

Heavy Commercial Vehicles

Circulate to:	Service Manager	Warranty Manager	Parts Manager	Master Technician	Service Consultant
	✓	✓	✓	✓	✓

Subject	Regarding to Retrofit of Smart Tachograph DTCO 4.1
Model	H476 – H566 – H625
Summary	Replacement of smart tachograph from DTCO 4.0 to DTCO 4.1 version in line with the EU directives.

Labour

Labour Code	Labour Name	Labour Time (Hour)
33C039	Tachograph R/I	0,5
12C141	Transmission-Top Kitas Sensor R/I	0,8

Parts to be used

Part Number	Part Name	Part Qty
PC46-17A266-A*	DTCO 4.1	1
PC46-17A266-B*	DTCO 4.1 EXP (w/ADR)	1
JC46-7J268-D*	KITAS 4.0 (16 S MT Ecosplit4 ZF & IHT AMT/MT)	1
JC46-7J268-B*	KITAS 4.0 (12 S Traxon ZF & 9 S Ecotronic ZF AMT)	1
JC46-7J268-C*	KITAS 4.0 (9 S MT Eaton)	1

General Information;

New labor, social and traffic regulations come into force with the EU Mobility Package I. To better control and enforce these standards, a technically enhanced EU tachograph is required. As early as August 21, 2023, all newly registered vehicles over 3.5 tons must be equipped with the new 2nd-version tachograph generation (Gen2). DTCO 4.1 is a tachograph that meets all the necessary requirements.

DTCO 4.1 smart tachograph will record the position and time of border-crossings and will require the driver to record load/unload operations as well as load type (goods/passenger). It will also increase the record storage from 28 to 56 days to allow for the changes to roadside enforcement of driving hours and rest periods. The DTCO 4.1 smart tachograph provides the ability to connect via bluetooth and enhanced security and robustness against GNSS jamming and spoofing attacks.

August 2023: DTCO 4.1 In New Vehicles:

All newly registered vehicles with a maximum permissible weight of more than 3,5 tons must be equipped with the 2nd generation DTCO 4.1 smart tachograph.

End of 2024: DTCO 1X-3X Replaced by the DTCO 4.1:

In all vehicles with a maximum permissible weight of more than 3,5 tons, the old 1st generation DTCO 1x-3x analog/digital tachographs must be replaced by the version 2 DTCO 4.1 smart tachograph if the vehicles are used in cross-border traffic. The smart tachograph of the first generation DTCO 4.0 is excluded.

August 2025: The DTCO 4.0 is Replaced by the DTCO 4.1:

Vehicles with a maximum permissible weight of more than 3,5 tons equipped with the 1st generation DTCO 4.0 smart tachograph must be upgraded to the 2nd generation smart tachograph DTCO 4.1. This only applies, if the vehicles are engaged in cross-border traffic.

July 2026: DTCO 4.1 for > 2.5 T

Commercial vehicles with a maximum permissible weight between 2.5 tons and 3.5 tons must be equipped with the 2nd generation DTCO 4.1 smart tachograph. This only applies, if the vehicles are engaged in cross-border traffic

Service Application;

For replacement of the smart tachograph from DTCO 4.0 to DTCO 4.1 on FMAX and Legacy vehicles, the following changes must be applied:

- In FMAX vehicles, the tachograph is located in the upper storage area, and in the Legacy vehicles the tachograph is located on the right console.
 - **Location of Tachograph in FMAX;**



- **Location of Tachograph in Legacy;**



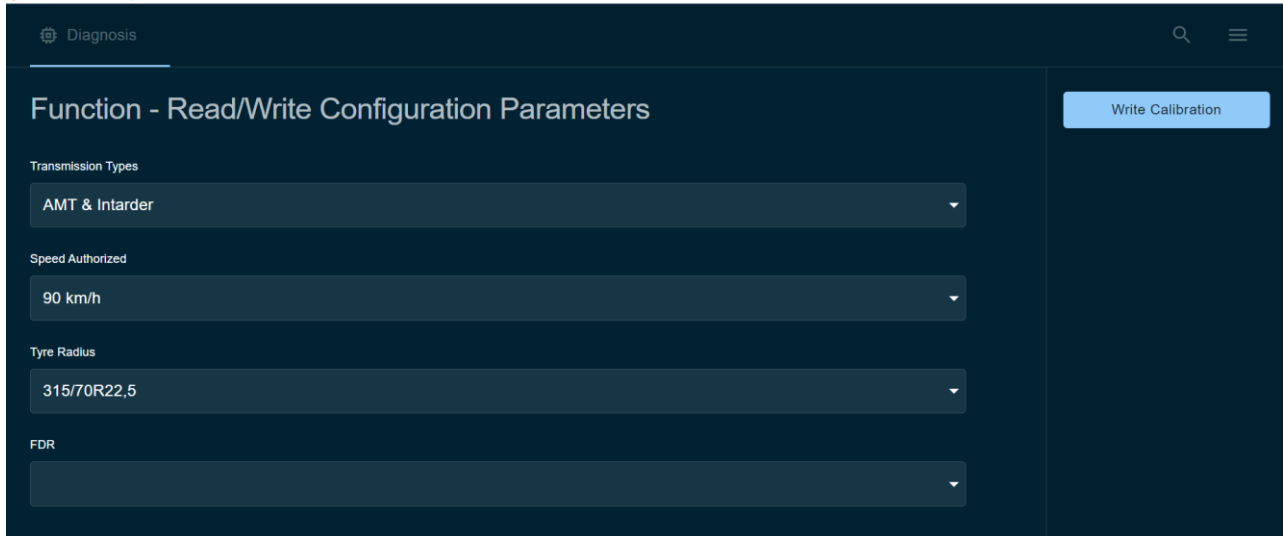
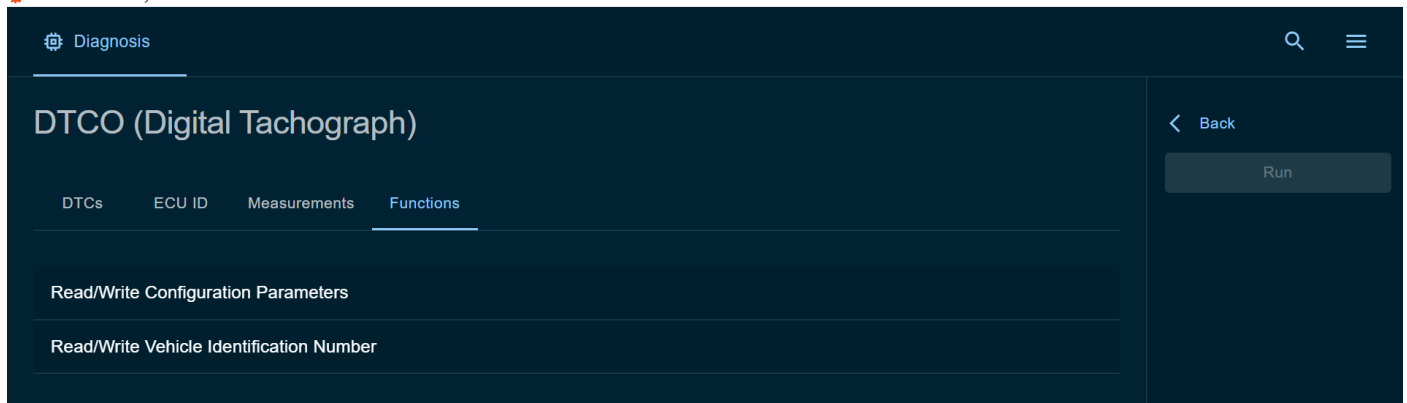
- The old version DTCO 4.0 tachograph should be removed from its place with the help of tachograph rods.



- The electrical wiring connections and antenna wiring connectors should be unplugged from the DTCO 4.0 tachograph.

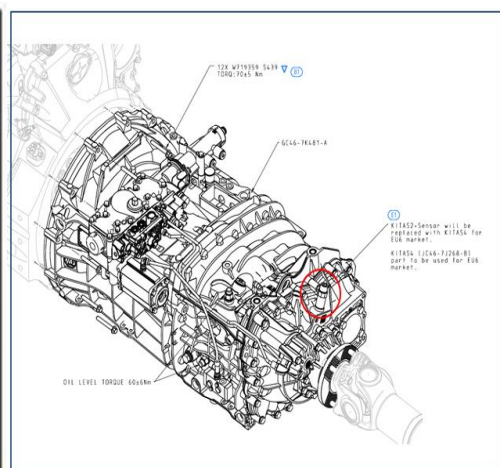
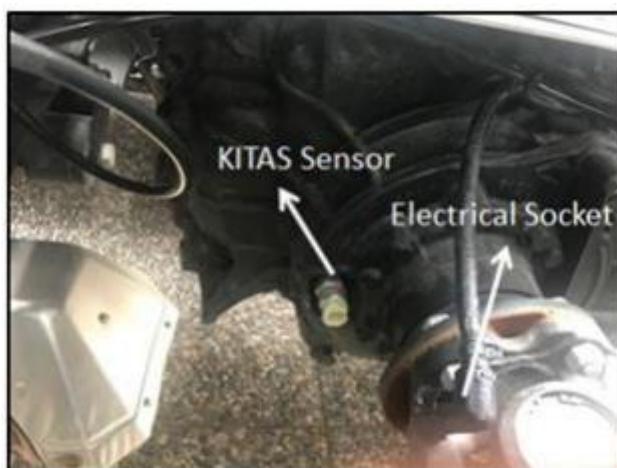


- The connections of the new version DTCO 4.1 tachograph will also be made with the old version tachograph sockets that have been removed. The connectors and antenna wirings of DTCO 4.0 should be plugged to the DTCO 4.1 version 2 smart tachograph.
- Make connection with FODIT and write parameters and VIN. Clear DTC's, Read DTC's and make sure that DTCO 4.1 has no DTC.



The process steps described so far are valid for the vehicles to be newly registered. The procedures to be explained here are for vehicles that already have a tachograph paired with a KITAS sensor. If a 2nd generation DTCO 4.1 tachograph is to be fitted to the vehicle, the existing KITAS sensor must also be replaced with the KITAS sensor specified in the parts to be used section in accordance with the transmission in the vehicle.

- Remove electrical socket from the sensor. Disassembly the sensor by using open-end wrench or ring spanner. Mount KITAS4 sensor in the place and tight via torque wrench. Tightening Torque: 40 +/- 6 Nm. (M18x1.5 Threaded Connection)



- Before tightening the sensor make sure that sensor is place to transmission housing properly and thread grooves are clean.
- Apply the electrical connection for the last steps of sensor change.
- Check the Smart Tachograph connections and confirm that the tachograph is running and that the speed information is equivalent with the dial.

Regards,

Ford Trucks Service Engineering

Ford Otomotiv Sanayi A.Ş.