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## **GUIDELINES**

**concerning the type of tachographs to be installed and used  
in vehicles registered in a Member State which are used for the carriage of passengers  
or goods by road and to which Regulation (EC) No 561/2006 applies**

## INTRODUCTION

The objective of these guidelines is to provide clarity on the different types of the tachograph to be installed and used in vehicles registered in a Member State which are used for the carriage of passengers or goods by road and to which Regulation (EC) No 561/2006 applies<sup>1</sup>.

A tachograph is the recording equipment<sup>2</sup> installed in road vehicles to record its speed and distance run as well as the driver's activity, such as driving or resting. It enables the monitoring of driving and rest times of drivers and thus serves to enhance road safety and the respect of the working conditions of the drivers.<sup>3</sup>

The obligation at EU-level regarding time recording in road transport dates back as far as 1969.<sup>4</sup> Since that date the tachograph has been subject to technical progress and the Union legislation has been adapted accordingly. Today, several different types of tachographs exist due to the evolution of the Union legislation on tachographs.

Union legislation has been regularly adapted to technical progress in view of ensuring the effectiveness and efficiency of the recording equipment, proper identification of drivers, as well as reliable information on driving time and rest periods. The Union legislator has continuously strived to introduce requirements for more modern equipment to allow benefits from technological progress in order to achieve the overall objectives of road safety and the protection of the drivers.

Up until now three generations of tachographs have been developed. After the analogue tachograph, three different versions of the digital tachograph were established, followed recently by the smart tachograph.

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<sup>1</sup> Article 3 (1) of Regulation (EU) No 165/2014 of the European Parliament and of the Council of 4 February 2014 on tachographs in road transport, repealing Council Regulation (EEC) No 3821/85 on recording equipment in road transport and amending Regulation (EC) No 561/2006 of the European Parliament and of the Council on the harmonisation of certain social legislation relating to road transport: "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 and to which Regulation (EC) No 561/2006 applies." Such obligation was already foreseen by Regulation 3821/85.

<sup>2</sup> Article 2 (2) a) of Regulation (EU) No 165/2014 of the European Parliament and of the Council of 4 February 2014 on tachographs in road transport, repealing Council Regulation (EEC) No 3821/85 on recording equipment in road transport and amending Regulation (EC) No 561/2006 of the European Parliament and of the Council on the harmonisation of certain social legislation relating to road transport: "'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 the speed, of such vehicles, in accordance with Article 4(3), and details of certain periods of activity of their drivers".  
Point (ee) of Chapter I of Annex I B to Council Regulation (EEC) No 3821/85 of 20 December 1985 on recording equipment in road transport as amended by Regulation 1360/2002 defines "recording equipment": the total equipment intended for installation in road vehicles to show, record and store automatically or semi-automatically details of the movement of such vehicles and of certain work periods of their drivers.

<sup>3</sup> Cf. for example recitals 2 et seqq. of Council Regulation (EC) No 2135/98 of 24 September 1998 amending Regulation (EEC) No 3821/85 on recording equipment in road transport and Directive 88/599/EEC concerning the application of Regulations (EEC) No 3820/84 and (EEC) No 3821/85.

<sup>4</sup> Regulation (EEC) No. 543/69 of the Council of 25 March 1969 on the harmonisation of certain social legislation relating to road transport.

The multitude of different generations and versions of tachographs may lead to difficulties in assessing which one of them should be installed in a vehicle and used, notably in cases concerning used vehicles or in cases of replacement of a tachograph. These guidelines' objective is therefore to provide clarification on these points.

After giving an overview of the legal and technical framework relevant to the obligation to install a tachograph (Part I), these guidelines will provide information on the identification of the generation or version of tachograph to be installed and used, in particular on the replacement of tachographs and the obligations to install a tachograph into a vehicle already in use (Part II).

## **I. LEGAL AND TECHNICAL FRAMEWORK**

### **1. Chronological overview of the relevant legislation regarding tachographs**

- Council Regulation (EEC) No 3821/85<sup>5</sup> laid down the obligation to install and use tachographs. Its Annex I contained technical requirements for the analogue tachograph.
- Regulation (EC) No 2135/98 of the European Parliament and of the Council<sup>6</sup> added Annex I B to Regulation 3821/85. This Annex laid down the technical requirements for the digital tachograph. Commission Regulation (EC) No 1360/2002<sup>7</sup> amended that Annex.
- Regulation (EC) No 561/2006 of the European Parliament and of the Council<sup>8</sup> provided that vehicles put into service for the first time should be fitted with a tachograph in accordance with the requirements of Annex I B as of 1 May 2006.
- Commission Regulation (EC) No 1266/2009<sup>9</sup> introduced further changes to Annex I B. As of 1 October 2011 some of its amendments started to apply. As of 1 October 2012 all other amendments to Annex I B became applicable.
- Regulation (EU) No 165/2014 of the European Parliament and of the Council<sup>10</sup> repealed Regulation (EEC) No 3821/85 and amended Regulation

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<sup>5</sup> Council Regulation (EEC) No 3821/85 of 20 December 1985 on recording equipment in road transport.

<sup>6</sup> Council Regulation (EC) No 2135/98 of 24 September 1998 amending Regulation (EEC) No 3821/85 on recording equipment in road transport and Directive 88/599/EEC concerning the application of Regulations (EEC) No 3820/84 and (EEC) No 3821/85.

<sup>7</sup> Commission Regulation (EC) No 1360/2002 of 13 June 2002 adapting for the seventh time to technical progress Council Regulation (EEC) No 3821/85 on recording equipment in road transport.

<sup>8</sup> 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 3820/85.

<sup>9</sup> Commission Regulation (EU) No 1266/2009 of 16 December 2009 adapting for the tenth time to technical progress Council Regulation (EEC) No 3821/85 on recording equipment in road transport.

<sup>10</sup> Regulation (EU) No 165/2014 of the European Parliament and of the Council of 4 February 2014 on tachographs in road transport, repealing Council Regulation (EEC) No 3821/85 on recording equipment in road

(EC) No 561/2006. It reiterated the general obligation to install and use tachographs<sup>11</sup> and introduced the concept of a "smart tachograph".

- Commission Implementing Regulation (EU) No 2016/799<sup>12</sup>, in its Annex I C, sets up technical requirements for the "smart tachograph". It also provides that other tachographs should continue to comply with the requirements of either Annex I or Annex I B to Regulation No 3821/85, as applicable.<sup>13</sup>

## 2. Overview of different tachographs under EU legislation

The Union legislation provides for the following generations and versions of tachographs:

a) the analogue tachograph, the technical requirements of which are set out in Annex I to Regulation (EU) No 165/2014<sup>14</sup>;

b) the digital tachograph, the technical requirements of which are set out in Annex I B to Regulation (EEC) No 3821/85. There are currently 3 different versions of the digital tachograph:

(i) 1<sup>st</sup> version: fulfilling the requirements of Annex I B to Regulation (EEC) No 3821/85 – as added by Regulation (EC) No 2135/98 and modified by Regulation (EC) No 1360/2002;

(ii) 2<sup>nd</sup> version: fulfilling the requirements of Annex I B to Regulation (EEC) No 3821/85 – as amended by Regulation (EC) No 1266/2009 except points 3.1, 3.8, 3.9, 3.11, 3.20, 8.2, 9.2, 12.3, 12.4 and 13 of the Annex to that Regulation;

(iii) 3<sup>rd</sup> version: fulfilling the requirements of Annex I B to Regulation (EEC) No 3821/85 as amended by Regulation (EC) No 1266/2009.

c) the smart tachograph, the technical requirements of which are set out in Annex I C to Regulation (EU) No 2016/799.

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transport and amending Regulation (EC) No 561/2006 of the European Parliament and of the Council on the harmonisation of certain social legislation relating to road transport.

<sup>11</sup> Article 3 (1) of Regulation (EC) No 165/2014.

<sup>12</sup> Commission Implementing Regulation (EU) No 2016/799 of 18 March 2016 implementing Regulation (EU) No 165/2014 of the European Parliament and of the Council laying down the requirements for the construction, testing, installation, operation and repair of tachographs and their components.

<sup>13</sup> Article 1 (3) of Commission Implementing Regulation No 2016/799.

<sup>14</sup> Previously, Annex I of Council Regulation (EEC) No 3821/85 contained provisions on the analogue tachograph.

## II. IDENTIFICATION OF THE TACHOGRAPH TO BE INSTALLED

### 1. Dates as of which the different requirements for tachographs became compulsory

The technical requirements leading to different generations and versions of tachographs were progressively introduced in the Union legislation. This legislation sets up dates by which the different requirements for tachographs have become compulsory depending on the date the vehicles were put into service. These are the following:

- Vehicles put into service for the first time before 1 May 2006 should be fitted with an analogue tachograph.
- Vehicles put into service for the first time between 1 May 2006 and 30 September 2011 should be fitted with the first version of the digital tachograph.
- Vehicles put into service for the first time between 1 October 2011 and 30 September 2012 should be fitted with the second version of the digital tachograph.
- Vehicles put into service for the first time between 1 October 2012 and 14 June 2019, should be fitted with the third version of the digital tachograph.
- Vehicles registered for the first time as from 15 June 2019 onwards should be fitted with a smart tachograph.

### 2. Relevant date to determine which tachograph to install and use

#### a) The principle

A vehicle is put into service for the first time on the date of its registration in a Member State. Thus, the relevant date for determining which generation of the tachograph and which version of the digital tachograph needs to be installed and used is the date of registration of that vehicle. This principle applies independently of whether that vehicle was manufactured in the Union or imported from a third country as a new vehicle or as a used vehicle.

#### b) Specific situation of the digital tachographs covered by Commission Regulation (EU) No 1266/2009

Commission Regulation (EU) No 1266/2009 introduced the second and the third versions of the digital tachograph. The technical requirements concerning each of those versions started to apply at distinct dates (for the second version as of 1 October 2011 and for the third version as of 1 October 2012), i. e. the technical requirements for tachographs changed within a very short period of time (one year).

According to requirements 239 to 243 of Annex I B, a tachograph is first installed and subsequently activated<sup>15</sup>; vehicle manufacturers or fitters shall activate the installed recording equipment before the vehicle is used in scope of Regulation (EC) No. 561/2006.<sup>16</sup>

Recital 7 of Commission Regulation (EU) No 1266/2009 explains in this regard that this Regulation does not require the replacement of a functioning digital tachograph installed before its date of application. This means that a functioning first or second version of the digital tachograph installed in a vehicle does not have to be replaced by a second or third version, even if the technical requirements have changed between the installation and the activation of the tachograph on one hand and the registration of the vehicle on the other.

Therefore, if a digital tachograph has been installed into the vehicle and activated, it does not need to be replaced by a newer version even if the date of the vehicle's registration ("put into service") would require the installation of a newer version.

*Example 1 (change from the first version to the second version requirements):*

*A bus is manufactured in spring 2011 and the first version tachograph is installed and activated in August 2011. The vehicle is registered in November 2011.*

*Although a vehicle put into service as of October 2011 would need to be equipped with a second version digital tachograph, the first version tachograph installed and activated in August 2011 does not need to be replaced.*

*Example 2 (change from the second version to the third version requirements):*

*A bus is manufactured in spring 2012 and the second version tachograph is installed and activated in August 2012. The vehicle is registered in November 2012.*

*Although a vehicle put into service as of October 2012 would need to be equipped with a third version digital tachograph, the second version tachograph installed and activated in August 2012 does not need to be replaced.*

Recital 7 refers only to situations where the tachograph is installed and functioning; it does not allow for the installation of an already activated earlier version of the tachograph into a vehicle which by its date of registration requires a more recent version.

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<sup>15</sup> A definition of activation of the tachograph is provided in Annex I B, Chapter I of Council Regulation (EEC) No 3821/85 as amended by Commission Regulation 1360/2002: "'Activation" means: phase where the recording equipment becomes fully operational and implements all functions, including security functions".

<sup>16</sup> Requirement 243 of Annex I B, Chapter I of Council Regulation (EEC) No 3821/85 as amended by Commission Regulation 1266/2009 (as of 1 October 2011). Previously, the recording equipment needed to be activated before the vehicle left the premises where the installation had taken place.

### 3. Replacement of a tachograph or its components

#### a) Replacement of the tachograph

The Union legislation does not contain any general provision on the replacement of the tachograph, be it following a breakdown of a tachograph, in part or in entirety, or a voluntary replacement.

However, Article 2 (1) (b) of Regulation (EC) No 2135/98 provides a specific rule, still in force today, which states as follows:

"As from the date of entry into force of the provisions of subparagraph (a), vehicles used for the carriage of persons containing more than eight seats apart from the driver's seat and having a maximum weight exceeding 10 tonnes, and also vehicles used for the carriage of goods having a maximum weight exceeding 12 tonnes, registered for the first time as from 1 January 1996, shall in so far as the transmission of signals to the recording equipment with which they are fitted is exclusively electrical, satisfy the requirements of Annex IB to Regulation (EEC) No 3821/85 when the equipment in question is replaced."

This provision obliges the owners of the vehicles falling under this provision to replace the recording equipment, which means the tachographs or components thereof, with the newest version of the digital tachograph.

Tachographs of vehicles not falling under the scope of this provision may be replaced with a tachograph corresponding to the registration date of the vehicle.

Regulation (EU) No 165/2014 does not contain any provision on replacement of a tachograph or components thereof either. It provides in its Article 9(1), in conjunction with Commission Implementing Regulation (EU) No 2016/799, that tachographs installed in vehicles registered from 15 June 2019 onwards shall be smart tachographs.

This leads to the following:

- For the vehicles referred to in Article 2 (1) (b) of Regulation (EC) No 2135/98, an analogue tachograph and a digital tachograph need to be replaced with a digital tachograph corresponding to Annex I B at the time of replacement (first, second, or third version of the digital tachograph depending on the replacement date). As mentioned in point II.1, the current version of Annex I B which applies since 1 October 2012 requires the use of the third version digital tachograph.
- A smart tachograph in a vehicle registered as of 15 June 2019 will have to be replaced with a smart tachograph as vehicles registered after that date are required to be equipped with a smart tachograph.

Examples (concerning the vehicles referred to in Article 2 (1) ( b) of Regulation (EC) No 2135/98):

*Example 1*

*A vehicle was first put into service in December 2005 and equipped with an analogue tachograph. This tachograph stopped functioning in May 2012 and needed to be replaced. It must be replaced by a second version digital tachograph.*

*Example 2:*

*A vehicle was first put into service in January 2012. Its second version tachograph stopped working in May 2017 and needs to be replaced. It must be replaced by a third version digital tachograph.*

*Example 3:*

*A vehicle was first registered in 2016 and was equipped with a third version digital tachograph. If this tachograph breaks down in December 2019, it must be replaced by a third version digital tachograph.*

b) Replacement of components of a tachograph

The main components of a tachograph are a motion sensor<sup>17</sup> and a vehicle unit<sup>18</sup>.

The same rules and guidelines as laid down above apply to the replacement of those components of a tachograph.

As Article 2 (1) (b) of Regulation (EC) No 2135/98 refers to Annex I B only, i. e. digital tachographs, and as Regulation (EU) No 165/2014 provides explicit rules on equipping older vehicles with smart tachographs, the components of a digital tachograph do not have to be replaced by components of a smart tachograph (even) after 15 June 2019.

Examples (concerning the vehicles referred to in Article 2 (1) ( b) of Regulation (EC) No 2135/98):

*Example 1:*

*The motion sensor of a second version digital tachograph of a vehicle registered in January 2012 breaks down in July 2017. The motion sensor must be replaced with a motion sensor of a third version digital tachograph.*

*Example 2:*

*In August 2017 a vehicle owner wants to voluntarily replace the vehicle unit of a first version tachograph of a vehicle registered in May 2011. He must replace it with a vehicle unit of a third version digital tachograph.*

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<sup>17</sup> 'Motion sensor' means the part of the tachograph providing a signal representative of vehicle speed and/or distance travelled, as defined in point (y) of Chapter I of Annex I B to Regulation (EEC) No 3821/85.

<sup>18</sup> 'Vehicle unit' means the tachograph excluding the motion sensor and the cables connecting the motion sensor, as defined in point (oo) of Chapter I of Annex IB to Regulation (EEC) No 3821/85.



*Example 3:*

*The vehicle unit of a third version digital tachograph of a vehicle registered in May 2014 breaks down in January 2020. The vehicle unit must be replaced with a vehicle unit of a third version digital tachograph.*

#### **4. The obligation to install a tachograph into a vehicle already in use**

The requirement to install a tachograph into a vehicle might also arise after the vehicle was registered, for example due to a change in its use<sup>19</sup> or a removal of a national exemption<sup>20</sup>.

The Union legislation does not provide for any rules for cases in which the obligation to install a tachograph arises where a vehicle is already in use. However, given the objectives of this legislation, which are to enhance road safety and the respect of the working conditions of the drivers, the date on which this obligation arises determines the generation or version of the tachograph needed. This derives from the legislation aiming at the use of the most modern tachograph while not obliging to replace a functioning tachograph already installed. This means in particular that the vehicles for which the need to use a tachograph arises as of 15 June 2019 must be equipped with a smart tachograph.

*Example:*

*A breakdown vehicle was first put into service in May 2011. It operated within a 100 km radius of its base and thus did not need a tachograph (see Article 3 (1) of Regulation (EU) No 165/2014 in conjunction with Article 3 (f) of Regulation (EU) No 561/2006). This breakdown vehicle starts operating within a larger radius as of January 2017. It therefore needs to be fitted with a tachograph. The date of change of use leading to the obligation to feature a tachograph determines the version of the tachograph to be installed. As the change of use occurred in January 2017, a third version tachograph is needed.*

#### **5. Possibility to do "more", i.e. to install more recent types of models of tachographs**

As technical improvement enhances the reliability, accuracy, user-friendliness and resistance against fraudulent manipulation of the tachograph and therefore enhances the implementation of social legislation regarding transport, it is always possible to install a more recent generation or version of tachograph than the one required, as long as it meets the technical requirements and proper functioning is ensured. In view of the purpose of tachographs and the objectives of the respective legislation, the Commission strongly encourages the installation of the most recent generation or version of tachograph into any vehicle.

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<sup>19</sup> Cf. Article 3 of Regulation 561/2006.

<sup>20</sup> Cf. for example Article 3 (2) and (3) of Regulation (EU) No 165/2014 in conjunction with Article 13 respectively 14 of Regulation 561/2006.

## **6. Facilitation for older vehicles regarding the third version digital tachograph**

The third version digital tachograph requires – in addition to the connection to the motion sensor – the connection of the vehicle unit to a source of motion information which is independent from the motion sensor. The connection to such an independent source of motion information may be difficult regarding older vehicles. Such vehicles still need to be equipped with a type of tachograph as outlined in these guidelines. However, considering technical difficulties, the connection of the tachograph to an independent source of information should not be mandatory for vehicles registered before 1 October 2012 when installing a third version digital tachograph.