

KIIRABIAUTODES KASUTATAVAD PATSIENDI  
TRANSPORDI ABIVAHENDID. OSA 2: JÕUDETOEGA  
KANDERAAM

Patient handling equipment used in ambulances - Part  
2: Power assisted stretcher

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>See Eesti standard EVS-EN 1865-2:2024 sisaldab Euroopa standardi EN 1865-2:2024 ingliskeelset teksti.</p> <p>Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 05.06.2024.</p> <p>Standard on kättesaadav Eesti Standardimis- ja Akrediteerimiskeskusest.</p>	<p>This Estonian standard EVS-EN 1865-2:2024 consists of the English text of the European standard EN 1865-2:2024.</p> <p>This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.</p> <p>Date of Availability of the European standard is 05.06.2024.</p> <p>The standard is available from the Estonian Centre for Standardisation and Accreditation.</p>
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ICS 11.160

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EUROPEAN STANDARD

**EN 1865-2**

NORME EUROPÉENNE

EUROPÄISCHE NORM

June 2024

ICS 11.160

Supersedes EN 1865-2:2010+A1:2015

English Version

## Patient handling equipment used in ambulances - Part 2: Power assisted stretcher

Équipements pour le transport de patients dans les  
ambulances - Partie 2 : Brancard motorisé

Krankentransportmittel im Krankenkraftwagen -  
Teil 2: Kraftunterstützte Krankentrage

This European Standard was approved by CEN on 29 April 2024.

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## European foreword

This document (EN 1865-2:2024) has been prepared by Technical Committee CEN/TC 239 “Rescue systems”, the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by December 2024, and conflicting national standards shall be withdrawn at the latest by December 2024.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 1865-2:2010+A1:2015.

This European Standard is a part of EN 1865, *Patient handling equipment used in ambulances*, which consists of the following parts:

- *Part 1: General stretcher systems and patient handling equipment* (foreseen for revision);
- *Part 2: Power assisted stretcher* (the present document);
- *Part 3: Heavy duty stretcher* (foreseen for revision);
- *Part 4: Foldable patient transfer chair* (foreseen for revision);
- *Part 5: Stretcher support* (foreseen for revision);
- *Part 6: Powered chairs* (under new development);
- *Part 7: Isolation transport system* (preliminary work item under development).

Compared to EN 1865-2:2010+A1:2015, the following main technical changes were made:

- a) title changed from “*Patient handling equipment used in road ambulances*” to “*Patient handling equipment used in ambulances*”;
- b) normative references updated;
- c) Annex ZA revised to show relationship to Medical Device Regulations (MDR) instead of Medical Device Directive (MDD);
- d) new definition for loading system (3.2) included;
- e) requirements for mass (4.2.3), power source (4.2.6) and restraint system (4.2.8) revised;
- f) loading capacity (4.2.4) from 150 kg to 200 kg increased;
- g) new Clause 5 for testing included.

This document has been prepared under a standardization request addressed to CEN by the European Commission. The Standing Committee of the EFTA States subsequently approves these requests for its Member States.

For the relationship with EU Legislation, see informative Annex ZA, which is an integral part of this document.

Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

## **Introduction**

In this document, reference is made to EN 1789:2020+A1:2023, which specifies design requirements and test methods for road ambulances, which are relevant for checking requirements for such handling equipment.

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## 1 Scope

This document specifies minimum requirements for the design and performance of power assisted stretchers used in road ambulances for the treatment and transportation of patients. It aims to ensure patient safety and minimize the physical effort required by staff operating the equipment.

## 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.

EN 597-1:2015, *Furniture — Assessment of the ignitability of mattresses and upholstered bed bases — Part 1: Ignition source smouldering cigarette*

EN 1789:2020+A1:2023, *Medical vehicles and their equipment — Road ambulances*

EN 60601-1-2:2015,<sup>1</sup> *Medical electrical equipment — Part 1-2: General requirements for basic safety and essential performance — Collateral Standard: Electromagnetic disturbances — Requirements and tests (IEC 60601-1-2:2014<sup>2</sup>)*

EN 62366-1:2015,<sup>3</sup> *Medical devices — Application of usability engineering to medical devices (IEC 62366-1:2015<sup>4</sup>)*

EN ISO 15223-1:2021, *Medical devices — Symbols to be used with information to be supplied by the manufacturer — Part 1: General requirements (ISO 15223-1:2021)*

EN ISO 20417:2021, *Medical devices — Information to be supplied by the manufacturer (ISO 20417:2021, Corrected version 2021-12)*

## 3 Terms and definitions

For the purposes of this document, the following terms and definitions 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/>

### 3.1

#### **power assisted stretcher**

device designed for the conveyance of sick and/or injured persons or those in labour in transit in a recumbent position in safety and in comfort whilst facilitating treatment and providing powered movements in the operation of the stretcher to reduce the physical effort required by operatives

<sup>1</sup> As impacted by EN 60601-1-2:2015/A1:2021.

<sup>2</sup> As impacted by IEC 60601-1-2:2014/AMD1:2020.

<sup>3</sup> As impacted by EN 60601-1-2:2015/AC:2015, EN 60601-1-2:2015/AC:2016-09 and EN 60601-1-2:2015/A1:2020.

<sup>4</sup> As impacted by IEC 62366-1:2015/COR1:2016 and IEC 62366-1:2015/AMD1:2020.