

Regulation No. XXX

UNIFORM PROVISIONS CONCERNING THE APPROVAL OF I EMERGENCY CALL DEVICES (AECD) II VEHICLES WITH REGARD TO THE INSTALLATION OF AN AECD OF AN APPROVED TYPE III VEHICLES WITH REGARD TO THEIR AECS

Contents

1. Scope

- 1.1. This Regulation applies to:
- (a) Part I: the AECDs which are intended to be fitted to vehicles of categories M1 and N1¹;
 - (b) Part II: the installation on vehicles of categories M1 and N1¹ of AECDs which have been approved to Part I of this regulation.
 - (c) Part III: vehicles of categories M1 and N1¹ with regard to their AECS or equipped with an AECD which has not been separately approved according to Part I of this Regulation.
- 1.2. Unless otherwise prescribed in this regulation, it does not apply to connectivity and communication to the mobile communication networks and the operation of PSAP.
- 1.3. Vehicles in the scope of neither Regulation No. 94 nor Regulation No. 95 and not fitted with an automatic triggering system shall be excluded from the scope of this regulation.
- 1.4. **Vehicles of the following categories shall be excluded from the scope of this regulation:**
- **Armoured vehicles¹**
 - **M1 vehicles with a GVM > 3.5t**

Part I: EMERGENCY CALL DEVICES (AECD)

2. Definitions

For the purposes of this Regulation:

- 2.1 “~~AECS~~ (*Accident Emergency Call ~~System-Device~~*)” means a ~~system-device~~ that at least :
- generates a communication toward emergency services if a vehicle suffers a serious road accident and provides two-way voice communication; and

¹ As defined in Section 2 of the Consolidated Resolution on the Construction of Vehicles (R.E.3) (document TRANS/WP.29/78/Rev.2) – www.unece.org/trans/main/wp29/wp29wgs/wp29gen/wp29resolutions.html.

has the ability to provide the vehicle location.

2.2 “AECD (Accident Emergency Call Device)” means a unit or a set of units to control AECS, including the functions;

- receiving the triggering signal,
- receiving the signal from AECS control, if fitted,
- providing the vehicle location.
- sending the data, and

allowing bidirectional audio signals for voice communication.

~~2.3-2.2~~ “Global Navigation Satellite System receiver” (“GNSS receiver”) means a component of an AECD designed to determine time, the coordinates and direction of the vehicle using signals from global navigation satellite systems; the GNSS receiver can be included in the AECD or in another external control unit, as long as the AECD ensure its ability to provide the vehicle location in case of an event.

~~2.4-2.3~~ “Satellite-Based Augmentation System” (SBAS) is a system ensuring the correction of local errors of GNSS systems due to interferences via a network of ground-based stations. (ex: EGNOS, WASS, QZSS)

~~2.5-2.4~~ “Communications module” means a component of an AECD designed for voice communication and to transmit data about an accident using terrestrial mobile telephone communications networks;

~~2.6-2.5~~ “User interface” means a component or function of an AECD designed to allow the user to interact with the device, including by receiving visual information, obtaining visual information and introducing control commands;

~~2.7-2.8~~ “Control module” means a component of an AECD designed to ensure the combined functioning of all components of the AECD;

~~2.8-2.7~~ “Type of AECD” means devices that do not differ in such essential respects as:

- (a) The manufacturer's trade name or mark;
- (b) Their construction;

~~2.9-2.8~~ “Data exchange protocol” means the set of rules and agreements that define the content, format, time parameters, sequence and error checks in messages exchanged between an AECD and the devices of Public Service Answering Party (PSAP).

~~2.10-2.9~~ “Public/Private Safety Answering Point (PSAP)” means a physical location where emergency calls are first received under the responsibility of a public authority or a private organization recognized by the national government. ~~a call center responsible for answering calls to an emergency telephone call. It can be of two types~~

- ~~Public Safety Answering Point managed by the public services of a Contracting Party to the 58 Agreement;~~
- ~~Private Safety Answering Point managed by a private company.~~

3. Application for approval of an AECD

3.1 The application for approval of a type of AECD shall be submitted by the holder of the trade name or mark or by his duly accredited representative.

3.2 A model of the information document is given in Annex 1.

3.3 For each type of AECD, the application shall be accompanied by samples of complete sets of AECDs in sufficient quantities for the tests prescribed by this regulation. Additional

specimens may be called for at the request of the technical service responsible for conducting the test.

4. Markings of an AECD

- 4.1 The samples of AECD submitted for approval shall bear the trade name or mark of the manufacturer. This marking shall figure at least on the unit or units containing the navigation system receiver and communications module. It shall be clearly legible and be indelible.
- 4.2 The unit or units containing the navigation system receiver and communications module shall possess a space large enough to accommodate the approval mark. This space shall be shown on the drawings referred to in Annex 1.

5. Approval

- 5.1 If the samples submitted for approval meet the requirements of paragraph 6 of this Regulation, approval of the pertinent type of AECD shall be granted.
- 5.2 An approval number shall be assigned to each type approved. The first two digits (at present 00) shall indicate the series of amendments incorporating the most recent major technical amendments made to the Regulation at the time of issue of the approval. The same Contracting Party shall not assign the same number to another type of AECD.
- 5.3 Notice of approval or of refusal, or of extension or withdrawal of approval, or of production definitively discontinued of a type of AECD pursuant to this Regulation shall be communicated to the Parties to the Agreement which apply this Regulation by means of a form conforming to the model in annex 3 to this Regulation.
- 5.4 There shall be affixed, conspicuously and in the space referred to in paragraph 4.2 above, to every AECD conforming to a type approved under this Regulation, in addition to the mark prescribed in paragraph 4.1., an international approval mark conforming to the model given in annex 5, consisting of:
- 5.4.1 A circle surrounding the letter "E" followed by the distinguishing number of the country which has granted approval;²
- 5.4.2 The number of this Regulation, followed by the letter "R", a dash and the approval number to the right of the circle prescribed in paragraph 5.4.1.
- 5.5 The approval mark shall be clearly legible and be indelible.

6. General requirements

6.1 Base function and operation principles

The AECD shall send data and establish voice connection with the PSAP.

If the sending of data failed then the AECD shall retry sending the data.

If the AECD has successfully sent the data and then loses the voice connection, it shall try to reestablish voice connection.

In case it was not possible to establish voice connection and/or send data using mobile communication networks, the AECD shall store the data in non-volatile

memory and attempt re-transmission of the data and to establish a voice connection.

~~[Whenever, a third party emergency system is installed in the vehicle compliant with regional or national standards for private Ecall [e.g. for EU CEN 16102:2011 standard “Operating requirements for third party support” (TPS Ecall)], the driver has the free choice to use this system. It has to be ensured that there is only one system active at a time”].~~

(Note: Changing the order (from 6.4) and deletion of square bracket part)

- ~~[6.2-6.1~~ The effectiveness of AECD shall not be adversely affected by magnetic or electrical fields. This requirement shall be met by ensuring compliance with the technical requirements and transitional provisions of Regulation No. 10.05]

~~6.2~~ ~~Reception and processing of navigation signals~~

~~The testing procedures in Annex 5 can be performed either on the AECD unit including post processing ability or directly on the GNSS chipset.~~

6.3 Mean of access to mobile networks

The AECD shall be fitted with an embedded hardware allowing registration/authentication on and access to the mobile network

(Note: Original 6.4 has been moved to 6.1)

~~6.4-6.5~~ AECD information and warning signal

The following provisions are applicable if the AECD warning signal verification is not part of the installation approval of an AECD in a vehicle per Part II of this regulation.

- ~~6.4.1-6.5.1.~~ Information shall be provided regarding the status of the connection when the AECD is automatically or manually activated.

- ~~6.4.2-6.5.2.~~ A warning signal shall be provided ~~to the driver~~ when the AECD is not functioning properly.

- 6.4.3. Instead of providing information or warning signal, AECD may provide the electric signal to other vehicle components, e.g. instrument panel, which enable to provide information or warning signal.

~~6.5.3.~~ ~~AECD Control~~

~~If the emergency call control assessment is not part of the AECD approval per Part II of this regulation, the emergency call control assessment shall be conducted according to the procedure let down in Annex XXX, paragraph XXX~~

~~6.5-6.6.~~ Power supply

The AECD shall be able to operate autonomously for a period of first not less than 5 minutes in voice communication (definition to be added – Qualcomm future email) mode followed by 60 minutes in call-back (definition to be added) mode and finally not less than 5 minutes in voice communication mode.

This capability is tested in following conditions:

- battery has to be fully charged at the time the test begins, at the discretion of the applicant;
- Ambient air temperature: $(25 \pm 10)^{\circ}\text{C}$

~~6.6-6.7~~ Resistance to impact

The AECD shall remain operational after impact. This shall be demonstrated according to Annex xx , or verifications described in ww after the collision described in yy or zz .

- 8. Modification and extension of approval of the type of AECD**
- 9. Conformity of production**
- 10. Penalties for non-conformity of production**
- 11. Production definitively discontinued**
- 12. Names and addresses of technical services responsible for conducting approval tests, and of administrative departments**