

Heavy Commercial Vehicles

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

Subject	Installation Procedure of DTCO 4.1a Tachograph on F-Max Vehicles.
Model	F-Max Vehicles
Abstract	This bulletin outlines the procedures, required parts, and technical details for installing the DTCO 4.1a tachograph in F-Max vehicles.

General Information:

- The Transitional Tachograph was introduced due to delays in the European Union's OSNMA(Open Service Navigation Message Authentication) service. According to Regulation (EU) 2023/980

Starting from December 24, 2025, newly registered vehicles will be required to have a new-level tachograph and GNSS antenna with OSNMA capability, and vehicles with old-level tachographs without OSNMA capability will not be allowed to be registered.

- In order to use OSNMA services, the GNSS antenna installation described in this TSB must be done on the vehicles. **All related costs will be covered by the importers. Labor codes will not be claimed and are provided solely for time estimation purposes.**
- **This TSB applies only to vehicles manufactured before July 24, 2025 for non-ADR vehicles and before April 14, 2025 for ADR vehicles, and that will be registered after December 24, once the regulation takes effect.**
- For non-ADR vehicles manufactured between April 22 and July 24, only tachograph replacement is required. The GNSS antenna and its harness were installed during production, and the existing harness has the blue Fakra connector taped in place.
- **To support you in this process, we have applied special discounts on the relevant parts: RC46 17A266 AB (wo/ADR), RC46 17A266 BB (w/ADR)**

1. Labour For Vehicles manufactured before March 17 (All Vehicles)

Labour Name	Duration	Description
DTCO 4.1a Tachograph Replacement	0.1	All
*External GNSS Antenna R/I (Including jumper wire connection to tachograph)	0.3	F-Max vehicles without body modification
External GNSS Antenna R/I (trimming & adhering)	0.3	F-Max vehicles without body modification
Upper IP Cover R/I (Mussel)	0.16	All
A Pillar Cover R/I	0.16	All
Total Duration	1.02	

Vehicles without Body Modification

2. Labour For Vehicles manufactured between March 17 and April 22 (Non-ADR)

Labour Name	Duration	Description
DTCO 4.1a Tachograph Replacement	0.1	Vehicles with DTCO 4.1
*External GNSS Antenna R/I (Including jumper wire connection to tachograph)	0.3	F-Max vehicles without body modification
External GNSS Antenna R/I	0.1	F-Max vehicles with body modification
Upper IP Cover R/I (Mussel)	0.16	All
A Pillar Cover R/I	0.16	All
Total Duration	0.82	

Vehicles with antenna hole, without GNSS antenna & harness

3. Labour For Vehicles manufactured between March 17 and April 14 (ADR Vehicles)

Labour Name	Duration	Description
DTCO 4.1a Tachograph Replacement	0.1	Vehicles with DTCO 4.1
*External GNSS Antenna R/I (Including jumper wire connection to tachograph)	0.3	F-Max vehicles without body modification
External GNSS Antenna R/I	0.1	F-Max vehicles with body modification
Upper IP Cover R/I (Mussel)	0.16	All
A Pillar Cover R/I	0.16	All
Total Duration	0.82	

4. Labour For Vehicles manufactured between April 22 and July 24 (Non-ADR)

Labour Name	Duration	Description
DTCO 4.1a Tachograph Replacement	0.1	Vehicles with DTCO 4.1

If the vehicle is ADR-compliant, the tachograph must be RC46 17A266 BB level. Therefore, no action is required on ADR vehicles; it is sufficient to check whether the blue Fakra connector behind the tachograph is properly connected.

Parts to be Used

Part Number	Part Name	Number of Parts to be Used	Description
RC46-17A266-BB	DTCO 4.1a W/ ADR	1	For vehicles manufactured before April 14
RC46-17A266-AB	DTCO 4.1a W/O ADR	1	For vehicles manufactured before July 24
SC46-19C175-AA	External GNSS Antenna	1	For vehicles manufactured before April 22
TC46-18812-BHA	GNSS Harness	1	For vehicles manufactured before April 22
TC46-18812-BJA	Jumper Harness	1	For vehicles manufactured before April 22
PM2T14-3956-AA	Sealer	As Required	For vehicles manufactured before March 17

The implementation dates of the Tachograph, GNSS Antenna, IP holes for the Antenna to be installed and Harness changes are specified in the table above.

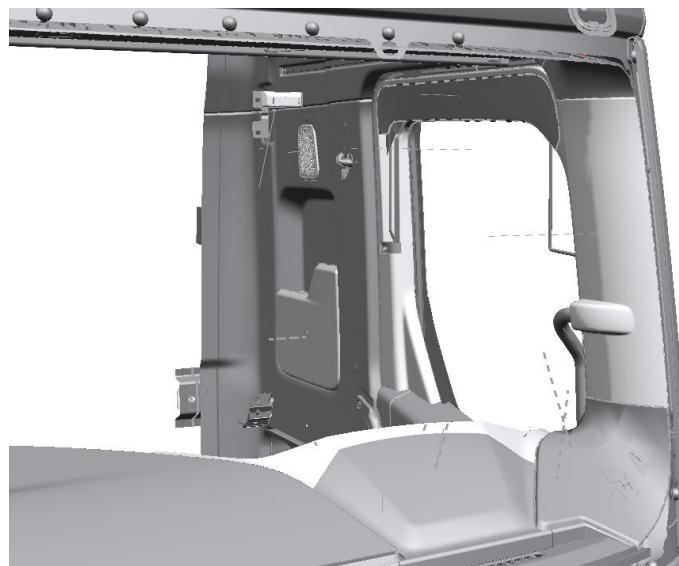
For non-ADR vehicles, the latest part number is RC46 17A266 AB, while for ADR vehicles it is RC46 17A266 BB. Before starting rework, the tachograph part number must be checked. If the part number differs from the specified one, tachograph replacement will be required. The tachograph level can also be identified by the blue GNSS connector at the back; AA and BA level tachographs do not have this connector.

Service Procedure:

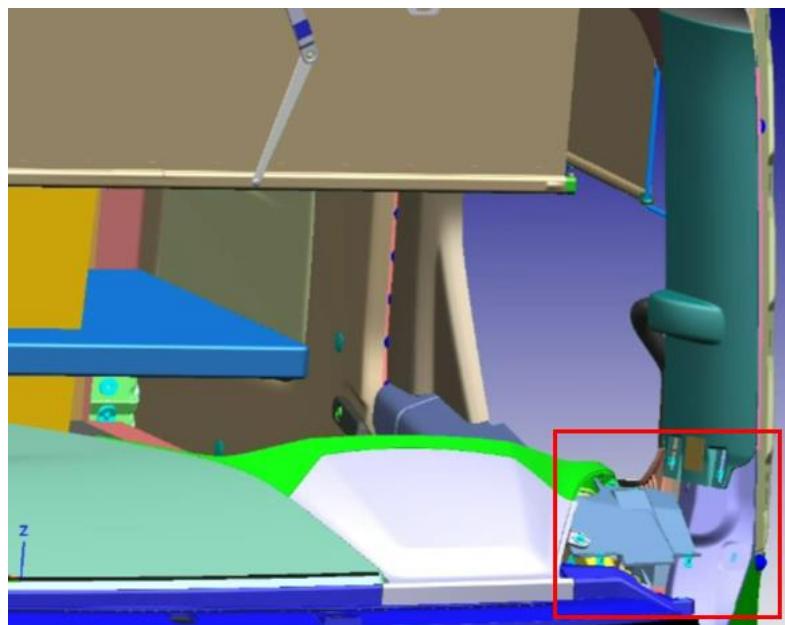
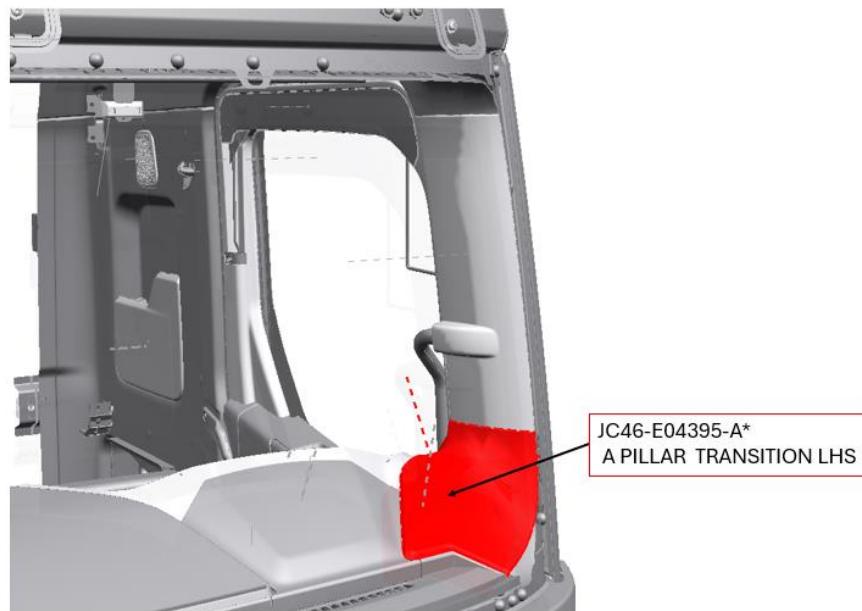
This document provides two different installation procedures for the DTCO 4.1a tachograph, depending on whether there are antenna mounting holes on the vehicle's IP substrate. If there are no antenna mounting holes on the substrate, the antenna should be mounted by breaking the clips on the mounting surface and adhering it in place.

Vehicles which produced after April 22

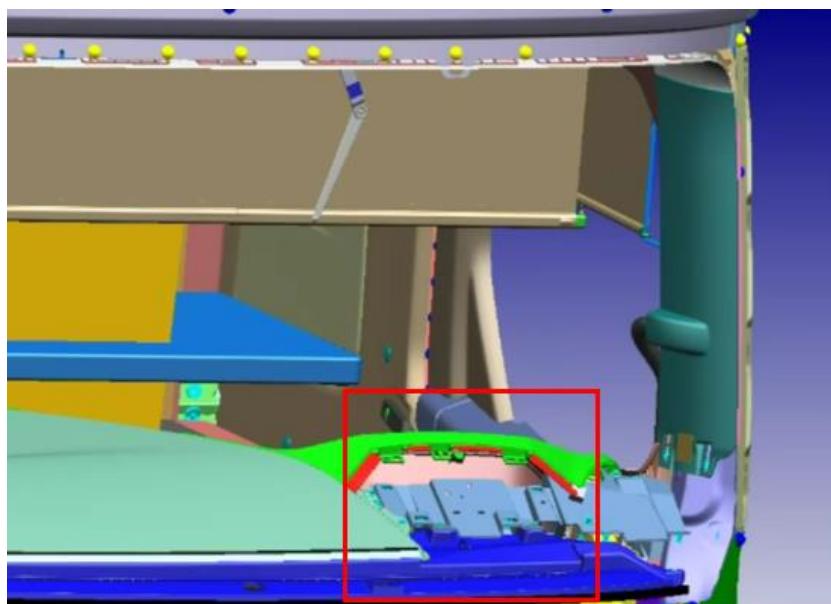
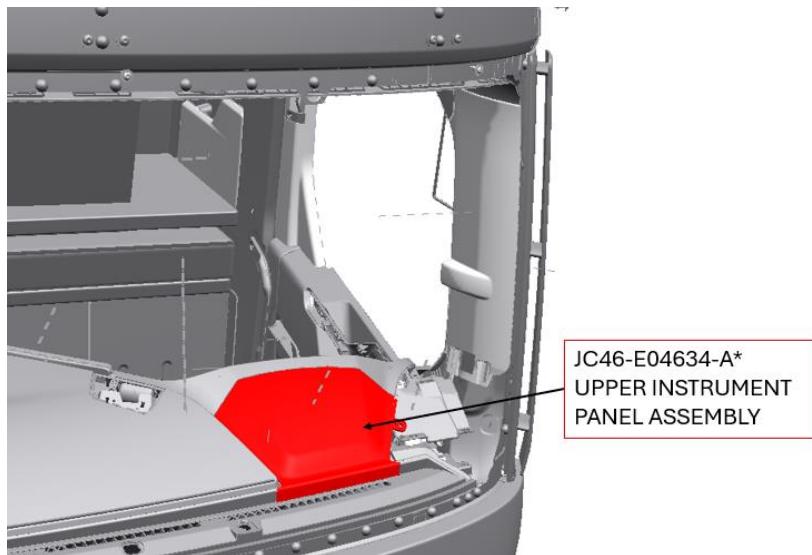
- Firstly, the A pillar trim parts on the driver's side should be removed.



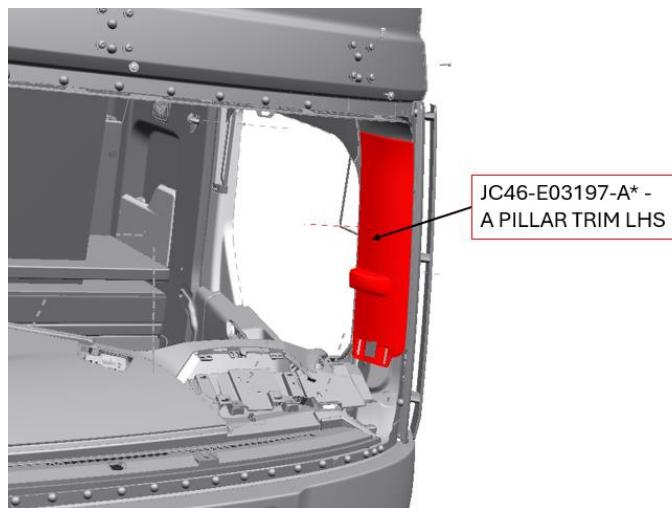
- The disassembly process should begin with the left A-Pillar transition part, part number JC46-E04395-A*.

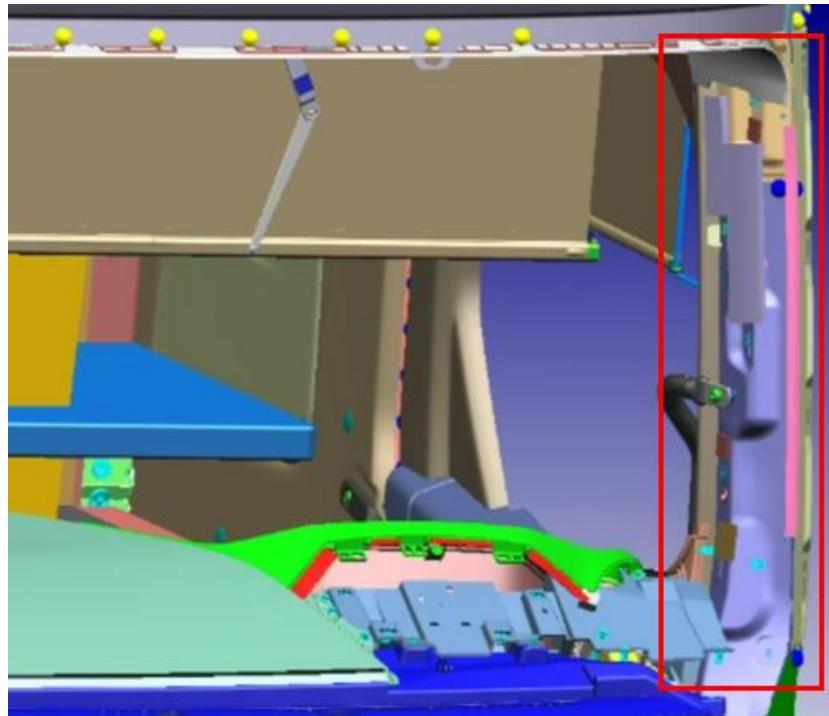


- Next, the upper instrument panel part in the shape of a mussel, part number JC46-E04634-A*, should be removed.

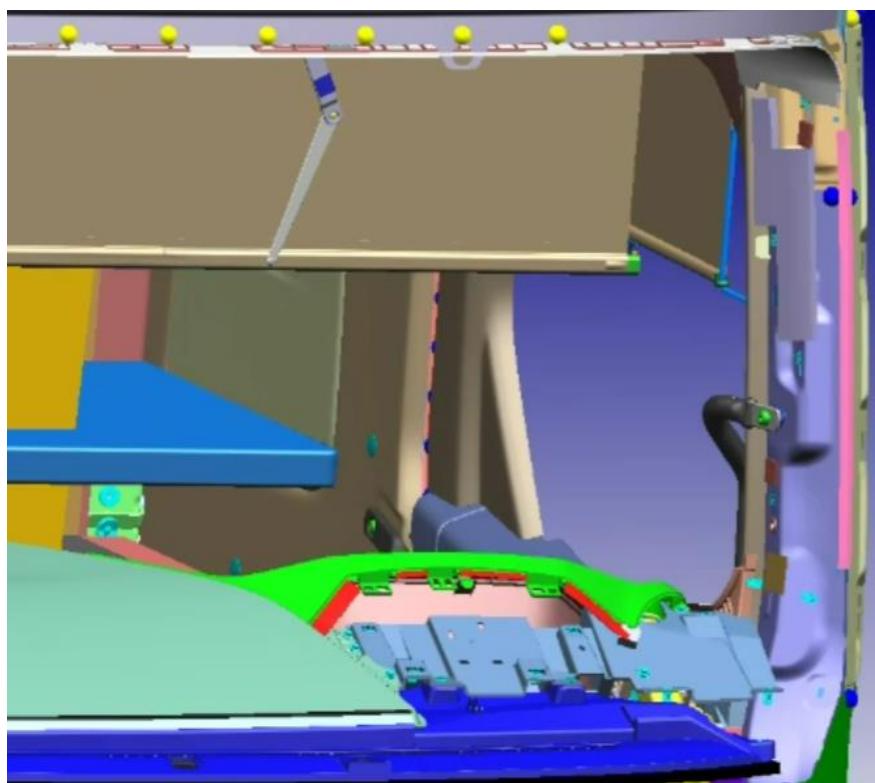


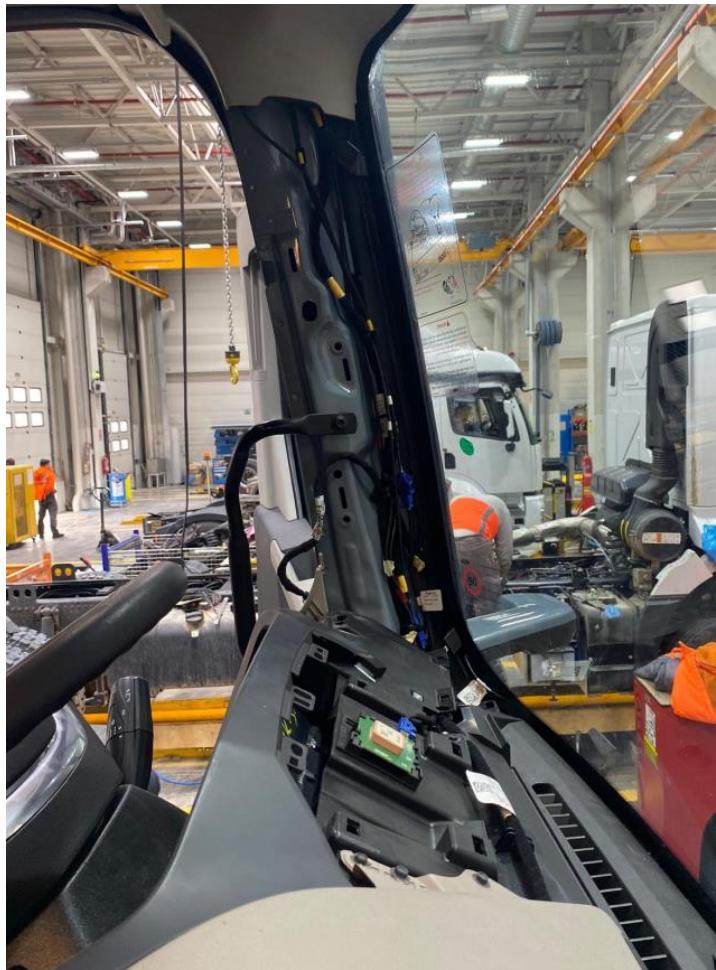
- Finally, the left A trim part with part number JC46-E03197-A* should be removed.



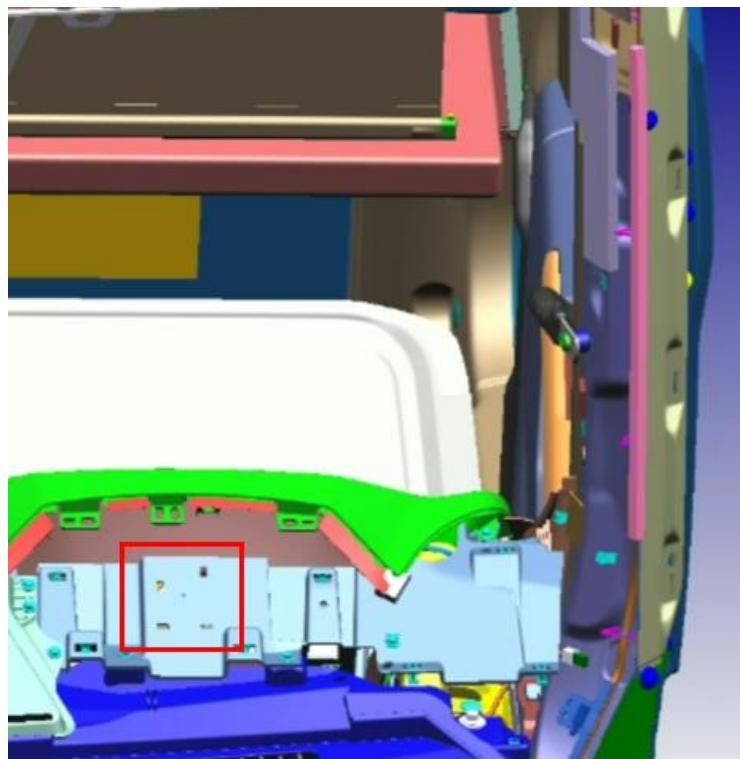


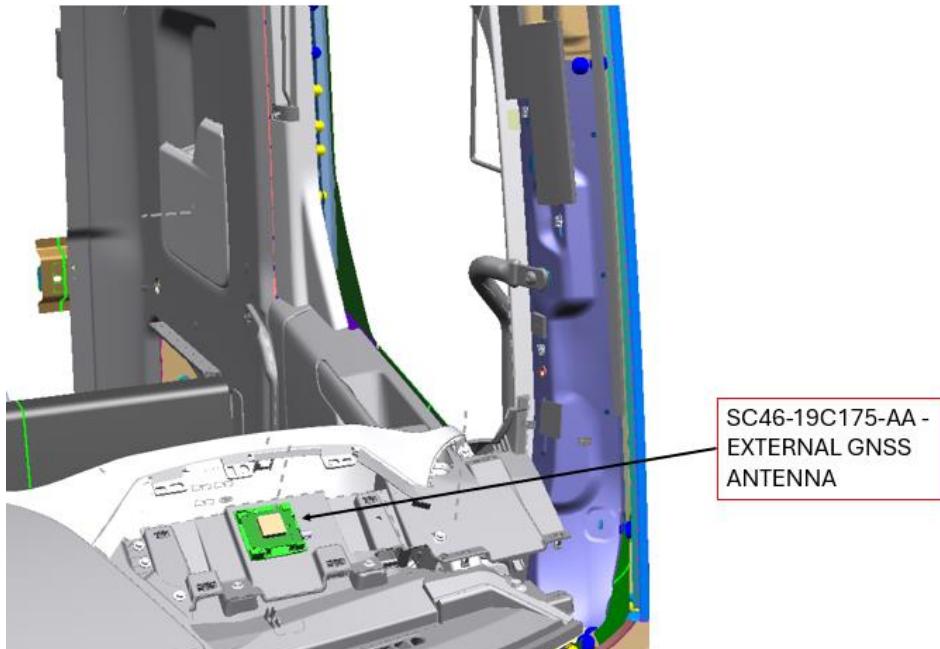
- In the final stage, the A Pillar appearance will be as shown below.



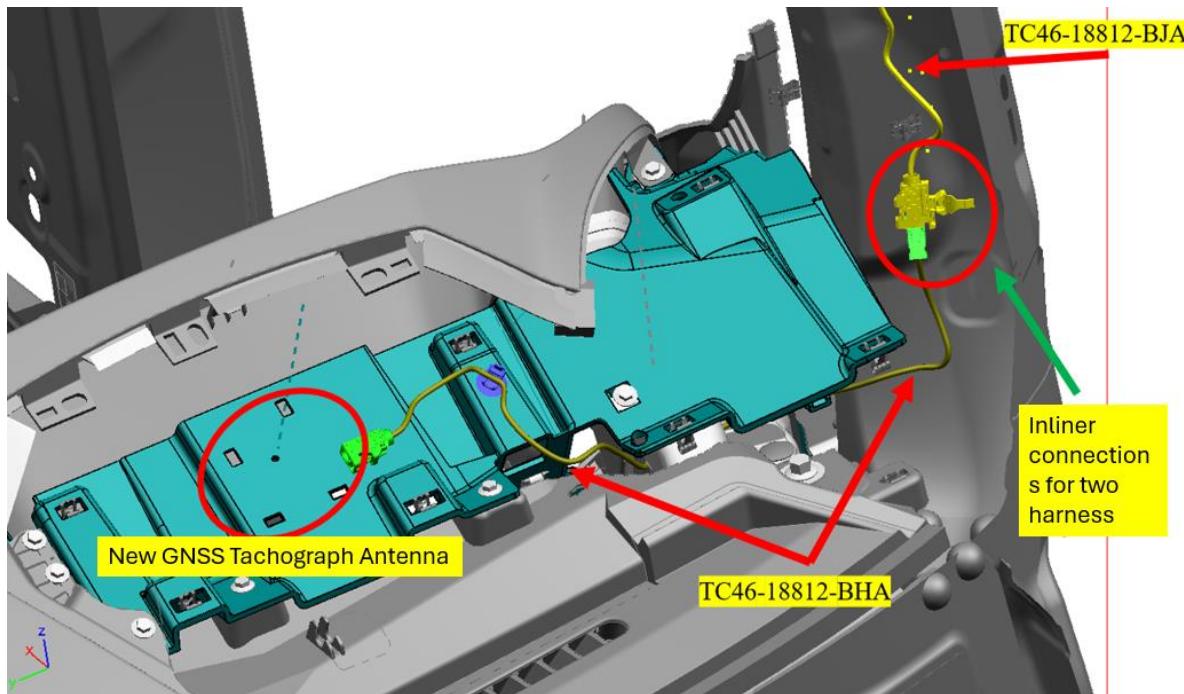


- The new external GNSS antenna with part number SC46-19C175-AA, which will be mounted on the DTCO 4.1a tachograph, should be installed by attaching it to the holes on the bracket under the upper IP cover trim which is mussel shaped, as shown below.

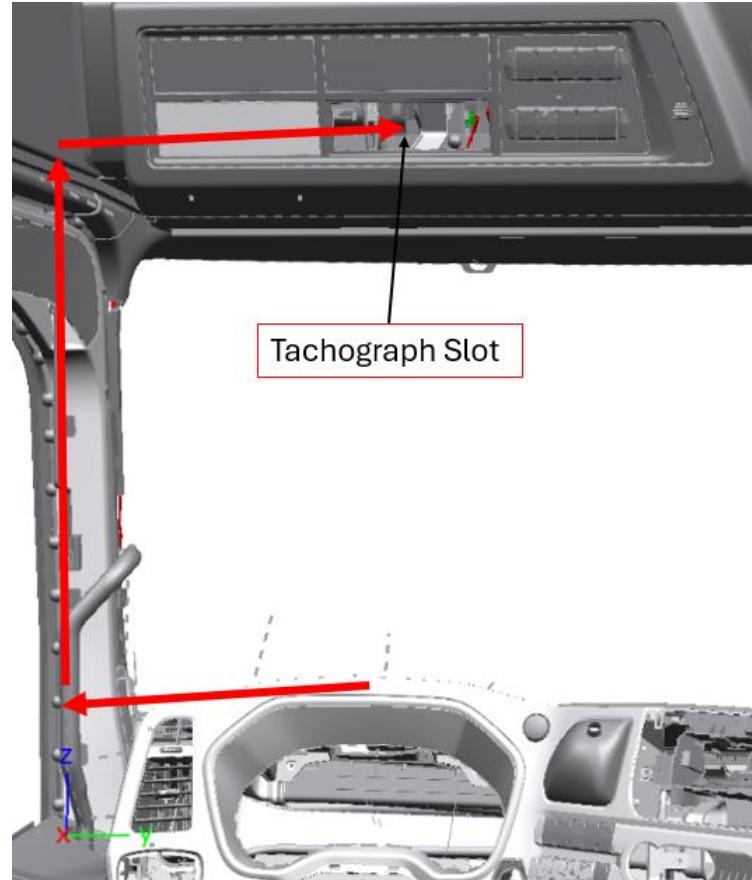




- The GNSS antenna wiring with part number TC46-18812-BHA, which will be connected to the antenna, and the TC46-18812-BJA wiring, which will be installed along the A pillar to reach the tachograph, should be mounted along the designated route as shown in the image below. It is important to secure the wiring at regular intervals to the 14401 dashboard wiring using tape, to follow the route and prevent excess cable and vibration issues.

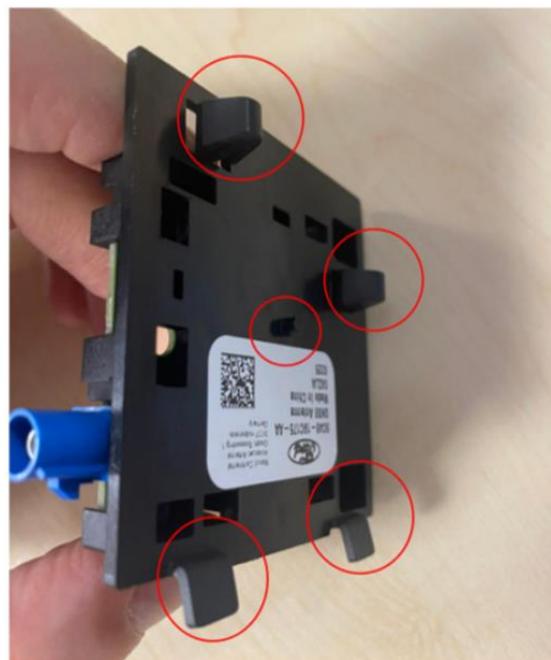


The new GNSS antenna wiring to be installed on the DTCO 4.1a tachograph should be routed along the A pillar and, with the help of a tool, brought to the headliner area. To allow the cable to pass through the marked area, first a guide air hose or another cable must be routed through the A pillar up to the beginning of the A-pillar. Then, the TC46-18812-BHA should be taped to the end of this air hose and pulled carefully through to the A-pillar opening without causing any damage.

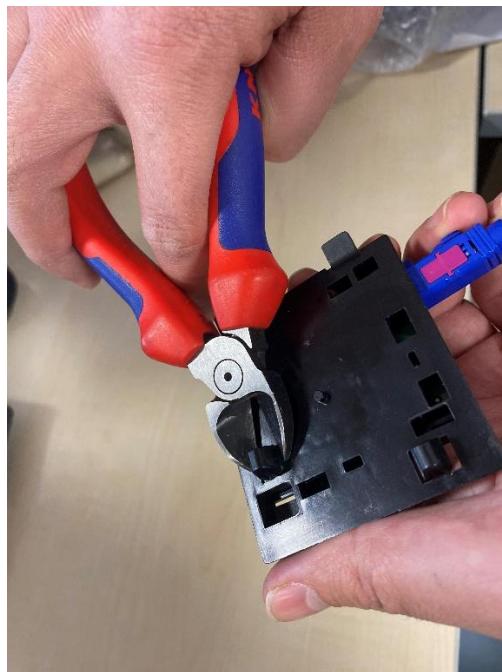


If there are no holes on the substrate for securing the antenna's tabs, the following guideline must be applied.

- Firstly, the antenna's tabs must be removed to smoothen the underside for adhesion. Care must be taken during this process to avoid damaging the antenna PCB.



- If any protrusion remains, the surface must be filed down.



- Once the surface is smoothed as shown in the photo, the antenna will be ready for adhesion.



- Apply the sealer with PM2T14-3956-AA part number to the antenna surface, then adhere it to the substrate.



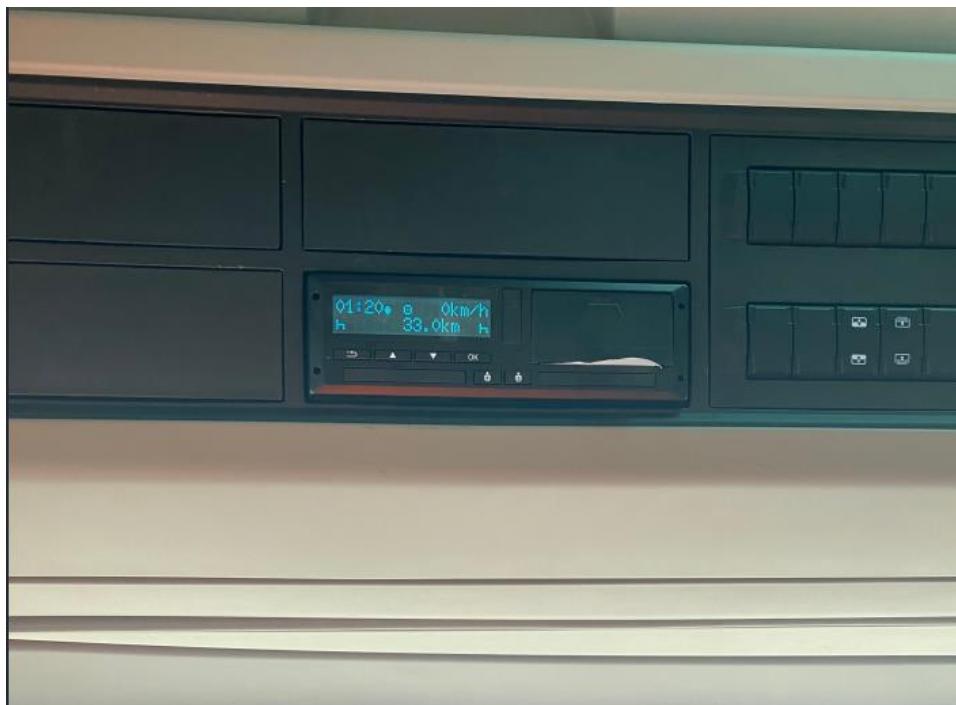
- Adhere the antenna to the substrate as shown in the photo, and avoid moving it until the adhesive has dried. Then, attach the antenna socket.



- In the following process, the GNSS antenna wiring with part number TC46-18812-BHA will be connected to the GNSS antenna, and the TC46-18812-BJA jumper wiring, which will be routed along the A pillar to the tachograph, will be connected to the inline socket of the GNSS antenna wiring and mounted towards the tachograph area as described in the document.

- The tachograph is located in the driver's overhead storage area in FMAX vehicles.

- **Tachograph Location in FMAX Vehicles:**



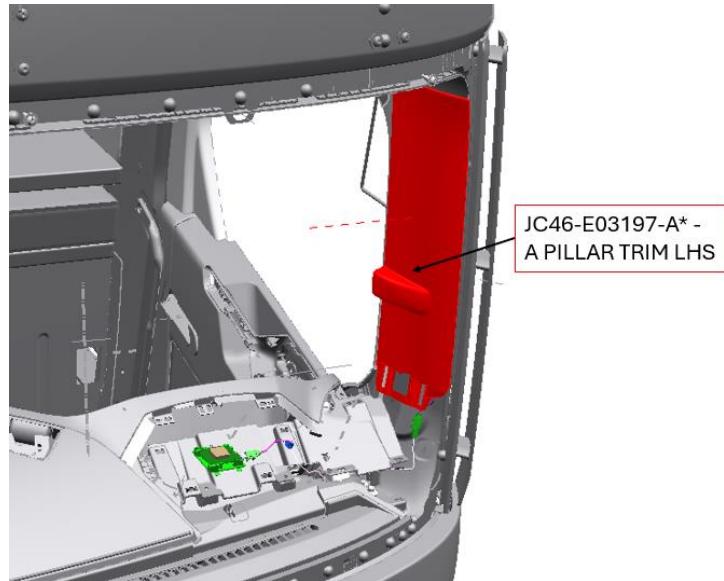
- After the existing tachograph is removed from the vehicle using the rod bars, the RC46-17A266-BB tachograph will be installed if the vehicle is ADR-compliant; otherwise, the RC46-17A266-AB tachograph will be installed.
- The following procedures must be applied for the installation of the DTCO 4.1a tachograph in FMAX vehicles:
- The electrical cable connections and antenna cable connectors must be removed from the old version tachograph in the vehicle. The same cable connections should then be attached to the newly installed tachograph. Additionally, the blue Fakra connector of the SC46-19C175-AA GNSS antenna should be connected to the external GNSS antenna slot of the new tachograph, as shown in the image below.



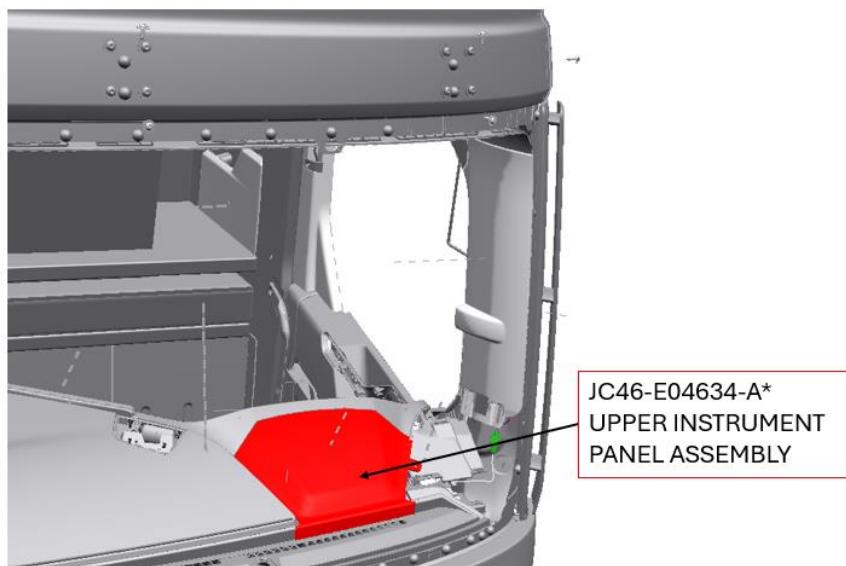
DSRC Antenna
**External GNSS
Antenna (New Added)**

- The DTCO 4.1a tachograph, with the socket and antenna connections made, will be installed into its designated slot.
- After the tachograph and GNSS antenna installation is completed, the removed trim parts must be reassembled in the following order:

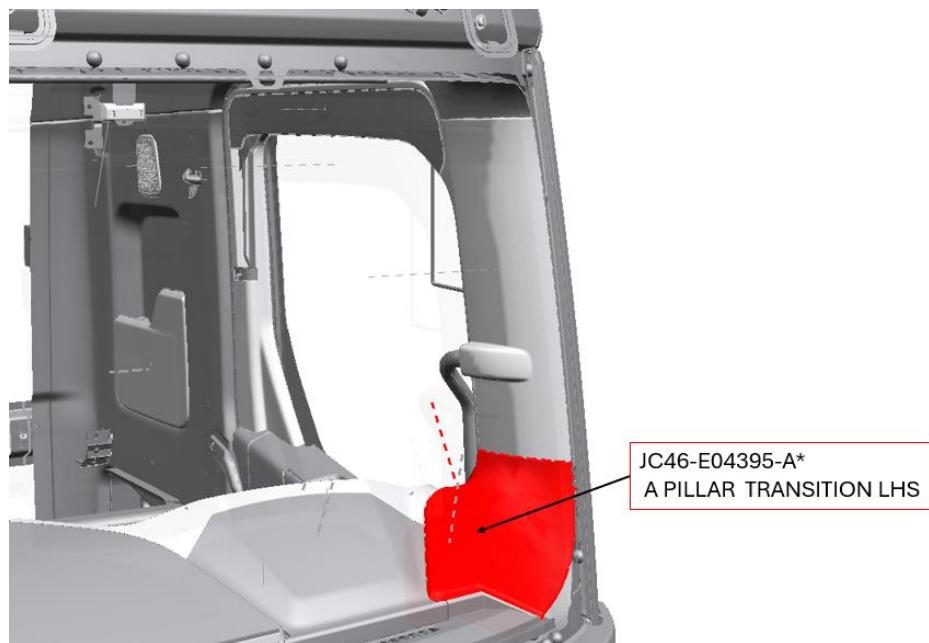
- First the left A-pillar trim part number JC46-E03197-A* is installed.



- Next, the upper instrument panel part in the shape of a mussel, part number JC46-E04634-A*, should be installed.



- Finally, the left A-Pillar transition part, part number JC46-E04395-A* should be installed.



Best Regards,
Ford Trucks Service Engineering
Ford Otomotiv San. A.S.