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Road vehicles — Interchange of digital information on electrical connections between towing and towed vehicles —

Part 4: Diagnostics

Véhicules routiers — Échange d'informations numériques sur les connexions électriques entre véhicules tracteurs et véhicules tractés —

Partie 4: Diagnostics



Reference number
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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.

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 11992-4 was prepared by Technical Committee ISO/TC 22, *Road vehicles*, Subcommittee SC 3, *Electrical and electronic equipment*.

ISO 11992 consists of the following parts, under the general title *Road vehicles — Interchange of digital information on electrical connections between towing and towed vehicles*:

- *Part 1: Physical and data-link layers*
- *Part 2: Application layer for brakes and running gear*
- *Part 3: Application layer for equipment other than brakes and running gear*
- *Part 4: Diagnostics*

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Introduction

ISO 11992 has been established in order to define the data interchange between road vehicles and their towed vehicles using a Controller Area Network (CAN) serial data link as specified in ISO 11898^[4].

The description of this part of ISO 11992 is based on the Open Systems Interconnection (OSI) Basic Reference Model in accordance with ISO/IEC 7498^[2] (and ISO/IEC 10731^[3]), which structures communication systems into seven layers.

When mapped on this model, the communication system specified by ISO 11992 is broken down into:

Layer 7

Application layer for brakes and running gear.

Application layer for equipment other than brakes and running gear.

Application layer for diagnostics.

Layer 3

Network layer for diagnostics.

Layer 2

Data link layer for all communication types.

Layer 1

Physical layer for all communication types.

Table 1 — Applicability and relationship between International Standards

Applicability	Normal communication		Diagnostic communication
	Brakes and running gear	Equipment other than brakes and running gear	All applications
Layer 7: Application layer	ISO 11992-2	ISO 11992-3	ISO 11992-4 ISO 14229-1
Layer 6: Presentation layer	No functions specified for this layer.		
Layer 5: Session layer	No functions specified for this layer.		
Layer 4: Transport layer	No functions specified for this layer.		
Layer 3: Network layer	No functions specified for this layer.		ISO 11992-4 ISO 15765-2
Layer 2: Data link layer	ISO 11992-1		
Layer 1: Physical layer	ISO 11992-1		