

English Version

Intelligent transport systems - eSafety - Part 4: eCall for UNECE Category T, R, S agricultural/forestry vehicles

Systèmes de transport intelligents - eSafety - Partie 4:
eCall pour les véhicules agricoles / forestiers de la
catégorie T, R, S de la CEE-ONU

Intelligente Verkehrssysteme - eSicherheit - Teil 4: eCall
für UNECE-Kategorie T, R und S Landmaschinen und
Forstfahrzeuge

This Technical Specification (CEN/TS) was approved by CEN on 2 December 2018 for provisional application.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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European foreword

This document (CEN/TS 17249-4:2019) has been prepared by Technical Committee CEN/TC 278 “Intelligent transport systems”, the secretariat of which is held by NEN.

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Introduction

As a result of European Regulation, from 2018, all new model Category M1/N1 vehicles will be equipped with 112-eCall. Other model Category M1/N1 vehicles may be voluntarily equipped with 112-eCall.

The current eCall Regulation covers only M1 and N1 Category vehicles (cars and vans). The European Commission's "ICT Rolling Plan (2017) states the objective "Action 1 Develop technical specification/standards for the implementation of eCall in vehicles of categories other than M1 and N1 and for other user types, taking into account requirements included within type approval regulation as well as ongoing activities in this area (pilots, CEF,...)." And goes on to explain ".....for the extension to other vehicles types and services, such as Heavy Duty Vehicles, Power Two Wheelers or Hazardous Goods tracking, and other classes of vulnerable road users".

The CEN Project TC 278 PT1507 has addressed the issues relating to eCall for HGVs, coaches and busses, Powered two wheel vehicles and agricultural/forestry vehicles. See CEN/TR 17249-1:2018 for context (especially Section 12 in respect of agricultural/forestry vehicles).

The UNECE category T defines an agricultural/forestry vehicle as "a power-driven vehicle, either wheeled or track laying, which has at least two-axles, whose function depends essentially on its tractive power, and which is specially designed to pull, push, carry or actuate certain implements, machines or trailers intended for use in agriculture or forestry. Such a vehicle may be arranged to carry a load (E.g.: Forwarder) and attendants."

When on the road, accidents involving agricultural/forestry vehicles can cause serious problems, largely because of what they are towing (muck spreaders, equipment with metal spikes, large round bales, livestock, etc.) and while it may be impractical to know the cargo, it is important to know that it is an agricultural/forestry vehicle and that such related problems may arise.

However, in the case of agricultural/forestry vehicles of most types, the benefit of eCall off the roadway is of even greater value. The agricultural/forestry vehicle driver is normally working alone, with no passing traffic or onlookers, frequently in a remote location. If there is a serious incident and the agricultural/forestry vehicle driver is injured, this is often not noticed for some considerable time. It is already well recognized that eCall is of greatest benefit to speed assistance to those who have incidents in remote locations. (That said, it is recognized that eCall, as currently supported, will only work where there is cellular network coverage, however, CEN/TS 17312 is addressing this issue to additionally provide eCall support via satellite communications for those who elect to add this capability, and TS 17184 provides the means to support eCall via IMS (4G/LTE) communications where this capability is supported by the nearest PSAP and the vehicle is suitably equipped).

This Technical Specification provides determination for the provision of 112-eCall to agricultural/forestry vehicles. As with the existing provisions for eCall for Category M1/N1 vehicles, these systems are specified within the paradigm of being OEM fit equipment supplied with new vehicles.

The provision of eCall for the aftermarket will be the subject of other work, and in respect of the operational requirements for any such aftermarket solutions for agricultural and forestry vehicles will use the specifications of this Technical Specification as a principle reference point.

This document is complementary to EN 16072 and EN 15722 and presents adaptation requirements for the provision of eCall for Agricultural and Forestry vehicles.

1 Scope

In respect of 112-eCall (operating requirements defined in EN 16072), this document defines additional specifications for the provision of eCall for agricultural/forestry vehicles.

As with the existing provisions for eCall for Category M1/N1 vehicles, these systems are specified within the paradigm of being OEM fit equipment supplied with new vehicles.

NOTE 1 The provision of eCall for vehicles via the aftermarket (post sale and registration) will be the subject of other work, and in respect of the operational requirements for any such aftermarket solutions for agricultural/forestry vehicles, will use the specifications of this Technical Specification as a principle reference point.

NOTE 2 The 112-eCall paradigm involves a direct call from the vehicle to the most appropriate PSAP. (Third party service provision by comparison, involves the support of an intermediary third party service provider before the call is forwarded to the PSAP). The specifications herein relate only to the provision of 112-eCall or IMS-112-eCall, and do not provide specifications for third party service provision of eCall.

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 15722:2015, *Intelligent transport systems — eSafety — eCall minimum set of data*

EN 16072:2015, *Intelligent transport systems — eSafety — Pan-European eCall operating requirements*

CEN/TS 17184, *Intelligent transport systems — eSafety — eCall high level application requirements (HLAP) using IMS packet switched networks*

CEN/TS 17240, *Intelligent transport systems — eSafety — eCall end to end conformance testing for IMS packet switched based systems*

3 Terms and definitions

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

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

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

3.1

112

single European emergency call number supporting Teleservice 12

[SOURCE: ETSI/TS 122 003]

3.2

112-eCall

eCall via single 112 European emergency call number supporting Teleservice 12

NOTE 1 to entry: In accordance with EN 16072 and EN 16062

3.3

agricultural/forestry vehicle

UNECE vehicle of category T, R, S

[SOURCE: UNECE ECE/TRANS/WP.29/78/Rev.4]

3.4

automated vehicle

cooperative and connected vehicles that operate without a person directly in control

3.5

device

term used by ISOBUS for an implement or a machine (3.11)

3.6

equipment

device or machine that performs a specific field operation

[SOURCE: ISO 11783-1]

3.7

field

area of land managed by a farmer, represented by either a single partfield or a collection of more than one partfield

[SOURCE: ISO 11783-1]

3.8

implement

device or machine that performs a specific operation and which is normally attached to a tractor (3.16)

[SOURCE: ISO 11783-1]

3.9

in-vehicle system

IVS

equipment within the vehicle that manages and effects the eCall transaction

3.10

ISOBUS

universal protocol for electronic communication between implements (3.8), tractors and computers

3.11

machine

device that uses or applies mechanical power, which has a definite function and which performs a specific kind or kinds of work

[SOURCE: ISO 11783-1]