
**Road vehicles — Communication
between vehicle and external equipment
for emissions-related diagnostics —**

**Part 2:
Guidance on terms, definitions,
abbreviations and acronyms**

iTeh STANDARD PREVIEW

*Véhicules routiers — Communications entre un véhicule et un
équipement externe pour le diagnostic relatif aux émissions —*

*Partie 2: Lignes directrices sur les termes, les définitions,
les abréviations et les acronymes*

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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 15031-2 was prepared by Technical Committee ISO/TC 22, *Road vehicles*, Subcommittee SC 3, *Electrical and electronic equipment*.

This first edition of ISO 15031-2 cancels and replaces ISO/TR 15031-2:2004, which has been technically revised.

ISO 15031 consists of the following parts, under the general title *Road vehicles — Communication between vehicle and external equipment for emissions-related diagnostics*:

- *Part 1: General information and use case definition*
- *Part 2: Guidance on terms, definitions, abbreviations and acronyms*
- *Part 3: Diagnostic connector and related electrical circuits, specification and use*
- *Part 4: External test equipment*
- *Part 5: Emissions-related diagnostic services*
- *Part 6: Diagnostic trouble code definitions*
- *Part 7: Data link security*

Introduction

0.1 Overview

The various parts of ISO 15031, when taken together, provide a coherent, consistent set of specifications for facilitating emissions-related diagnostics. ISO 15031-2 to ISO 15031-7 are based on recommended practices of the Society of Automotive Engineers (SAE). This part of ISO 15031 is based on SAE J1930.

See ISO 15031-1 for general information and an introduction to ISO 15031.

As the number of sophisticated electrical and electronic (E/E) systems on motor vehicles has increased, the number of terms, abbreviations and acronyms which describe various components of these systems has increased enormously.

The nomenclature used to convey automotive service information is being standardized in order to more accurately convey information to technicians faced with the diagnosis and repair of increasingly complex vehicles.

To be properly descriptive, each type of automotive nomenclature requires a consistent methodology. This document is concerned with a methodology for naming objects and systems and with the set of words from which names are built.

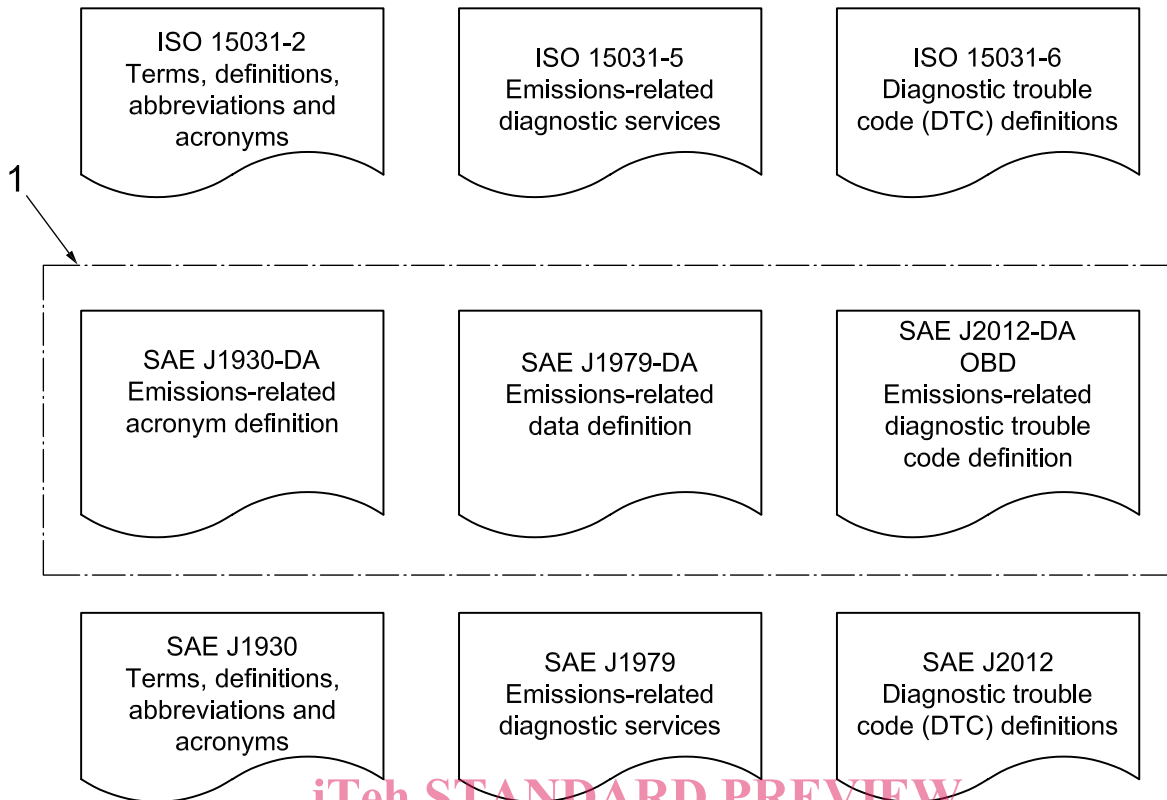
- The procedure allows the complete description of objects and systems without ambiguity and the generation of names which distinguish among similar objects or systems without confusion but with brevity. <https://standards.iteh.ai/catalog/standards/sist/dd74778a-77e9-40d1-a78c-186cc6681aa/iso-15031-2-2010>
- Using terms which are well defined within the context of the automotive service industry, the procedure allows already existing, imprecise, names to be suitably changed and future names to be assigned in a predictable way that will reliably convey meaning to the technician.

0.2 SAE document reference concept

This part of ISO 15031 references several SAE documents which contain all the terms, data and diagnostic trouble code (DTC) definitions.

This is illustrated in Figure 1. Additional information on the content of the referenced documents is given below.

- SAE J1930: the document is concerned with a procedure for naming objects and systems and with the set of words from which names are built. It references SAE J1930-DA, which contains all standardized naming objects, terms and abbreviations.
- SAE J1979: the document is concerned with the definition of emissions-related diagnostic services (diagnostic test modes). It references SAE J1979-DA, which contains all standardized data items like PIDs, Test Ids, Monitor Ids and InfoType Ids.
- SAE J2012: the document is concerned with the procedure for defining emissions-related diagnostic trouble codes. It references SAE J2012-DA, which contains all standardized data items like DTCs and failure type bytes (FTBs).



Key

- 1 SAE Digital Annexes

ISO 15031-2:2010
Figure 1 — SAE Digital Annex document reference
<https://standards.iteh.ai/catalog/standards/sist/dd74778a-77c9-40d1-a78c-1d6ee6681fa6/iso-15031-2-2010>

0.3 SAE J1930-DA Digital Annex

This part of ISO 15031 references the SAE J1930-DA. The SAE J1930-DA is concerned with the terms, abbreviations and acronyms which are defined according to the procedure for naming objects and systems.

The SAE J1930-DA includes several appendices:

- Approved terms;
- SAE J1979 parameter ID (PID) acronyms;
- Glossary and Control Module Naming;
- Figures to assist in the identification of the proper terms;
- Historical reference for acronym usage in previous publications.

0.4 SAE Digital Annex revision procedure

New emissions-related regulatory requirements drive new in-vehicle technology to lower emissions. New technology-related OBD (on-board diagnostic) monitor data and diagnostic trouble codes need to be standardized to support the external (off-board) “generic” test equipment. All relevant information is proposed by the automotive industry represented by members of the appropriate SAE task force.

Revision request forms and instructions for updating the registers to this part of ISO 15031 can be obtained on the Registration Authority's web site at:

<http://www.sae.org/servlets/works/committeeHome.do?comtID=TEVDS7>

The column titled "Resources" shows a document with the title: J1930-DA_Revision_Request_Form.doc. Double click on the name and you will be asked to download the document with the filename:

SAE_J1930-DA_Revision_Request_Form.doc

Fill out the revision request form with your request.

Please send an e-mail with the completed revision request form as an attachment to:

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755 West Big Beaver Road
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Troy, MI 48084-4093, USA
Fax: (248) 273-2494
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Road vehicles — Communication between vehicle and external equipment for emissions-related diagnostics —

Part 2: Guidance on terms, definitions, abbreviations and acronyms

1 Scope

This part of ISO 15031 provides guidance on the usage of terms, definitions, abbreviations and acronyms used in emissions-related diagnostics, with respect to the communication between road vehicles and external equipment used in that field. It also specifies a procedure for constructing new terms. As it gives recommended usage of diagnostic terms applicable to electrical/electronic systems, it also makes reference to related mechanical terms, definitions, abbreviations and acronyms.

This part of ISO 15031 is applicable to all light-duty gasoline and diesel passenger vehicles and trucks, and to heavy-duty gasoline vehicles. Specific applications of this document include diagnostic, service and repair manuals, bulletins and updates, training manuals, repair databases, underhood emission labels and emission certification applications.

The introduction of a term, abbreviation or acronym not covered by this part of ISO 15031 is not prohibited.

This part of ISO 15031 is intended to help industry provide standard terms, definitions, abbreviations and acronyms with a view to establishing a common terminology for diagnostic tools and publications.

This part of ISO 15031 references the SAE J1930-Digital Annex (DA), which includes all standard terms, definitions, abbreviations and acronyms.

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 15031-5, *Road vehicles — Communication between vehicle and external equipment for emissions-related diagnostics — Part 5: Emissions-related diagnostic services*

ISO 15031-6, *Road vehicles — Communication between vehicle and external equipment for emissions-related diagnostics — Part 6: Diagnostic trouble code definitions*

SAE J1930-DA, *J1930 Electrical/Electronic Systems Diagnostic Terms, Definitions, Abbreviations, and Acronyms Web Tool Spreadsheet*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 15031-5 and ISO 15031-6 apply.