



SLOVENSKI STANDARD

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

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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43.040.80	Sistemi za zaščito pri trku in sistemi za zadrževanje potnikov	Crash protection and restraint systems

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EUROPEAN STANDARD

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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

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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

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European foreword

This document (EN 50436-7:2016) has been prepared by CLC/BTTF 116-2 "Alcohol Interlocks".

The following dates are fixed:

- latest date by which this document has to be implemented (dop) [2017-10-31]
at national level by publication of an identical
national standard or by endorsement
- latest date by which the national standards conflicting (dow) [2019-10-31]
with this document have to be withdrawn

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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.

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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 is easy to use for installers in different countries and may be available in paper or electronic format.

This European Standard is applicable to alcohol interlocks according EN 50436-1 and 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 'vehicle engine']

EN 50436-7:2016 (E)**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]

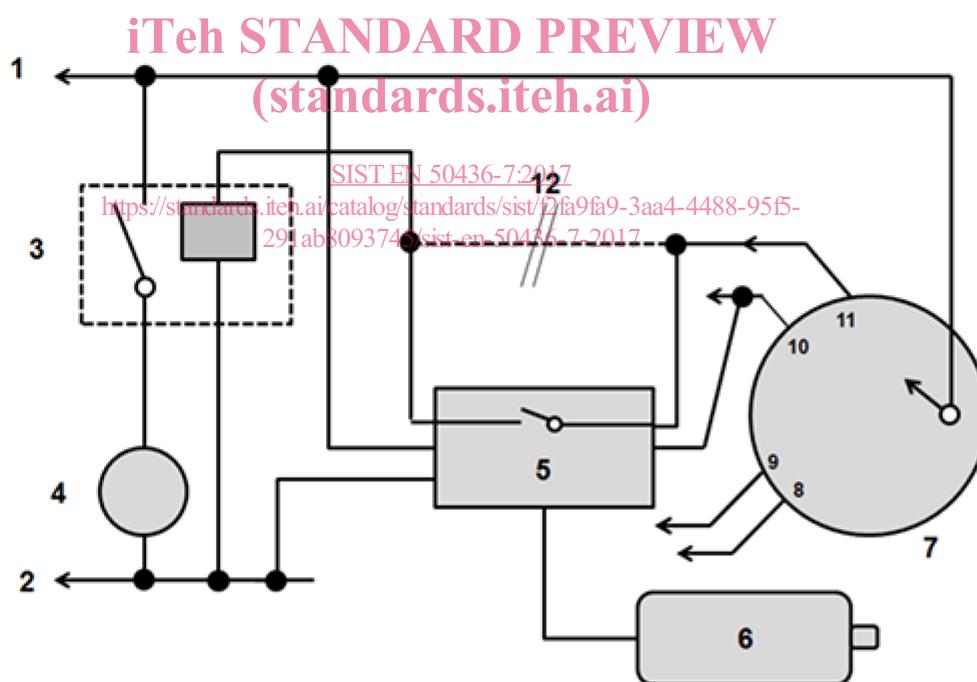
4 Installation of an alcohol interlock

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 starter circuit.

NOTE 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.



Key

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

Figure 1 — Traditional installation schematics for an alcohol interlock