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## Road vehicles — Design and performance specifications for the WorldSID 50th percentile male side-impact dummy —

### Part 4: User's manual

*Véhicules routiers — Conception et spécifications de performance pour le mannequin mondial (WorldSID), 50e percentile homme, de choc latéral —*

*Partie 4: Manuel de l'utilisateur*

[Revision of first edition (ISO 15830-4:2005)]

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## Foreword

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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 15830-4 was prepared by Technical Committee ISO/TC 22, *Road vehicles*, Subcommittee SC 12, *Passive safety crash protection systems*.

This second edition cancels and replaces the first edition (ISO 15830-4:2005) which has been technically revised. Technical amendments have been incorporated throughout all four parts, resulting from extensive experience with the standard and design changes.

ISO 15830 consists of the following parts, under the general title *Road vehicles — Design and performance specifications for the WorldSID 50th percentile male side impact dummy*:

- *Part 1: Terminology and rationale*
- *Part 2: Mechanical subsystems*
- *Part 3: Electronic subsystems*
- *Part 4: User's manual*

## Introduction

This second edition of ISO 15830 has been prepared on the basis of the existing design, specifications and performance of the WorldSID 50<sup>th</sup> percentile adult male side impact dummy. The purpose of ISO 15830 is to document the design and specifications of this side impact dummy in a form suitable and intended for worldwide regulatory use.

In 1997, ISO/TC22/SC12 initiated the WorldSID 50<sup>th</sup> percentile adult male dummy development, with the aims of defining a global-consensus side impact dummy, having a wider range of human-like anthropometry, biofidelity and injury monitoring capabilities, suitable for regulatory use. Participating in the development were research institutes, dummy and instrumentation manufacturers, governments, and vehicle manufacturers from around the world.

With regard to potential regulatory, consumer information or research and development use of ISO 15830, users will need to identify which of the permissive (i.e. optional) sensors and other elements defined in Part 3 are to be used in a given application.

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# Road vehicles — Design and performance specifications for the WorldSID 50th percentile male side-impact dummy —

## Part 4: User's manual

### 1 Scope

This part of ISO 15830 specifies requirements for assembling and disassembling of the WorldSID 50<sup>th</sup> percentile side impact dummy, a standardized anthropomorphic dummy for side impact testing of road vehicles.

It is applicable to impact tests involving:

- Passenger vehicles of categories M1 and goods vehicles of categories N1.
- Impacts to the side of the vehicle structure.
- Impact tests involving the use of an anthropometric dummy as a human surrogate for the purpose of evaluating compliance with vehicle safety standards.

### 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 15830-1, *Design and performance specifications for the WorldSID 50th percentile adult male side impact dummy — Part 1: Terminology and rationale*

ISO 15830-2, *Design and performance specifications for the WorldSID 50th percentile adult male side impact dummy — Part 2: Mechanical subsystems*

ISO 15830-3, *Design and performance specifications for the WorldSID 50th percentile adult male side impact dummy — Part 3: Electronic subsystems*

SAEJ211-1:2007, *Instrumentation for impact test – Part 1 – Electronic instrumentation*

UN/ECE/TRANS/WP 29/78, *Consolidated resolution on the construction of vehicle (R E 3)*

### 3 Terms and definitions

For the purposes of this document the terms and definitions given in ISO 15830-1 apply.