

Continental 
The Future in Motion



Digital Tachographs: Efforts of installation and maintenance

Special session of the Working Party on Road Transport on the AETR Agreement

UNECE, Geneva, 27th April 2015

Sonja Land

www.continental-corporation.com

Commercial Vehicles & Aftermarket

Digital Tachographs: Efforts of installation and maintenance

Agenda

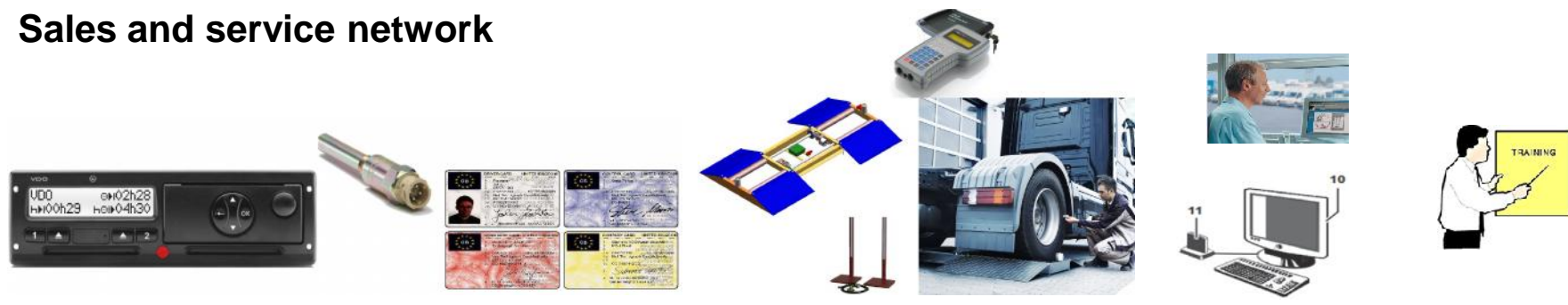
1. Products / Solutions required
2. Installing Tachograph Workshops
3. Tachograph Workshop Tasks
4. Tachograph Workshop Equipment
5. Periodical Tachograph Check
6. Different national implementation
7. Recap



Digital Tachographs: Efforts of installation and maintenance

Products / Solutions required

- › **Digital Tachograph, sensors, instruments and accessories:** OEM-, replacement-, retrofit solutions
- › **Tachograph Cards:** Cards, security key generation, card issuing infrastructure
- › **Calibration Systems for workshops and OEM:** Service Diagnostic Systems (SDS) and Software
- › **Download, Archiving, Evaluation Solutions and Services:** for fleets, authorities, workshops and drivers
- › **Control solutions:** roadside and company check; Accident Analyses
- › **Training and Training Tools:** for all target groups
- › **Sales and service network**



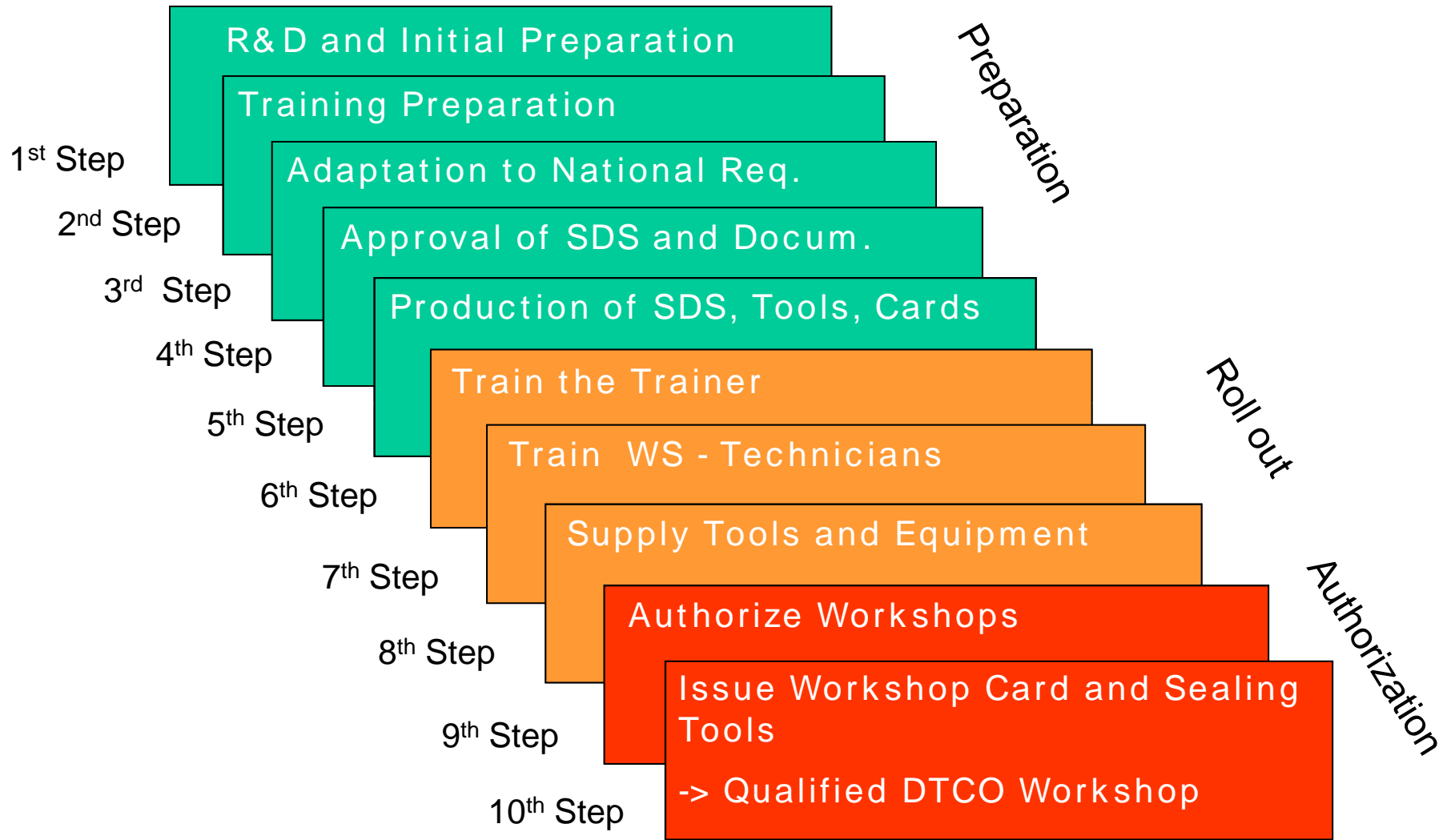
Digital Tachographs: Efforts of installation and maintenance

Installing Tachograph Workshops

Equipment	Organization	Infrastructure
Product documentation and translation. Manuals and training material. Computer based simulation training.	Identify and find teachers for „train the trainers“ (through e.g. government education center)	Identify, check and roll out workshops
Calibration equipment, tools, manuals to workshops or regional sales organizations (dealers)	Provide updates for tools (e.g. changes in legislation)	Hire workshop personnel
Data download and archiving tools (PC,SW, printers, internet..)	Contracts with chosen partners.	Up to date training to workshops
Workshop cards and sealing tools	Secure environment and procedures within the workshop	

Digital Tachographs: Efforts of installation and maintenance

Installing Tachograph Workshops



Digital Tachographs: Efforts of installation and maintenance

Tachograph Workshop Tasks



First installation

Service and repair
Retrofit of new systems
Mass memory data handling



Periodical check of installed systems
Calibration
Sealing

Digital Tachographs: Efforts of installation and maintenance

Tachograph Workshop Tasks

First installation

- Fitting
- Pre-programming
- Installation and function check
- Activation
- Initial calibration of new vehicle

Approx. 120 min.*

Periodic Inspection

- Periodic inspection
- if the vehicle has been modified
- if there are any defects

Approx. 90-60 min.*

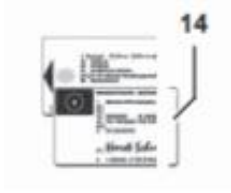


*dependant mainly on national legal requirements.

Digital Tachographs: Efforts of installation and maintenance

Tachograph Workshop Equipment

Workshop card (Central Service Center)



Technicians trained and authorized for TCO works



Calibrated test equipment for tachographs (TCO)

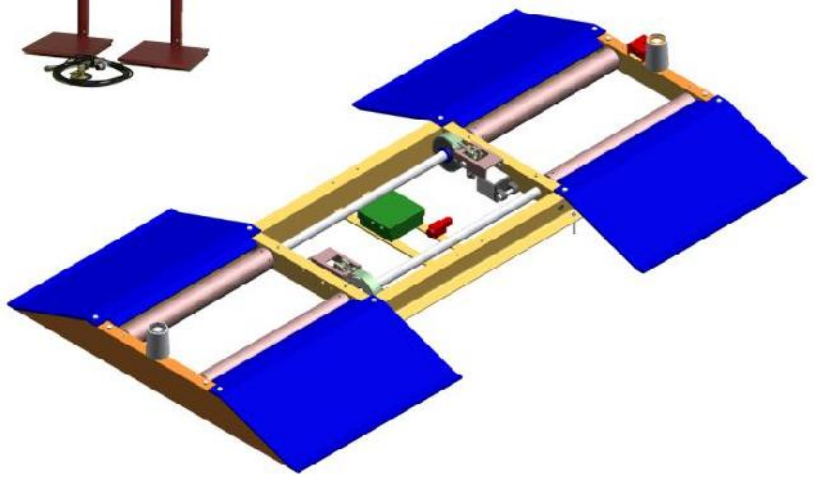
- Automatic Measuring Track
- Light barrier
- 2 reflex posts



TCO sw-update tools



CTCII Roller set



Legal download



Digital Tachographs: Efforts of installation and maintenance

Periodical tachograph check

Workshops are approved to carry out:

- › Installation (Req 239)
- › Activation (Req 243)
- › Calibration (Req 248)
- › Producing Plaques and Certificates (Req 249)
- › Sealing (electronic) (Req 251)
- › Periodic inspections (Req 256)
- › Downloading (Req 260)
- › Issue Undownloadability Certificates (Req 261)

(Refer to: Appendix IB of Annex to AETR agreement. Requirements as of Commission Regulation (EC) No 1360/2002/EC)

Digital Tachographs: Efforts of installation and maintenance

Periodical tachograph check



- › Check the housing of DTCO 1381 and KITAS2+ 2171 visual for indications of manipulation
- › Check whether there are manipulations available at the DTCO 1381, KITAS2+ 2171 or the KITAS sensor cable.
- › Check approval mark of the DTCO 1381, KITAS2+ 2171
- › Check sealing
- › Check tire size and effective tread depth
- › Check whether the DTCO 1381 stored sensor faults together with the "motion conflict" event after the last checking. If yes, check whether the cause was possibly operator error.
- › Check whether the installation date match those on a printout of the technical data of the DTCO 1381, KITAS2+ 2171
- › Check KITAS2+ 2171 and KITAS sensor cable.
- › Check whether the DTCO 1381 stored sensor faults together with the "motion conflict" event after the last checking. If yes, check whether the cause was possibly operator error.
- › Check IMS function
- › Pair DTCO 1381 and KITAS2+ 2171 "manually"
- › Measure display errors
- › Perform a calibration
- › Check and demonstrate the proper functioning of the EC recording equipment
- › Test and demonstrate that the entire system complies within the permissible error limits concerning distance and speed, defined by CR (EEC) 3821/85, Annex IB.
- › Check existing installation plate, create a new installation plate and seal it if necessary.

+ Note the legal provisions applicable in your country and check, how the regularly inspection must be performed and whether further tests of the recording equipment are prescribed within the regularly inspection.

Source: „Digital Tachograph DTCO® 1381 – Release 2.1 Technical Description“

Digital Tachographs: Efforts of installation and maintenance Different national implementation



AETR Contract, Chapter II, Article 9, „Installation and inspection“ gives to AETR CP some freedom for own national implementation (as Art. 12 in CR (EEC) 3821/85)

Overall referring:

- › Preconditions when becoming an approved DT service workshop
- › Auditing of workshops
- › Processes within workshops

Some example of national divergences:

- › Different time efforts for calibration procedures
- › Different expectations towards WS staff qualifications and re-trainings
- › Different content of WS audits
- › Different reporting regarding WS Card and Download handling

(Since March 2015, fitters and workshops (of EU CP) must follow more specific minimum requirements to show that they are reliable. EU Member States shall establish a set of clear national procedures for approving and auditing fitters, workshops and vehicle manufacturers. (Art. 24 of Reg (EU) 165/2014))

Digital Tachographs: Efforts of installation and maintenance

Recap



All workshops should prove technical competence through:

- › Appropriate workshop facilities
- › Appropriate approved equipment
- › Suitably trained and competent technicians
- › Respect of e.g. health and safety guidelines

Applicants (Fitters and Workshops) should provide:

- › Good repute (be honest, show integrity, provide good references (business and personal))

Technicians must have appropriate qualifications:

- › Properly trained, understand duties, be competent to carry out the work, meet acceptable standards of reliability, honesty and integrity.

Thank you
for your attention!

Digital Tachographs: Efforts of installation and maintenance

Join a strong network

VDO Fleet
Tachograph and Fleet solutions for more efficiency

About VDO | Glossary | Downloads | Contact

Search Choose a country

LEGAL | VEHICLES | DRIVERS | LOGISTICS | **WORKSHOPS**

Workshops → VDO partner workshop → Join a strong network

Join a strong network

Benefit from the expertise of a strong partner

Do you operate your own workshop at a good location, and have a number of employees and modern equipment? Then getting certified as a VDO partner workshop for tachograph services can give you access to an interesting new market.

Each year, more than 400,000 commercial vehicles enter the market in Europe – with tachographs under a factory guarantee of up to 24 months. As a VDO partner workshop, you are certified to handle warranty services for all makes of truck and carry out periodic inspections and retrofitting.

And we'll help you with the training. Our local sales organization supports you with experts, always ensuring that local legislation is complied with, providing advice and workshop equipment. Furthermore, VDO partner workshops give you access to our partner portal with online tools for simple order processing and many other information and services.

This is what we offer our partner workshops:

- Offer for genuine brands – OEM devices as well as universally applicable VDO replacement devices
- It is only necessary to send defective devices to a collection point at the national subsidiary in the country, so complicated shipping of devices abroad is not necessary
- Attractive offers for converting old-type tachograph systems with a factory guarantee
- Depending on the country, additional services including mobility guarantees for your customers
- - Hotline support staff with expert technical knowledge of the devices who speak your language
- A strong network with more than forty years of experience in the field of tachographs

Product finder
Quick access to VDO products and services
Choose a product

Workshop finder
Certified VDO service partner workshops near you
→ Search Now

Sales contact
Find a sales partner near you
→ Search now

DTCO® Catalog
Quickly and easily find the perfect device in the DTCO® catalog.
→ Go to DTCO® Catalog

<http://www.dtco.com>

(For CIS (Commonwealth of Independent States): Egon.Warkentin@continental-corporation.com)