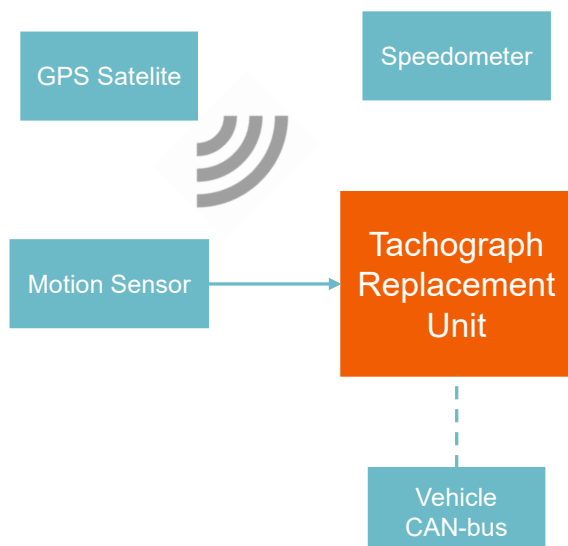


Tachograph Replacement Unit

Modern day commercial vehicles are often equipped with a tachograph in order to comply with the working hour regulation law. Next to the registration, the tachograph is an important source of information for the CAN-bus System.

Nevertheless, the tachograph remains a very expensive piece of equipment, which is not always obligated in commercial vehicles. This depends on region and usage. For this kind of circumstances, Sioux Technologies offers you a substantial cheaper alternative with the Tachograph Replacement Unit.

The Tachograph Replacement unit is pin compatible with a regular tachograph. The unit does not require a DIN slot and can be mounted anywhere in the vehicle. Through its GPS receiver the Tachograph Replacement Unit receives a time/date and vehicle speed information signal and forwards this in a messages on the CAN-bus, making the regular tachograph unnecessary.



Knowledge and expertise

Sioux is specialized in developing and integrating software and hardware applications in the automotive industry. With our expert knowledge, Sioux is the technical partner of leading companies in the market. Also specific products like the Tachograph Replacement Unit and a Door Control Unit, help us to support our clients.

Connections

- Pulse outputs
- 1x CAN
- Pin compatible with a regular tachograph

Features

- Sends all tachograph messages via the CAN bus
- Sends GPS information via the CAN bus
- Provides all tachograph pulse outputs
- Free configurable
- Operating voltage: 8 - 32 V
- 120 Ω Termination resistors switchable via software

Technical Specifications

Specifications

Product name	Tachograph Replacement Unit
Sioux part number	1000704

CAN bus characteristics

Baud rates	Fixed: 250 kb/s
Protocols	SAE J1939
Hardware protocol	CAN V2.0a / CAN V2.0b
CAN bus connections	1x CAN1
Termination resistors	1x 120 Ω switchable via software

Power Supply

Operating supply voltage range	8 - 32 V DC
Wakeup	+15

Software

Configuration	The tachograph replacement unit can be configured via a configuration tool
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Hardware characteristics

Environmental protection class	IP54
Operating temperature range	-30 to +85 °C
EMC specification	Pre-compliant with Automotive directive 2004/104/EC: <ul style="list-style-type: none"> • Radiated and conducted emission • Radiated and conducted immunity
Connector	Standard tachograph connector

Pinning

	Connector A	Connector B
1	Battery+	Motion sensor supply
2	-	Battery-
3	Ignition+	Motion sensor input
4	CAN_H	-
5	Battery-	-
6	Ignition-	Speed pulse 1
7	CAN_GND	Speed pulse 2
8	CAN_L	Distance pulse

Transmitted CAN messages

Time / Date (PGN 65254)	Seconds / Minutes / Hours / Month / Day / Year / Local minute offset / Local hour offset
Vehicle Direction/Speed (PGN 65256)	Compass Bearing Navigation-Based Vehicle Speed Altitude
Vehicle Position (PGN 65267)	Latitude Longitude
Vehicle identification (PGN 65260)	VIN Delimiter
High resolution vehicle distance (PGN 65217)	High resolution total vehicle distance High resolution trip distance
TCO1 (PGN 65132)	Tachograph output shaft speed Tachograph vehicle speed

Transmitted CAN messages

Reset (PGN 56832)	Trip reset Service component identification
Time/date adjust (PGN 54528)	Adjust Seconds Adjust Minutes Adjust Hours Adjust Month Adjust Day Adjust Year Adjust Local minute offset Adjust Local hour offset

