



www.fleet.vdo.com

Smart DTCO[®] 4.1 for fleets

New regulations: EU Mobility Package I.

From August 21, 2023, the 2nd generation smart tachograph is mandatory for all newly registered vehicles used for transports **in the EU, Switzerland, Norway, Great Britain and Northern Ireland, and Iceland**. This new tachograph complies with the amendments of (EU) 2016/799 as described in regulation (EU) 2021/1228. It is ideal for cabotage border crossings, loading and unloading times, working time calculations and registrations as well as the new reduced rest times that can be taken twice in a row. DTCO[®] 4.1 offers the same high quality that Continental/VDO is known for. It is even faster and easier to use thanks to next generation components. All the relevant changes for hauliers and drivers can be seen on the right.

Mobility Package timeline

	August 2023 All new vehicles (national and international) that are registered.
	Before the end of 2024 (international transport) Mandatory retrofit for all analog tachographs and non-smart tachographs (annex 1B tachographs).
	August 2025 (international transport) Mandatory retrofit for all 1st-generation smart tachographs (annex 1Cv1).
	July 2026 (international transport) All vehicles over 2.5 tons must be equipped with the new smart tachograph.

GNSS

- Position authentication via Galileo OSNMA
- Automatic detection of country border crossing
- Position input (manual) for loading and unloading times
- Position registration every 3 cumulative hours

Data privacy and data security

- Private data permission for ITS interface
- Cyber security in line with ISO/IEC 15408 standard

DSRC

- Extension to 25 RTM messages
- Remote driving time control
- Position authentication check

Bluetooth[®]/ITS

- Read and control tachograph via external devices or smartphone
- Download tachograph data via Bluetooth[®]
- More freedom for application builders

Remote download Gen2v2 structure

- Remote download with new file information

Suitable for new Gen2v2 cards

- Based on Gen2v1 with extended file system
- Memory space for a minimum of 56 calendar days
- Backward compatible with all issued tachographs since the very first beginning

Tachograph updateable

- For improvements, new features and functions

New pictograms

	Load		Digital map/border crossing
	Unload		Position of country border crossed
	Simultaneous loading and unloading		Position loading operation
	Load type: passengers		Position unloading operation
	Load type: goods		Simultaneous loading and unloading position





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Smart DTCO® 4.1 for workshops

New regulations: EU Mobility Package I.

From August 21, 2023, the 2nd generation smart tachograph is mandatory for all newly registered vehicles used for transports **in the EU, Switzerland, Norway, Great Britain and Northern Ireland, and Iceland**. This new tachograph complies with the amendments of (EU) 2016/799 as described in regulation (EU) 2021/1228. The new tachograph also introduces adjustments to the calibration process and changes for the calibration certificate and the installation plate.

Workshops must now prepare for the mandatory retrofit of internationally operating vehicles using analog and annex 1B tachographs before the end of 2024. 1st-generation smart tachographs must then be replaced before August 2025. To ensure that the retrofit packages are available in time, VDO equipment helps workshops by registering the correct configurations from today onwards.

The most important changes for workshops are indicated on the right. See also the timeline on the other side.

With special DTCO® 4.1 expert training courses [in our new training portal](#), tachograph technicians will be prepared in time for the upcoming changes.

GNSS

- OSNMA position authentication check
- Check digital map version and update if necessary
- Extra check of authentication error logs

Internal, independent motion sensor

- Test additional internal motion sensor
- Interpret new movement errors

Interface

- Bluetooth®/ITS interface

DSRC

- Check for additional RTM messages
- DSRC test after successful retrofitting (except when retrofitting from DTCO® 4.0 to 4.1, antenna remains in original location)

Suitable for new Gen2v2 workshop cards

- Larger memory on card
- Backward compatible

Updateable tachograph

- Software version is checked and correctly specified by the VDO test device
- Updateable with digital map features, legislative changes and new functions

Carefree into the retrofit period

- The right replacement devices (DTCO 4.1 and KITAS) can be found easily and safely with VDO WorkshopTab 2
- VDO keeps track of parts for each calibration
- Workshop can order correct replacement (retrofit) parts

Cabotage

- Charge type must be checked and confirmed by workshops

Load type: passengers	Digital map/border crossing
Load type: goods	Security/authenticated data/seals

Retrofit conversion

1. Analog and annex 1B → DTCO® 4.1:
replace tachograph and KITAS, install DSRC antenna
2. DTCO® 4.0 → DTCO® 4.1:
only replace tachograph and KITAS
3. Stoneridge (Gen2v1) → DTCO® 4.1:
replace tachograph and KITAS, check if DSRC module complies with annex 1Cv2 and replace if necessary

