

[<sup>F1</sup>][<sup>F2</sup>ANNEX I B

REQUIREMENTS FOR CONSTRUCTION,  
TESTING, INSTALLATION AND INSPECTION

**Textual Amendments**

- F1** Inserted by Council Regulation (EC) No 2135/98 of 24 September 1998 amending Regulation (EEC) No 3821/85 on recording equipment in road transport and Directive 88/599/EEC concerning the application of Regulations (EEC) No 3820/85 and (EEC) No 3821/85.
- F2** Substituted by Commission Regulation (EC) No 1360/2002 of 13 June 2002 adapting for the seventh time to technical progress Council Regulation (EEC) No 3821/85 on recording equipment in road transport (Text with EEA relevance).

**I. DEFINITIONS**

In this Annex:

(a) **‘activation’ means** : phase where the recording equipment becomes fully operational and implements all functions, including security functions;

*Activating a recording equipment requires the use of a workshop card and the entry of its PIN code;*

(b) **‘authentication’ means** : a function intended to establish and verify a claimed identity;

(c) **‘authenticity’ means** : the property that an information is coming from a party whose identity can be verified;

(d) **‘built-in-test (BIT)’ means** : tests run at request, triggered by the operator or by an external equipment;

(e) **‘calendar day’ means** : a day ranging from 00.00 hours to 24.00 hours. All calendar days relate to UTC time (universal time coordinated);

[<sup>F3</sup>(f) **‘calibration’ means** : updating or confirming vehicle parameters to be held in the data memory. Vehicle parameters include vehicle identification (VIN, VRN and registering Member State) and vehicle characteristics (w, k, l, tyre size, speed limiting device setting (if applicable), current UTC time, current odometer value);

Any update or confirmation of UTC time only, shall be considered as a time adjustment and not as a calibration, provided it does not contradict Requirement 256.

(g) **‘card number’ means** : *Calibrating a recording equipment requires the use of a workshop card;]* a 16 alpha-numerical characters number that uniquely identifies a tachograph card within a Member State. The card number includes a consecutive index (if applicable), a replacement index and a renewal index;

a card is therefore uniquely identified by the code of the issuing Member State and the card number;

(h) **‘card consecutive index’ means** : the 14th alpha-numerical character of a card number that is used to differentiate the different cards issued to a company or a body entitled to be issued several tachograph cards. The company or the body is uniquely identified by the 13 first characters of the card number;

(i) **‘card renewal index’ means** : the 16th alpha-numerical character of a card number which is incremented each time a tachograph card is renewed;

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*Changes to legislation: There are currently no known outstanding effects for the Council Regulation (EEC) No 3821/85, Division I.. (See end of Document for details)*

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- (j) **'card replacement index'** means : the 15th alpha-numerical character of a card number which is incremented each time a tachograph card is replaced;
- (k) **'characteristic coefficient of the vehicle'** means : the numerical characteristic giving the value of the output signal emitted by the part of the vehicle linking it with the recording equipment (gearbox output shaft or axle) while the vehicle travels a distance of one kilometre under standard test conditions (see Chapter VI(5)). The characteristic coefficient is expressed in impulses per kilometre ( $w = \dots \text{imp/km}$ );
- [<sup>F3</sup>(l) **'company card'** means : A tachograph card issued by the authorities of a Member State to the owner or holder of vehicles fitted with recording equipment;
- The company card identifies the company and allows for displaying, downloading and printing of the data stored in the recording equipment which has been locked by this company or which has not been locked by any company;]
- (m) **'constant of the recording equipment'** means : the numerical characteristic giving the value of the input signal required to show and record a distance travelled of one kilometre; this constant shall be expressed in impulses per kilometre ( $k = \dots \text{imp/km}$ );
- (n) **'continuous driving time'** is computed within the recording equipment as<sup>(1)</sup> : the continuous driving time is computed as the current accumulated driving times of a particular driver, since the end of his last AVAILABILITY or BREAK/REST or UNKNOWN<sup>(2)</sup> period of 45 minutes or more (this period may have been split in several periods of 15 minutes or more). The computations involved take into account, as needed, past activities stored on the driver card. When the driver has not inserted his card, the computations involved are based on the data memory recordings related to the current period where no card was inserted and related to the relevant slot;
- (o) **'control card'** means : a tachograph card issued by the authorities of a Member State to a national competent control authority;
- the control card identifies the control body and possibly the control officer and allows for getting access to the data stored in the data memory or in the driver cards for reading, printing and/or downloading;*
- (p) **'cumulative break time'** is computed within the recording equipment as<sup>(2)</sup> : the cumulative break from driving time is computed as the current accumulated AVAILABILITY or BREAK/REST or UNKNOWN<sup>(2)</sup> times of 15 minutes or more of a particular driver, since the end of his last AVAILABILITY or BREAK/REST or UNKNOWN<sup>(2)</sup> period of 45 minutes or more (this period may have been split in several periods of 15 minutes or more).
- The computations involved take into account, as needed, past activities stored on the driver card. Unknown periods of negative duration (start of unknown period > end of unknown period) due to time overlaps between two different recording equipments, are not taken into account for the computation.
- When the driver has not inserted his card, the computations involved are based on the data memory recordings related to the current period where no card was inserted and related to the relevant slot;
- (q) **'data memory'** means : an electronic data storage device built into the recording equipment;

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- (r) **‘digital signature’ means** : data appended to, or a cryptographic transformation of, a block of data that allows the recipient of the block of data to prove the authenticity and integrity of the block of data;
- [<sup>F3</sup>(s) **‘downloading’ means** : Copying, together with the digital signature, of a part, or of a complete set of data files stored in the data memory of the vehicle or in the memory of the tachograph card, for which these data are necessary to establish compliance with the provisions set out in Regulation (EC) No. 561/2006.
- Manufacturers of digital tachograph vehicle units and manufacturers of equipment designed and intended to download data files shall take all reasonable steps to ensure that the downloading of such data can be performed with the minimum delay to transport undertakings or drivers.
- Downloading may not alter or delete stored data. The downloading of the detailed speed file may not be necessary to establish compliance with Regulation (EC) No. 561/2006, but may be used for other purposes, such as accident investigation;]
- (t) **‘driver card’ means** : a tachograph card issued by the authorities of a Member State to a particular driver;
- the driver card identifies the driver and allows for storage of driver activity data;*
- (u) **‘effective circumference of the wheel tyres’ means** : the average of the distances travelled by each of the wheels moving the vehicle (driving wheels) in the course of one complete rotation. The measurement of these distances shall be made under standard test conditions (Chapter VI(5)) and is expressed in the form ‘l = ... mm’. Vehicle manufacturers may replace the measurement of these distances by a theoretical calculation which takes into account the distribution of the weight on the axles, vehicle unladen in normal running order<sup>(3)</sup>. The methods for such theoretical calculation will be approved by a competent Member State authority;
- (v) **‘event’ means** : abnormal operation detected by the recording equipment which may come from a fraud attempt;
- (w) **‘fault’ means** : abnormal operation detected by the recording equipment which may come from an equipment malfunction or failure;
- (x) **‘installation’ means** : mounting of the recording equipment in a vehicle;
- (y) **‘motion sensor’ means** : part of the recording equipment, providing a signal representative of vehicle speed and/or distance travelled;
- (z) **‘non valid card’ means** : a card detected as faulty, or which initial authentication failed, or which start of validity date is not yet reached, or which expiry date has passed;
- (aa) **‘out of scope’ means** : when the use of the recording equipment is not required, according to the provisions of Council Regulation (EEC) No 3820/85;
- (bb) **‘over speeding’ means** : exceeding the authorised speed of the vehicle, defined as any period of more than 60 seconds during which the vehicle's measured speed exceeds the limit for setting the speed limitation device laid down in Council Directive 92/6/EEC of 10 February 1992 on the installation and use of speed limitation devices for certain categories of motor vehicles in the Community<sup>(4)</sup>;
- (cc) **‘periodic inspection’ means** : set of operations performed to control that the recording equipment works properly and that its settings correspond to the vehicle parameters;

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- (dd) **‘printer’ means** : component of the recording equipment which provides printouts of stored data;
- (ee) **‘recording equipment’ means** : the total equipment intended for installation in road vehicles to show, record and store automatically or semi-automatically details of the movement of such vehicles and of certain work periods of their drivers;
- (ff) **‘renewal’ means** : issue of a new tachograph card when an existing card reaches its expiry date, or is malfunctioning and has been returned to the issuing authority. Renewal always implies the certainty that two valid cards do not co-exist;
- (gg) **‘repair’ means** : any repair of a motion sensor or of a vehicle unit that requires disconnection of its power supply, or disconnection from other recording equipment components, or opening of it;
- (hh) **‘replacement’ means** : issue of a tachograph card in replacement of an existing card, which has been declared lost, stolen or malfunctioning and has not been returned to the issuing authority. Replacement always implies a risk that two valid cards may co-exist;
- (ii) **‘security certification’ means** : process to certify, by an ITSEC<sup>(5)</sup> certification body, that the recording equipment (or component) or the tachograph card under investigation fulfils the security requirements defined in Appendix 10 Generic security targets;
- (jj) **‘self test’ means** : tests run cyclically and automatically by the recording equipment to detect faults;
- (kk) **‘tachograph card’ means** : smart card intended for use with the recording equipment. Tachograph cards allow for identification by the recording equipment of the identity (or identity group) of the cardholder and allow for data transfer and storage. A tachograph card may be of the following types:  
— driver card,  
— control card,  
— workshop card,  
— company card;
- (ll) **‘type approval’ means** : process to certify, by a Member State, that the recording equipment (or component) or the tachograph card under investigation fulfils the requirements of this regulation;
- (mm) **‘tyre size’ means** : the designation of the dimensions of the tyres (external driving wheels) in accordance with Directive 92/23/EEC of 31 March 1992<sup>(6)</sup>;
- (nn) **‘vehicle identification’ means** : numbers identifying the vehicle: vehicle registration number (VRN) with indication of the registering Member State and vehicle identification number (VIN)<sup>(7)</sup>;
- (oo) **‘vehicle unit (VU)’ means** : the recording equipment excluding the motion sensor and the cables connecting the motion sensor. The vehicle unit may either be a single unit or be several units distributed in the vehicle, as long as it complies with the security requirements of this regulation;
- (pp) **‘for computing sake in the recording equipment’ ‘week’ means** : the period between 00.00 hours UTC on Monday and 24.00 UTC on Sunday;
- (qq) **‘workshop card’ means** : a tachograph card issued by the authorities of a Member State to a recording equipment manufacturer, a fitter, a vehicle manufacturer or workshop, approved by that Member State.

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**[<sup>F4</sup>(rr)‘adaptor’ means** : *The workshop card identifies the cardholder and allows for testing, calibration and/or downloading of the recording equipment;*

: a part of the recording equipment, providing a signal permanently representative of vehicle speed and/or distance travelled, and which is:

- installed and used only in M1 and N1 type vehicles (as defined in Annex II to Council Directive 70/156/EEC) put into service for the first time between 1 May 2006 and [<sup>F5</sup>31 December 2015],
- installed where it is not mechanically possible to install any other type of existing motion sensor which is otherwise compliant with the provisions of this Annex and its Appendixes 1 to 11,
- installed between the vehicle unit and where the speed/distance impulses are generated by integrated sensors or alternative interfaces;

Seen from a vehicle unit, the adaptor behaviour is the same as if a motion sensor, compliant the provisions of this Annex and its Appendixes 1 to 11, was connected to the vehicle unit.

Use of such an adaptor in those vehicles described above shall allow for the installation and correct use of a vehicle unit compliant with all the requirements of this Annex.

For those vehicles, the recording equipment includes cables, an adaptor, and a vehicle unit.]]]

#### Textual Amendments

- F3** Substituted by Commission Regulation (EU) No 1266/2009 of 16 December 2009 adapting for the tenth time to technical progress Council Regulation (EEC) No 3821/85 on recording equipment in road transport (Text with EEA relevance).
- F4** Inserted by Commission Regulation (EC) No 68/2009 of 23 January 2009 adapting for the ninth time to technical progress Council Regulation (EEC) No 3821/85 on recording equipment in road transport (Text with EEA relevance).
- F5** Substituted by Commission Regulation (EU) No 1161/2014 of 30 October 2014 adapting to technical progress Council Regulation (EEC) No 3821/85 on recording equipment in road transport (Text with EEA relevance).

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- (1) <sup>F1</sup><sup>F2</sup>This way of computing the continuous driving time and the cumulative break time serves into the recording equipment for computing the continuous driving time warning. It does not prejudice the legal interpretation to be made of these times.  
[Alternative ways of computing the continuous driving time and the cumulative break time may be used to replace these definitions if they have been made obsolete by updates in other relevant legislation.]]]
- (2) <sup>F1</sup><sup>F2</sup>UNKNOWN periods correspond to periods where the driver's card was not inserted in a recording equipment and for which no manual entry of driver activities was made.]]
- (3) <sup>F1</sup><sup>F2</sup>Directive 97/27/EC of 22 July 1997 relating to the masses and dimensions of certain categories of motor vehicles and their trailers and amending Directive 70/156/EEC (OJ L 233, 25.8.1997, p. 1).]]
- (4) <sup>F1</sup><sup>F2</sup>OJ L 57, 2.3.1992, p. 27.]]
- (5) <sup>F1</sup><sup>F2</sup>Council Recommendation 95/144/EC of 7 April 1995 on common information technology security evaluation criteria (OJ L 93, 26.4.1995, p. 27).]]
- (6) <sup>F1</sup><sup>F2</sup>OJ L 129, 14.5.1992, p. 95.]]
- (7) <sup>F1</sup><sup>F2</sup>Directive 76/114/EEC, of 18 December 1975 on the approximation of the laws of the Member States relating to statutory plates and inscriptions for motor vehicles and their trailers, and their location and method of attachment (OJ L 24, 30.1.1976, p. 1).]]

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- F2** Substituted by Commission Regulation (EC) No 1360/2002 of 13 June 2002 adapting for the seventh time to technical progress Council Regulation (EEC) No 3821/85 on recording equipment in road transport (Text with EEA relevance).

**Changes to legislation:**

There are currently no known outstanding effects for the Council Regulation (EEC) No 3821/85, Division I..