
Road vehicles — Tachograph systems —
Part 2:
Electrical interface with recording unit

Véhicules routiers — Systèmes tachygraphes —
Partie 2: Interface électrique avec unité d'enregistrement



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ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

Foreword

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International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 16844-2 was prepared by Technical Committee ISO/TC 22, *Road vehicles*, Subcommittee SC 3, *Electrical and electronic equipment*.

This second edition cancels and replaces the first edition (ISO 16844-2:2004), which has been technically revised.

ISO 16844 consists of the following parts, under the general title *Road vehicles — Tachograph systems*:

- *Part 1: Electrical connector*
- *Part 2: Electrical interface with recording unit*
- *Part 3: Motion sensor interface*
- *Part 4: CAN interface*
- *Part 5: Secured CAN interface*
- *Part 6: Diagnostics*
- *Part 7: Parameters*

Introduction

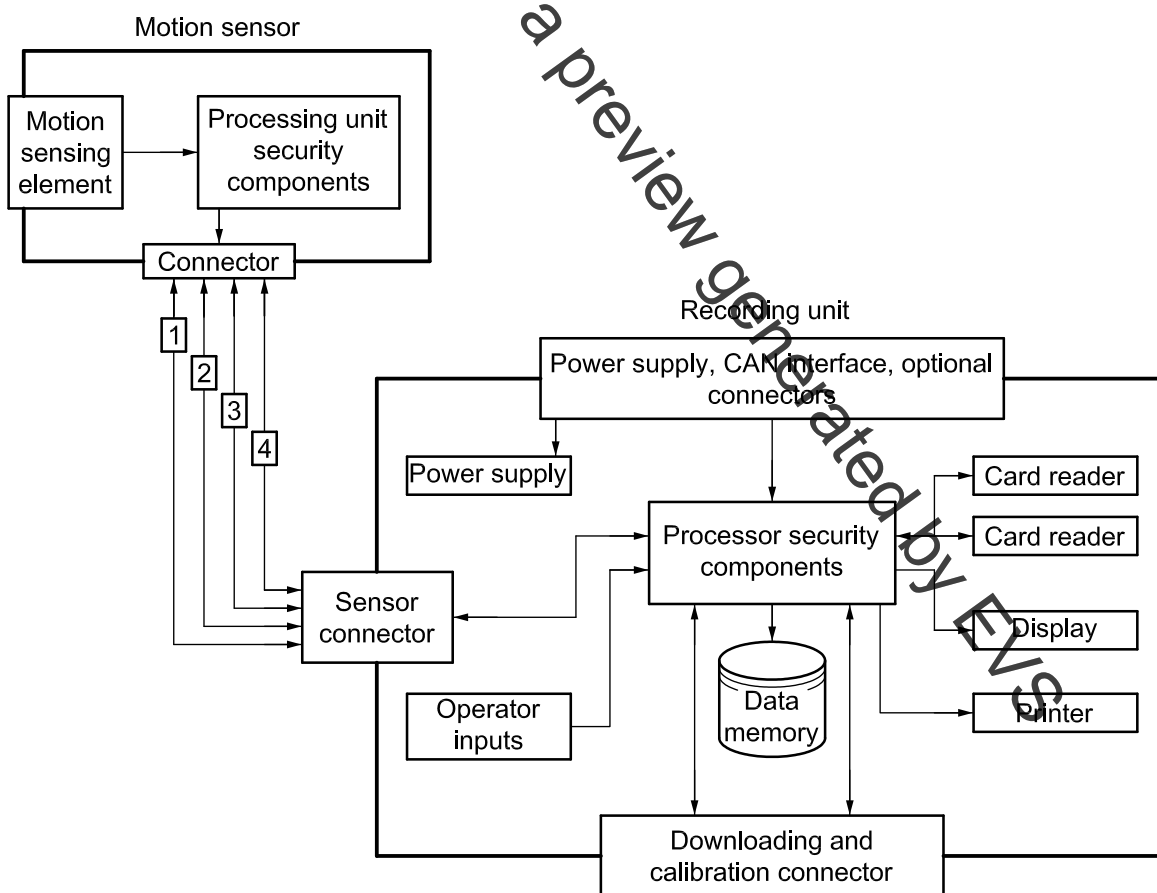
This part of ISO 16844 supports and facilitates the communication between electronic units and a tachograph. The tachograph is based upon European Council Regulation (EC) No. 561/2006 and (EEC) No. 3821/85 as last amended.

Its purpose is to ensure compatibility of tachographs from various tachograph manufacturers.

The basis of the digital tachograph concept is a Recording Unit (RU) that stores data related to the activities of the drivers of the vehicle on which it is installed. When the RU is in normal operation status, the data stored in its memory are made accessible to various entities such as drivers, authorities, workshops and transport companies in a variety of ways: they may be displayed on a screen, printed by a printing device or downloaded to an external device. Access to stored data is controlled by a smart card inserted in the tachograph.

In order to prevent manipulation of the tachograph system, the speed signal sender (motion sensor) is provided with an encrypted data link.

A typical tachograph system is shown in Figure 1.



Key

- | | | | |
|---|-----------------|---|-------------------------|
| 1 | positive supply | 3 | speed signal, real time |
| 2 | battery minus | 4 | data signal in/out |

Figure 1 — Typical tachograph system

Road vehicles — Tachograph systems —

Part 2:

Electrical interface with recording unit

1 Scope

This part of ISO 16844 specifies the electrical connection between the recording unit, and the vehicle network and the motion sensor, in tachograph systems used in road vehicles.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 16844-1, *Road vehicles — Tachograph systems — Part 1: Electrical connector*

ISO 16844-4, *Road vehicles — Tachograph systems — Part 4: CAN interface*

3 Requirements

3.1 Connector

The connector used for the recording unit shall be in accordance with ISO 16844-1.

3.2 Electrical connection

3.2.1 Standard connector — Module A

The electrical requirements of module A of the standard connector, used for power supply and CAN bus connection, shall be in accordance with Table 1.