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Alkoholne zapore - Preskusne metode in zahtevane lastnosti - 7. del: Navodilo za namestitev

Alcohol interlocks - Test methods and performance requirements - Part 7: Installation document

Alkohol-Interlocks - Prüfverfahren und Anforderungen an das Betriebsverhalten - Teil 7: Einbaudokument

Éthylotests antidémarrage - Méthodes d'essais et exigences de performance - Partie 7: Document d'installation

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Alcohol interlocks - Test methods and performance requirements - Part 7: Installation document

Éthylotests antidémarrage - Méthodes d'essais et exigences de performance - Partie 7: Document d'installation

Alkohol-Interlocks - Prüfverfahren und Anforderungen an das Betriebsverhalten - Teil 7: Einbaudokument

This draft European Standard is submitted to CENELEC members for enquiry.
Deadline for CENELEC: 2016-01-15.

It has been drawn up by CLC/BTTF 116-2.

If this draft becomes a European Standard, CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

This draft European Standard was established by CENELEC in three official versions (English, French, German).
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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

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European foreword

This document (prEN 50436-7:2015) has been prepared by CLC/BTTF 116-2 “Alcohol Interlocks”.

This document is currently submitted to the enquiry.

The following dates are proposed:

• latest date by which the existence of this document has to be announced at national level	(doa)	dor + 6 months
• latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	dor + 12 months
• latest date by which the national standards conflicting with this document have to be withdrawn	(dow)	dor + 36 months (to be confirmed or modified when voting)

Introduction

The purpose of alcohol interlocks is to enhance traffic safety by preventing persons with alcohol concentrations exceeding a set limit value from driving a motor vehicle. EN 50436 series specifies test methods and essential performance requirements for alcohol interlocks and gives guidance for authorities, decision makers, purchasers and users.

There are several ways in which alcohol interlocks may be used:

– installed in a vehicle as a general preventive measure for the promotion of traffic safety, on a voluntary basis or required legally in certain vehicles (e.g. vehicles for children transport), or

– in vehicles as ordered by a court or an administrative authority as part of a drink-driving offender programme, or

– for persons subject to a medical or rehabilitation programme.

Alcohol interlocks are often intended for aftermarket installation. For this purpose, they are connected to the electric and control circuits of the vehicle.

This installation of an alcohol interlock should not interfere with the proper performance of the vehicle, should not impair the safety and security of the vehicle, and should be as straightforward as possible. Additionally, the installation costs should be low in relation to the total cost of the alcohol interlock.

Therefore, it is desirable to have a standardized installation document to give the necessary details to the technicians installing an alcohol interlock into a certain vehicle model, even if the responsibility for the safe installation will remain on the alcohol interlock installer.

1 Scope

This European Standard defines the content and the layout of an installation document providing necessary and useful information about the aftermarket installation of an alcohol interlock into a vehicle. It details the type of the vehicle, connection schematics, accessibility instructions and recommendations to avoid safety risks.

The contents and layout ensures that the information document be easy to use by installers in different countries and may be available in paper or electronic format.

This European Standard is applicable to alcohol interlocks for drink-driving-offender programs (as in EN 50436-1) as well as to alcohol interlocks for general preventive use (as in EN 50436-2).

This European Standard is mostly intended for vehicle manufacturers and manufacturers of alcohol interlocks.

This European Standard does not apply to

– the process of handling the installation documents,

– the installation process,

– information related to education and training for installers,

– general performance requirements for alcohol interlocks (see EN 50436-1 and EN 50436-2),

– the installation of the alcohol interlock during the production of the vehicle.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 50436-1:2014, *Alcohol interlocks – Test methods and performance requirements – Part 1: Instruments for drink-driving-offender programs*

EN 50436-2:2014, *Alcohol interlocks – Test methods and performance requirements – Part 2: Instruments having a mouthpiece and measuring breath alcohol for general preventive use*

EN ISO 216, *Writing paper and certain classes of printed matter – Trimmed sizes – A and B series, and indication of machine direction (ISO 216)*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1
alcohol interlock
device which is normally in the blocking state when installed to prevent the starting of a vehicle engine, and which can be brought into the not-blocking state only after the presentation and analysis of a breath sample with an alcohol concentration below a limit value

Note 1 to entry: It normally consists of a handset and a control unit electrically connected to the vehicle.

Note 2 to entry: In this European Standard, the expression “starting of the vehicle engine” includes provision of an output signal from the alcohol interlock to the vehicle to enable the starting, operation or movement of the vehicle.

[SOURCE: EN 50436-1:2014, 3.1, modified — 'vehicle motor' is replaced by 'vehicule engine']

3.2
breath alcohol concentration
mass concentration of ethanol, expressed in mg/l (milligram ethanol per litre breath air), in a breath sample delivered into an alcohol interlock

[SOURCE: EN 50436-1:2014, 3.2]

3.3
breath sample
breath air sample taken under forced expiration

[SOURCE: EN 50436-1:2014, 3.3]

3.4
accepted breath sample
breath sample fulfilling set requirements for volume, flow, exhalation time and other human breath sample characteristics

Note 1 to entry The acceptance of a breath sample is independent from the alcohol concentration.

[SOURCE: EN 50436-1:2014, 3.4]

3.5
breath test
test providing a breath sample to an alcohol interlock

[SOURCE: EN 50436-1:2014, 3.5]

3.6
blocking state
state in which the alcohol interlock inhibits the starting of the vehicle motor

[SOURCE: EN 50436-1:2014, 3.7]

3.7
not-blocking state
state in which the vehicle motor can be started

[SOURCE: EN 50436-1:2014, 3.8]

3.8
breath alcohol concentration limit
set value of the breath alcohol concentration at or above which the vehicle motor will be prevented from being started

[SOURCE: EN 50436-1:2014, 3.9]

3.9
supply voltage
voltage obtained from the electric power source of the vehicle for operation of the alcohol interlock

[SOURCE: EN 50436-1:2014, 3.19]

3.10
manufacturer
person or organisation responsible for the design, construction and/or production of the vehicle or the alcohol interlock

[SOURCE: EN 50436-1:2014, 3.23, modified — 'the vehicle or' has been added]

3.11
aftermarket installation
any installation of an alcohol interlock in a vehicle after the original production of a vehicle

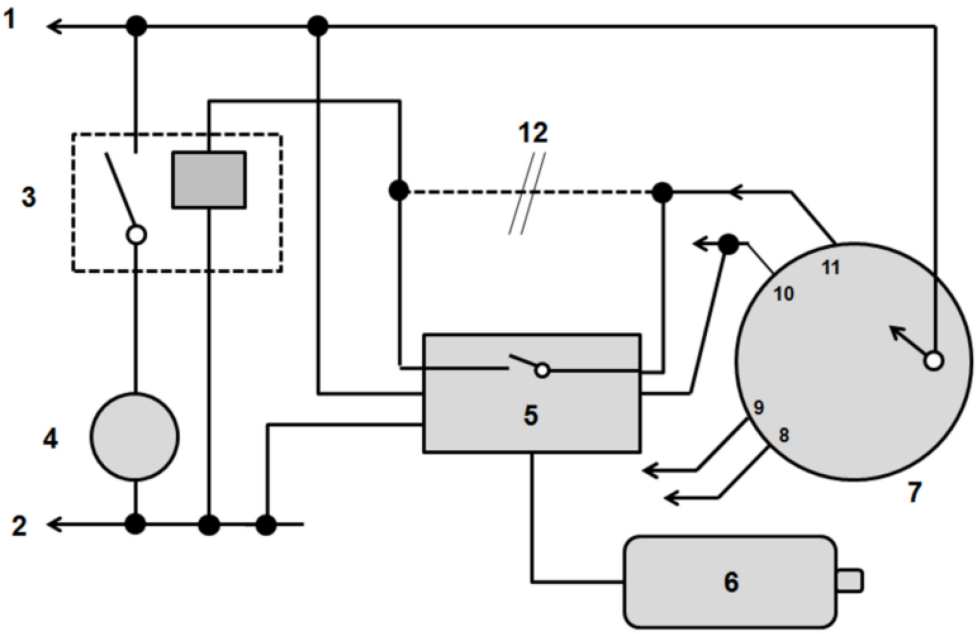
[SOURCE: EN 50436-1:2014, 3.24]

4 Installation of an alcohol interlock

This clause describes the basic (“traditional”) principle for the installation of an alcohol interlock.

The alcohol interlock requires connection to the vehicle: supply voltage, ground, ignition line, interruption of the starter wire and detection of engine run.

The voltage supply between the vehicle's ignition switch (position “Starter relay”) and the starter system is interrupted (Figure 1). The alcohol interlock is fitted with its output relay into the interrupted circuit. The starter circuit is enabled through the closure of the relay in the alcohol interlock.



151

152 **Key**

1 battery feed (+30)
2 ground (-30)
3 starter relay
4 starter motor
5 alcohol interlock control unit
6 alcohol interlock handset
7 ignition switch
8 off
9 accessories
10 ignition / vehicle ready
11 starter relay
12 interruption

153 **Figure 1 — Traditional installation schematics for an alcohol interlock**

154 The alcohol interlock is normally in the blocking state (output relay open). The closure of this relay may only
155 occur when an accepted breath sample with an alcohol concentration below the pre-set limit has been
156 delivered.

157 This installation procedure ensures that an alcohol interlock may only intervene in the engine starting process
158 but may never influence a running engine or a moving vehicle. This is an important condition for the
159 operational safety of an alcohol interlock equipped vehicle.

160 The expression “starting of the vehicle motor/engine” includes provision of an output signal from the alcohol
161 interlock to the vehicle to enable the starting, operation or movement of the vehicle.

162 ## 5 Time behaviour

163 When using a vehicle with an alcohol interlock a certain time behaviour of user activities as well as vehicle
164 and alcohol interlock reactions takes place. A typical example is shown in Annex A.