



**COUNCIL OF
THE EUROPEAN UNION**

Brussels, 11 July 2013

12241/13

**Interinstitutional File:
2011/0196 (COD)**

**TRANS 388
CODEC 1740**

“I/A” ITEM NOTE

From: Council General Secretariat
To: Coreper / Council

No. prev. doc.: 9275/1/13 TRANS 211 CODEC 1000 REV 1
No. Cion prop.: 13195/11 TRANS 222 CODEC 1274

Subject: Proposal for a Regulation of the European Parliament and of the Council amending Council Regulation (EEC) No 3821/85 on recording equipment in road transport and amending Regulation (EC) No 561/2006 of the European Parliament and the Council ("Tachograph")
- Adoption of the revised political agreement (*following early second reading agreement with the EP*)

1. The Commission submitted the above-mentioned proposal on 19 July 2011, amending Council Regulation 3821/85 of 20 December 1985 on recording equipment in road transport. This proposal also amends Regulation 561/2006 of the European Parliament and of the Council of 15 March 2006 on the harmonisation of certain social legislation relating to road transport. The Communication from the Commission "Digital tachograph: Roadmap for future activities" accompanies the above-mentioned proposal and was transmitted in parallel to the European Parliament and to the Council.

2. The European Data Protection Supervisor issued an opinion on the Commission's proposal on 5 October 2011. The opinion of the Economic and Social Committee was issued on 7 December 2011 and the Committee of the Regions decided not to draw up an opinion or report.
3. The European Parliament's Committee on Transport and Tourism appointed Ms Silvia-Adriana Ticău (RO, S&D) as rapporteur. The vote in the TRAN Committee took place on 31 May 2012 and the European Parliament voted the outcome of its first reading in plenary on the 3rd July 2012.
4. The Council reached a political agreement on this file on 29 October 2012.
5. On 24 May 2013, the Permanent Representatives Committee approved a compromise text following the results of the negotiation between the Council and the European Parliament.
6. Subsequently, on 26 June 2013, the Chair of the European Parliament's Committee on Transport and Tourism sent a letter to the Chair of Coreper stating that the European Parliament should, at second reading, approve the Council's position at first reading without amendments.
7. In view of the above, the Permanent Representatives Committee could therefore invite the Council to reach a revised political agreement on this issue, by endorsing the text agreed with the European Parliament, which appears in the Annex to this note.
8. This revised political agreement will be subject to a revision by the legal-linguist experts before the formal adoption by the Council of its position at first reading.

Proposal for a

**REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL
on tachographs in road transport and repealing Council Regulation (EEC) No 3821/85 and
amending Regulation (EC) No 561/2006 of the European Parliament and
the Council**

(Text with EEA relevance)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty on the Functioning of the European Union, and in particular Article 91 thereof,

Having regard to the proposal from the European Commission,

After transmission of the draft legislative act to the national Parliaments,

Having regard to the opinion of the European Economic and Social Committee¹,

Having regard to the opinion of the Committee of the Regions²,

Having regard to the opinion of the European Data Protection Supervisor of 5 October 2011,

Acting in accordance with the ordinary legislative procedure,

¹ OJ C , , p. .

² The Committee of the Regions decided not to draw up an opinion or report.

Whereas:

1. Council Regulation (EEC) No 3821/85 of 20 December 1985 on recording equipment in road transport³ lays down provisions concerning the construction, installation, use and testing of tachographs. It has been substantially amended on several occasions, and in order to ensure greater clarity, its main provisions should therefore be simplified and re-structured.
2. Experience has shown that in order to ensure the effectiveness and efficiency of the tachograph system, certain technical elements and control procedures should be improved.
3. Certain vehicles are subject to an exemption from the provisions of Regulation (EC) No 561/2006 of the European Parliament and of the Council of 15 March 2006 on the harmonisation of certain social legislation relating to road transport and amending Council Regulations (EEC) No 3821/85 and (EC) No 2135/98 and repealing Council Regulation (EEC) No 3820/85⁴. In order to ensure coherence, it should also be possible to exempt such vehicles from the scope of this Regulation.
4. Tachographs should be installed in vehicles to which Regulation (EC) No 561/2006 applies. In order to introduce some flexibility for vehicles below 7,5 tonnes used for carrying materials, equipment or machinery for the driver's use in the course of his work, and which are used only within a 100 km radius from the base of the undertaking and on the condition that driving the vehicle does not constitute the driver's main activity, these vehicles should be excluded from the scope of Regulation (EC) No 561/2006. In order to ensure coherence between the different exemptions set out in Article 13 of Regulation (EC) No 561/2006, and to reduce the administrative burden on transport undertakings whilst respecting the objectives of that Regulation, the maximum permissible distances set out in its Articles 13(d), (f) and (p) should be revised.

³ OJ L 370, 31.12.1985, p. 8

⁴ OJ L 102, 11.04.2006, p.1

- 4a. It is understood that the Commission will consider extending the period of validity of the adaptor for M1 and N1 vehicles until 2015 and will give further consideration to a long term solution for M1 and N1 vehicles before 2015.
- 4aa. The Commission should consider the inclusion of weights sensors in heavy goods vehicles, and should assess the potential for weight sensors to contribute to an improved compliance of road transport legislation.
5. The use of tachographs connected to a global navigation satellite system is an appropriate and cost-efficient means of allowing the automatic recording of the position of the vehicle at certain points during the daily working period in order to support control officers during controls, and should therefore be introduced.
- 5.a Taking into account that in the case C-394/92 the European Court of Justice has provided a definition of the "daily working period", the control authorities should read the provisions of the present Regulation in the light of that definition. The "daily working period" commences at the time when the driver switches on the tachograph following a weekly or daily rest period, or, if the daily rest is divided into separate periods, following the rest period of at least nine hours' duration. It ends at the beginning of a daily rest period or, if the daily rest is divided into separate periods, at the beginning of a rest period extending over a minimum of nine consecutive hours.
6. Directive 2006/22/EC of the European Parliament and of the Council of 15 March 2006 on minimum conditions for the implementation of Council Regulations (EEC) No 3820/85 and (EEC) 3821/85 concerning social legislation relating to road transport activities and repealing Council Directive 88/599/EEC⁵ requires Member States to carry out a minimum number of checks at the roadside. Remote communication between the tachograph and control authorities for roadside control purposes facilitates targeted roadside checks, making it possible to reduce the administrative burden created by random checks on transport undertakings, and should accordingly be introduced.

⁵ OJ L 102, 11.04.2006, p. 35

7. Intelligent transport systems (ITS) can help to meet the challenges faced by the European transport policy, such as increasing road transport volumes and congestion or rising energy consumption. Standardised interfaces should therefore be provided in tachographs in order to ensure interoperability with ITS applications.
- 7a. Priority should be given to the development of applications which help drivers to interpret the data recorded in the tachograph in order to enable them to comply with social legislation.
8. The security of the tachograph and its system is essential to ensure that trustworthy data is produced. Manufacturers should therefore design, test and continuously review the tachograph throughout its life cycle in order to detect, prevent and mitigate security vulnerabilities.
9. Field tests of a tachograph that has not yet been type approved allow equipment to be tested in real life situations before it is widely introduced, thereby allowing faster improvements. Field tests should therefore be permitted, on condition that participation in such tests and compliance with Regulation (EC) No 561/2006 is effectively monitored and controlled.
- 9a. Considering the importance of maintaining the highest possible security level, security certificates should be issued by a certification body recognised by the Management Committee within the framework of the "Mutual Recognition Agreement of Information Technology Security Evaluation Certificates" of the European Senior Official Group on Information Security (SOG-IS).
In the context of international relations with third countries, the Commission should not recognise any certification body for the purposes of this regulation without such a body providing equivalent conditions of security evaluation as foreseen under the Mutual Recognition Agreement referred to above. In this respect, the advice of the Management Committee should be relied upon.

10. Fitters and workshops play an important part in the security of tachographs. It is therefore appropriate to lay down certain minimum requirements for their approval, reliability and audit. Moreover, Member States should take appropriate measures to ensure that conflicts of interest between workshops and transport undertakings are prevented. Nothing in this Regulation would prevent Member States from ensuring their approval, control and certification, as set out herein, through the procedures laid down in Regulation 765/2008, provided that the minimum criteria in Article 19.2 are fulfilled.

11. In order to ensure a more effective scrutiny and control of driver cards, and to facilitate the tasks of control officers, national electronic registers should be established, and provision made for the interconnection of those registers.
 - 11.a When checking the uniqueness of the driver card, Member States should use the procedures such as the ones included in the Commission Recommendation of 13 January 2010 on the secure exchange of electronic data between Member States.

 - 11.b Consideration should be given to the special situation in which a Member State should be able to provide a driver who does not have his normal residence in a Member State or an AETR state with a temporary, non-renewable driver card. In such cases, the Member States concerned are to fully apply the relevant provisions of this Regulation.

 - 11.c Furthermore, the possibility for Member States to issue driver cards to drivers resident on its territory also when the Treaties do not apply to certain parts thereof should be recognised. In such cases, the Member States concerned are to fully apply the relevant provisions of this Regulation.

12. [...]

13. [...]

14. Control officers face continuous challenges as a result of changes to the tachograph and new manipulation techniques. In order to ensure more effective control, and to enhance the harmonisation of control approaches throughout the Union, a common methodology should be adopted for the initial and continuing training of control officers.
15. The recording of data by the tachograph, as well as developing technologies for the recording of position data, remote communication and the interface with Intelligent Transport Systems will entail the processing of personal data. Union legislation concerning the protection of individuals with regard to the processing of personal data and on the free movement of such data, in particular Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data⁶ and Directive 2002/58/EC of the European Parliament and of the Council of 12 July 2002 concerning the processing of personal data and the protection of privacy in the electronic communications sector⁷ should be applied.
 - 15a. In order to allow for fair competition in the development of applications related to the tachograph, intellectual property rights or patents related to the transmission of data in or out of the tachograph should be available to all on a royalty free basis.
 - 15aa. Where applicable, the data exchanged during communication with the control authorities in the Member States should comply with relevant international standards such as the suite of standards related to Dedicated Short Range Communication (DSRC) established by the European Committee for Standardization.
16. To ensure fair competition in the internal road transport market and to give a clear message to drivers and transport undertakings, Member States should impose, in compliance with the categories of infringements as defined in Directive 2006/22/EC, effective, proportionate, dissuasive and non-discriminatory penalties, without prejudice to the principle of subsidiarity.

⁶ OJ L 281, 23.11.1995, p. 31–50

⁷ OJ L 201, 31.7.2002, p. 37–47

- 16a. Member States should ensure that selection of vehicles for inspection is carried out without discrimination on grounds of the nationality of the driver or of the country of registration or entry into service of the commercial vehicle.
- 16aa. In the interest of a clear, effective, proportionate and uniform implementation of social rules in road transport Member States authorities should apply the rules in a uniform manner.
- 16ab. Member States should inform the Commission about any findings they make regarding the offer of fraudulent devices or installations to manipulate the tachograph, including on the internet, and the Commission should inform all other Member States.
- 16ac. The Commission should continue to maintain its internet based help desk which allows drivers, road transport companies, control authorities and approved workshops to address questions and concerns related to the digital tachograph, including regarding new types of manipulations or fraud.
17. Through the adaptations of the European agreement concerning the work of crews of vehicles engaged in international road transport, signed in Geneva on 1 July 1970, including its six amendments, deposited with the Secretary-General of the United Nations (AETR), the use of the digital tachograph has been made mandatory as regards vehicles registered in third countries which are signatories of the AETR Agreement. As these countries are directly affected by changes to the tachograph introduced by the present Regulation, they should be able to participate in dialogue on technical matters, including regarding the system for the exchange of information on driver cards and workshop cards. A Tachograph Forum should accordingly be set up.
18. [...]

19. In order to ensure uniform conditions for the implementation of this Regulation, implementing powers should be conferred on the Commission relating to requirements, display and warning functions and type approval of the tachograph, as well as for detailed provisions for the smart tachograph; the procedures to be followed for carrying out field tests and the forms to be used in order to monitor these field tests; standard form for the written statement giving reasons for seal removal; common procedures and specifications necessary for the interconnection of electronic registers; methodology specifying the content of the initial and continuing training of control officers. Those powers should be exercised in accordance with Regulation (EU) No 182/2011 of the European Parliament and of the Council of 16 February 2011 laying down the rules and general principles concerning mechanisms for control by Member States of the Commission's exercise of implementing powers⁸.
- 19.a The implementing acts adopted for the purpose of this Regulation which will replace the provisions in Annex-IB-to Regulation 3821/85 and other implementing measures should be in place at the date of application of Articles other than 19, 30 and 43. However if for some reason these implementing acts have not been adopted in time, transitional measures should safeguard the necessary continuity.
- 19aa. Implementing acts referred to in this Regulation should not be adopted by the Commission where the committee referred to in this Regulation delivers no opinion on the draft implementing act presented by the Commission.
- 19.b In the context of the application of the AETR Agreement, references to Regulation 3821/85 are to be understood as references to the present Regulation. The EU will consider the appropriate steps to be taken in UNECE to ensure the necessary coherence between this Regulation and Article 22bis of the AETR Agreement.

⁸ OJ L 55, 28.2.2011, p. 13–18.

- 20. [...]
- 21. [...]
- 22. [...]

CHAPTER I

Principles, scope and requirements

Article 1

Subject matter and principles

1. This Regulation sets out the obligations and requirements in relation to the construction, installation, use, testing and control of tachographs used in road transport to control compliance with Regulation (EC) No 561/2006, Directive 2002/15/EC⁹ and Directive 92/6/EEC¹⁰.

Tachographs shall, as regards construction, installation, use and testing, comply with the requirements of this Regulation.

1a. This Regulation sets out the conditions and requirements under which the information and data recorded other than personal data, processed or stored by the tachograph as referred to in Article 2 may be used for purposes other than the control of compliance with the legislation referred to in paragraph 1.

⁹ OJ L 80, 23.3.2002, p. 35-39

¹⁰ OJ L 57, 2.3.1992, p. 27

Article 2
Definitions

1. For the purposes of this Regulation the definitions set out in Article 4 of Regulation (EC) No 561/2006 shall apply.

2. In addition to the definitions referred to in paragraph 1, for the purposes of this Regulation:
 - (a) ‘tachograph or recording equipment’ means the equipment intended for installation in road vehicles to display, record, print, store and output automatically or semi-automatically details of the movement, including speed of such vehicles, in accordance with Article 3a(3) and of certain periods of activity of their drivers;

 - (b) ‘vehicle unit’ means the tachograph excluding the motion sensor and the cables connecting the motion sensor. The vehicle unit may be a single unit or several units distributed in the vehicle, provided that it complies with the security requirements of this Regulation; the vehicle unit includes, among other things, a processing unit, a data memory, a time measurement function, two smart card interface devices for driver and co-driver, a printer, a display, connectors and facilities for entry of user's inputs.

 - (c) ‘motion sensor’ means part of the tachograph, providing a signal representative of vehicle speed and/or distance travelled;

 - (d) ‘tachograph card’ means a smart card intended for use with the tachograph which allows identification by the tachograph of the role of the cardholder and data transfer and storage;

 - (e) ‘record sheet’ means a sheet designed to accept and retain recorded data, to be placed in the analogue tachograph and on which the marking devices of the latter inscribe a continuous record of the information to be recorded;

- (f) 'driver card' means a tachograph card issued by the authorities of a Member State to a particular driver which identifies the driver and allows for storage of driver activity data;
- (fa) 'analogue tachograph' means a tachograph using a record sheet in accordance with this Regulation, in particular Annex I;
- (fb) 'digital tachograph' means a tachograph using a tachograph card in accordance with this Regulation;
- (g) 'control card' means a tachograph card issued by the authorities of a Member State to a national competent control authority which identifies the control body and optionally the control officer and allows access to the data stored in the data memory, ~~or~~ in the driver cards and optionally in the workshop cards for reading, printing and/or downloading;
- (h) 'company card' means a tachograph card issued by the authorities of a Member State to a transport undertaking which needs to operate vehicles fitted with tachograph which identifies the transport undertaking and allows for the displaying, downloading and printing of the data stored in the tachograph which has been locked by that ~~road~~ transport undertaking;
- (i) 'workshop card' means a tachograph card issued by the authorities of a Member State to designated staff of a tachograph manufacturer, a fitter, a vehicle manufacturer or a workshop, approved by that Member State which identifies the cardholder and allows for the testing, calibration, activation and/or downloading of tachographs;
- (ia) 'activation' means the phase where the tachograph becomes fully operational and implements all functions, including security functions, through the use of a workshop card;

- (ib) ‘calibration’ of the digital tachograph means updating or confirming vehicle parameters to be held in the data memory through the use of a workshop card. Vehicle parameters include vehicle identification and vehicle characteristics;
- (ic) ‘downloading’ from a digital tachograph means copying, together with the digital signature, of a part, or of a complete set of data files recorded in the data memory of the vehicle unit or in the memory of a tachograph card, provided that this process does not alter or delete any stored data;
- (id) ‘event’ means an abnormal operation detected by the digital tachograph which may come from a fraud attempt;
- (ie) ‘fault’ means an abnormal operation detected by the digital tachograph which may come from an equipment malfunction or failure;
- (if) ‘installation’ means mounting of the tachograph in a vehicle;
- (ig) ‘non valid card’ means a card detected as faulty, or whose initial authentication failed, or whose start of validity date is not yet reached, or whose expiry date has passed;
- (ih) ‘periodic inspection’ means a set of operations performed to control that the tachograph works properly, that its settings correspond to the vehicle parameters, and that no manipulation devices are attached to the tachograph;
- (ii) ‘repair’ means any repair of a motion sensor or of a vehicle unit that requires disconnection of its power supply, or disconnection from other tachograph components, or opening of the motion sensor or vehicle unit;
- (ij) ‘type approval’ means a process to certify, by a Member State, as per Article 8 of this regulation, that the tachograph, its relevant components or the tachograph card to be introduced to market fulfil the requirements of this Regulation;

- (ik) ‘interoperability’ means the capacity of systems and the underlying business processes to exchange data and to share information;
- (il) ‘interface’ means a facility between systems which provides the media through which they can connect and interact;
- (im) ‘Time measurement’ means a permanent digital record of the co-ordinated universal date and time (UTC);
- (in) ‘Time adjustment’ means an automatic adjustment of current time at regular intervals and within a maximum tolerance of one minute or an adjustment performed during calibration;
- (io) ‘Open standard’ means a standard as set out in a standard specification document available freely or at a nominal charge which is permissible to all to copy, distribute and use for no fee or a nominal fee;

Article 3

Scope

1. Tachographs shall be installed and used in vehicles registered in a Member State which are used for the carriage of passengers or goods by road to which Regulation (EC) No 561/2006 applies.
2. Member States may exempt the vehicles mentioned in Articles 13(1) and 13(3) of Regulation (EC) No 561/2006 from the application of this Regulation.
3. Member States may, exempt from the application of this Regulation vehicles used for the transport operations which have been granted an exception referred to in Article 14(1) of Regulation (EC) No 561/2006.

Member States may exempt from application of this Regulation vehicles used for the transport operations referred to in Article 14(2) of Regulation (EC) No 561/2006; they shall immediately notify the Commission thereof.

- 3a. 15 years after newly registered vehicles are required to have a tachograph as per Articles 4, 5 and 6 of this Regulation, vehicles operating in a Member State other than their Member State of registration shall be fitted with such a tachograph.
4. In the case of national transport operations, Member States may require the installation and use of tachographs in accordance with this Regulation in any of the vehicles for which its installation and use are not required by paragraph 1.

Article 3a

Requirements and data to be recorded

1. Tachographs, including external components, tachograph cards and record sheets shall fulfill stringent technical and other requirements so as to permit the proper implementation of the provisions of this Regulation.
2. The tachograph and tachograph cards shall comply with the following requirements:
 - record data related to the driver, driver activity and the vehicle which shall be accurate and reliable;
 - be secure, in particular to guarantee the integrity and the origin of the source of data recorded by and retrieved from vehicle units and motion sensors;
 - be interoperable as between the various generations of vehicle units and tachograph cards;
 - allow for efficient control of compliance with the applicable legislation;
 - be user friendly.

3. The digital tachograph shall record the following data:
 - (a) distance travelled, and speed of the vehicle;
 - (b) time measurement;
 - (c) position points as referred to in Article 4(1);
 - (d) identity of the driver;
 - (e) activity of the driver;
 - (f) control, calibration and tachograph repair data, including the identity of the workshop;
 - (g) events and faults.

4. The analogue tachograph shall record at least the data referred to in paragraph 3 (a), (b) and (e).

5. [...]

- 5a. Access to the data stored in the tachograph and the tachograph card may be granted at all times to:
 - a) the competent control authorities for control checks
 - b) the relevant transport undertaking so that it can comply with its legal obligations, in particular as set out in Articles 28 and 29.

- 5b. Downloading of data shall be performed with the minimum delay to transport undertakings or drivers. It may not result in data being altered or deleted.

- 5c. Data recorded by the tachograph which may be transmitted in or out of the tachograph whether wirelessly or electronically, shall be in the form of publicly available protocols as defined in open standards.

- 5d. To ensure that the tachograph and the tachograph cards comply with the principles and requirements set out in this Regulation, and in particular in this Article, detailed provisions necessary for the uniform application of this Article, in particular provisions which provide for the technical means on how to fulfil those requirements, shall be adopted by the Commission. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 40(3).
- 5e. Those provisions shall, where appropriate, be based on standards and shall guarantee interoperability and compatibility between the various generations of vehicle units and all tachograph cards.

Article 3b

Functions of the digital tachograph

The digital tachograph shall ensure the following functions:

- speed and distance measurement;
- monitoring driver activities and driving status;
- monitoring the insertion and withdrawal of tachograph cards;
- recording of drivers manual entries;
- calibration;
- automatic recording of the position points referred to in Article 4 (1);
- monitoring control activities;
- detection and recording of events and faults;
- reading from data memory and recording and storing in data memory;
- reading from tachograph cards, recording and storing in tachograph cards;
- displaying, warning, printing and downloading data to external devices;
- time adjustment and measurement;
- remote communication;
- company locks management;
- built-in and self tests.

Article 3c

Display and warning

1. The information contained in the digital tachograph and the tachograph card related to vehicle activities and to driver and co-driver shall be displayed in a clear, unambiguous and ergonomic way.
2. The following information shall be displayed:
 - a) time
 - b) mode of operation
 - c) driver activity:
 - if the current activity is driving, his current continuous driving time and the current cumulative break time,
 - if the current activity is availability/other work/rest or break, the current duration of this activity (since it was selected) and the current cumulative break time.
 - d) data related to warnings
 - e) data related to menu access.

Additional information may be displayed, provided that it is clearly distinguishable from the information required above.

3. The digital tachograph shall warn the driver when detecting any event and/or fault and before and at the time of exceeding the maximum allowed continuous driving time to facilitate compliance with the relevant legislation.
4. Warnings shall be visual and in addition may also be audible. Warnings shall have a duration of at least 30 seconds unless acknowledged by the user by pushing any key of the tachograph. The warning cause shall be displayed and remain visible until acknowledged by the user using a specific key or command of the tachograph.

5. To ensure that the tachograph complies with the requirements on display and warning set out in this Article, detailed provisions necessary for the uniform application of this Article shall be adopted by the Commission. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 40(3).

Article 3d

Data protection

1. Member States shall ensure that the processing of personal data in the context of this Regulation is carried out solely for the purpose of verifying compliance with this Regulation and Regulation (EC) N° 561/2006, in accordance with Directives 95/46/EC and 2002/58/EC and under the supervision of the public independent authority of the Member State referred to in Article 28 of Directive 95/46/EC.
2. Member States shall in particular ensure that personal data is protected against uses other than those strictly linked to the control of this Regulation and Regulation (EC) N° 561/2006, in accordance with paragraph 1 in relation to:
 - the use of a global navigation satellite system (GNSS) for the recording of location data as referred to in Article 4,
 - the use of remote communication for control purposes as referred to in Article 5,
 - the use of tachograph with a interface as referred to in Article 6,
 - the electronic exchange of information on driver cards as referred to in Article 26, and in particular any cross-border exchanges of such data with third countries
 - the keeping of records by transport undertakings as referred to in Article 29.
3. The digital tachograph shall be designed in such a way as to ensure privacy. Only data necessary for the purpose of the processing shall be processed
4. The owners of vehicles, transport undertakings and/or any other entity concerned shall comply, where applicable, with the relevant provisions on the protection of personal data.

CHAPTER II

Smart tachograph

Article 4

Recording of the position of the vehicle at certain points during the Daily Working Period

1. In order to facilitate verification of compliance with the relevant legislation, the position of the vehicle shall be recorded automatically at the following points, or at the closest point to such places where the satellite signal is available:
 - the starting place of the daily working period;
 - every three hours of accumulated driving time;
 - the ending place of the daily working period.

For that purpose, vehicles registered for the first time 36 months after the entry into force of the detailed provisions as referred to in Article 6a shall be fitted with a tachograph connected to a positioning service based on a satellite navigation system.

2. As regards the connection of the tachograph to a positioning service based on a satellite navigation system, as referred to in paragraph 1, use shall be made only of such service connections that exploit a positioning service free of payment. No position data other than the one expressed, wherever possible, in geographical coordinates for determining the points referred to in paragraph 1 shall be permanently stored in the tachograph. Position data which need to be temporarily stored in order to allow for the automatic recording of the points referred to in paragraph 1 or to corroborate the motion sensor shall not be accessible to any user and shall be automatically deleted once not anymore required for those purposes.

Article 5

Remote early detection of possible manipulation or misuse

1. In order to facilitate targeted roadside checks by the competent control authorities, the tachograph installed in vehicles registered for the first time 36 months after the entry into force of the detailed provisions as referred to in Article 6a shall be able to communicate while the vehicle is in motion to those authorities.
 - 1a. 15 years after newly registered vehicles are required to have a tachograph as per Article 4, 5 and 6 of this Regulation, Member States shall equip their control authorities to an appropriate extent with the remote early detection equipment necessary to permit the data communication referred to in this Article, taking into account their specific enforcement requirements and strategies. Until that time, Member States may decide whether ~~not~~ to equip their control authorities with the remote early detection equipment referred to in this Article.
2. The communication referred to in paragraph 1 shall be established with the tachograph only when so requested by the equipment of the control authorities. It shall be secured to ensure data integrity and authentication of the recording and control equipment. The access to the data communicated shall be restricted to enforcers authorized to control infringements against Regulation 561/2006 and Regulation 3821/85 and to workshops insofar as it is necessary to verify the correct functioning of the tachograph.

3. The data exchanged during communication shall be limited to the data necessary for the purpose of targeted roadside checks to vehicles with a potentially manipulated or misused tachograph. Such data shall relate to the following events or data recorded by the tachograph:
 - The latest security breach attempt
 - The longest power supply interruption
 - Sensor fault
 - Motion data error
 - Vehicle motion conflict
 - Driving without a valid card
 - Card insertion while driving
 - Time adjustment data
 - Calibration data including the dates of the two latest calibrations
 - Vehicle Registration Number
 - Speed recorded by the tachograph.
4. The data exchanged shall be used for the sole purpose of controlling compliance with this Regulation. It shall not be transmitted to entities other than authorities controlling driving and rest periods or judicial bodies, in the framework of an ongoing judicial procedure.
5. The data may only be stored by the control authorities for the duration of a roadside check, and shall be deleted at the latest three hours after its communication unless the data indicates a possible manipulation or misuse of the tachograph. If in the course of the following roadside check the manipulation or misuse is not confirmed, the data transmitted shall be deleted.
6. The transport undertaking which operates the vehicle shall be responsible for informing the driver of the possibility of remote communication for the purpose of early detection of possible manipulation or misuse of the tachograph.

- 6a. In no case shall a remote control communication of the type described in this Article lead to automatic fines or penalties for the driver or undertaking. The competent control authority, on the basis of the data exchanged, may decide to carry out a check on the vehicle and the tachograph. The result of the remote communication shall not prevent control authorities from carrying out random roadside checks based on the risk rating system introduced by Article 9 of Directive 2006/22/EC.

Article 6

Interface with Intelligent Transport Systems

1. Tachographs of vehicles registered for the first time 36 months after the entry into force of the detailed provisions as referred to in Article 6a may be equipped with standardised interfaces allowing the data recorded or produced by tachograph to be used in operational mode, by an external device, provided that the following conditions are met:
 - (a) the interface does not affect the authenticity and the integrity of the data of the tachograph;
 - (b) the interface complies with the detailed provisions of Article 6a;
 - (c) the external device connected to the interface has access to personal data, including geopositioning data, only after the verifiable consent of the driver to which the data relates.

Article 6a
Detailed provisions for smart tachograph

In order to ensure that the tachograph complies with the principles and requirements set out in this Regulation, detailed provisions necessary for the uniform application of Article 4, 5 and 6, excluding any provisions which would provide for the recording of additional data by the tachograph, shall be adopted by the Commission. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 40(3).

1. Those provisions shall:
 - a) In relation to the performance of the functions of the smart tachograph referred to in Chapter II, include the necessary requirements to guarantee the security, accuracy and reliability of data as provided to the tachograph by the satellite positioning service and the remote communication technology referred to in Articles 4 and 5.
 - b) specify the different conditions and requirements for the satellite positioning service and the remote communication technology referred to in Articles 4 and 5 to be either outside or embedded in the tachograph, and when outside the conditions for the use of the satellite positioning signal as a second motion sensor.
 - c) specify the necessary standards for the interface referred to in Article 6. Such standards may include a provision on distribution of access rights for driver, workshop, company, and control roles for the data recorded by the tachograph which shall be based on an authentication/authorisation mechanism defined for the interface such as a certificate for each level of access and subject to its technical feasibility.

CHAPTER III

Type approval

Article 7

Applications

1. Manufacturers or their agents shall submit an application for EU approval of a type of vehicle unit, motion sensor, model record sheet or tachograph card to the type approval authorities designated to that effect by each Member State.
2. Member States shall communicate to the Commission at the latest within one year of [date of entry into force of this Regulation] the name and contact details of the authorities designated according to paragraph 1 and provide any update thereafter as required. The Commission shall publish the list of designated type approval authorities on its website and update it accordingly.
3. An application for type approval shall be accompanied by the appropriate specifications, including necessary information regarding the seals, and by the security, functional and interoperability certificates. The security certificate shall be issued by a recognised certification body designated by the Commission.

The functional certificate shall be issued to the manufacturer by the type approval authority.

The interoperability certificate shall be issued by a single laboratory under the authority and responsibility of the Commission.

- 3a. For the tachograph, its relevant components or the tachograph card:
- The security certificate shall certify the following for the vehicle unit, tachograph cards, motion sensor, and connection to the GNSS receiver when the GNSS is not embedded in the vehicle units:
 - compliance with security targets;
 - the fulfilment of the following security functions: identification and authentication, authorization, confidentiality, accountability, integrity, audit, accuracy and reliability of service;
 - The functional certificate shall certify that the tested item fulfils the appropriate requirements in terms of functions performed, environmental characteristics, electromagnetic compatibility characteristics, compliance to physical requirements and compliance to other applicable standards;
 - The interoperability certificate shall certify that the tested item is fully interoperable with the necessary tachographs or tachograph card models.
- 3b. Any modification in software or hardware of the tachograph or in the nature of materials used for its manufacture shall, before being used, be notified to the authority which granted type-approval for the equipment. This authority shall confirm to the manufacturer the extension of the type approval, or may require an update or a confirmation of the relevant functional, security and/or interoperability certificates.
4. No application in respect of any one type of vehicle unit, motion sensor, model record sheet or tachograph card may be submitted to more than one Member State.
5. Detailed provisions for the uniform application of this Article shall be adopted by the Commission. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 40(3).

Article 8
Granting of type approval

A Member State shall grant EU component type approval to any type of vehicle unit, motion sensor, model record sheet or tachograph card which complies with the requirements set out in Article 3a and 6a, provided the Member State is in a position to check that production models conform to the approved type.

Any modifications or additions to an approved model must receive additional EU type approval from the Member State which granted the original EU type approval.

Article 9
Type approval mark

Member States shall issue to the applicant an EU type approval mark conforming to a pre-established model, for each type of vehicle unit, motion sensor, model record sheet or tachograph card which they approve pursuant to Article 8 and Annex II. Such models shall be adopted by the Commission in accordance with the examination procedure referred to in Article 40(3).

Article 10
Approval or refusal

The competent authorities of the Member State to which the application for type approval has been submitted shall, in respect of each type of vehicle unit, motion sensor, model record sheet or tachograph card which they approve, send within one month a copy of the type approval certificate accompanied by copies of the relevant specifications, including with regard to the seals, to the authorities of the other Member States. When the competent authorities do not approve the application for type approval, they shall notify the authorities of the other Member States that approval has been refused and shall communicate the reasons for their decision.

Article 11

Compliance of equipment with type approval

1. If a Member State which has granted EU type-approval as provided for in Article 8 finds that any vehicle units, motion sensors, record sheets or tachograph cards bearing the EU type-approval mark issued by it do not conform to the type which it has approved, it shall take the necessary measures to ensure that production models conform to the approved type. The measures taken may, if necessary, extend to withdrawal of EU type approval.
2. A Member State which has granted EU type approval shall withdraw such approval if the vehicle unit, motion sensor, record sheet or tachograph card which has been approved is not in conformity with this Regulation or displays any general defect during use which makes it unsuitable for the purpose for which it is intended.
3. If a Member State which has granted EU type approval is notified by another Member State of one of the cases referred to in paragraphs 1 and 2, it shall, after consulting the latter Member State, take the steps laid down in those paragraphs, subject to paragraph 5.
4. A Member State which ascertains that one of the cases referred to in paragraph 2 has arisen, may forbid until further notice the placing on the market and putting into service of the vehicle unit, motion sensor, record sheets or tachograph cards. The same applies in the cases mentioned in paragraph 1 with respect to vehicle units, motion sensors, record sheets or tachograph cards which have been exempted from EU initial verification, if the manufacturer, after due warning, does not bring the equipment into line with the approved model or with the requirements of this Regulation.

In any event, the competent authorities of the Member States shall notify one another and the Commission, within one month, of any withdrawal of EU type approval or of any other measures taken pursuant to paragraphs 1, 2 and 3 and shall specify the reasons for such action.

5. If a Member State which has granted an EU type approval disputes the existence of any of the cases specified in paragraphs 1 or 2 notified to it, the Member States concerned shall endeavour to settle the dispute and the Commission shall be kept informed.

If talks between the Member States have not resulted in agreement within four months of the date of the notification referred to in paragraph 3, the Commission, after consulting experts from all Member States and having considered all the relevant factors, such as economic and technical factors, shall within six months of the expiry of that four month period adopt a decision which shall be notified to the Member States concerned and communicated at the same time to the other Member States. The Commission shall in each case lay down the time limit for implementation of its decision.

Article 12

Approval of record sheets

1. An applicant for EU type approval of a model record sheet shall state on the application the type or types of analogue tachographs on which the sheet in question is designed to be used and shall provide suitable equipment of such type or types for the purpose of testing the sheet.
2. The competent authorities of each Member State shall indicate on the approval certificate for the model record sheet the type or types of analogue tachographs on which that model sheet may be used.

Article 13

Justification of refusal decisions

All decisions pursuant to this Regulation refusing or withdrawing approval of a type of vehicle unit, motion sensor, model record sheet or tachograph card shall specify in detail the reasons on which they are based. A decision shall be communicated to the party concerned, who shall at the same time be informed of the remedies available to him under the laws of the Member States and of the time limits for the exercise of such remedies.

Article 14
Recognition of type-approved tachographs

No Member State may refuse to register any vehicle fitted with tachograph, or prohibit the entry into service or use of such vehicle for any reason connected with the fact that the vehicle is fitted with such equipment, if the equipment bears the EU type approval mark referred to in Article 9 and the installation plaque referred to in Article 17(4).

Article 15
Security

1. Manufacturers shall design, test and review vehicle units, motion sensors and tachograph cards put into production so as to detect vulnerabilities arising at all phases of the product life-cycle, and prevent or mitigate their possible exploitation. The frequency of tests shall be established by the Member State who granted the approval certificate, within a limit which shall not exceed two years.
2. For this purpose, manufacturers shall submit necessary documentation to the certification body as referred to in Article 7(3) for vulnerability analysis.
3. For the purpose of paragraph 1, the certification body as referred in Article 7(3) shall conduct tests on vehicle units, motion sensors and tachograph cards to confirm that known vulnerabilities cannot be exploited by individuals in possession of publicly available knowledge.

4. If in the course of tests as referred to in paragraph 1, vulnerabilities in system elements (vehicle units, motion sensors and tachograph cards) are detected, these elements shall not be put on the market. If vulnerabilities are detected in the course of tests as referred to in paragraph 3 for elements already on the market, the manufacturer or the certification body shall inform the competent authorities of ~~that~~ the Member State which has granted the type-approval. Those competent authorities shall take all the necessary measures to ensure that the problem is addressed, in particular by the manufacturer, and shall inform the Commission without delay of the vulnerabilities detected and of the measures envisaged or taken, including where necessary the withdrawal of type-approval in accordance with Article 11(2).

Article 16

Field tests

1. Member States may authorise field tests of tachographs which has not yet been type approved. Member States shall mutually recognise authorisations for field tests granted by one Member State.
2. Drivers and transport undertakings participating in a field test shall comply with the requirements of Regulation (EC) No 561/2006. In order to demonstrate such compliance, drivers shall follow the procedure set out in Article 31(2).
3. The Commission may adopt implementing acts to lay down the procedures to be followed for carrying out field tests and the forms to be used in order to monitor these field tests. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 40(3).

CHAPTER IV

Installation and inspection

Article 17

Installation and repair

1. Tachographs may be installed or repaired only by fitters, workshops or vehicle manufacturers approved by the competent authorities of the Member States for that purpose in conformity with Article 19.
2. Approved fitters, workshops or vehicle manufacturers shall seal, according to the specifications included in the type approval certificate referred to in Article 10, the tachograph after having verified that it is functioning properly, and in particular that no manipulation device can tamper with or alter the data recorded.
3. The approved fitter, workshop or vehicle manufacturer shall place a special mark on the seals which it affixes and, in addition, for the digital tachographs, shall enter the electronic security data for carrying out the authentication checks. The competent authorities of each Member State shall send to the Commission the register of the marks and electronic security data used and necessary information related to the electronic security data used. The Commission shall give access to this information to Member States upon request.
4. For the purpose of certifying that the installation of the tachograph took place in accordance with the requirements of this Regulation, an installation plaque affixed so that it is clearly visible and easily accessible shall be used.
5. [...]

Tachograph components shall be sealed as specified in the type approval certificate. Any connections to the tachograph which are potentially vulnerable to tampering, including the connection between the motion sensor and the gear box, and the installation plaque where relevant, shall be sealed.

A seal shall be removed or broken only:

- by fitters or workshops approved by the competent authorities under paragraph 1 for repair, maintenance or recalibration purposes of the tachograph or by control officers properly trained and, where required authorised, for control purposes;
- for the purpose of vehicle repair or modification which affects the seal. In such cases, a written statement stating the date and time at which the seal was broken and giving the reasons for the seal removal shall be kept on board the vehicle. The Commission shall develop a standard form for the written statement through implementing acts.

In all cases, the seals shall be replaced by an approved fitter or workshop without undue delay and at the latest within 7 days following its removal.

Before replacing seals, a check and calibration of the tachograph shall be performed by an approved workshop.

Article 18

Inspections of the tachographs

1. Tachographs shall be subject to regular inspection by approved workshops. Regular inspection shall be carried out at least every two years.

- 1a. These inspections shall include at least the following checks:
 - the tachograph is correctly fitted and appropriate for the vehicle;
 - the tachograph is working properly;
 - the tachograph carries the type-approval mark;
 - the installation plaque is affixed;
 - all seals are intact and effective;
 - there are no manipulation devices attached to the tachograph or traces of usage of such devices;
 - the tyre size and the actual circumference of the wheel tyres.
2. Workshops shall draw up an inspection report in cases where irregularities in the functioning of the tachograph had to be remedied, whether as a result of a periodic inspection, or an inspection carried out at the specific request of the national competent authority. Workshops shall keep a list of all inspection reports drawn up.
3. Inspection reports shall be retained for a minimum period of two years from the time the report was made. Member States shall decide whether inspection reports shall be retained or sent to the competent authority during that period. In cases where the inspection reports are kept by the workshop, upon request from the competent authority, the workshop shall make available the reports of inspections and calibrations carried out during that period.

Article 19

Approval of fitters and workshops

1. The Member States shall approve, regularly control and certify the fitters, workshops and vehicle manufacturers which may carry out installations, checks, inspections and repairs of the tachograph.

2. Member States shall ensure that fitters, workshops and vehicle manufacturers are competent and reliable. For that purpose, they shall establish and publish a set of clear national procedures and shall ensure that the following minimum criteria are met:
 - (a) the staff are properly trained;
 - (b) the equipment necessary to carry out the relevant tests and tasks is available;
 - (c) the fitters and workshops are of good repute.
3. Audits of approved fitters or workshops shall be carried out as follows:
 - (a) Approved fitters or workshops shall be subject to an audit at least every two years of the procedures applied by the workshop when handling the tachograph. The audit shall focus in particular on the security measures taken and the handling of workshop cards. Member States may carry out these audits without physical presence in the workshop.
 - (b) Unannounced technical audits of approved fitters or workshops shall also take place in order to control the calibrations, inspections and installations carried out. These controls shall cover at least 10% of the approved workshops per year.
4. Member States and their competent authorities shall take appropriate measures to prevent conflicts of interests between fitters or workshops and road transport undertakings. In particular, in case of serious risk of conflict of interest, additional specific measures shall be taken to ensure that the fitter or the workshop complies with this Regulation.
5. The competent authorities of the Member States shall forward, if possible electronically, to the Commission, on an annual basis, the lists of approved fitters and workshops and the cards issued to them. The Commission shall publish the lists of approved fitters and workshops on its website.

6. The competent authorities in Member States shall withdraw approval, either temporarily or permanently, from fitters and workshops failing to meet their obligations under this Regulation.

Article 20

Workshop cards

1. The period of validity of workshop cards shall not exceed one year. When renewing the workshop card, the competent authority shall ensure that the criteria listed in Article 19, paragraph 2, are met by the fitter, workshop or vehicle manufacturer.
2. The competent authority shall renew a workshop card within fifteen working days after receiving a valid renewal request and all the necessary documentation being received by the competent authority. If a workshop card is damaged, malfunctions, is lost or stolen, the authority shall supply a replacement card within five working days of receiving a detailed request to that effect. The authority issuing the card shall maintain a register of lost, stolen or defective cards.
3. When a Member State withdraws the approval of a fitter or workshop as set out in Article 19, it shall also withdraw the workshop cards issued to it.
4. Member States shall take all necessary measures to prevent the workshop cards distributed to approved fitters and workshops from being falsified.

CHAPTER V

Driver cards

Article 21

Issuing of driver cards

1. The driver card shall be issued, at the request of the driver by the competent authority of the Member State where the driver has his normal residence. It shall be issued within one month of the request and all the necessary documentation being received by the competent authority.
2. For the purposes of this article, ‘normal residence’ means the place where a person usually lives, that is for at least 185 days in each calendar year, because of personal and occupational ties, or, in the case of a person with no occupational ties, because of personal ties which show close links between that person and the place where they are living; however, the normal residence of a person whose occupational ties are in a different place from their personal ties and who consequently lives in turn in different places situated in two or more Member States shall be regarded as being the place of their personal ties, provided that such person returns there regularly. This last condition need not be complied with where the person is living in a Member State in order to carry out a fixed-term assignment.
3. Drivers shall give proof of their normal residence by any appropriate means, such as their identity card or any other valid document. Where the competent authorities of the Member State issuing the driver card have doubts as to the validity of a statement as to normal residence, or for the purpose of certain specific controls, they may request any additional information or evidence.

- 3a. In duly justified and exceptional cases, Member States may issue a temporary and non renewable driver card valid for a maximum period of 185 days to a driver who does not have his normal residence in a Member State or in a State which is Contracting Party to the European Agreement concerning the Work of Crews of Vehicles engaged in International Road Transport, provided that such driver presents a labour law relationship with an undertaking established in the issuing Member State and insofar as Regulation 1072/2009 applies a driver attestation as referred to in that Regulation.

The Commission shall, on the basis of data provided by Member States, closely monitor the application of this provision. It shall report its findings every two years to the European Parliament and to the Council and examine in particular whether the temporary driver cards produce any negative impact on the labour market and that the temporary cards are not being issued to a named driver ordinarily on more than one occasion. In such cases, the Commission may propose the revision of this provision.

4. The competent authorities of the issuing Member State shall take appropriate measures to ensure that an applicant does not already hold a valid driver card and shall personalise the driver card, ensuring that its data is visible and secure.
5. The driver card shall not be valid for more than five years.
6. A valid driver card shall not be withdrawn or suspended unless the competent authorities of a Member State find that the card has been falsified, or the driver is using a card of which he is not the holder, or the card held has been obtained on the basis of false declarations and/or forged documents. If such suspension or withdrawal measures are taken by a Member State other than the issuing Member State, the former shall return the card to the authorities of the Member State which issued it, as soon as possible, indicating the reasons for withdrawal or suspension. If the return of the card is expected to take longer than two weeks, the suspending or withdrawing Member State shall inform the issuing Member State within those two weeks of the reasons for suspension or withdrawal.

7. Member States shall take all necessary measures to prevent driver cards from being falsified.
- 7a. This Article shall not prevent a Member State from issuing a driver card to a driver who has his normal residence in a part of that Member State's territory, to which the TEU and TFEU do not apply, provided that the relevant provisions of this Regulation are applied in such cases.

Article 22

Use of driver cards

1. The driver card is personal.
2. A driver may hold no more than one valid driver card, and is authorised to use only his own personalised driver card. A driver shall not use a driver card which is defective or which has expired.

Article 23

Renewal of driver cards

1. Where a driver wishes to renew his driver card, he shall apply to the competent authorities of the Member State of normal residence not later than 15 working days before the expiry date of the card.
2. Where the authorities of the Member State of normal residence are different from those which issued the card and where the former are requested to renew the driver card, they shall inform the authorities which issued the old card of the reasons for its renewal.
3. In the event of a request for the renewal of a card whose expiry date is approaching, the competent authority shall supply a new card before the expiry date provided that the request was sent within the time limits laid down in paragraph 1.

Article 24

Stolen, lost or defective driver cards

1. The issuing authority shall keep records of issued, stolen, lost or defective driver cards for a period at least equivalent to their period of validity.
2. If a driver card is damaged or if it malfunctions, the driver shall return it to the competent authority of the Member State of normal residence. Theft of the driver card must be formally declared to the competent authorities of the State where the theft occurred.
3. Loss of the driver card shall be reported in a formal declaration to the competent authorities of the issuing Member State and to the competent authorities of the Member State of normal residence if this is different.
4. If the driver card is damaged, malfunctions or is lost or stolen, the driver shall within seven calendar days apply for its replacement to the competent authorities of the Member of normal residence. These authorities shall supply a replacement card within eight working days after receiving a detailed request to that effect.
5. In the circumstances set out in paragraph 4, the driver may continue to drive without a driver card for a maximum period of 15 calendar days or for a longer period if this is necessary for the vehicle to return to its premises, provided the driver can prove the impossibility of producing or using the card during this period.

Article 25

Mutual recognition and exchange of driver cards

1. Driver cards issued by Member States shall be mutually recognised.

2. Where the holder of a valid driver card issued by a Member State has established his normal residence in another Member State, he may ask for his card to be exchanged for an equivalent driver card. It shall be the responsibility of the Member State which carries out the exchange to verify whether the card produced is still valid.
3. Member States carrying out an exchange shall return the old card to the authorities of the issuing Member State and indicate the reasons for so doing.
4. Where a Member State replaces or exchanges a driver card, the replacement or exchange, and any subsequent replacement or exchange, shall be registered in that Member State.

Article 26

Electronic exchange of information on driver cards

1. In order to ensure that an applicant does not already hold a valid driver card as referred to in Article 21, Member States shall maintain national electronic registers containing the following information on driver cards including on those referred to in Article 21, paragraph 3a, for a period at least equivalent to their period of validity:
 - Surname and first name of the driver
 - Birth date and, if available, place of birth of the driver
 - Valid driving licence number and country of issue of the driving licence (if applicable)
 - Status of the driver card
 - Driver card number
2. The Commission and the Member States shall take all necessary measures to ensure that the electronic registers are interconnected and accessible throughout the Union, using the TACHOnet Messaging System or a compatible system. In the case of the use of a compatible system, the exchange of electronic data shall be possible with all other Member States through the TACHOnet Messaging System.

3. When issuing, replacing and, when necessary, renewing a driver card, Member States shall verify through electronic data exchange that the driver does not already hold another valid driver card. The data exchanged shall be limited to the data necessary for the purpose of this verification.
4. Control officers may have access to the electronic register in order to control the status of a driver card.
5. The Commission shall adopt implementing acts to lay down the common procedures and specifications necessary for the interconnection referred to in paragraph 2, including the format for the data exchanged, the technical procedures for electronic consultation of the national electronic registers, access procedures and security mechanisms. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 40(3).

Article 27

[...]

CHAPTER VI

Use of equipment

Article 28

Correct use of tachographs

1. The transport undertaking and the drivers shall ensure the correct functioning and proper use of the digital tachograph and the driver card. Whenever an analogue tachograph is used the transport undertaking and the driver shall ensure its correct functioning and the proper use of the record sheet.
 - 1a. The digital tachograph shall not be set in such a way that it automatically switches to a specific category of activity when the vehicle's engine or ignition is switched off, unless the driver remains able to choose manually the appropriate category of activity.
2. It shall be forbidden to falsify, conceal, suppress or destroy data recorded on the record sheet, stored in the tachograph or on the driver card, or print-outs from the tachograph. Any manipulation of the tachograph, record sheet or driver card which could result in data and/or printed information being falsified, suppressed or destroyed shall also be prohibited. No device which could be used to this effect shall be present on the vehicle.
3. Vehicles shall not be fitted with more than one tachograph except for the purposes of the field tests referred to in Article 16.
4. Member States shall forbid the production, distribution, advertising and/or selling of devices constructed and/or intended for the manipulation of tachographs.

Article 29

Responsibility of the undertaking

1. The transport undertaking shall be responsible for ensuring that its drivers are properly trained and instructed as regards the correct functioning of the digital tachograph, shall make regular checks to ensure that its drivers make a correct use of the tachograph and shall not give to its drivers any direct or indirect incentives that could encourage the misuse of the tachograph.

The transport undertaking shall issue a sufficient number of record sheets to drivers of vehicles fitted with an analogue tachograph taking into account the fact that these sheets are personal in character, the length of the period of service and the possible need to replace sheets which are damaged, or have been taken by an authorised inspecting officer. The transport undertaking shall issue to drivers only record sheets of an approved model suitable for use in the equipment installed in the vehicle.

Where the vehicle is fitted with a digital tachograph the transport undertaking and the driver shall ensure that, taking into account the length of the period of service, the printing of data from the tachograph at the request of a control officer can be carried out correctly in the event of an inspection.

2. The transport undertaking shall keep record sheets and printouts, whenever printouts have been made to comply with Article 31, in chronological order and in a legible form for at least a year after their use and shall give copies to the drivers concerned who request them. The transport undertaking shall also give copies of downloaded data from the driver cards to the drivers concerned who request them and the printed paper versions of these copies. The record sheets, printouts and downloaded data shall be produced or handed over at the request of any authorised inspecting officer.

3. A transport undertaking shall be liable for infringements against this Regulation committed by drivers of the undertaking or by those at its disposal. However, Member States may make this liability conditional on the undertaking's infringement of paragraph 2a of this Article and Article 10(1) and (2) of Regulation 561/2006.

Article 30

Use of driver cards and record sheets

1. Drivers shall use the record sheets or driver cards every day on which they are driving, starting from the moment they take over the vehicle. The record sheet or driver card shall not be withdrawn before the end of the daily working period unless its withdrawal is otherwise authorised. No record sheet or driver card may be used to cover a period longer than that for which it is intended.
2. Drivers shall adequately protect the record sheets or driver cards, and shall not use dirty or damaged sheets or cards.
3. When as a result of being away from the vehicle, a driver is unable to use the tachograph fitted to the vehicle, the periods of time referred to in paragraph 5(b) (ii), (iii) and (iv) shall:
 - (a) if the vehicle is fitted with the analogue tachograph, be entered on the record sheet, either manually, by automatic recording or other means, legibly and without dirtying the sheet; or
 - (b) if the vehicle is fitted with the digital tachograph, be entered onto the driver card using the manual entry facility provided in the tachograph.

Member States shall not impose on drivers the presentation of forms attesting their activities while being away from the vehicle.


4. Where there is more than one driver on board a vehicle fitted with the digital tachograph, each driver shall ensure that his driver card is inserted into the correct slot in the tachograph.


Where there is more than one driver on board a vehicle fitted with the analogue tachograph, drivers shall amend the record sheets as necessary, so that the relevant information is recorded on the record sheet of the driver who is actually driving.


5. Drivers shall:


(a) ensure that the time recorded on the sheet corresponds to the official time in the country of registration of the vehicle;

(b) operate the switch mechanisms enabling the following periods of time to be recorded separately and distinctly:

(i) under the sign : driving time,

(ii) under the sign : 'other work', which means any activity other than driving, as defined in Article 3(a) of Directive 2002/15/EC of the European Parliament and of the Council¹¹, and also any work for the same or another employer within or outside of the transport sector,

(iii) under the sign : 'availability', as defined in Article 3(b) of Directive 2002/15/EC;

(iv) under the sign : breaks or rest.

¹¹ OJ L 80, 23.3.2002, p. 35.

6. Each driver shall enter the following information on his record sheet:
- (a) on beginning to use the sheet — his surname and first name;
 - (b) the date and place where use of the sheet begins and the date and place where such use ends;
 - (c) the registration number of each vehicle to which the driver is assigned, both at the start of the first journey recorded on the sheet and then, in the event of a change of vehicle, during use of the sheet;
 - (d) the odometer reading:
 - (i) at the start of the first journey recorded on the sheet,
 - (ii) at the end of the last journey recorded on the sheet,
 - (iii) in the event of a change of vehicle during a working day, the reading on the first vehicle to which the driver was assigned and the reading on the next vehicle;
 - (e) the time of any change of vehicle.
7. The driver shall enter in the digital tachograph the symbols of the countries in which the daily working period was started and finished. However, a Member State may require drivers of vehicles engaged in transport operations inside its territory to add more detailed geographic specifications to the country symbol provided that the Member State notified them to the Commission before 1 April 1998.

It shall not be necessary for drivers to enter this information if the tachograph is automatically recording location data in accordance with Article 4.

Article 31

Damaged driver cards or record sheets

1. In case of damage to a sheet bearing recordings or a driver card, drivers shall keep the damaged sheet or driver card together with the spare sheet used to replace it.

2. Where a driver card is damaged, malfunctions, or is lost or stolen, the driver shall:
 - (a) at the start of his journey, print out the details of the vehicle they are driving, and enter on that printout:
 - (i) details that enable the driver to be identified (name, driver card or driving licence number), including his signature;

 - (ii) the periods referred to in Article 30 (5) (b) (ii), (iii) and (iv);

 - (b) at the end of the journey, print out the information relating to periods of time recorded by the tachograph, record any periods of other work, availability and rest undertaken since the printout that was made at the start of the journey, where not recorded by the tachograph, and mark on that document details that enable the driver to be identified (name, driver card or driver's licence number), including the driver's signature.

Article 32

Records to be carried by the driver

1. Where the driver drives a vehicle fitted with an analogue tachograph, the driver shall be able to produce, whenever an inspecting officer so requests:
 - (i) the record sheets for the current day and those used by the driver in the previous 28 days,
 - (ii) the driver card if one is held, and
 - (iii) any manual record and printout made during the current day and the previous 28 days as required under this Regulation and Regulation (EC) No 561/2006.
2. Where the driver drives a vehicle fitted with a digital tachograph, he shall be able to produce, whenever an inspecting officer so requests:
 - (i) his driver card,
 - (ii) any manual record and printout made during the current day and the previous 28 days as required under this Regulation and Regulation (EC) No 561/2006,
 - (iii) the record sheets corresponding to the same period as the one referred to in point (ii) during which he drove a vehicle fitted with an analogue tachograph.
3. An authorised inspecting officer may check compliance with Regulation (EC) No 561/2006 by analysis of the record sheets, of the displayed, printed or downloaded data which have been recorded by the tachograph or by the driver card or, failing this, by analysis of any other supporting document that justifies non-compliance with a provision, such as those laid down in Articles 24(2) and 33(2) of this Regulation.

Article 33

Procedures in case of malfunctioning equipment

1. In the event of breakdown or faulty operation of the tachograph, the transport undertaking shall have it repaired by an approved fitter or workshop, as soon as circumstances permit.

If the vehicle is unable to return to the premises within a period of one week calculated from the day of the breakdown or of the discovery of defective operation, the repair shall be carried out *en route*.

Measures taken by Member States pursuant to Article 37 shall give the competent authorities power to prohibit the use of the vehicle in cases where breakdown or faulty operation has not been remedied as provided in the first and the second subparagraphs insofar as this is in accordance with the national legislation in the Member State.

2. While the tachograph is unserviceable or malfunctioning, drivers shall mark data enabling identification of the driver (name, driver card or driving licence number), including a signature, as well as the information for the various periods of time which are no longer recorded or printed out correctly by the tachograph:
 - (a) on the record sheet or sheets, or
 - (b) on a temporary sheet to be attached to the record sheet or to be kept together with the driver card.

CHAPTER VII

Enforcement and sanctions

Article 34

[...]

Article 34a
Control officers

1. In order to effectively monitor compliance with this Regulation sufficient equipment and appropriate legal powers shall be available to authorised control officers to enable them to carry out their duties according to this Regulation. This equipment shall include in particular:
 - (a) Control cards allowing access to data recorded in the tachograph and in the tachograph cards, and optionally in the workshop card.
 - (b) The necessary tools to download data files of the vehicle unit and the tachograph cards and to be able to analyse such data files and print-outs from the digital tachograph in combination with sheets or charts from the analogue tachograph.
2. If after having carried out a check, control officers find enough evidence leading to reasonable suspicion of fraud, they shall be empowered to direct the vehicle to an authorised workshop to perform further tests in order to control, in particular, that the tachograph:
 - (a) works properly;
 - (b) records and stores data correctly and that the calibration parameters are correct.
3. Control officers shall be empowered to request authorised workshops to perform the test mentioned in paragraph 2 and specific tests designed to test for the presence of manipulation devices. If manipulation devices are detected, the equipment, including the device itself, the vehicle unit or its components, and the driver card, may be removed from the vehicle and be used as evidence in compliance with national rules of procedure relating to the handling of such evidence.

4. Control officers shall make use, when appropriate, of the possibility to check tachographs and driver cards which are on site during a check of the premises of the undertaking.

Article 35

Training of control officers

1. Member States shall ensure that control officers are appropriately trained for the analysis of the data recorded and the control of the tachograph in order to achieve an efficient and harmonised control and enforcement.
2. Member States shall inform the Commission about the training requirements for their control officers by 6 months after the date of application of this Regulation.
3. The Commission shall adopt measures, specifying the content of the initial and continuing training of control officers, including on techniques to target controls and to detect manipulation devices and fraud. These measures shall include guidelines to facilitate the implementation of the relevant provisions of this Regulation and Regulation (EC) N° 561/2006. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 40(3).
- 3a. Member States shall include the content specified by the Commission in the training delivered to control officers.

Article 36

Mutual assistance

Member States shall assist each other in applying this Regulation and in checking compliance therewith.

Within the framework of this mutual assistance, the competent authorities of the Member States shall in particular regularly send to each other all available information concerning infringements to this Regulation related to fitters and workshops, types of manipulation practices, and any penalties imposed for such infringements.

Article 37

Penalties

1. Member States shall, in accordance with national constitutional arrangements, lay down rules on penalties applicable to infringements of this Regulation and shall take all measures necessary to ensure that they are implemented. Those penalties shall be effective, proportionate, dissuasive and non-discriminatory and in compliance with the categories of infringements as defined in Directive 2006/22/EC.
2. [...]
3. [...]
4. The Member States shall notify the Commission of these measures and the rules on penalties by [date of application of this Regulation]. They shall inform the Commission about any subsequent change to these measures.

Article 38

[...]

Article 39

[...]

CHAPTER VIII

Final provisions

Article 40

Committee

1. The Commission shall be assisted by a committee. That committee shall be a committee within the meaning of Regulation (EU) No 182/2011.
2. Where reference is made to this paragraph, Article 4 of Regulation (EU) No 182/2011 shall apply.
3. Where reference is made to this paragraph, Article 5 of Regulation (EU) No 182/2011 shall apply. Where the committee delivers no opinion, the Commission shall not adopt the draft implementing act and the third subparagraph of Article 5(4) of Regulation (EU) No 182/2011 shall apply.

Where the opinion of the committee is to be obtained by written procedure, that procedure shall be terminated without result when, within the time-limit for delivery of the opinion, the chair of the committee so decides or a simple majority of committee members so request.

Article 41

Tachograph Forum

1. A Tachograph Forum shall be set up in order to support dialogue on technical matters concerning the tachograph among Member States' experts, members of the Committee of Article 40, and experts from third countries which are using the tachograph under the European agreement concerning the work of crews of vehicles engaged in international road transport (AETR).

2. Member States should delegate as experts to the Tachograph Forum the experts participating in the Committee referred to in Article 40.
3. The Tachograph Forum shall be open to participation by experts from interested non-EU Contracting Parties to the AETR.
4. Stakeholders, representatives of vehicle manufacturers, tachograph manufacturers, ~~and~~ social partners and the European Data Protection Supervisor, shall be invited to the Tachograph Forum.
5. The Tachograph Forum shall adopt its rules of procedure.
6. The Tachograph Forum shall meet at least once a year.

Article 42

Communication of national measures

Member States shall communicate to the Commission the text of the laws, regulations and administrative provisions which they adopt in the field governed by this Regulation no later than 30 days after their date of adoption and for the first time 12 months after the entry into force of this Regulation.

Article 43

Regulation (EC) No 561/2006 is amended as follows:

- A new point (aa) is added to Article 3: vehicles or combinations of vehicles with a maximum permissible mass not exceeding 7,5 tonnes used for carrying materials, equipment or machinery for the driver's use in the course of his work, and which are used only within a 100 km radius from the base of the undertaking and on the condition that driving the vehicle does not constitute the driver's main activity.

- The distance of ‘50 km’ referred to in points (d), (f) and (p) of Article 13(1) is replaced by ‘100 km’.

Point (d) second indent of Article 13(1) is deleted.

Article 44

Transitional measures

Insofar as the implementing acts referred to in this Regulation have not been adopted, so that they may be applied at the time of application of this Regulation, the provisions in Regulation 3821/85, including in the Annex IB, shall continue to apply, on a transitional basis, until the date of application of the implementing acts referred to in this Regulation.

Article 45

Repeal

Regulation 3821/85 is hereby repealed. References to the repealed Regulation shall be construed as references to this Regulation.

Article 46

Entry into force

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

It shall, subject to the transitional measures in Article 44, apply with effect from two years after entry into force except for the provisions in Articles 19, 30 and 43 of this Regulation, which shall apply with effect from one year after entry into force.

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

Done at Brussels,

For the European Parliament

The President

For the Council

The President

**REQUIREMENTS FOR CONSTRUCTION, TESTING, INSTALLATION AND
INSPECTION FOR ANALOGUE TACHOGRAPHS**

I. DEFINITIONS

In this Annex:

(a) Recording equipment means:

equipment intended for installation in road vehicles to show and record automatically or semi-automatically details of the movement of those vehicles and of certain working periods of their drivers;

(b) Record sheet means:

a sheet designed to accept and retain recorded data, to be placed in the recording equipment and on which the marking devices of the latter inscribe a continuous record of the information to be recorded;

(c) The 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 must be expressed either in revolutions per kilometre ($k = \dots \text{ rev/km}$), or in impulses per kilometre ($k = \dots \text{ imp/km}$);

(d) Characteristic coefficient of the 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 measured kilometre under normal test conditions (see Chapter VI, point 4 of this Annex). The characteristic coefficient is expressed either in revolutions per kilometre ($w = \dots \text{ rev/km}$) or in impulses per kilometre ($w = \dots \text{ imp/km}$);

(e) **Effective circumference of wheel tyres means:**

the average of the distances travelled by the several wheels moving the vehicle (driving wheels) in the course of one complete rotation. The measurement of these distances must be made under normal test conditions (see Chapter VI, point 4 of this Annex) and is expressed in the form : $l = \dots$ mm.

II. GENERAL CHARACTERISTICS AND FUNCTIONS OF RECORDING EQUIPMENT

The equipment must be able to record the following:

1. distance travelled by the vehicle;
2. speed of the vehicle;
3. driving time;
4. other periods of work or of availability;
5. breaks from work and daily rest periods;
6. opening of the case containing the record sheet.
7. for electronic recording equipment which is equipment operating by signals transmitted electrically from the distance and speed sensor, any interruption exceeding 100 milliseconds in the power supply of the recording equipment (except lighting), in the power supply of the distance and speed sensor and any interruption in the signal lead to the distance and speed sensor.

For vehicles used by two drivers the equipment must be capable of recording simultaneously but distinctly and on two separate sheets details of the periods listed under 3, 4 and 5.

III. CONSTRUCTION REQUIREMENTS FOR RECORDING EQUIPMENT

(a) General points

1. *Recording equipment shall include the following:*

1.1. Visual instruments showing:

- distance travelled (distance recorder),
- speed (speedometer),
- time (clock).

1.2. Recording instruments comprising:

- a recorder of the distance travelled,
- a speed recorder,
- one or more time recorders satisfying the requirements laid down in Chapter III (c)4.

1.3. A means of marking showing on the record sheet individually:

- each opening of the case containing that sheet,
- for electronic recording equipment, as defined in point 7 of Chapter II, any interruption exceeding 100 milliseconds in the power supply of the recording equipment (except lighting), not later than at switching-on the power supply again,
- for electronic recording equipment, as defined in point 7 of Chapter II, any interruption exceeding 100 milliseconds in the power supply of the distance and speed sensor and any interruption in the signal lead to the distance and speed sensor.

2. Any inclusion in the equipment of devices additional to those listed above must not interfere with the proper operation of the mandatory devices or with the reading of them.

The equipment must be submitted for approval complete with any such additional devices.

3. *Materials*

- 3.1. All the constituent parts of the recording equipment must be made of materials with sufficient stability and mechanical strength and stable electrical and magnetic characteristics.
- 3.2. Any modification in a constituent part of the equipment or in the nature of the materials used for its manufacture must, before being applied in manufacture, be submitted for approval to the authority which granted type-approval for the equipment.

4. *Measurement of distance travelled*

The distances travelled may be measured and recorded either:

- so as to include both forward and reverse movement, or
- so as to include only forward movement.

Any recording of reversing movements must on no account affect the clarity and accuracy of the other recordings.

5. *Measurement of speed*

- 5.1. The range of speed measurement shall be as stated in the type approval certificate.
- 5.2. The natural frequency and the damping of the measuring device must be such that the instruments showing and recording the speed can, within the range of measurement, follow acceleration changes of up to 2 m/s², within the limits of accepted tolerances.

6. *Measurement of time (clock)*

- 6.1. The control of the mechanism for resetting the clock must be located inside a case containing the record sheet; each opening of that case must be automatically recorded on the record sheet.
- 6.2. If the forward movement mechanism of the record sheet is controlled by the clock, the period during which the latter will run correctly after being fully wound must be greater by at least 10 % than the recording period corresponding to the maximum sheet-load of the equipment.

7. *Lighting and Protection*

- 7.1 The visual instruments of the equipment must be provided with adequate non-dazzling lighting.
- 7.2. For normal conditions of use, all the internal parts of the equipment must be protected against damp and dust. In addition they must be made proof against tampering by means of casings capable of being sealed.

(b) Visual instruments

1. *Distance travelled indicator (distance recorder)*

- 1.1. The value of the smallest grading on the instrument showing distance travelled must be 0,1 kilometres. Figures showing hectometres must be clearly distinguishable from those showing whole kilometres.
- 1.2. The figures on the distance recorder must be clearly legible and must have an apparent height of at least 4 mm.
- 1.3. The distance recorder must be capable of reading up to at least 99 999,9 kilometres.

2. *Speed indicators (speedometer)*

- 2.1. Within the range of measurement, the speed scale must be uniformly graduated by 1, 2, 5 or 10 kilometres per hour. The value of a speed graduation (space between two successive marks) must not exceed 10 % of the maximum speed shown on the scale.
- 2.2. The range indicated beyond that measured need not be marked by figures.
- 2.3. The length of each space on the scale representing a speed difference of 10 kilometres per hour must not be less than 10 millimetres.
- 2.4. On an indicator with a needle, the distance between the needle and the instrument face must not exceed three millimetres.

3. *Time indicator (clock)*

The time indicator must be visible from outside the equipment and give a clear, plain and unambiguous reading.

(c) Recording instruments

1. *General points*

- 1.1. All equipment, whatever the form of the record sheet (strip or disc) must be provided with a mark enabling the record sheet to be inserted correctly, in such a way as to ensure that the time shown by the clock and the time-marking on the sheet correspond.
- 1.2. The mechanism moving the record sheet must be such as to ensure that the latter moves without play and can be freely inserted and removed.
- 1.3. For record sheets in disc form, the forward movement device must be controlled by the clock mechanism. In this case, the rotating movement of the sheet must be continuous and uniform, with a minimum speed of seven millimetres per hour measured at the inner border of the ring marking the edge of the speed recording area.

In equipment of the strip type, where the forward movement device of the sheets is controlled by the clock mechanism the speed of rectilinear forward movement must be at least 10 millimetres per hour.
- 1.4. Recording of the distance travelled, of the speed of the vehicle and of any opening of the case containing the record sheet or sheets must be automatic.

2. *Recording distance travelled*

- 2.1. Every kilometre of distance travelled must be represented on the record by a variation of at least one millimetre on the corresponding coordinate.
- 2.2. Even at speeds reaching the upper limit of the range of measurement, the record of distances must still be clearly legible.

3. *Recording speed*

3.1. Whatever the form of the record sheet, the speed recording stylus must normally move in a straight line and at right angles to the direction of travel of the record sheet.

However, the movement of the stylus may be curvilinear, provided the following conditions are satisfied:

- the trace drawn by the stylus must be perpendicular to the average circumference (in the case of sheets in disc form) or to the axis (in the case of sheets in strip form) of the area reserved for speed recording,
- the ratio between the radius of curvature of the trace drawn by the stylus and the width of the area reserved for speed recording must be not less than 2,4 to 1 whatever the form of the record sheet,
- the markings on the time-scale must cross the recording area in a curve of the same radius as the trace drawn by the stylus. The spaces between the markings on the time-scale must represent a period not exceeding one hour.

3.2. Each variation in speed of 10 kilometres per hour must be represented on the record by a variation of at least 1,5 millimetres on the corresponding coordinate.

4. *Recording time*

4.1. Recording equipment must be so constructed that the period of driving time is always recorded automatically and that it is possible, through the operation where necessary of a switch device to record separately the other periods of time as indicated in Article 30 (5) (b) (ii), (iii) and (iv) of the Regulation.

4.2. It must be possible, from the characteristics of the traces, their relative positions and if necessary the signs laid down in Article 30 of the Regulation to distinguish clearly between the various periods of time.

The various periods of time should be differentiated from one another on the record by differences in the thickness of the relevant traces, or by any other system of at least equal effectiveness from the point of view of legibility and ease of interpretation of the record.

4.3. In the case of vehicles with a crew consisting of more than one driver, the recordings provided for in point 4.1 must be made on separate sheets, each sheet being allocated to one driver. In this case, the forward movement of the separate sheets must be effected either by a single mechanism or by separate synchronized mechanisms.

(d) Closing device

1. The case containing the record sheet or sheets and the control of the mechanism for resetting the clock must be provided with a lock.
2. Each opening of the case containing the record sheet or sheets and the control of the mechanism for resetting the clock must be automatically recorded on the sheet or sheets.

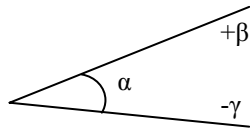
(e) Markings

1. The following markings must appear on the instrument face of the equipment:
 - close to the figure shown by the distance recorder, the unit of measurement of distance, indicated by the abbreviation 'km',
 - near the speed scale, the marking 'km/h',
 - the measurement range of the speedometer in the form 'Vmin . . . km/h, Vmax . . . km/h', This marking is not necessary if it is shown on the descriptive plaque of the equipment.

However, these requirements shall not apply to recording equipment approved before 10 August 1970.

2. The descriptive plaque must be built into the equipment and must show the following markings, which must be visible on the equipment when installed:
 - name and address of the manufacturer of the equipment,
 - manufacturer's number and year of construction,
 - approval mark for the equipment type,
 - the constant of the equipment in the form 'k = . . . rev/km' or 'k = . . . imp/km',
 - optionally, the range of speed measurement, in the form indicated in point 1,

- should the sensitivity of the instrument to the angle of inclination be capable of affecting the readings given by the equipment beyond the permitted tolerances, the permissible angle expressed as:



where α is the angle measured from the horizontal position of the front face (fitted the right way up) of the equipment for which the instrument is calibrated, while β and γ represent respectively the maximum permissible upward and downward deviations from the angle of calibration α .

(f) **Maximum tolerances (visual and recording instruments)**

1. On the test bench before installation:

(a) distance travelled:

1 % more or less than the real distance, where that distance is at least one kilometre;

(b) speed:

3 km/h more or less than the real speed;

(c) time:

\pm two minutes per day with a maximum of 10 minutes per seven days in cases where the running period of the clock after rewinding is not less than that period.

2. On installation:

(a) distance travelled:

2 % more or less than the real distance, where that distance is at least one kilometre;

(b) speed:

4 km/h more or less than the real speed;

(c) time:

\pm two minutes per day, or

\pm 10 minutes per seven days.

3. In use:
 - (a) distance travelled:
4 % more or less than the real distance, where that distance is at least one kilometre;
 - (b) speed:
6 km/h more or less than the real speed;
 - (c) time:
± two minutes per day, or
± 10 minutes per seven days.
4. The maximum tolerances set out in points 1, 2 and 3 are valid for temperatures between 0 ° and 40 °C, temperatures being taken in close proximity to the equipment.
5. Measurement of the maximum tolerances set out in points 2 and 3 shall take place under the conditions laid down in Chapter VI.

IV. RECORD SHEETS

(a) **General points**

1. The record sheets must be such that they do not impede the normal functioning of the instrument and that the records which they contain are indelible and easily legible and identifiable.

The record sheets must retain their dimensions and any records made on them under normal conditions of humidity and temperature.

In addition it must be possible to write on the sheets, without damaging them and without affecting the legibility of the recordings, the information referred to in Article 30 of the Regulation.

Under normal conditions of storage, the recordings must remain clearly legible for at least one year.

2. The minimum recording capacity of the sheets, whatever their form, must be 24 hours.
If several discs are linked together to increase the continuous recording capacity which can be achieved without intervention by staff, the links between the various discs must be made in such a way that there are no breaks in or overlapping of recordings at the point of transfer from one disc to another.

(b) Recording areas and their graduation

1. The record sheets shall include the following recording areas:
 - an area exclusively reserved for data relating to speed,
 - an area exclusively reserved for data relating to distance travelled,
 - one or more areas for data relating to driving time, to other periods of work and availability to breaks from work and to rest periods for drivers.
2. The area for recording speed must be scaled off in divisions of 20 kilometres per hour or less. The speed corresponding to each marking on the scale must be shown in figures against that marking. The symbol 'km/h' must be shown at least once within the area. The last marking on the scale must coincide with the upper limit of the range of measurement.
3. The area for recording distance travelled must be set out in such a way that the number of kilometres travelled may be read without difficulty.
4. The area or areas reserved for recording the periods referred to in point 1 must be so marked that it is possible to distinguish clearly between the various periods of time.

(c) Information to be printed on the record sheets

Each sheet must bear, in printed form, the following information:

- name and address or trade name of the manufacturer,
- approval mark for the model of the sheet,

- approval mark for the type or types of equipment in which the sheet may be used,
- upper limit of the speed measurement range, printed in kilometres per hour.

By way of minimal additional requirements, each sheet must bear, in printed form a time-scale graduated in such a way that the time may be read directly at intervals of fifteen minutes while each five minute interval may be determined without difficulty.

(d) Free space for hand written insertions

A free space must be provided on the sheets such that drivers may as a minimum write in the following details:

- surname and first name of the driver,
- date and place where use of the sheet begins and date and place where such use ends,
- the registration number or numbers of the vehicle or vehicles to which the driver is assigned during the use of the sheet,
- odometer readings from the vehicle or vehicles to which the driver is assigned during the use of the sheet,
- the time at which any change of vehicle takes place.

V. INSTALLATION OF RECORDING EQUIPMENT

1. Recording equipment must be positioned in the vehicle in such a way that the driver has a clear view from his seat of speedometer, distance recorder and clock while at the same time all parts of those instruments, including driving parts, are protected against accidental damage.
2. It must be possible to adapt the constant of the recording equipment to the characteristic coefficient of the vehicle by means of a suitable device, to be known as an adaptor.

Vehicles with two or more rear axle ratios must be fitted with a switch device whereby these various ratios may be automatically brought into line with the ratio for which the equipment has been adapted to the vehicle.

3. After the equipment has been checked on installation, an installation plaque shall be affixed to the vehicle beside the equipment or in the equipment itself and in such a way as to be clearly visible. After every inspection by an approved fitter or workshop requiring a change in the setting of the installation itself, a new plaque must be affixed in place of the previous one.

The plaque must show at least the following details:

- name, address or trade name of the approved fitter or workshop,
- characteristic coefficient of the vehicle, in the form ' $w = \dots \text{ rev/km}$ ' or ' $w = \dots \text{ imp/km}$ ',
- effective circumference of the wheel tyres in the form ' $l = \dots \text{ mm}$ ',
- the dates on which the characteristic coefficient of the vehicle was determined and the effective measured circumference of the wheel tyres.

4. *Sealing*

The following parts must be sealed:

- (a) the installation plaque, unless it is attached in such a way that it cannot be removed without the markings thereon being destroyed;
- (b) the two ends of the link between the recording equipment proper and the vehicle;
- (c) the adaptor itself and the point of its insertion into the circuit;
- (d) the switch mechanism for vehicles with two or more axle ratios;
- (e) the links joining the adaptor and the switch mechanism to the rest of the equipment;
- (f) the casings required under Chapter III (a) 7.2.
- (g) any cover giving access to the means of adapting the constant of the recording equipment to the characteristic coefficient of the vehicle.

In particular cases, further seals may be required on approval of the equipment type and a note of the positioning of these seals must be made on the approval certificate.

The seals mentioned in (b), (c) and (e) are authorized to be removed:

- in case of emergency,
- to install, to adjust or to repair a speed limitation device or any other device contributing to road safety,

provided that the recording equipment continues to function reliably and correctly and is resealed by an approved fitter or workshop immediately after fitting the speed limitation device or any other device contributing to road safety or within seven days in other cases; for each occasion that these seals are broken a written statement giving the reasons for such action must be prepared and made available to the competent authority.

5. The cables connecting the recording equipment to the transmitter must be protected by a continuous plastic-coated rust-protected steel sheath with crimped ends except where an equivalent protection against manipulation is guaranteed by other means (for example by electronic monitoring such as signal encryption) capable of detecting the presence of any device, which is unnecessary for the correct operation of the recording equipment and whose purpose is to prevent the accurate operation of the recording equipment by short circuiting or interruption or by modification of the electronic data from the speed and distance sensor. A joint, comprised of sealed connections, is deemed to be continuous within the meaning of this Regulation.

The aforementioned electronic monitoring may be replaced by an electronic control which ensures that the recording equipment is able to record any movement of the vehicle, independent from the signal of the speed and distance sensor.

For the purpose of the application of the present point, M 1 and N 1 vehicles are those defined in Part A of Annex II to Council Directive 70/156/EEC (1). For those vehicles that are equipped with tachographs in compliance with the Regulation and are not designed to install an armoured cable between the distance and speed sensors and the recording equipment, then an adaptor shall be fitted as close as possible to the distance and speed sensors.

The armoured cable shall be fitted from the adaptor to the recording equipment.

VI. CHECKS AND INSPECTIONS

The Member States shall nominate the bodies which shall carry out the checks and inspections.

1. Certification of new or repaired instruments

Every individual device, whether new or repaired, shall be certified in respect of its correct operation and the accuracy of its readings and recordings, within the limits laid down in Chapter III (f) 1, by means of sealing in accordance with Chapter V (4) (f).

For this purpose the Member States may stipulate an initial verification, consisting of a check on and confirmation of the conformity of a new or repaired device with the type-approved model and/or with the requirements of the Regulation and its Annexes, or may delegate the power to certify to the manufacturers or to their authorized agents.

2. Installation

When being fitted to a vehicle, the equipment and the whole installation must comply with the provisions relating to maximum tolerances laid down in Chapter III (f) 2.

The inspection tests shall be carried out by the approved fitter or workshop on his or its responsibility.

3. *Periodic inspections*

- (a) Periodic inspections of the equipment fitted to vehicles shall take place at least every two years and may be carried out in conjunction with roadworthiness tests of vehicles.

These inspections shall include the following checks:

- that the equipment is working correctly,
 - that the equipment carries the type approval mark, - that the installation plaque is affixed,
 - that the seals on the equipment and on the other parts of the installation are intact,
 - the actual circumference of the tyres.
- (b) An inspection to ensure compliance with the provision of Chapter III (f) 3 on the maximum tolerances in use shall be carried out at least once every six years, although each Member State may stipulate a shorter interval or such inspection in respect of vehicles registered in its territory. Such inspections must include replacement of the installation plaque.

4. *Measurement of errors*

The measurement of errors on installation and during use shall be carried out under the following conditions, which are to be regarded as constituting standard test conditions:

- vehicle unladen, in normal running, order
- tyre pressures in accordance with the manufacturer's instructions,
- tyre wear within the limits allowed by law,
- movement of the vehicle: the vehicle must proceed, driven by its own engine, in a straight line and on a level surface, at a speed of 50 ± 5 km/h; provided that it is of comparable accuracy, the test may also be carried out on an appropriate test bench.

ANNEX II

APPROVAL MARK AND CERTIFICATE

I. APPROVAL MARK

1. The approval mark shall be made up of:

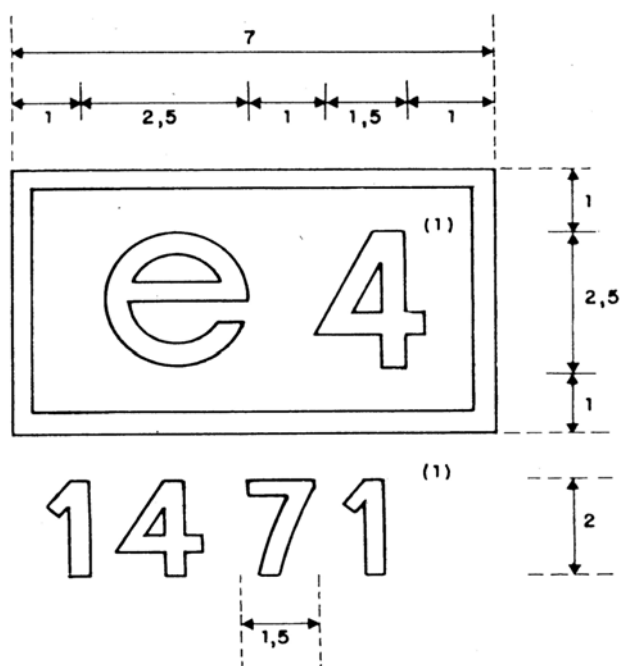
- a rectangle, within which shall be placed the letter 'e' followed by a distinguishing number or letter for the country which has issued the approval in accordance with the following conventional signs:

| | |
|----------------|-----|
| Belgium | 6, |
| Bulgaria | 34, |
| Czech Republic | 8, |
| Denmark | 18, |
| Germany | 1, |
| Estonia | 29, |
| Greece | 23, |
| Spain | 9, |
| France | 2, |
| Ireland | 24, |
| Italy | 3, |
| Cyprus | CY, |
| Latvia | 32, |
| Lithuania | 36, |
| Luxembourg | 13, |
| Hungary | 7, |
| Malta | MT, |
| Netherlands | 4, |
| Austria | 12, |
| Poland | 20, |
| Portugal | 21, |
| Romania | 19, |
| Slovenia | 26, |
| Slovakia | 27, |

| | |
|----------------|-----|
| Finland | 17, |
| Sweden | 5, |
| United Kingdom | 11, |

and

- an approval number corresponding to the number of the approval certificate drawn up for prototype of the recording equipment or the record sheet or of a tachograph card, placed at any point within the immediate proximity of this rectangle.
2. The approval mark shall be shown on the descriptive plaque of each set of equipment and on each record sheet and on each tachograph card. It must be indelible and must always remain clearly legible.
 3. The dimensions of the approval mark drawn below are expressed in millimetres, these dimensions being minima. The ratios between the dimensions must be maintained.



¹ These figures are shown for guidance only.

II. APPROVAL CERTIFICATE FOR ANALOGUE TACHOGRAPHS

A State having granted approval shall issue the applicant with an approval certificate, the model for which is given below. When informing other Member States of approvals issued or, if the occasion should arise, withdrawn, a Member State shall use copies of that certificate.

APPROVAL CERTIFICATE

Name of competent administration

Notification concerning¹:

- approval of a type of recording equipment
 - withdrawal of approval of a type of recording equipment
 - approval of a model record sheet
 - withdrawal of approval of a record sheet
-

Approval No

1. Trade mark or name
 2. Name of type or model
 3. Name of manufacturer
 4. Address of manufacturer
 5. Submitted for approval on
 6. Tested at
 7. Date and number of the test(s)
 8. Date of approval
 9. Date of withdrawal of approval
 10. Type or types of recording equipment in which sheet is designed to be used
 11. Place
 12. Date
 13. Descriptive documents annexed
-

14. Remarks (including the position of seals if applicable)

.....
(Signature)

¹ Delete items not applicable

III. APPROVAL CERTIFICATE FOR DIGITAL TACHOGRAPHS

A State, having granted approval, shall issue the applicant with an approval certificate, the model of which is given below. When informing other Member States of approvals issued or, if the occasion should arise, withdrawn, a Member State shall use copies of that certificate.

APPROVAL CERTIFICATE FOR PRODUCTS COMPLIANT WITH ANNEX I B

Name of competent administration

Notification concerning¹:

- approval of
- withdrawal of approval of
- recording equipment model
- recording equipment component²
- a driver's card
- a workshop card
- a company card
- a controller's card

Approval No

1. Manufacturing brand or trademark
2. Name of model
3. Name of manufacturer
4. Address of manufacturer
5. Submitted for approval for
6. Laboratory (ies)
7. Date and number of test report
8. Date of approval
9. Date of withdrawal of approval
10. Model of recording equipment(s) with which the component is designed to be used
11. Place
12. Date
13. Descriptive documents annexed

14. Remarks

(Signature)

¹ Tick the relevant boxes

² Specify the component dealt with in the notification.