Elektromagnetiline ühilduvus. Sõidukitele pärast müüki paigaldatavate elektroonikaseadmete tooteperekonnastandard

Electromagnetic compatibility (EMC) - Product family standard for aftermarket electronic equipment in vehicles

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NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 50498:2010 sisaldab Euroopa standardi EN 50498:2010 ingliskeelset teksti.	This Estonian standard EVS-EN 50498:2010 consists of the English text of the European standard EN 50498:2010.
Standard on kinnitatud Eesti Standardikeskuse 31.10.2010 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.	This standard is ratified with the order of Estonian Centre for Standardisation dated 31.10.2010 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.
Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 09.07.2010.	Date of Availability of the European standard text 09.07.2010.
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English version

Electromagnetic compatibility (EMC) - Product family standard for aftermarket electronic equipment in vehicles

Compatibilité électromagnétique (CEM) - Norme de famille de produits pour les équipements électroniques destinés au marché des pièces de rechange et accessoires pour véhicules

Elektromagnetische Verträglichkeit (EMV) - Produktfamiliennorm für elektronische Geräte die nachträglich in Fahrzeuge eingebaut werden

This European Standard was approved by CENELEC on 2010-07-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

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CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

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Foreword

This European Standard was prepared by Working Group 8 of the Technical Committee CENELEC TC 210, Electromagnetic compatibility (EMC).

It was submitted to the Unique Acceptance Procedure and was approved by CENELEC as EN 50498 on 2010-07-01.

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

The following dates are proposed:

- latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2011-07-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2013-07-01

This European Standard has been prepared under Mandate M/359 given to CENELEC by the European Commission and the European Free Trade Association and covers essential requirements of EC Directive 2004/108/EC. See Annex ZZ.

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1 Scope and objective

This European Standard specifies limits and methods of measurement for disturbance emissions and immunity characteristics of aftermarket equipment (ESAs) which are referenced by Automotive EMC Directive 2004/104/EC, Annex I, 3.2.9, and which are not related to immunity-related functions of vehicles as defined in Automotive EMC Directive 2004/104/EC, Annex I, 2.1.12.

Any equipment (or part of an ESA) which has a primary function of radio transmission and/or reception according to the ITU Radio Regulations are excluded from the scope of this publication.

This European Standard covers the frequency range 9 kHz to 400 GHz. To date, it specifies limits and methods of measurement for conducted and radiated disturbances from ESAs in the frequency range 30 MHz to 1 GHz and immunity requirements for conducted transients. The assessment of an ESA needs to be performed only in the frequency ranges where limits are defined.

The emission requirements have been selected so as to ensure that disturbances generated by ESAs operating normally do not exceed a level that could prevent the vehicle or apparatus external to the vehicle from operating as intended. Fault conditions are not taken into account. Not all disturbance phenomena have been included for testing purposes in this standard but only those considered as relevant for the equipment covered by this standard.

As ESAs covered by this standard are not related to immunity-related function, only the following electromagnetic disturbance phenomena are evaluated:

- broadband and narrowband radiated electromagnetic disturbances;
- conducted transient disturbances;
- conducted transient immunity.

Accessories that are not connected directly to the vehicle harness, but only via a special interface are normally excluded from vehicular EMC requirements.

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 7637-2:2004, *Road vehicles – Electrical disturbances from conduction and coupling – Part 2: Electrical transient conduction along supply lines only*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1
Electrical/Electronic Sub-Assembly (ESA)
electrical and/or electronic device or set(s) of devices intended to be part of a vehicle, together with any associated electrical connections and wiring, which performs one or more specialized functions

3.2
broadband emission
emission, which has a bandwidth greater than that of a particular measuring apparatus or receiver

3.3
narrowband emission
emission, which has a bandwidth less than that of a particular measuring apparatus or receiver