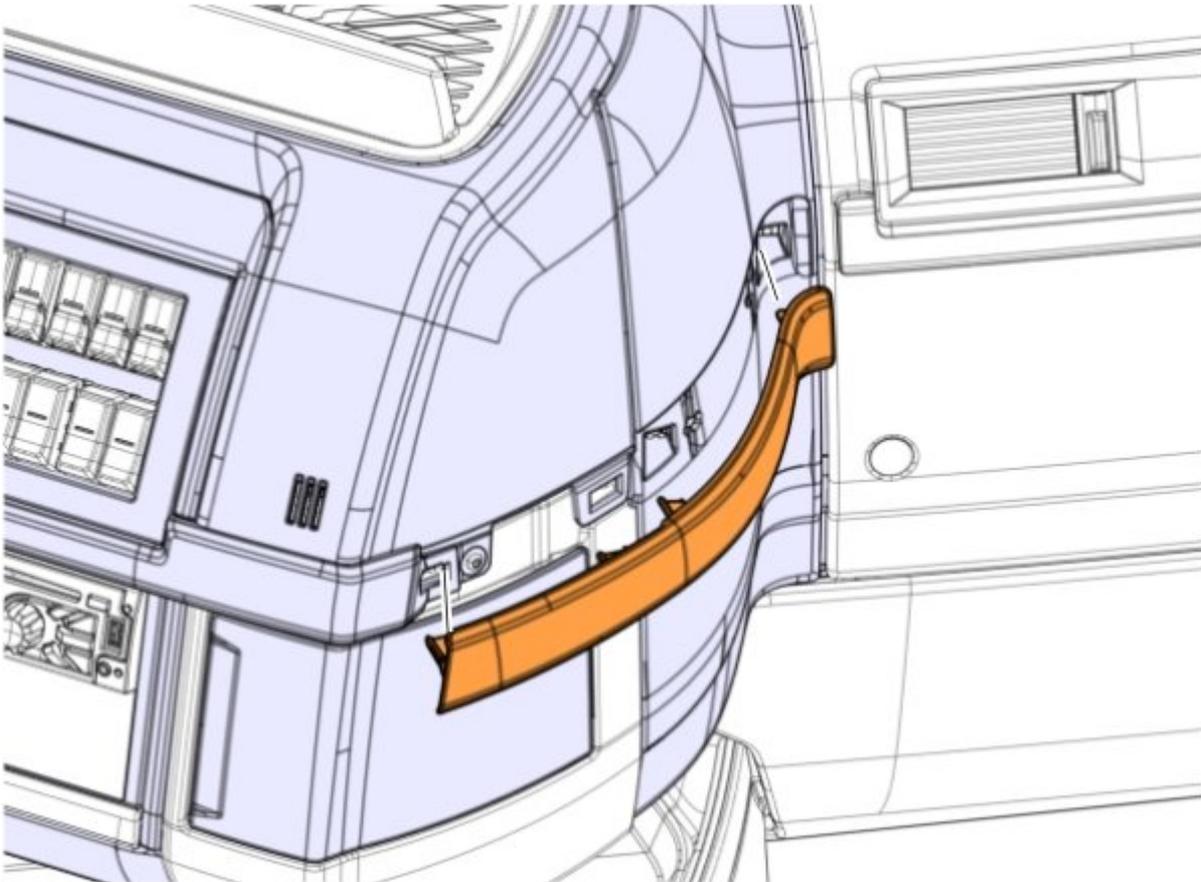
4 Install the wheel chocks.



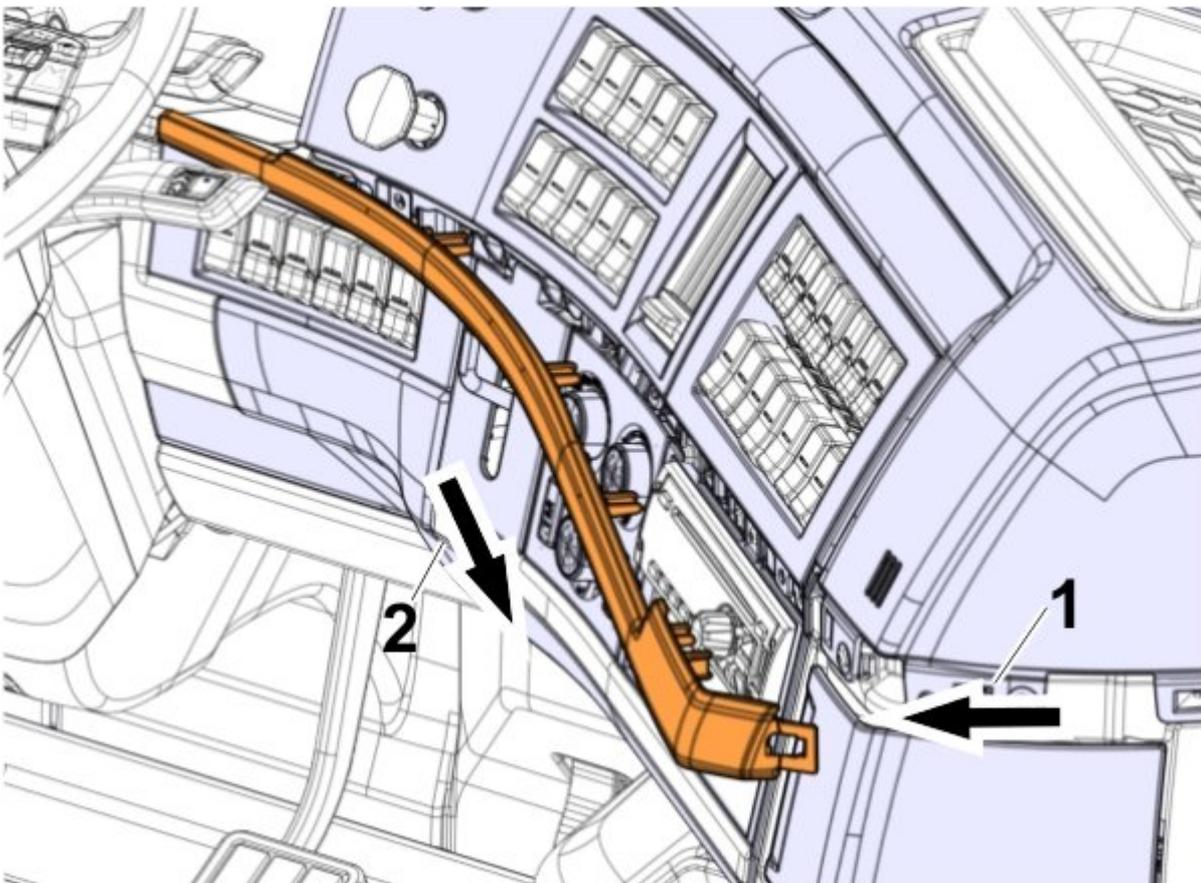
5 Disconnect the cable from the negative terminal.



6	Remove the trim.
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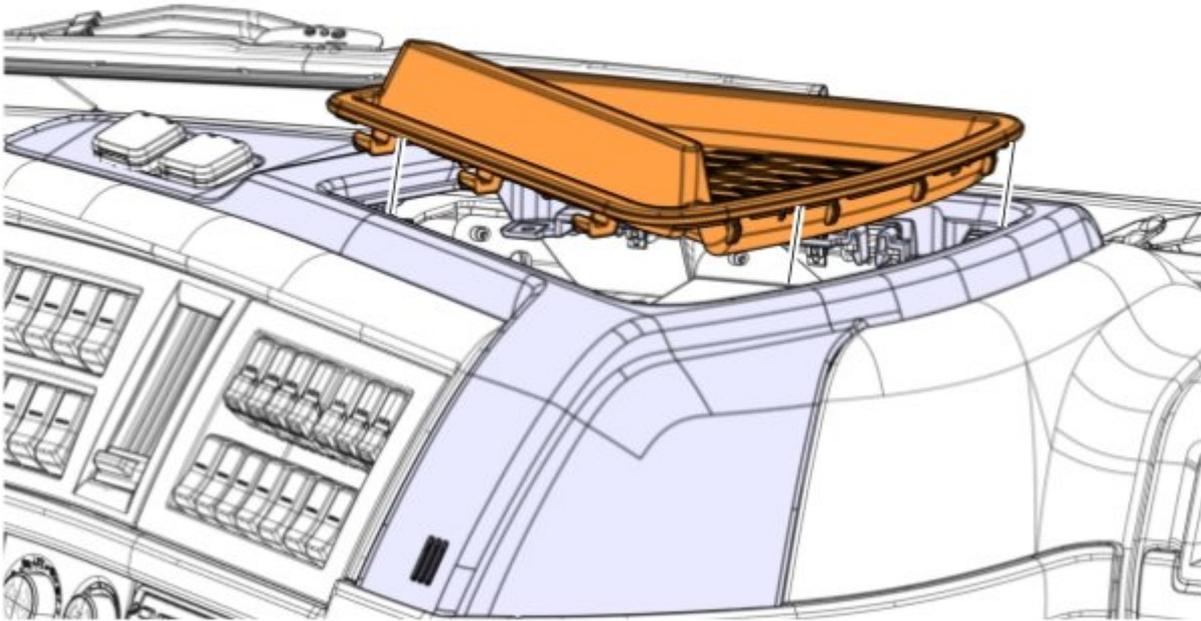
7	Remove the trim.
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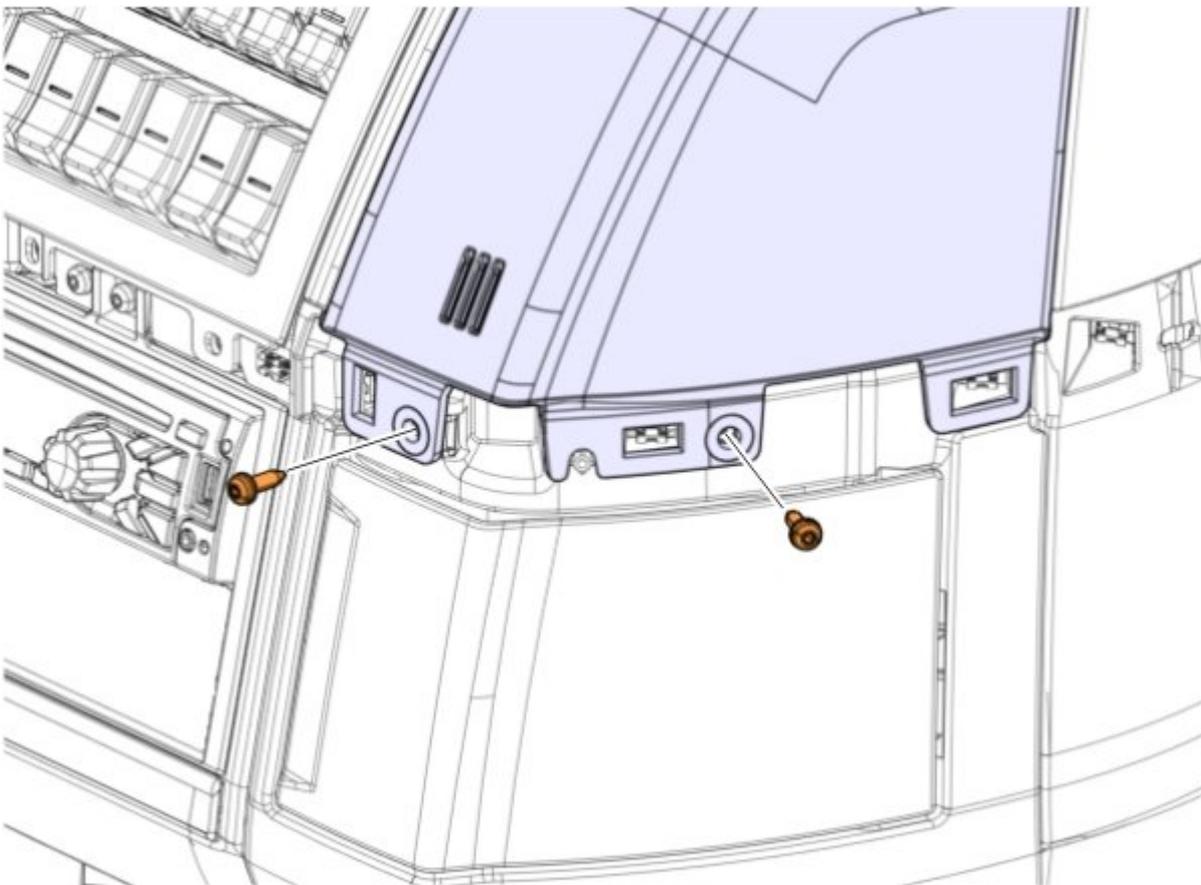
8	Remove the panel.
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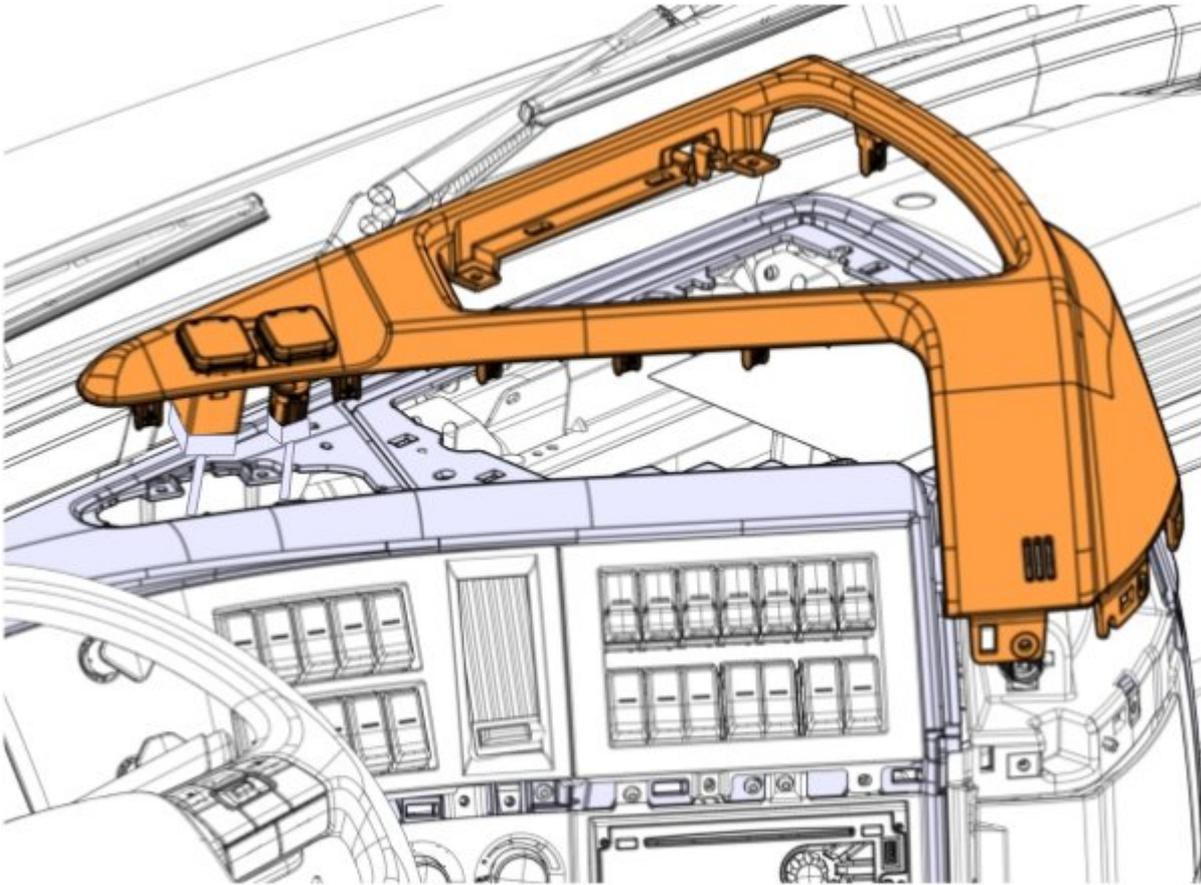
9	Remove the screws.
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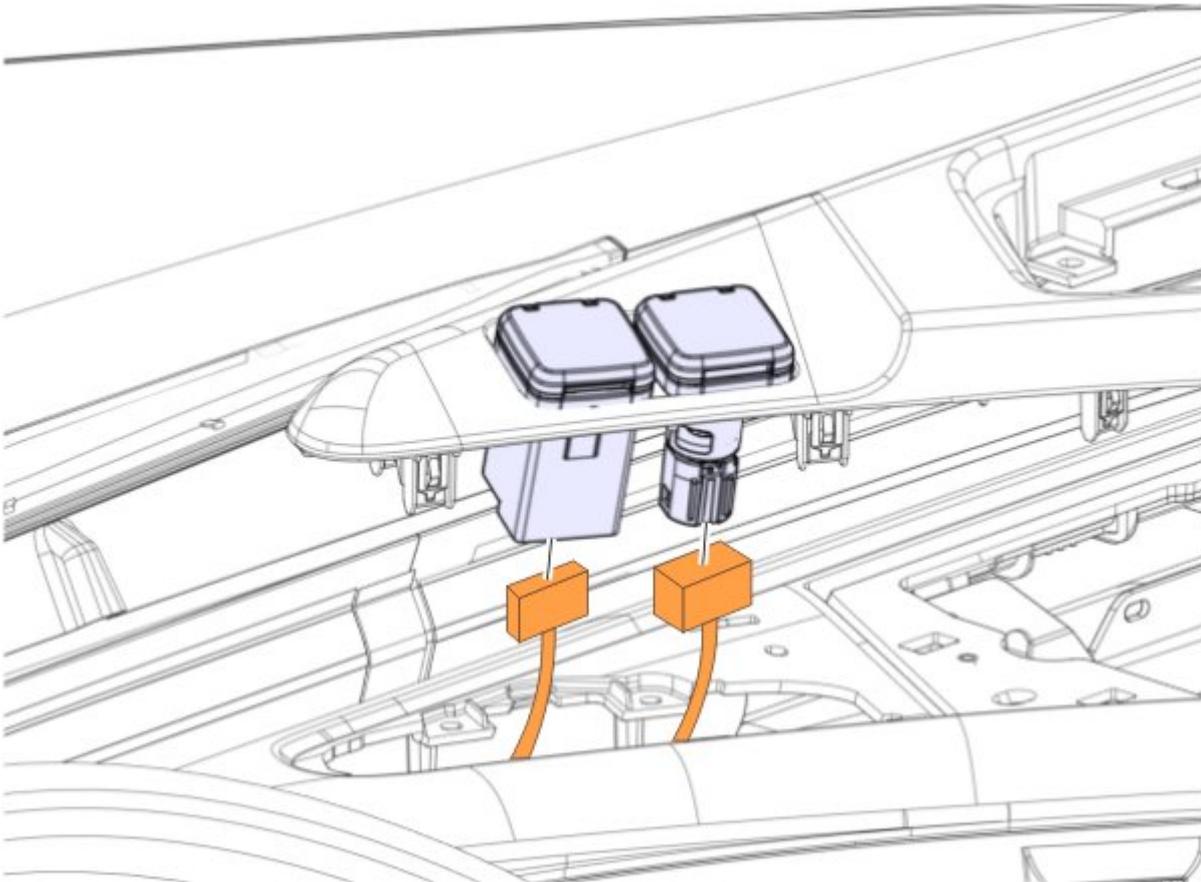
10	Remove the panel.
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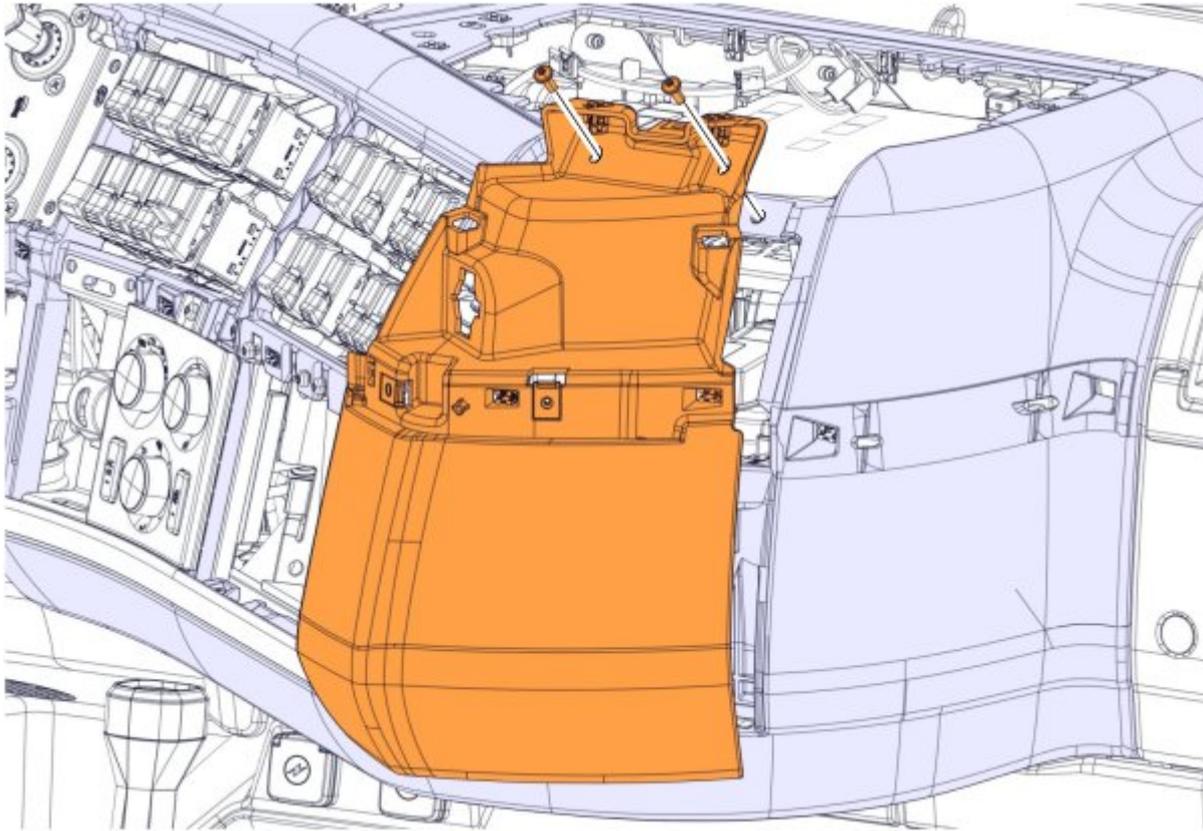


11	Disconnect the connectors.
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12	Remove the screws.
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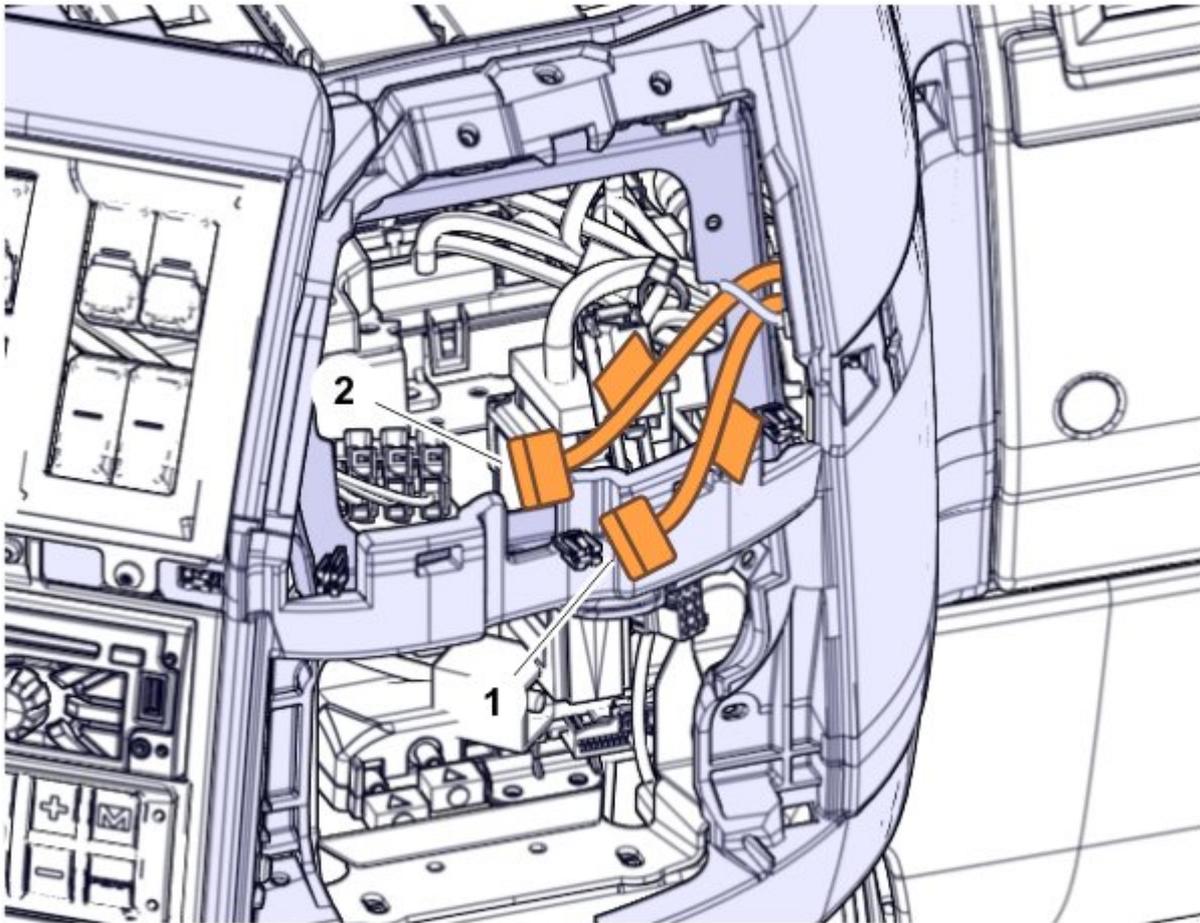
13 Remove the panel.



14 Identify the necessary cable harness connectors.

Power and Ground Connections

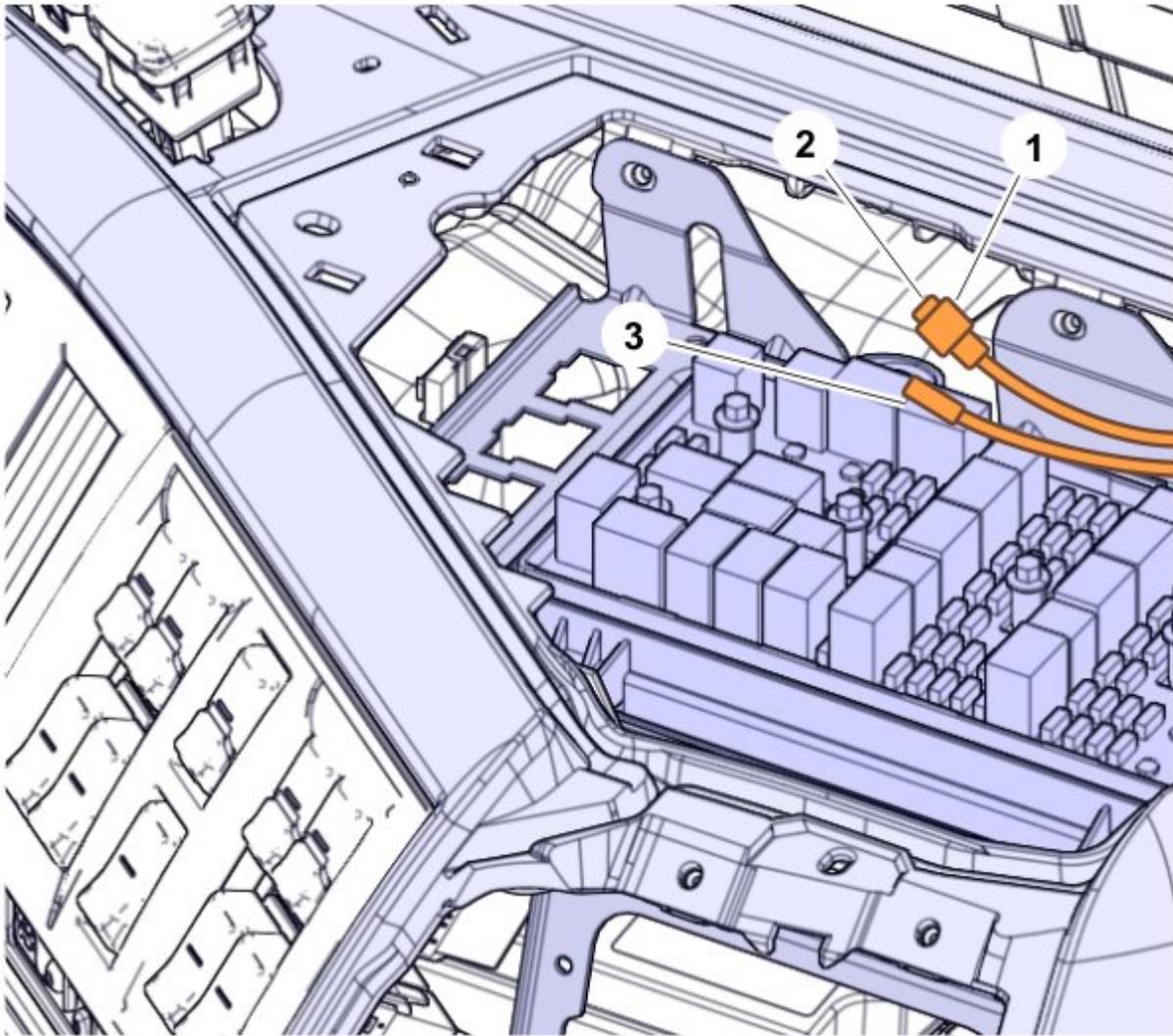
Item	Label Content	Description
1	F28-A BATT GND	Cab battery connection.
2	F32-D IGN GND	Cab ignition connection.



15 Identify the necessary cable harness connectors.

Data link Overlay Connections

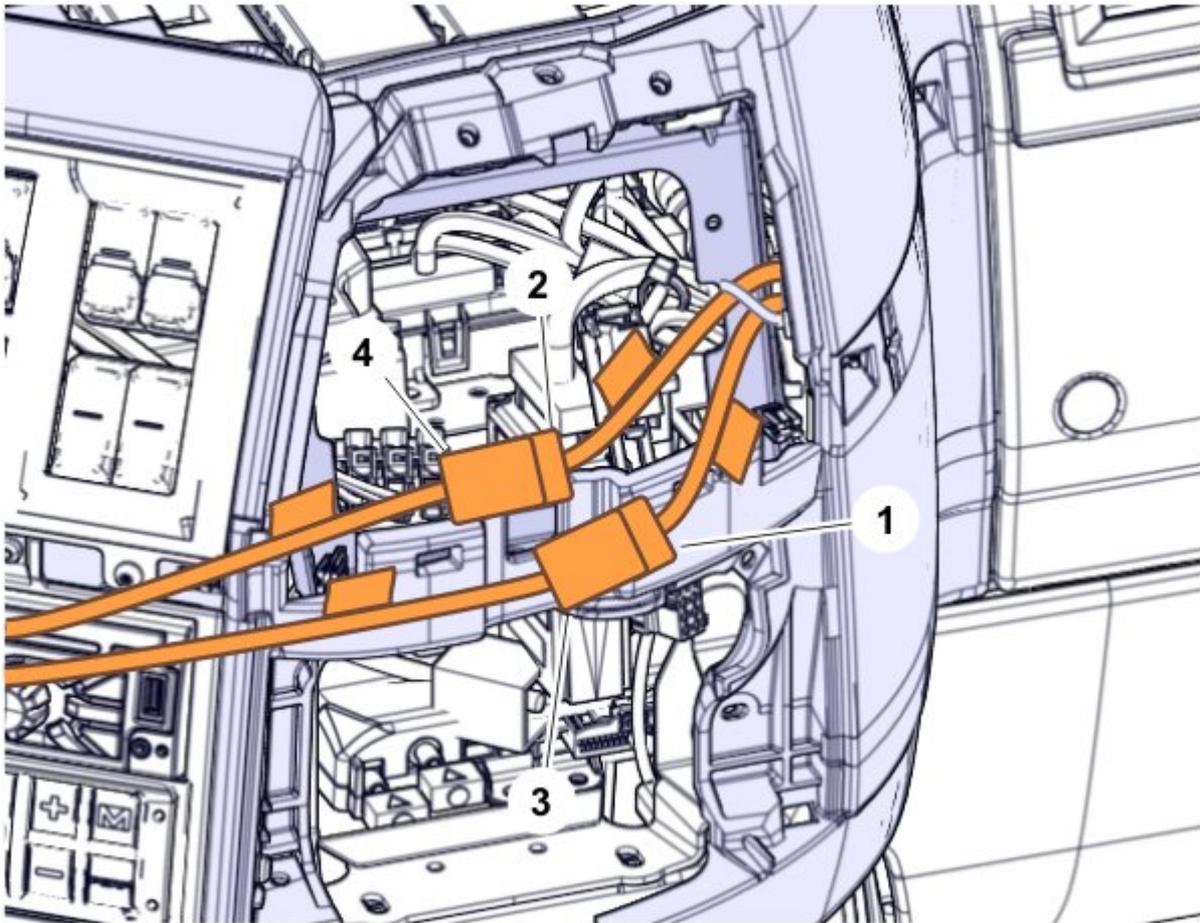
Item	Label Content	Description
1	DL1	J1939 connection
2	N/A	Terminating resistor
3	N/A	J1587 connector



16 Connect the connectors.

Data link Overlay Connections

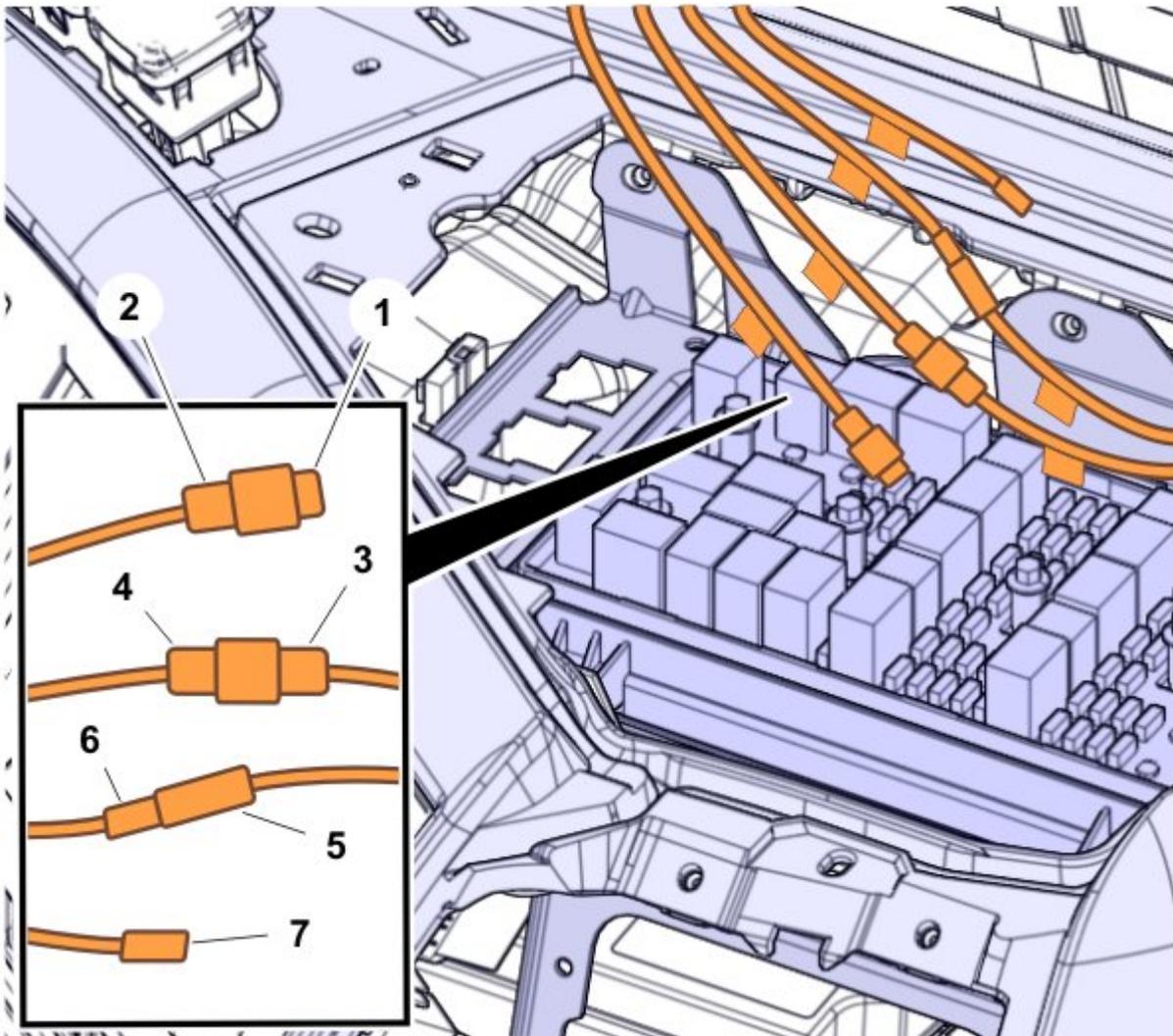
Item	Label Content	Description
1	F28-A BATT GND	Cab battery connection.
2	F32-D IGN GND	Cab ignition connection.
3	BATT	Overlay harness battery connection.
4	IGN	Cab ignition power connection.



17 Transfer the terminating resistor to the overlay cable harness.

18 Connect the connectors.
Power and Ground Connections

Item	Label Content	Description
1	N/A	Terminating resistor. Note Transferred from cab harness J1939 connector.
2	TERMINATING RESISTOR	Overlay harness terminating resistor connection.
3	DL1	Cab harness J1939 connection.
4	J1939	Overlay harness J1939 connection.
5	N/A	Cab harness J1587 connection.
6	J1587	Overlay harness J1587 connection.
7	FUTURE J1587	Spare J1587 for future use.



19 Install new fuses into the FRC (Fuse and Relay Centre).

Fuses

Fuse Location	Fuse Type
F28	10 amps
F32	10 amps

20 Route the wiring harness.

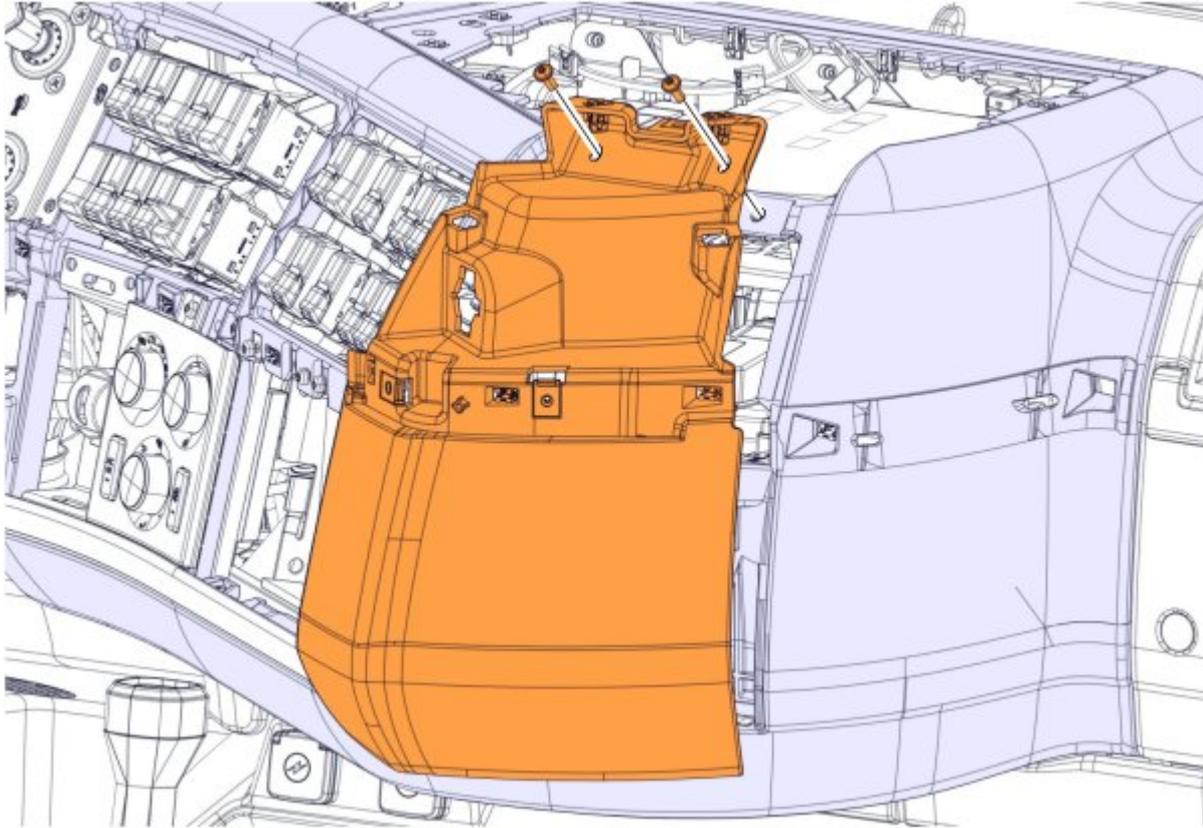
i **Note**
Ensure that the cable harness does not rub along any sharp edges.

21 Install the panel.

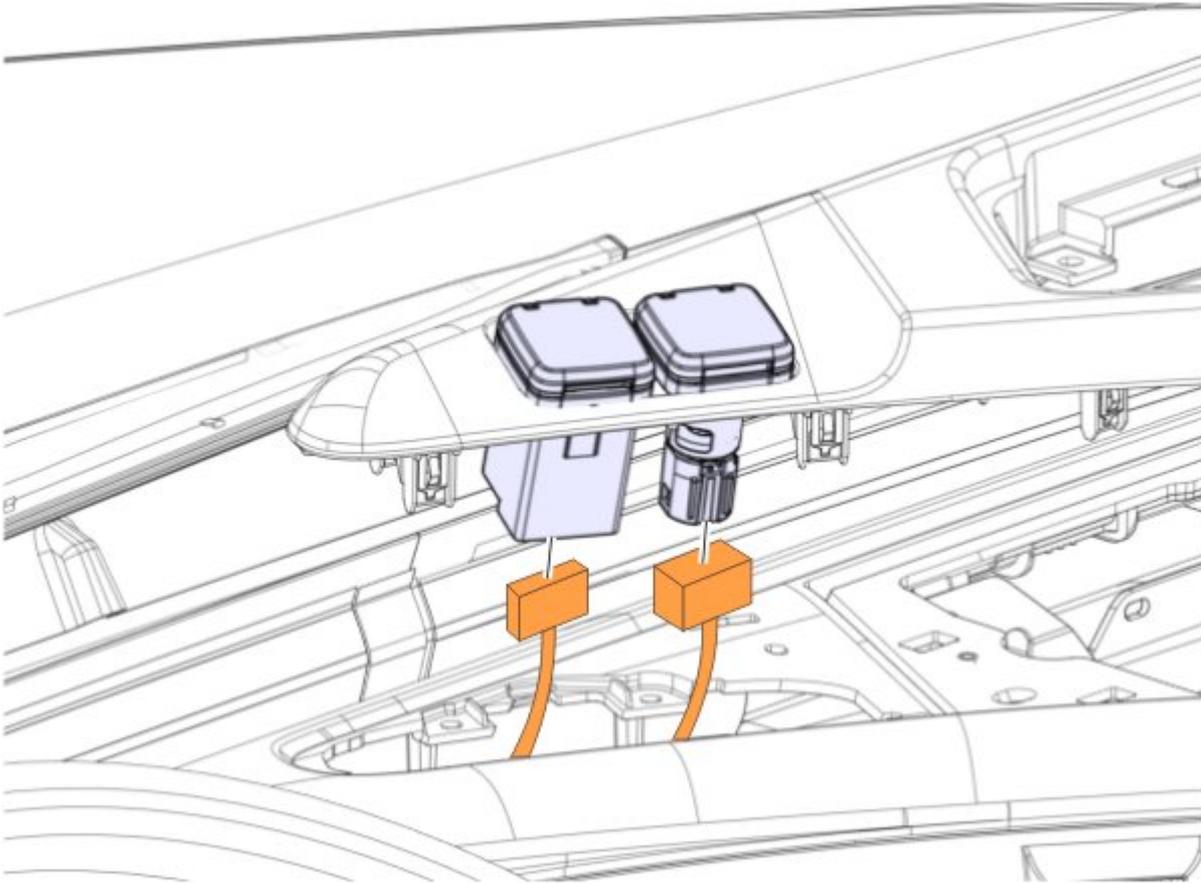
22 Install the screws.

23 Torque-tighten the screws.

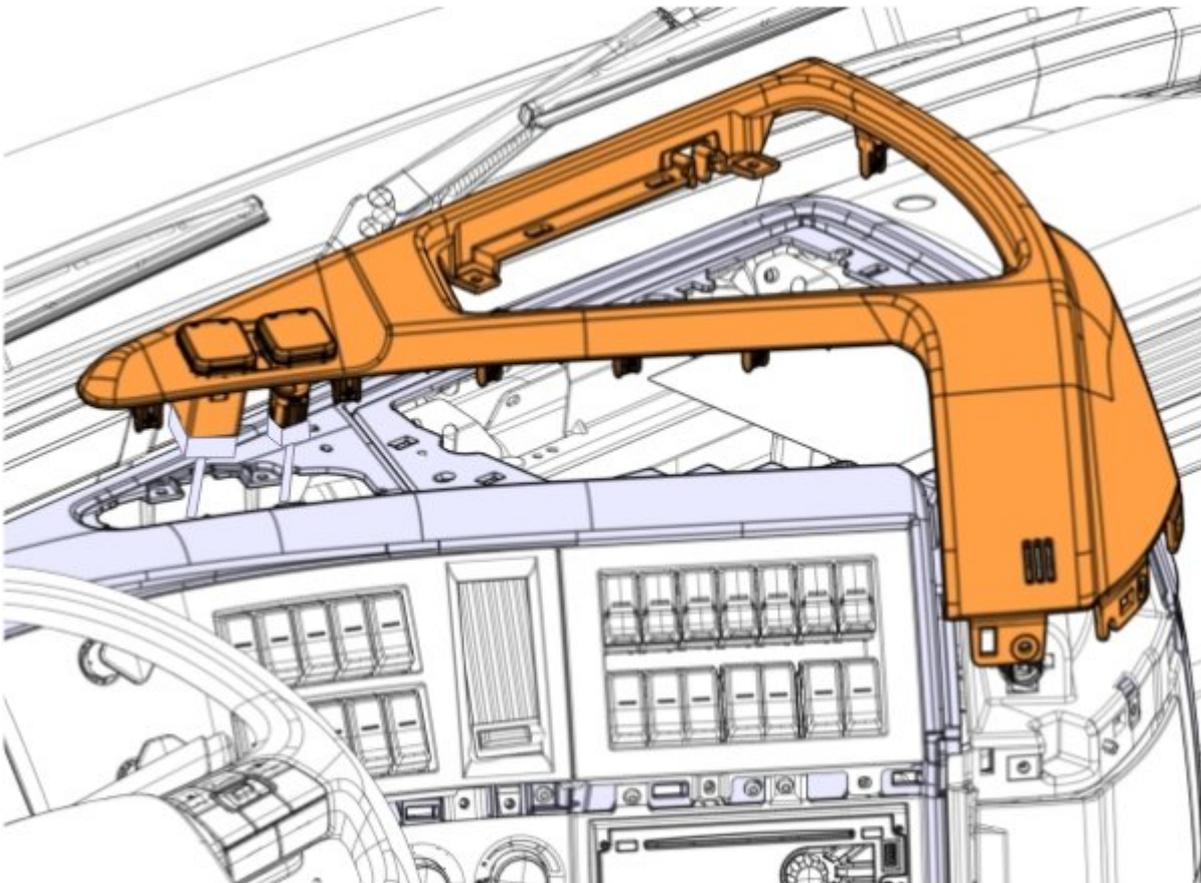
Tightening torque	
Dashboard, panel, screw	M5
	8 ±2 Nm (6 ±1 lb _f -ft)



24	Connect the connectors.
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25	Install the panel.
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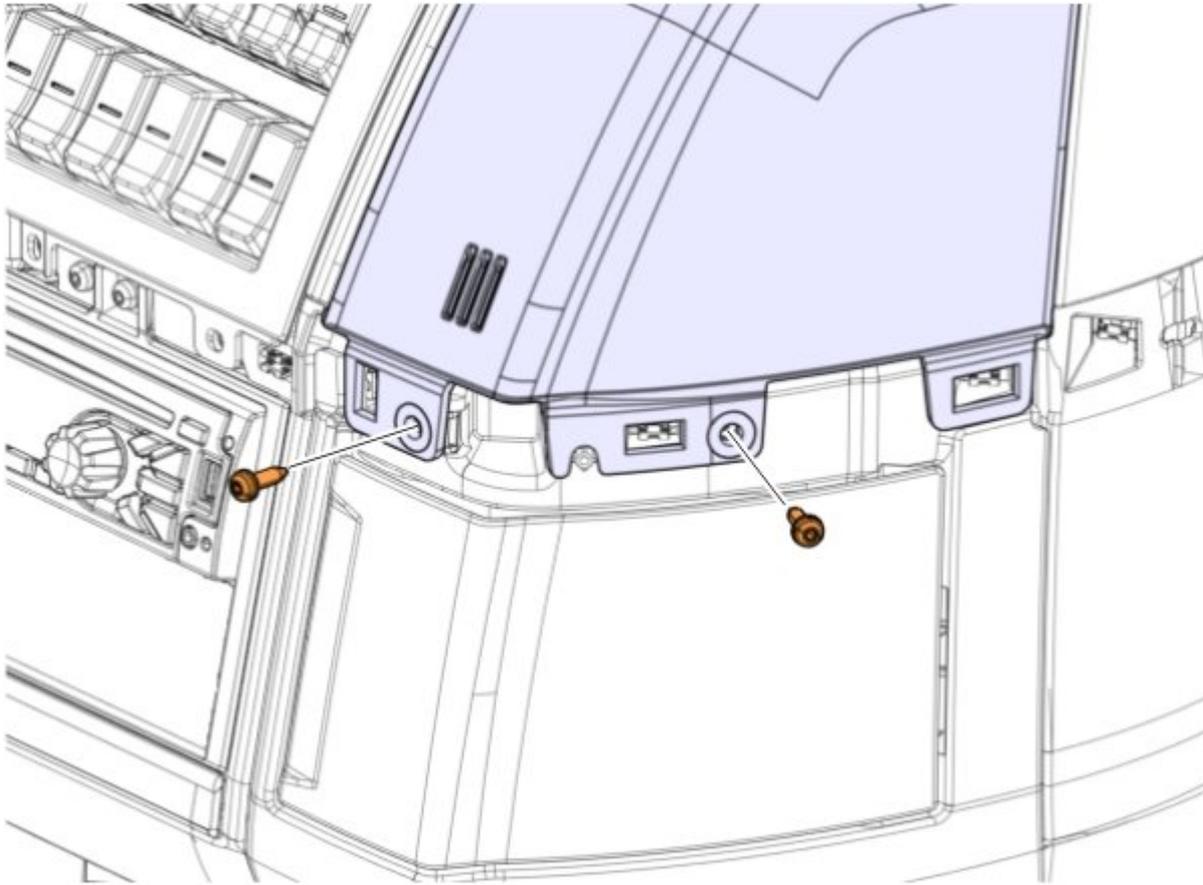


26	Install the screws.
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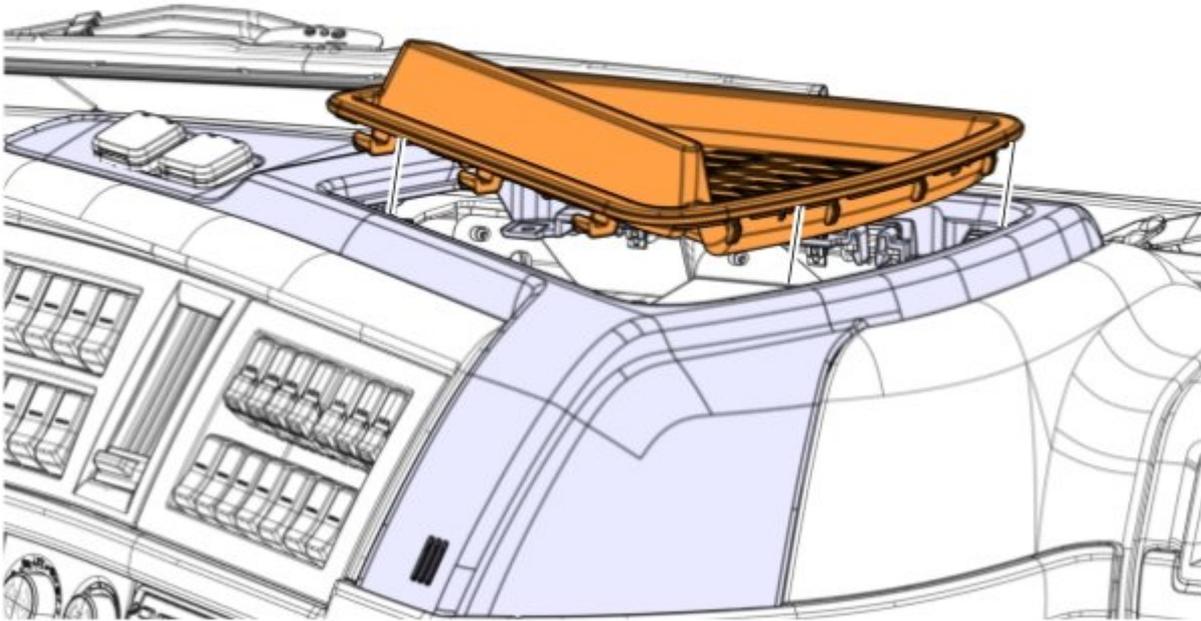
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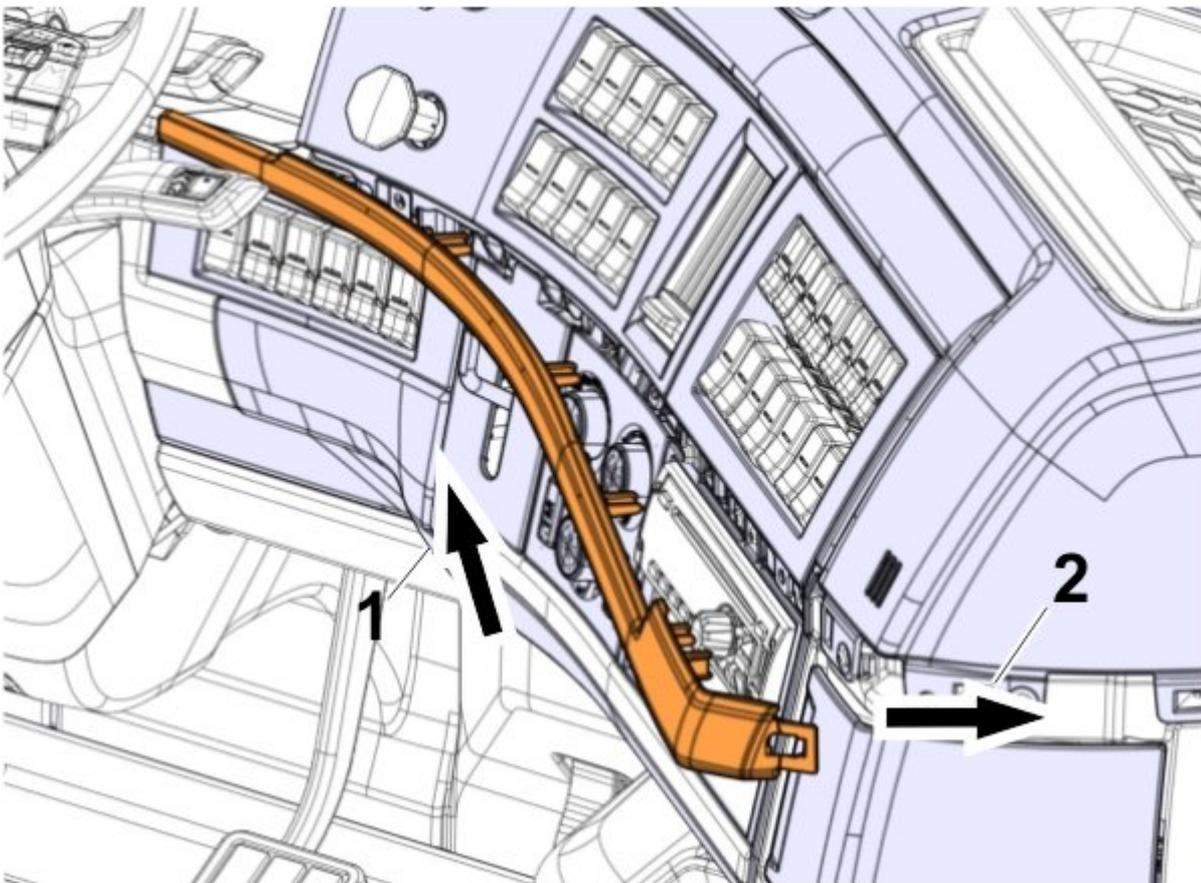
27	Torque-tighten the screws.	
	Tightening torque	
	Screw	M5
		3.1 ±0.8 Nm (27 ±7 lb _f ·in)



28	Install the panel.
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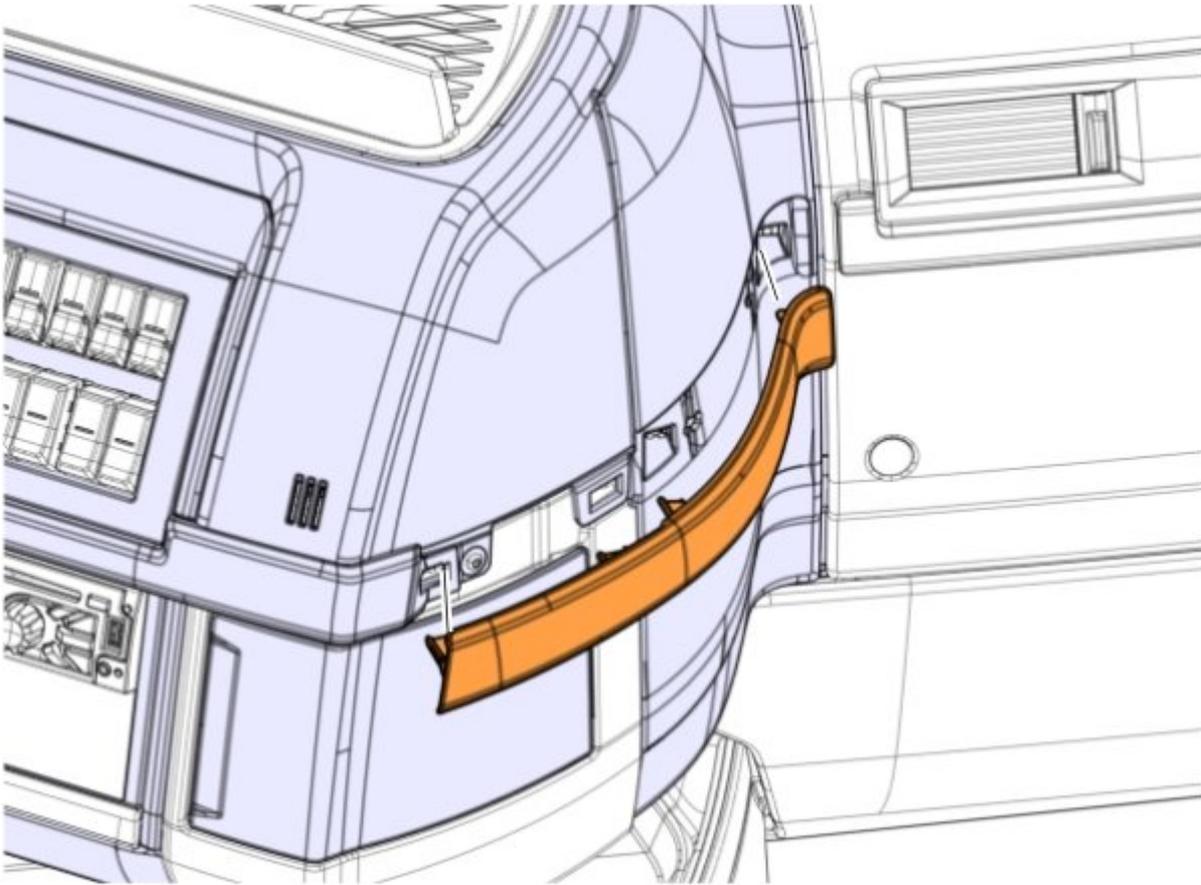
29	Install the trim.
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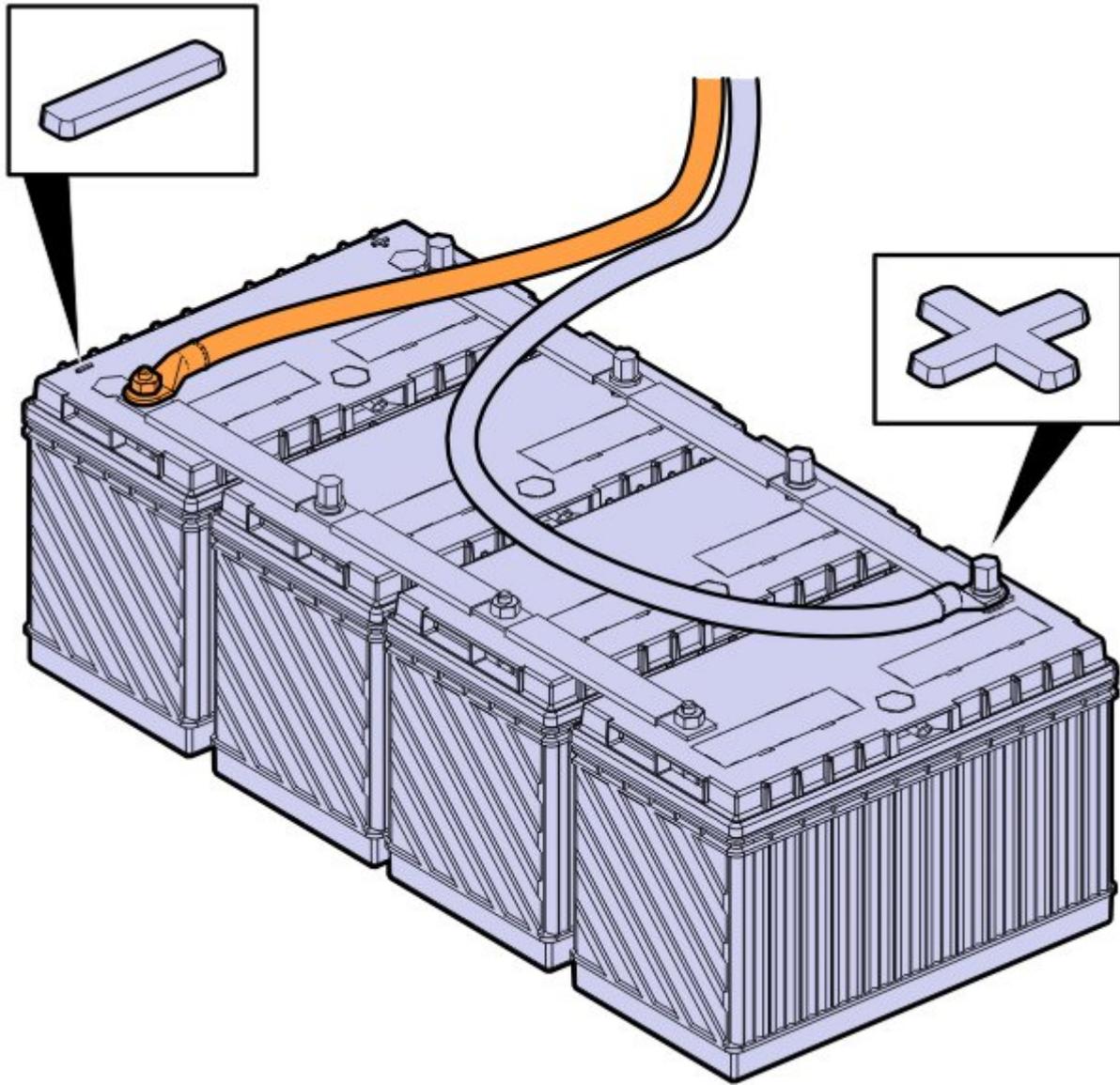
30	Install the trim.
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31	Connect the cable to the negative terminal.
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32	Remove the wheel chocks.
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