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

**Part 2:
Application layer for brakes and running gear**

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

Partie 2: Couche d'application pour les équipements de freinage et les organes de roulement



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Contents

	Page
Foreword	vii
Introduction	viii
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Symbols and abbreviated terms	4
4.1 Symbols.....	4
4.2 Abbreviated terms.....	4
5 Conventions	5
6 APP – Parameter specification	5
6.1 General definitions.....	5
6.2 APP – Identification parameter specification.....	6
6.2.1 APP – Axle/wheel identification.....	6
6.2.2 APP – Identification data index.....	8
6.2.3 APP – Identification data indexed content.....	9
6.3 APP – Braking systems parameter specification.....	10
6.3.1 APP – Park brake demand relative pressure.....	10
6.3.2 APP – Service brake demand pressure.....	10
6.3.3 APP – Vehicle service brake status.....	11
6.3.4 APP – Braking system wheel-based vehicle speed.....	11
6.3.5 APP – Vehicle retarder control status.....	11
6.3.6 APP – Retarder demand relative torque.....	12
6.3.7 APP – Retarder wheel torque reference.....	13
6.3.8 APP – Retarder relative peak torque.....	14
6.3.9 APP – Retarder actual maximum positive torque.....	14
6.3.10 APP – Retarder actual maximum negative torque.....	14
6.3.11 APP – Axle load sum.....	15
6.3.12 APP – Pneumatic supply pressure.....	15
6.3.13 APP – Brake lining.....	15
6.3.14 APP – Brake temperature.....	16
6.3.15 APP – Tyre pressure.....	16
6.3.16 APP – Automatic towed vehicle braking status.....	16
6.3.17 APP – Vehicle ABS status.....	17
6.3.18 APP – Vehicle electrical supply status.....	17
6.3.19 APP – Vehicle pneumatic supply status.....	18
6.3.20 APP – Spring brake installation status.....	18
6.3.21 APP – Electrical load proportional function installation status.....	18
6.3.22 APP – Load proportional function installation status.....	19
6.3.23 APP – ABS off-road request.....	19
6.3.24 APP – ASR brake control status.....	19
6.3.25 APP – ASR engine control status.....	20
6.3.26 APP – Pneumatic control line status.....	20
6.3.27 APP – Two electrical circuits brake demand status.....	20
6.3.28 APP – Tyre pressure status.....	21
6.3.29 APP – Brake lining status.....	21
6.3.30 APP – Brake temperature status.....	22
6.3.31 APP – Brake light switch.....	22
6.3.32 APP – Vehicle type.....	22
6.3.33 APP – Red warning signal request.....	23
6.3.34 APP – Amber warning signal request.....	23
6.3.35 APP – Electrical supply of non-braking systems status.....	23
6.3.36 APP – Loading ramp approach assistance status.....	24

6.3.37	APP – VDC active	24
6.3.38	APP – Road curvature	25
6.3.39	APP – Wheel speed difference main axle	25
6.3.40	APP – Supply line braking	25
6.3.41	APP – Spring brake status	26
6.3.42	APP – Relative brake demand for front or left vehicle side	26
6.3.43	APP – Relative brake demand for rear or right vehicle side	27
6.3.44	APP – Support of side- or axle-wise brake force distribution	27
6.3.45	APP – Lateral acceleration	27
6.3.46	APP – Stop lamps request	28
6.3.47	APP – Braking via electric control line support	28
6.3.48	APP – Geometric data index	28
6.3.49	APP – Geometric data indexed content	29
6.3.50	APP – Brake cylinder pressure first axle, left wheel	32
6.3.51	APP – Brake cylinder pressure first axle, right wheel	33
6.3.52	APP – Brake cylinder pressure second axle, left wheel	33
6.3.53	APP – Brake cylinder pressure second axle, right wheel	33
6.3.54	APP – Brake cylinder pressure third axle, left wheel	34
6.3.55	APP – Brake cylinder pressure third axle, right wheel	34
6.3.56	APP – Wheel speed first axle, left wheel	35
6.3.57	APP – Wheel speed first axle, right wheel	35
6.3.58	APP – ROP system status	35
6.3.59	APP – YC system status	36
6.3.60	APP – Towed vehicle ROP system request	36
6.3.61	APP – Towed vehicle YC system request	36
6.3.62	APP – Vehicle combination ABS status	37
6.3.63	APP – Towed vehicle detection status	37
6.3.64	APP – Reverse gear status	38
6.3.65	APP – External brake request status	38
6.3.66	APP – Emergency braking status	38
6.4	APP – Running gear equipment parameter specification	39
6.4.1	APP – Driven axle load	39
6.4.2	APP – Nominal vehicle body level, front axle	39
6.4.3	APP – Nominal vehicle body level, rear axle	40
6.4.4	APP – Relative vehicle body level, front axle	40
6.4.5	APP – Relative vehicle body level, rear axle	40
6.4.6	APP – Level control request	41
6.4.7	APP – Level control status	41
6.4.8	APP – Level change request, front axle	41
6.4.9	APP – Level change request, rear axle	42
6.4.10	APP – Level change status, front axle	42
6.4.11	APP – Level change status, rear axle	42
6.4.12	APP – Lift axle 1 position request	43
6.4.13	APP – Lift axle 2 position request	43
6.4.14	APP – Lift axle 3 position request	44
6.4.15	APP – Lift axle 4 position request	44
6.4.16	APP – Lift axle 5 position request	44
6.4.17	APP – Lift axle 1 position	45
6.4.18	APP – Lift axle 2 position	45
6.4.19	APP – Lift axle 3 position	45
6.4.20	APP – Lift axle 4 position	46
6.4.21	APP – Lift axle 5 position	46
6.4.22	APP – Steering axle locking request	46
6.4.23	APP – Steering axle locking status	47
6.4.24	APP – Traction help (load transfer) request	47
6.4.25	APP – Traction help (load transfer) status	48
6.4.26	APP – Ride height request	48
6.4.27	APP – Ride height level	48

6.4.28	APP – Normal level	49
6.4.29	APP – Ramp level request	49
6.4.30	APP – Ramp level	49
6.4.31	APP – Ramp level position	50
6.4.32	APP – Ramp level storage request	50
6.4.33	APP – Ramp level storage status	50
6.4.34	APP – Stop level change request	51
6.4.35	APP – Stop level change request acknowledge	51
6.4.36	APP – Parking and towed vehicle air pressure	51
6.4.37	APP – Auxiliary equipment supply pressure	52
6.4.38	APP – Tyre pressure threshold detection	52
6.4.39	APP – Air leakage detection	53
6.4.40	APP – Tyre temperature	53
6.4.41	APP – Tyre module power supply status	54
6.5	APP – Axle load parameter specification	54
6.5.1	APP – Axle load	54
6.5.2	APP – Axle load calibration data storage request	54
6.5.3	APP – Axle load calibration data storage status	55
6.5.4	APP – Axle load measured by external scale	55
6.5.5	APP – Axle load measured by towed vehicle	56
6.5.6	APP – Axle load calibration data load level	56
6.5.7	APP – Axle load calibration type	57
6.5.8	APP – Maximum driven axle load	57
6.6	Ride height parameter specification	58
6.6.1	APP – Extended ride height and ramp level storage	58
6.6.2	APP – Ride height and ramp level set request	58
6.6.3	APP – Ride height storage request	58
6.6.4	APP – Ride height storage	59
6.6.5	APP – Neutral gear request	59
6.6.6	APP – Rear obstacle distance	59
6.6.7	APP – Immobilizer status	60
6.6.8	APP – Fifth wheel load	60
6.6.9	APP – Ambient air temperature	61
6.6.10	APP – Parking brake status	61
6.6.11	APP – Neutral gear status	61
6.7	APP – Software update parameter specification	61
6.7.1	APP – Vehicle software update request	61
6.7.2	APP – Vehicle software update request acknowledgement	62
7	APP – PG specification	62
7.1	APP – Overview of PGs	62
7.2	APP – Message transmission in case of multiple towed vehicles	64
7.3	APP – Towing vehicle	64
7.3.1	APP – General specification	64
7.3.2	APP – General PGs, transmitted from the towing to the towed vehicle	65
7.3.3	APP – Electronic brake system PGs, transmitted from the towing to the towed vehicle	65
7.3.4	APP – Running gear equipment PGs, transmitted from the towing to the towed vehicle	67
7.4	APP – Towed vehicle	70
7.4.1	APP – General PGs, transmitted from the towed to the towing vehicle	70
7.4.2	APP – Electronic brake system PGs, transmitted from the towed to the towing vehicle	70
7.4.3	APP – Running gear equipment PGs, transmitted from towed to towing vehicle	75
8	APP – Address assignment	78
8.1	APP – General requirements	78
8.2	APP – Road train configuration	79

8.3	APP – Address assignment method of a towing and towed vehicle	79
8.4	APP – Vehicle node capabilities	80
9	SI – Service interface definition between application and OSI layers	82
9.1	SI – A_Data.req, A_Data.ind, and A_Data.con service interface	82
9.2	SI – A_Data.req, A_Data.ind, and A_Data.con service interface parameter mapping	82
9.3	SIP – Service interface data type definitions	83
10	AL – Application layer	83
10.1	AL – Message PDU format	83
10.2	AL – A_PDU specification	83
11	PL – Presentation layer	83
Annex A (normative) Geometric dimensions		84
Annex B (normative) Software update request and acknowledge interaction between towing and towed vehicles		90
Annex C (informative) Message flow		99
Bibliography		103

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 of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 22, *Road vehicles*, Subcommittee SC 31, *Data communication*.

This fourth edition cancels and replaces the third edition (ISO 11992-2:2014), which has been technically revised.

The main changes are as follows:

- introduced requirements structure;
- added new parameter specifications;
- added new message definitions;
- updated all figures.

A list of all parts in the ISO 11992 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

The ISO 11992 series specifies the interchange of digital information between road vehicles with a maximum authorised total mass greater than 3 500 kg, and towed vehicles, including communication between towed vehicles in terms of parameters and requirements of the lower OSI layers (physical and data link layer) of the electrical connection used to connect the electrical and electronic systems.

This document is structured according to the Open Systems Interconnection (OSI) Basic Reference Model, in accordance with ISO/IEC 7498-1 and ISO/IEC 10731, which structures communication systems into seven layers. When mapped on this model, the application layer protocol and data link layer framework requirements specified/referenced in the ISO 11992 series standard are structured according to [Figure 1](#).

[Figure 1](#) illustrates a simplified communication framework:

- vehicle normal communication framework,
- vehicle diagnostic communication framework,
- vehicle-specific use case framework, and
- vehicle lower-layers framework.

The vehicle normal communication framework is composed of this document and ISO 11992-3.

The vehicle diagnostic communication framework is composed of ISO 14229-1, ISO 14229-2, ISO 14229-3 and ISO 11992-4.

The vehicle-specific use case framework is composed of ISO 11992-4, ISO 22901-1 or vehicle manufacturer-specific diagnostic data definition.

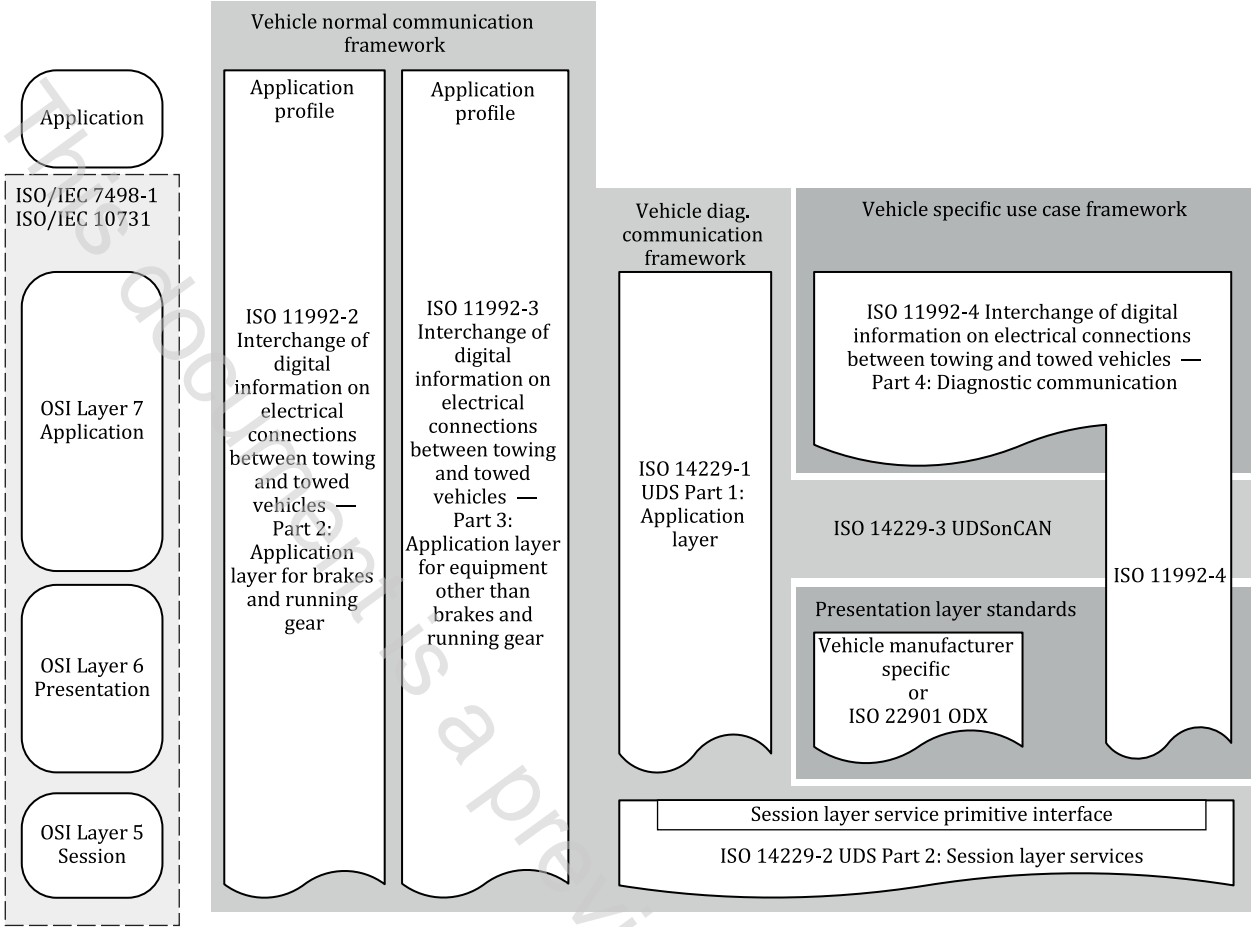


Figure 1 — Referenced documents according to the OSI model

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

Part 2: Application layer for brakes and running gear

1 Scope

This document specifies the SAE J1939-based application layer, the payload of messages, and parameter groups for electronically controlled braking systems, including anti-lock braking systems (ABS), vehicle dynamics control systems (VDC), and running gears equipment, to ensure the interchange of digital information between road vehicles with a maximum authorized total mass greater than 3 500 kg and their towed vehicles, including communication between towed vehicles.

Conformance and interoperability test plans are not part of this document.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 3779, *Road vehicles — Vehicle identification number (VIN) — Content and structure*

ISO 11992-1, *Road vehicles — Interchange of digital information on electrical connections between towing and towed vehicles — Part 1: Physical and data-link layers*

ISO 11992-3:2021, *Road vehicles — Interchange of digital information on electrical connections between towing and towed vehicles — Part 3: Application layer for equipment other than brakes and running gear*

ISO 80000-1, *Quantities and units — Part 1: General*

SAE J1939-21, *Recommended Practice for a Serial Control and Communications Vehicle Network — Data Link Layer*

SAE J1939-71, *Recommended Practice for a Serial Control and Communications Vehicle Network — Vehicle Application Layer*

SAE J1939-DA, *Recommended Practice for a Serial Control and Communications Vehicle Network — J1939 Digital Annex*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 11992-1 and the following apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>