

This is a preview of "ISO 16844-4:2015". [Click here to purchase the full version from the ANSI store.](#)

Second edition
2015-01-15

Road vehicles — Tachograph systems — Part 4: CAN interface

*Véhicules routiers — Systèmes tachygraphes —
Partie 4: Interface CAN*



Reference number
ISO 16844-4:2015(E)

© ISO 2015



COPYRIGHT PROTECTED DOCUMENT

© ISO 2015

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

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

This is a preview of "ISO 16844-4:2015". [Click here to purchase the full version from the ANSI store.](#)

Contents

	Page
Foreword	iv
Introduction	v
1 Scope	1
2 Normative reference	1
3 Terms and definitions	1
4 Symbols and abbreviated terms	1
5 Physical layer application requirements	2
5.1 General.....	2
5.2 Bit timing requirements.....	3
5.2.1 General.....	3
5.2.2 CAN bit timing requirements for 250 kbit/s.....	3
5.2.3 CAN bit timing requirements for 500 kbit/s.....	4
6 Data link layer application requirements	4
6.1 Message frame format.....	4
6.1.1 General.....	4
6.1.2 Priority (P) bits.....	5
6.1.3 Extended data page (EDP) bit.....	5
6.1.4 Data page (DP) bit.....	5
6.1.5 PDU format (PF) field.....	5
6.1.6 PDU specific (PS) field.....	5
6.1.7 Source address (SA) field.....	5
6.1.8 Data field.....	6
6.2 PDU specification.....	6
6.2.1 Parameter group number (PGN).....	6
6.2.2 PDU format.....	6
6.3 Message types.....	6
6.3.1 General.....	6
6.3.2 RQST — Request.....	7
6.3.3 ACKM — Acknowledgment message.....	8
7 Transport protocol	8
7.1 General.....	8
7.2 BAM — Broadcast announce message.....	9
7.3 TP.DT — Transport protocol — Data transfer.....	9
8 Application layer	10
8.1 General.....	10
8.2 TD — Time/Date.....	10
8.3 VI — Vehicle identification.....	11
8.4 VDHR — High resolution vehicle distance.....	11
8.5 SERV — Service information.....	12
8.6 RESET — Reset.....	12
8.7 TCO1 — Tachograph.....	13
8.8 DI — Driver's identification.....	14
8.9 TDA — Time/Date adjust.....	14
8.10 EEC1 — Electronic engine controller 1.....	15
8.11 CL — Cab illumination message.....	16
8.12 DRTD1 — Driver 1 driving rest times.....	16
8.13 DRTD2 — Driver 2 driving rest times.....	17
9 Addresses	18
Bibliography	19

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT), see the following URL: [Foreword — Supplementary information](#).

This second edition cancels and replaces the first edition (ISO 16844-4:2004), which has been technically revised.

The committee responsible for this document is ISO/TC 22, *Road vehicles*, Subcommittee SC 3, *Electrical and electronic equipment*.

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

- *Part 1: Electrical connectors*
- *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*

This is a preview of "ISO 16844-4:2015". Click here to purchase the full version from the ANSI store.

Introduction

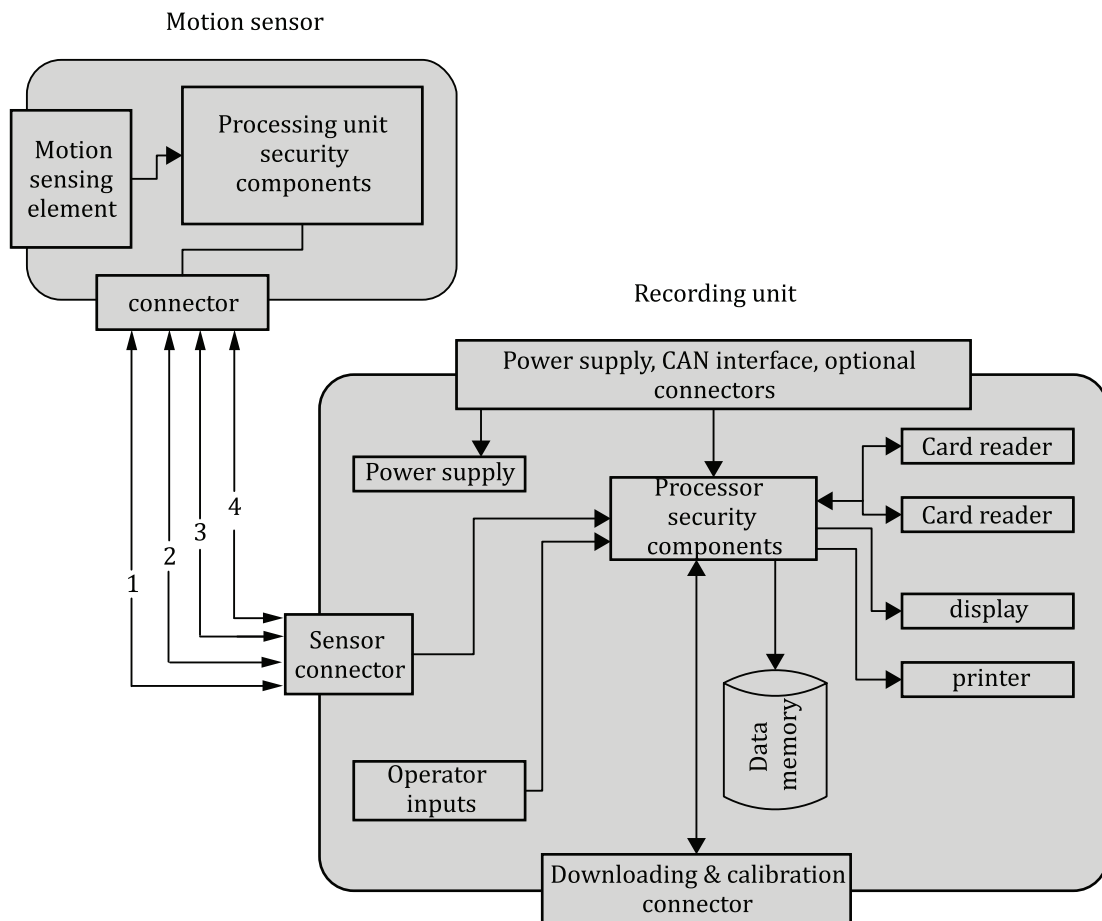
This International Standard supports and facilitates the communication between electronic control units and a tachograph. The tachograph is based upon the European Council Regulation (EC) No 561/2006^[1] and (EEC) No 3821/85^[2] as last amended.

The digital tachograph concept is based upon an RU storing data, related to the activities of the various drivers driving the vehicle, on which it is installed.

During the normal operational status of the RU, data stored in its memory are accessible to different entities (drivers, authorities, workshops, transport companies) in different ways (displayed on a screen, printed by a printing device, downloaded to an external device). Access to stored data is controlled by 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
- 2 battery minus
- 3 speed signal, real time
- 4 data signal in/out

Figure 1 — Typical tachograph system