

[<sup>F1</sup>][<sup>F2</sup>ANNEX I BREQUIREMENTS 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).

IV.CONSTRUCTION AND FUNCTIONAL REQUIREMENTS FOR TACHOGRAPH  
CARDS

## 5. Data storage

For the purpose of this paragraph,

- times are recorded with a resolution of one minute, unless otherwise specified,
- odometer values are recorded with a resolution of one kilometre,
- speeds are recorded with a resolution of 1 km/h.

The tachograph cards functions, commands and logical structures, fulfilling data storage requirements are specified in Appendix 2.

This paragraph specifies minimum storage capacity for the various application data files. The tachograph cards shall be able to indicate to the recording equipment the actual storage capacity of these data files.

Any additional data that may be stored on tachograph cards, related to other applications eventually borne by the card, shall be stored in accordance with Directive 95/46/EC of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data<sup>(1)</sup>.

## 5.1. Card identification and security data

## 5.1.1. Application identification

The tachograph cards shall be able to store the following application identification data:

- tachograph application identification,
- type of tachograph card identification.

## 5.1.2. Chip identification

The tachograph cards shall be able to store the following integrated circuit (IC) identification data:

- IC serial number,
- IC manufacturing references.

## 5.1.3. IC card identification

The tachograph cards shall be able to store the following smart card identification data:

- card serial number (including manufacturing references),

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- card type approval number,
- card personaliser identification (ID),
- embedder ID,
- IC identifier.

#### 5.1.4. Security elements

The tachograph cards shall be able to store the following security elements data:

- European public key,
- Member State certificate,
- card certificate,
- card private key.

#### 5.2. Driver card

##### 5.2.1. Card identification

The driver card shall be able to store the following card identification data:

- card number,
- issuing Member State, issuing authority name, issue date,
- card beginning of validity date, card expiry date.

##### 5.2.2. Card holder identification

The driver card shall be able to store the following card holder identification data:

- surname of the holder,
- first name(s) of the holder,
- date of birth,
- preferred language.

##### 5.2.3. Driving licence information

The driver card shall be able to store the following driving licence data:

- issuing Member State, issuing authority name,
- driving licence number (at the date of the issue of the card).

##### 5.2.4. Vehicles used data

The driver card shall be able to store, for each calendar day where the card has been used, and for each period of use of a given vehicle that day (a period of use includes all consecutive insertion/withdrawal cycle of the card in the vehicle, as seen from the card point of view), the following data:

- date and time of first use of the vehicle (i.e. first card insertion for this period of use of the vehicle, or 00.00 if the period of use is on-going at that time),
- vehicle odometer value at that time,
- date and time of last use of the vehicle, (i.e. last card withdrawal for this period of use of the vehicle, or 23.59 if the period of use is on-going at that time),
- vehicle odometer value at that time,
- VRN and registering Member State of the vehicle.

The driver card shall be able to store at least 84 such records.

##### 5.2.5. Driver activity data

The driver card shall be able to store, for each calendar day where the card has been used or for which the driver has entered activities manually, the following data:

- the date,
- a daily presence counter (increased by one for each of these calendar days),
- the total distance travelled by the driver during this day,
- a driver status at 00.00,
- whenever the driver has changed of activity, and/or has changed of driving status, and/or has inserted or withdrawn his card:
  - the driving status (CREW, SINGLE),
  - the slot (DRIVER, CO-DRIVER),
  - the card status (INSERTED, NOT INSERTED),
  - the activity (DRIVING, AVAILABILITY, WORK, BREAK/REST),
  - the time of the change.

The driver card memory shall be able to hold driver activity data for at least 28 days (the average activity of a driver is defined as 93 activity changes per day).

The data listed under requirements 197 and 199 shall be stored in a way allowing the retrieval of activities in the order of their occurrence, even in case of a time overlap situation.

#### 5.2.6. Places where daily work periods start and/or end

The driver card shall be able to store the following data related to places where daily work periods begin and/or end, entered by the driver:

- the date and time of the entry (or the date/time related to the entry if the entry is made during the manual entry procedure),
- the type of entry (begin or end, condition of entry),
- the country and region entered,
- the vehicle odometer value.

The driver card memory shall be able to hold at least 42 pairs of such records.

#### 5.2.7. Events data

For the purpose of this subparagraph, time shall be stored with a resolution of one second.

The driver card shall be able to store data related to the following events detected by the recording equipment while the card was inserted:

- time overlap (where this card is the cause of the event),
- card insertion while driving (where this card is the subject of the event),
- last card session not correctly closed (where this card is the subject of the event),
- power supply interruption,
- motion data error,
- security breach attempts.

The driver card shall be able to store the following data for these events:

- event code,
- date and time of beginning of the event (or of card insertion if the event was on-going at that time),
- date and time of end of the event (or of card withdrawal if the event was on-going at that time),
- VRN and registering Member State of vehicle in which the event happened.

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Note: For the ‘time overlap’ event:

- date and time of beginning of the event shall correspond to the date and time of the card withdrawal from the previous vehicle,
- date and time of end of the event shall correspond to the date and time of card insertion in current vehicle,
- vehicle data shall correspond to the current vehicle raising the event.

Note: For the ‘last card session not correctly closed’ event:

- date and time of beginning of event shall correspond to the card insertion date and time of the session not correctly closed,
- date and time of end of event shall correspond to the card insertion date and time of the session during which the event was detected (current session),
- vehicle data shall correspond to the vehicle in which the session was not correctly closed.

The driver card shall be able to store data for the six most recent events of each type (i.e. 36 events).

#### 5.2.8. Faults data

For the purpose of this subparagraph, time shall be recorded with a resolution of one second.

The driver card shall be able to store data related to the following faults detected by the recording equipment while the card was inserted:

- card fault (where this card is the subject of the event),
- recording equipment fault.

The driver card shall be able to store the following data for these faults:

- fault code,
- date and time of beginning of the fault (or of card insertion if the fault was on-going at that time),
- date and time of end of the fault (or of card withdrawal if the fault was on-going at that time),
- VRN and registering Member State of vehicle in which the fault happened.

The driver card shall be able to store data for the twelve most recent faults of each type (i.e. 24 faults).

#### 5.2.9. Control activity data

The driver card shall be able to store the following data related to control activities:

- date and time of the control,
- control card number and card issuing Member State,
- type of the control (displaying and/or printing and/or VU downloading and/or card downloading (see note)),
- period downloaded, in case of downloading,
- VRN and registering Member State of the vehicle in which the control happened.

Note: security requirements imply that card downloading will only be recorded if performed through a recording equipment.

The driver card shall be able to hold one such record.

#### 5.2.10. Card session data

The driver card shall be able to store data related to the vehicle which opened its current session:

- date and time the session was opened (i.e. card insertion) with a resolution of one second,
- VRN and registering Member State.

#### 5.2.11. Specific conditions data

The driver card shall be able to store the following data related to specific conditions entered while the card was inserted (whatever the slot):

- date and time of the entry,
- type of specific condition.

The driver card shall be able to hold 56 such records.

### 5.3. Workshop card

#### 5.3.1. Security elements

The workshop card shall be able to store a personal identification number (PIN code).

The workshop card shall be able to store the cryptographic keys needed for pairing motion sensors to vehicle units.

#### 5.3.2. Card identification

The workshop card shall be able to store the following card identification data:

- card number,
- issuing Member State, issuing authority name, issue date,
- card beginning of validity date, card expiry date.

#### 5.3.3. Card holder identification

The workshop card shall be able to store the following card holder identification data:

- workshop name,
- workshop address,
- surname of the holder,
- first name(s) of the holder,
- preferred language.

#### 5.3.4. Vehicles used data

The workshop card shall be able to store vehicles used data records in the same manner as a driver card.

The workshop card shall be able to store at least 4 such records.

#### 5.3.5. Driver activity data

The workshop card shall be able to store driver activity data in the same manner as a driver card.

The workshop card shall be able to hold driver activity data for at least one day of average driver activity.

#### 5.3.6. Daily work periods start and/or end data

The workshop card shall be able to store daily works period start and/or end data records in the same manner as a driver card.

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The workshop card shall be able to hold at least three pairs of such records.

#### 5.3.7. Events and faults data

The workshop card shall be able to store events and faults data records in the same manner as a driver card.

The workshop card shall be able to store data for the three most recent events of each type (i.e. 18 events) and the six most recent faults of each type (i.e. 12 faults).

#### 5.3.8. Control activity data

The workshop card shall be able to store a control activity data record in the same manner as a driver card.

#### 5.3.9. Calibration and time adjustment data

The workshop card shall be able to hold records of calibrations and/or time adjustments performed while the card is inserted in a recording equipment.

Each calibration record shall be able to hold the following data:

- [F<sup>3</sup>purpose of calibration (activation, first installation, installation, periodic inspection)],
- vehicle identification,
- parameters updated or confirmed (w, k, l, tyre size, speed limiting device setting, odometer (new and old values), date and time (new and old values),
- recording equipment identification (VU part number, VU serial number, motion sensor serial number).

#### Textual Amendments

- F3** Substituted by [Commission Regulation \(EC\) No 432/2004 of 5 March 2004 adapting for the eighth time to technical progress Council Regulation \(EEC\) No 3821/85 of 20 December 1985 on recording equipment in road transport \(Text with EEA relevance\).](#)

The workshop card shall be able to store at least 88 such records.

The workshop card shall hold a counter indicating the total number of calibrations performed with the card.

The workshop card shall hold a counter indicating the number of calibrations performed since its last download.

#### 5.3.10. Specific conditions data

The workshop card shall be able to store data relevant to specific conditions in the same manner as the driver card. The workshop card shall be able to store two such records.

### 5.4. Control card

#### 5.4.1. Card identification

The control card shall be able to store the following card identification data:

- card number,
- issuing Member State, issuing authority name, issue date,
- card beginning of validity date, card expiry date (if any).

#### 5.4.2. Card holder identification

The control card shall be able to store the following card holder identification data:

- control body name,
- control body address,
- surname of the holder,
- first name(s) of the holder,
- preferred language.

#### 5.4.3. Control activity data

The control card shall be able to store the following control activity data:

- date and time of the control,
- type of the control (displaying and/or printing and/or VU downloading and/or card downloading),
- period downloaded (if any),
- VRN and Member State registering authority of the controlled vehicle,
- card number and card issuing Member State of the driver card controlled.

The control card shall be able to hold at least 230 such records.

### 5.5. Company card

#### 5.5.1. Card identification

The company card shall be able to store the following card identification data:

- card number,
- issuing Member State, issuing authority name, issue date,
- card beginning of validity date, card expiry date (if any).

#### 5.5.2. Card holder identification

The company card shall be able to store the following card holder identification data:

- company name,
- company address.

#### 5.5.3. Company activity data

The company card shall be able to store the following company activity data:

- date and time of the activity,
- type of the activity (VU locking in and/or out, and/or VU downloading and/or card downloading),
- period downloaded (if any),
- VRN and Member State registering authority of vehicle,
- card number and card issuing Member State (in case of card downloading).

The company card shall be able to hold at least 230 such records.]]

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**Changes to legislation:** There are currently no known outstanding effects for the  
Council Regulation (EEC) No 3821/85, Division 5.. (See end of Document for details)

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(1) <sup>F1</sup><sup>F2</sup>[<sup>F2</sup>OJ L 281, 23.11.1995, p. 31.]]

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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:**

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