

Annex 9

Test method for emergency call (paragraphs 7.6 7.4 and 17.3.3, 16.3.3, 17.5.)

1. The functional check of the in-vehicle system shall be performed via one out of the [four/five] methods laid down in paragraphs 1.1. and [1.2./1.3.] below.
These methods able to be chosen by agreements between test services and car manufacturers.
 - 1.1. Technique to use the real electric radio wave at the time of a collision test in the open environment.
 - 1.1.1. Functional check via real PLMN (public Land Mobile network) and confirms it and examines the availability.
 - 1.1.2. Functional check using simulator to receive an electric wave signal and confirms it and examines the availability.
 - 1.2. Technique not to use the real electric radio wave at the time of a collision test in the open environment.
 - 1.2.1. Functional check by connecting AECS and a simulator with wire cable after an collision test without sending an electric wave at the time of a collision test and using a simulator to receive a signal and confirms availability.
 - 1.2.2. Functional check by carrying vehicle to the electric wave shield room after a collision test without sending an electric wave at the time of a collision test and using a simulator to receive radio wave and confirms availability.
 - [1.3. Verification of functional state of the in-vehicle system by using HMI (visual control of tell-tale)
When the in-vehicle AECD is capable
 - to check and diagnose the function of all devices belonging to the AECD scope (Antennas, power supply, microphone, speaker) and
 - to discriminate a network failure (*) from an internal failure of the AECD Unit, the communication with GNSS and mobile networks and PSAP is deemed to be compliant if no failure warning is indicated by the HMI.]
2. **Post-crash assessment of the AECS operation shall include the following:**
~~The function confirmation of the AECS system shall be carried out according to one of the procedures described in about an item fixed for paragraph 1. above 1.2 to 3 following.~~
~~Confirmation criteria and the detailed examples of the test techniques in case of para.1.2.1 are described at Appendix 1.~~
 - 2.1. MSD emission assessment shall include verification of at least the following:
 - 2.1.1. Vehicle **location data is transmitted correctly**, and
 - 2.1.2. ~~Trigger~~ time **stamp** is transmitted correctly, and
 - 2.1.3. Vehicle identification number is transmitted correctly
 - ~~2.2. MSD emission assessment can be performed either~~
 - ~~2.2.1. By transmitting MSD to a simulator, or~~
 - ~~2.2.2. By transmitting MSD via real PLMN (Public Land Mobile Network)~~
 - 2.3. Hands-free voice communication assessment (subjective test) shall include verification of the following:
 - 2.3.1. Voice originating inside the vehicle can be clearly heard by the remote listener with satisfactory intelligibility, and
 - 2.3.2. Speech of the remote speaker can be clearly heard in the vehicle with satisfactory intelligibility
 - 2.3.3. **[The language and sentence used for the test shall be one of those listed in appendix 2 to this Annex.**
 - 2.3.4. **The rated performance according to appendix 3 to this Annex shall, be at least “3”]**

2.4. Hands-free voice communication assessment can be performed either

2.4.1. By establishing voice communication to a simulator, or

2.4.2. By establishing voice communication via real PLMN

2.5. HMI operation assessment shall ~~be include the following~~ be verified by checking that

~~2.5.1 Manual trigger (call generation) is working correctly. This is verified by checking if manual trigger leads to~~

~~2.5.1.1. MSD transmission, which is verified according to paragraph 1 of this Annex, and~~

~~2.5.1.2. Voice communication being established, which is verified according to paragraph 3 of this Annex.~~

~~2.6.~~the Call status indication is working properly. This is verified by checking that the following statuses are displayed during test according paragraph ~~2.5.1~~ 2.1 to 2.4 of the current Annex: [

2.6.1. Call initiated (dialing)

2.6.2. MSD transmitted

2.6.3. Waiting for PSAP operator to answer

2.6.4. Call in progress]

In agreement with the testing agency the manufacturer can choose to verify the HMI through a manual activation of the AECS

Confirmation criteria and the detailed examples of the test techniques in case of para.1.2.1 are described at Appendix 1.

Annex 910, Appendix 1 Verification of functional state of the in-vehicle system by functional transmission test with wired procedure (for AECS with external antenna)

The functional availability of AECS component parts after crash can be checked by following criteria and confirmation method.

This appendix defines minimum test conditions (as far as applicable) and failures criteria for verification of functional state of the in-vehicle system by functional transmission test with wired procedure (for AECS with external antenna)

The method by which this check is carried out shall be agreed between the vehicle manufacturer and the technical service with the method of assessment and results being appended to the type approval report.

(1) AECD

Subject	Item subject to confirmation	Criteria	Example of the confirmation method
	Activation of automatic call and dial-up.	Calling sequence to PSAP is performed after collision test	Confirm emergency calling sequence by PSAP simulator.
	Emission of MSD with antenna wire connection to simulator after the collision.	MSD has been emitted.	After completion of the emergency calling sequence, confirm the content of MSD

(2) Antenna, feeder wire

Subject	Item subject to confirmation	Criteria	Example of the confirmation method
Telephone antenna, feeder wire	-Function -Wire snapping -Wire short-circuit	Do not be abnormal value (∞) of VSWR(Voltage Standing Wave Ratio)	Measure VSWR(Voltage Standing Wave Ratio)

(3) Component

Subject	Item subject to confirmation	Criteria	Example of the confirmation method
Tell-tale	Display	Correct operation during and after crash test	Visual observation and check operation
Microphone	Possibility of voice communication	Voice message from vehicle can be confirmed at PSAP simulator.	Confirm voice condition during talking test with wire procedure. - One inspector of the technical

Speaker	Possibility of voice communication	Voice message from PSAP simulator can be confirmed at vehicle side.	<p>service makes telephone call to another inspector of PSAP simulator side through PSAP simulator.</p> <ul style="list-style-type: none"> - The language and sentence used for the test shall be one of those listed in appendix 1 to this Annex. - The rated performance according to appendix 2 to this Annex shall, be at least “3” -
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Annex 9, appendix 2

Language and sentence for Hands free voice assessment

Test sentence pairs, as defined in ITU-T P.501, Annex B, shall be used for the exchange of test messages in the send and receive directions.

Test sentence pairs in the language most commonly spoken by the testers shall be selected from a list.

Test sentences

All speech samples shall be processed such that the levels measured using a speech level voltmeter according are equal.

Examples, only languages relevant for Contracting parties signing UNECE AECS are relevant

- B.3.2 Dutch (fullband)

Female 1:

Dit produkt kent nauwelijks concurrentie.

Hij kende zijn grens niet.

Female 2:

Ik zal iets van mijn carrière vertellen.

Zijn auto was alweer kapot.

Male 1:

Zij kunnen de besluiten nemen.

De meeste mensen hadden het wel door.

Male 2:

Ik zou liever gaan lopen.

Willem gaat telkens naar buiten.

- B.3.3 English (fullband)

Female 1:

These days a chicken leg is a rare dish.

The hogs were fed with chopped corn and garbage.

Female 2:

Rice is often served in round bowls.

A large size in stockings is hard to sell.

Male 1:

The juice of lemons makes fine punch.

Four hours of steady work faced us.

Male 2:

The birch canoe slid on smooth planks.

Glue the sheet to the dark blue background.

- B.3.4 English (American)

Female 1:

We need grey to keep our mood healthy.

Pack the records in a neat thin case.

Female 2:

The stems of the tall glasses cracked and broke.

The wall phone rang loud and often.

Male 1:

The shelves were bare of both jam or crackers.

A joy to every child is the swan boat.

Male 2:

Both brothers were the same size.

In some form or other we need fun.

- B.3.5 Finnish (fullband)

Female 1:

Ole ääneti tai sano sellaista, joka on parempaa kuin vaikeneminen.

Suuret sydämet ovat kuin valtameret, ne eivät koskaan jäädy.

Female 2:

Jos olet vasara, lyö kovaa. Jos olet naula pidä pääsi pystyssä.

Onni tulee eläen, ei ostaen.

Male 1:

Rakkaus ei omista mitään, eikä kukaan voi sitä omistaa.

Naisen mieli on puhtaampi, hän vaihtaa sitä useammin.

Male 2:

Sydämellä on syynsä, joita järki ei tunne.

On opittava kärsimään voidakseen elää.

▪ B.3.6 French (fullband)

Female 1:

On entend les gazouillis d'un oiseau dans le jardin.

La barque du pêcheur a été emportée par une tempête.

Female 2:

Le client s'attend à ce que vous fassiez une réduction.

Chaque fois que je me lève ma plaie me tire.

Male 1:

Vous avez du plaisir à jouer avec ceux qui ont un bon caractère.

Le chevrier a corné pour rassembler ses moutons.

Male 2:

Ma mère et moi faisons de courtes promenades.

La poupée fait la joie de cette très jeune fille.

▪ B.3.7 German

Female 1:

Zarter Blumenduft erfüllt den Saal.

Wisch den Tisch doch später ab.

Female 2:

Sekunden entscheiden über Leben.

Flieder lockt nicht nur die Bienen.

Male 1:

Gegen Dummheit ist kein Kraut gewachsen.

Alles wurde wieder abgesagt.

Male 2:

Überquere die Strasse vorsichtig.

Die drei Männer sind begeistert.

▪ B.3.8 German (fullband)

Female 1:

Im Fernsehen wurde alles gezeigt,

Alle haben nur einen Wunsch.

Female 2:

Kinder naschen Süßigkeiten.

Der Boden ist viel zu trocken.

Male 1:

Mit einem Male kam die Sonne durch.

Das Telefon klingelt wieder.

Male 2:

Sekunden entscheiden über Leben.

Flieder lockt nicht nur die Bienen.

▪ B.3.9 Italian (fullband)

Female 1:

Non bisogna credere che sia vero tutto quello che dice la gente. Tu non conosci ancora gli uomini, non conosci il mondo.

Dopo tanto tempo non ricordo più dove ho messo quella bella foto, ma se aspetti un po' la cerco e te la prendo.

Female 2:

Questo tormento durerà ancora qualche ora. Forse un giorno poi tutto finirà e tu potrai tornare a casa nella tua terra.

Lucio era certo che sarebbe diventato una persona importante, un uomo politico o magari un ministro.
Aveva a cuore il bene della società.

Male 1:

Non bisogna credere che sia vero tutto quello che dice la gente tu non conosci ancora gli uomini, non conosci il mondo.

Dopo tanto tempo non ricordo più dove ho messo quella bella foto ma se aspetti un po' la cerco e te la prendo.

Male 2:

Questo tormento durerà ancora qualche ora. Forse un giorno poi tutto finirà e tu potrai tornare a casa nella tua terra.

Lucio era certo che sarebbe diventato una persona importante, un uomo politico o magari un ministro, aveva a cuore il bene della società.

▪ B.3.10 Japanese (fullband)

Female 1:

彼は鮎を釣る名人です。

Kare wa ayu wo tsuru meijin desu.

古代エジプトで十進法の原理が作られました。

Kodai ejipto de jusshinhou no genri ga tsukuraremashita.

Female 2:

読書の楽しさを知ってください。

Dokusho no tanoshisa wo shitte kudasai.

人間の価値は知識をどう活用するかで決まります。

Ningen no kachi wa chishiki wo dou katsuyou suruka de kimarimasu.

Male 1:

彼女を説得しようとしても無駄です。

Kanojo wo settoku shiyoutoshitemo mudadesu.

その昔ガラスは大変めずらしいものでした。

Sono mukasi garasu wa taihen mezurashii monodeshita.

Male 2:

近頃の子供たちはひ弱です。

Chikagoro no kodomo tachi wa hiyowa desu.

イギリス人は雨の中を平気で濡れて歩きます。

Igirisujin wa ameno nakawo heikide nurete arukimasu.

▪ B.3.11 Polish

Female 1:

Pielęgniarki były cierpliwe.

Przebiegał szybko przez ulicę.

Female 2:

Ona była jego sekretarką od lat.

Dzieci często płaczą kiedy są głodne.

Male 1:

On był czarującą osobą.

Lato wreszcie nadeszło.

Male 2:

Większość dróg było niezmiernie zatłoczonych.

Mamy bardzo entuzjastyczny zespół.

▪ B.3.12 Spanish (American)

Female 1:

No arroje basura a la calle.

Ellos quieren dos manzanas rojas.

Female 2:

No cocinaban tan bien.

Mi afeitadora afeitada al ras.

Male 1:

Vé y siéntate en la cama.

El libro trata sobre trampas.

Male 2:

**El trapeador se puso amarillo.
El fuego consumió el papel.**

Annex 9, appendix 3

Intelligibility/listening effort (ITU P1100)

Description:

The rating table is applied to evaluate the effort required to understand the meaning of words and sentences. The applicable test cases are single talk and the rating scale is given in Table C.5.

The question heading this scale shall be:

“How would you judge the effort required to understand words and sentences of your remote partner?”

Table C.5 – Intelligibility/listening-effort

Rating description Grade

Table C.5 – Intelligibility/listening-effort

Rating description		Grade
Every word was clearly understood with no effort required		5
Speech of the other side was understood with no appreciable effort required		4
Some words were hard to understand, moderate effort was required		3
Many words were hard to understand, considerable effort was required		2
No meaning understood with any feasible effort		1

