

PikoLoad Product



PikoLoad

Unit for the legal download of
the mass memory of the digital
tachograph

Present Situation Digital Tachograph

- **New trucks (>3,5 to) are factory fitted with digital tachographs since May 2006 according to a EU regulation.**
 - **no more „paper recording“**
 - **working times, speed, driver names, etc. are recorded digitaly only**
 - **regular download and archiving of the data is mandatory**

- **EU Regulation says:**
 - **regular download of the mass memory (ca. 1 MB, ca. 2 years data)**
 - **Interval not longer than 3 months**
 - **regular download of the driver card**
 - **Interval not longer than 28 days**
 - **save the data and deliver them on request**
 - **individual regulated in Europe – mostly 2 years retention period**

- **Tacho (called Vehicle Unit VU in regulation) consists of:**
 - **2 smart card interface devices**
 - **motion sensor**
 - **CAN-connection to the vehicle**
 - **a calibration/downloading connector at the front**
 - **display und keyboard**
 - **driver card, company card, workshop card, control card**

EU Regulation

Recording and Storage of the mass memory data

- Data downloading to external media
 - “The recording equipment shall be able to download on request data from its data memory or from a driver card to external storage media via the calibration/downloading connector. The recording equipment shall update data stored on the relevant card before starting downloading.”
 - **“In addition and as an optional feature, the recording equipment may, in *any mode of operation*, download data through another connector to a company authenticated through this channel. In such a case, company mode data access rights shall apply to this download.”**
 - “Downloading shall not alter or delete any stored data.”

Procedure without Remote Download

The company must secure that the mass memory of each tachograph is downloaded and stored at least every 3 months.

- check of the period
- make sure that access to the vehicle is possible
- get to the vehicle with company card and insert it to tachograph
- connect the download unit (at the front)
- duration of download per vehicle is ca. 15-20 minutes
- download of the next tacho is only possible after having finished the present download
- After having finished the download the data have to be put to the office system (mainly by USB).

The company must secure that the driver card is downloaded and stored at least every 28 days.

- check of the period
- make sure that access to the driver card is possible (note: the driver use the card for driving!)
- Need for a suitable download device for driver cards
- storage of the downloaded data and check of the data (violation control)

- ➔ Tremendous organizational effort
- ➔ Tremendous time effort for the download process
- ➔ Tremendous risk for „monetary fine“

Procedure with Remote Download

The company must secure that the mass memory of each tachograph is downloaded and stored at least every 3 months.

- no more check of the period – automatic system
- no physical access to the vehicles necessary
- no additional download device necessary
- duration of download unimportant as the download is done during driving
- downloaded data can be handed over to a connected bord computer e.g. to be sent via a mobile communication link

The company must secure that the driver card is downloaded and stored at least every 28 days.

- no more check of the period – automatic system
- download of the driver card during driving as the driver has inserted his card
- no additional download devices necessary
- downloaded data can be handed over to a connected bord computer e.g. to be sent via a mobile communication link

- ➔ Tremendous reduction of the organizational effort
- ➔ Tremendous reduction of the time effort for download process
- ➔ Tremendous minimization of the risk for „monetary fine“

Remote Download

Supported tachographs

- **Continental:**
 - **Vers. 1.3 with remote download activated**

- **Stoneridge:**
 - **Vers. 7.1. with remote download activated**

- **Actia:**
 - **actual Version with remote download activated**

- **until end of 2009 all truck manufacturers in Europe will have remote download tachographs factory fitted (sometimes as additional option)**

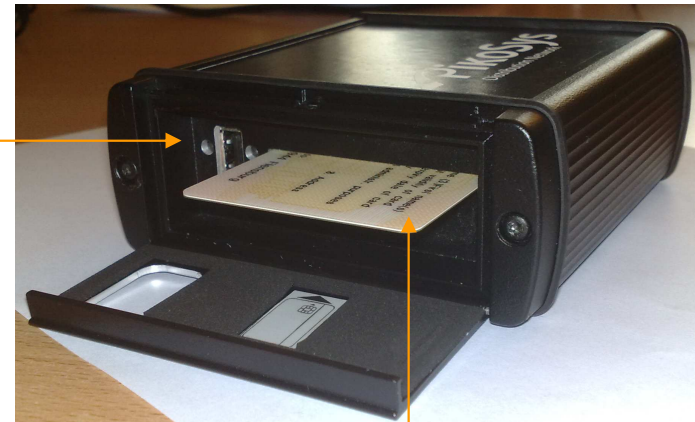
PikoLoad Description



Serial Interface

Vehicle connection
Standard connector to
all brands (FMS)

CAN-output of the
data (FMS+Tacho) and
power supply
for bord computer



2* LED Status

Inserted company
card

Plugged USB-Stick
with closed front lid
(company card
inserted)



PikoLoad Technical Data



Single unit for all vehicle brands with digital tachograph (Continental, Stoneridge, Actia) with activated remote download function

- **2* CAN J1939**
- **1* USB**
- **1* serial (RS 232)**
- **12V/24V power supply**
- **64 MB internal memory (for minimum 2 years tacho data)**

PikoLoad Target Group

- ✓ **End user**
 - ✓ **Haulers**
 - ✓ **Rental (Truck) companies**
 - ✓ **Operators of trucks**

- ✓ **Fleet management suppliers**
 - ✓ **Extension of their system with tacho data**

- ✓ **Suppliers of systems and units around the digital tachograph**
 - ✓ **workshops**
 - ✓ **system vendors**

PikoLoad Advantage End user

- ✓ **easiest handling**
 - ✓ **no "Installation"**
 - ✓ **no Configuration**
 - ✓ **no Training**
 - ✓ **connect, insert company card – ready!**

- ✓ **one "box" for all (type approved) tacho brands**
- ✓ **easy connection to an existing bord computer system possible**
- ✓ **easy "read-out" by USB-sticks (included in package)**
- ✓ **fulfils the legal requirements for the regular download of the mass memory**
 - ✓ **no more check of the intervals**
 - ✓ **easy possibility for archiving the data**
 - ✓ **data are compatible to most of the evaluation software systems**
- ✓ **download of driver cards inserted in the tachograph**
 - ✓ **during driving**
 - ✓ **without any activity by the driver**
 - ✓ **no more chase the driver for the download of his card**
 - ✓ **easy transfer of the data (by USB-Stick)**
 - ✓ **data are compatible to most of the evaluation software systems**

PikoLoad Advantage Telematic users

- ✓ **easy handling**
- ✓ **one “box” for all (type approved) tacho brands**
- ✓ **easy connection to bord computer systems**
 - ✓ **one (!) additional message for FMS users**
 - ✓ **cyclic output on the CAN interface**
 - ✓ **no additional interface necessary**
 - ✓ **easy extension with „Remote Download” without expensive implementation of the protocol**
 - ✓ **easy access to FMS data via RS 232**
- ✓ **easy “read-out” with USB-Stick (included) in addition**
- ✓ **fulfils the legal requirements for the regular download of the mass memory**
 - ✓ **no more check of the intervals**
 - ✓ **easy possibility for archiving the data**
- ✓ **download of driver cards inserted in the tachograph**
 - ✓ **during driving**
 - ✓ **without any activity by the driver**
 - ✓ **easy transfer of the data (by USB-Stick or data interface)**