



Brussels, **XXX**
[...] (2021) **XXX** draft

COMMISSION DELEGATED REGULATION (EU) .../...

of **XXX**

supplementing Regulation (EU) 2019/2144 of the European Parliament and of the Council by laying down detailed rules concerning the specific test procedures and technical requirements for the type-approval of motor vehicles with regard to their event data recorder and for the type-approval of those systems as separate technical units and amending Annex II to that Regulation

(Text with EEA relevance)

EXPLANATORY MEMORANDUM

1. CONTEXT OF THE DELEGATED ACT

Regulation (EU) 2019/2144 of the European Parliament and of the Council mandates motor vehicles of categories M₁ and N₁ to be equipped with event data recorders (EDR) from 6 July 2022 for new vehicle types and from 7 July 2024 for all new vehicles.

According to studies¹, EDR can provide valuable accident data that can help to improve vehicle safety. The information on the status of the vehicle and its systems at the moment of a collision, as well as shortly before and after a collision, should enable better understanding of the causes and circumstances of accidents and the functioning of the vehicle's safety systems. This analysis will help to improve the vehicle's safety and reduce the number of accidents.

2. CONSULTATIONS PRIOR TO THE ADOPTION OF THE ACT

In preparing this act, the Commission carried out appropriate consultations with Member State experts and stakeholders, with meetings to exchange views on the proposed approach on 18 December 2020, 11 February 2021, 21 April 2021, 28 May 2021, 30 June 2021 and 2 July 2021. The provisions of the 01 Series of Amendments to UN Regulation No 160, referred to in the Annex to this act, have been prepared by a UNECE working group involving the EU stakeholders, including EU Member States, road safety organisations and industry representatives.

3. LEGAL ELEMENTS OF THE DELEGATED ACT

The Act establishes technical requirements and testing procedures for vehicle type-approval with regard to EDR, as well as type-approval of EDR as a separate technical unit (STU). For type-approval of a vehicle type, the Act refers to the provisions of a 01 Series of Amendments to UN Regulation No 160, making its requirements applicable under the General Vehicle Safety Regulation (GSR). These requirements concern data elements that EDR must record, the format of these data, requirements for data capture (including those on recording and overwriting of data, on-board storing and the locking of certain data records) and requirements for crash test performance and survivability.

The catalogue of data elements that EDR must record is included in Annex 5 to the 01 Series of Amendments to UN Regulation 160. As stated in the footnote to the amendment of Annex II of the GSR, all technical requirements shall apply from the dates specified in the GSR, without prejudice to the international obligations of the EU, notably resulting from paragraph 11 of the 01 Series of Amendments to UN Regulation No 160.

In addition to the requirements of the 01 Series of Amendments to UN Regulation 160, the Act lays down additional requirements concerning data retrieval, privacy and security of data.

Where there is type-approval of an EDR as an STU, the Act lays down the same technical requirements as those in the 01 Series of Amendments to UN Regulation No 160 for data capture, establishment of time zero (of an event), data overwriting, power failure and prohibition of deactivation. The other requirements in the 01 Series of Amendments to UN

¹ E.g. Study on the benefits resulting from the installation of Event Data Recorders, Final Report, *David Hynd and Mike McCarthy*, 2014; https://ec.europa.eu/transport/sites/default/files/docs/study_edr_2014.pdf; Vehicle Event Recording based on Intelligent Crash Assessment VERONICA – II, 2009, https://ec.europa.eu/transport/road_safety/sites/default/files/pdf/projects_sources/veronica2_final_report.pdf

Regulation No 160, as well as the additional requirements in the Act, shall be complied with by the vehicle type in which an EDR type-approved as an STU is fitted.

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supplementing Regulation (EU) 2019/2144 of the European Parliament and of the Council by laying down detailed rules concerning the specific test procedures and technical requirements for the type-approval of motor vehicles with regard to their event data recorder and for the type-approval of those systems as separate technical units and amending Annex II to that Regulation

(Text with EEA relevance)

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Regulation (EU) 2019/2144 of the European Parliament and of the Council of 27 November 2019 on type-approval requirements for motor vehicles and their trailers, and systems, components and separate technical units intended for such vehicles, as regards their general safety and the protection of vehicle occupants and vulnerable road users, amending Regulation (EU) 2018/858 of the European Parliament and of the Council and repealing Regulations (EC) No 78/2009, (EC) No 79/2009 and (EC) No 661/2009 of the European Parliament and of the Council and Commission Regulations (EC) No 631/2009, (EU) No 406/2010, (EU) No 672/2010, (EU) No 1003/2010, (EU) No 1005/2010, (EU) No 1008/2010, (EU) No 1009/2010, (EU) No 19/2011, (EU) No 109/2011, (EU) No 458/2011, (EU) No 65/2012, (EU) No 130/2012, (EU) No 347/2012, (EU) No 351/2012, (EU) No 1230/2012 and (EU) 2015/166², and in particular Article 4(6) and Article 6(6) thereof,

Whereas:

- (1) Regulation (EU) 2019/2144 lays down a general obligation for motor vehicles to be equipped with certain advanced vehicle systems. Annex II to that Regulation should list requirements for the type-approval of motor vehicles with regard to their event data recorders and for the type-approval of those systems as separate technical units. It is necessary to supplement those requirements by establishing detailed harmonised rules on the specific test procedures and technical requirements for such type-approval.
- (2) The technical requirements and test procedures set out in this Regulation concern motor vehicle categories M₁ and N₁, in accordance with the applicable dates for refusal to grant EU type-approval regarding those categories of motor vehicles set out in Regulation (EU) 2019/2144.
- (3) In accordance with Article 3, point (13), of Regulation (EU) 2019/2144, the event data recorder is a system with the only purpose of recording and storing critical crash-related parameters and information shortly before, during and immediately after a collision with a view to obtain more accurate, in-depth accident data enabling Member

² OJ L 325, 16.12.2019, p. 1.

States to conduct road safety analysis and assess the effectiveness of specific measures.

- (4) The test procedures and detailed technical requirements for type-approval of vehicle types with regard to event data recorders are subject to the provisions of the 01 Series of Amendments to UN Regulation No 160³. That UN Regulation should therefore be added to the list of applicable requirements referred to in Articles 4(5) and 5(3) of Regulation (EU) 2019/2144.
- (5) The 01 Series of Amendments to UN Regulation No 160 includes the requirements regarding data elements that event data recorders are to record, the format of those data, the requirements for data capture, recording and on-board storing, as well as requirements on crash-test performance and survivability.
- (6) In order to ensure that vehicle manufacturers take appropriate measures to ensure the protection of the event data recorder's data against manipulation and the availability of the event data recorder's data over the standardised interface, and to enable those data to be anonymised, those requirements should be supplemented with additional requirements for data retrieval, privacy and security of data.
- (7) To ensure that the data recorded by the event data recorders remain anonymised, the manufacturers should be obliged to take appropriate measures preventing that those data are reported or retrieved together with any information related to a natural person.
- (8) Until standardised communication protocols for access and retrieval of event data are in place, through Commission delegated act vehicle manufacturers should provide information to relevant parties on how to access, retrieve and interpret the data in the event data recorder.
- (9) Event data recorder's correct operational status, as well as their correct functionality and software integrity, should be verified by periodic roadworthiness tests of vehicles.
- (10) The table containing the list of requirements in Annex II to Regulation (EU) 2019/2144 does not contain any reference to regulatory acts as regards event data recorders. It is therefore necessary to introduce a reference to this Regulation, UN Regulation No 160⁴ and the 01 Series of Amendments to UN Regulation No 160 in that Annex.
- (11) Regulation (EU) 2019/2144 should therefore be amended accordingly.
- (12) The provisions of this Regulation are closely interlinked as those provisions set out rules on the technical requirements for the type-approval of motor vehicles with regard to their event data recorder, as well as for the type-approval of event data recorders as a separate technical unit. As a result of the rules laid down in this Regulation, it is necessary to add the reference to this Regulation, UN Regulation No 160 and the 01 Series of Amendments to UN Regulation No 160 in Annex II to Regulation (EU) 2019/2144. It is therefore appropriate to lay down those provisions in a single Delegated Regulation.
- (13) As the requirements of Regulation (EU) 2019/2144 as regards event data recorders for vehicles of categories M1 and N1 are to apply from 6 July 2022, this Regulation should apply from the same date.

³ UN Regulation No 160 – Uniform provisions concerning the approval of motor vehicles with regard to the Event Data Recorder [2021/1215] 01 series of amendments (OJ L 265, 26.7.2021, p. 3).

⁴ UN Regulation No 160 – Uniform provisions concerning the approval of motor vehicles with regard to the Event Data Recorder (OJ L 221, 21.6.2021, p. 15).

HAS ADOPTED THIS REGULATION:

Article 1

Scope

This Regulation shall apply to vehicle categories M₁ and N₁, as defined in Article 4 of Regulation (EU) 2018/858 of the European Parliament and of the Council⁵.

Article 2

Applicable technical requirements

1. The event data recorder system of a vehicle shall comply with the technical requirements set out in:
 - (a) the 01 Series of Amendments to UN Regulation No 160; and
 - (b) Articles 3 and 4 of this Regulation.
2. Type-approval of an event data recorder's separate technical unit shall be subject to the separate technical unit complying with the same requirements as those set out in paragraphs 5.3 (introductory paragraph), 5.3.3, 5.3.4, 5.3.5 and 5.5 of the 01 Series of Amendments to UN Regulation No 160.
3. Where the motor vehicle is fitted with an event data recorder type-approved as a separate technical unit, the vehicle and its event data recorder shall comply with the technical requirements referred to in paragraph 1 of this Article. However, as regards paragraph 5 of the 01 Series of Amendments to UN Regulation No 160, they shall comply with the requirements set out in paragraphs 5.1, 5.2, 5.3.1, 5.3.2, and 5.4 of that Regulation.

Article 3

Data security

1. The crash-related data that the event data recorder records and stores shall be protected against manipulation by complying with the relevant technical requirements and transitional provisions of UN Regulation No 155⁶, the original series or any later series of amendments thereof.
2. Software updates performed on the event data recorder shall be protected to reasonably prevent them from being compromised and reasonably prevent invalid updates.

Article 4

Data retrieval

⁵ Regulation (EU) 2018/858 of the European Parliament and of the Council of 30 May 2018 on the approval and market surveillance of motor vehicles and their trailers, and of systems, components and separate technical units intended for such vehicles, amending Regulations (EC) No 715/2007 and (EC) No 595/2009 and repealing Directive 2007/46/EC (OJ L 151, 14.6.2018, p. 1).

⁶ UN Regulation No 155 – Uniform provisions concerning the approval of vehicles with regards to cybersecurity and cybersecurity management system [2021/387] (OJ L 82, 9.3.2021, p. 30).

1. Crash-related data recorded by the event data recorders shall be made available for retrieval through the serial data port on the standardised data link connector referred to in point 2.9 of Annex X to Regulation (EU) 2018/858. Where the serial data port is no longer functional after a collision, the data shall be retrievable by a direct connection to the event data recorder.
2. The vehicle manufacturer shall provide the type-approval authority and, at their request, any interested manufacturer or repairer of components, diagnostic tools or test equipment with information about how the event data can be accessed, retrieved and interpreted.
3. Vehicles and their event data recorders shall be designed in a way that enables a data retrieval tool to produce event reports that contain the following data elements:
 - (a) each of the mandatory data elements, as required under the 01 Series of Amendments to UN Regulation No 160;
 - (b) the precise vehicle type, variant and version (including the fitted active safety and accident avoidance systems) of the vehicle hosting the event data recorder.

The data referred to in the point (b) above, shall also be available at the completion of the crash test referred to in paragraph 5.4.3 of the 01 Series of Amendments to UN Regulation No 160.
4. The data recorded by the event data recorder shall not be available for retrieval over interfaces accessible without the need to unlock the vehicle or to use tools, or over vehicle interfaces for wireless connections.
5. The event data recorder's data made available pursuant to paragraph 1:
 - (a) shall be available in a machine-readable format;
 - (b) shall not include or be made available together with any information allowing to relate those data to a natural person.

Article 5

Provisions for roadworthiness testing

For the purpose of periodic roadworthiness tests of vehicles, it shall be possible to verify the following features of the event data recorder system:

- (1) its correct operational status, by visible observation of the failure warning signal status following the activation of the vehicle master control switch and any bulb check. Where the failure warning signal is displayed in a common space (the area on which two or more information functions/symbols may be displayed, but not simultaneously), it must be checked first that the common space is functional prior to the failure warning signal status check;
- (2) its correct functionality and the software integrity, by the use of an electronic vehicle interface, such as the one laid down in Section I, point (14), of Annex III to Directive 2014/45/EU of the European Parliament and of the Council⁷, where the technical characteristics of the vehicle allow for it and the necessary data is made available. Manufacturers shall ensure to make available the technical information for the use of

⁷ Directive 2014/45/EU of the European Parliament and of the Council of 3 April 2014 on periodic roadworthiness tests for motor vehicles and their trailers and repealing Directive 2009/40/EC (OJ L 127 29.4.2014, p. 51).

the electronic vehicle interface in accordance with Article 6 of Commission Implementing Regulation (EU) 2019/621⁸.

Article 6

Amendment to Regulation (EU) 2019/2144

Annex II to Regulation (EU) 2019/2144 is amended in accordance with the Annex to this Regulation.

Article 7

Entry into force and date of application

This Regulation shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

It shall apply from 6 July 2022.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels,

For the Commission
The President
Ursula von der Leyen

⁸ Commission Implementing Regulation (EU) 2019/621 of 17 April 2019 on the technical information necessary for roadworthiness testing of the items to be tested, on the use of the recommended test methods, and establishing detailed rules concerning the data format and the procedures for accessing the relevant technical information (OJ L 108, 23.4.2019, p. 5).