

Alcohol interlocks

What is an alcohol interlock?

Alcohol interlocks (also termed 'alcolocks') are devices that require the driver to take a breath test before starting the car. If the driver fails the test, the device locks the ignition of the car.

Alcohol interlock technology

Recent technical innovations have made alcohol interlocks largely fraud-resistant. Drivers have to hum while blowing into the device or briefly inhale at the end, depending on the type of device. Both requirements prevent drivers from using an earlier prepared breath sample. Drivers also have to perform regular retesting during the course of the journey. This helps to avoid fraud also at the start of the journey because the sober person doing the test for a drunk driver would have to stay in the car with that driver throughout the trip.



In principle, alcohol interlocks can be installed as aftermarket devices in any type of car. However many manufacturers still have to prioritise the installation of accessories such as alcohol interlocks.

In Sweden, manufacturers such as Volvo, Saab and Toyota have started offering alcohol interlocks in trucks as a dealer fit option.

The SWEDISH Parliament is drafting legislation to make the installation of alcohol interlocks obligatory in all new trucks and buses from 2010, and in all new cars from 2012. Member of Parliament Karin Svensson Smith will present a relevant legal proposal by 1 June 2006, taking into consideration also aspects regarding free trade in the European Union.

The European Committee for Electrotechnical Standardisation (CENELEC) is setting up a European standard of test procedures and performance requirements for alcolocks used in rehabilitation programmes. The standard is expected to be finalised and published before summer 2005. A standard for 'voluntary' fitting in vehicles, e.g. in commercial transport, is expected to follow.

The price for an alcolock used in rehabilitation programmes is about 1,500 euros. With mass production, this price could

could drop to between 300 and 500 euros, according to Dräger Safety AG.

Use of alcohol interlocks to increase safety

Alcohol interlocks are currently used in drink driving offender programmes (so-called 'secondary prevention') and in commercial transport ('primary prevention')

1. Driver rehabilitation

So far, alcolocks are used mostly in rehabilitation programmes for drink driving offenders. This is common practice in parts of the U.S., Australia and Canada. Experiences in the U.S. and Canada have shown that alcohol interlocks can lead to a 40-95% reduction in the rate of drink driving repeat offences.¹

Existing studies clearly indicate however that this reduction in recidivism is limited to the period of alcolock installation in the car, or at best for a limited time thereafter. But this increase in re-arrest rates following removal of the interlock should not be used to discount or discredit the beneficial effects of interlock programmes. It is clear that the installation of interlocks, as many other drink driving countermeasures, cannot change the factors that give rise to the drink driving behaviour, i.e. alcohol abuse or dependence.²

In Europe, Sweden and Finland are the two countries that are furthest advanced in this area.³

In SWEDEN about 900 drink driving offenders have taken part in the national alcohol interlock programme. The programme includes medical support and regular examinations. Due to very strict conditions, almost one third of participants have however dropped out before reaching the end of the two-year programme. Offenders also have to pay about 4,000 to 5,000 euros for the programme, which excludes the participation of many less well-off drivers. The programme is currently undergoing an evaluation and changes are expected.

FINLAND is about to introduce an alcohol interlock programme lasting for one year for all drink driving offenders, including first-time offenders. From 1 July 2005, offenders will be offered the possibility to take part in this programme and receive a temporary "alcolock driver's licence". As part of the programme, offenders will have to take part in regular tests for alcohol dependency. The programme is expected to continue after the initial three-year trial period.

Small local trials are also carried out in France (Annecy) and in the U.K. (Manchester and Birmingham).

In **FRANCE**, a pilot project was started in April 2004 under the authority of the Annecy police district prosecutor. Drink driving offenders caught with a BAC of 0.8 to 1.6 mg/ml are offered the chance to participate in an alcohol interlock programme as an alternative to penal prosecution, which is applied in France from 0.8 mg/ml. If the offender decides to take part in the programme, an alcohol interlock is installed in his or her car within a few days and stays in the car for 6 months. Offenders have to pay 1,260 euros. The trial has been conducted with 40 offenders in the Annecy district, and it has been extended to 40 other districts with the goal of including 400 offenders. A first evaluation is expected before August 2005.

In the **U.K.**, an 18 month trial has been launched, in which 100 volunteers are participating after completing their disqualification period. The participants keep the interlock for 12 months, coming into a service centre at regular intervals. The new U.K. Road Safety Bill is due to introduce a pilot rehabilitation programme to integrate alcohol ignition interlock devices as a court disposal for dealing with repeat drink drivers.

The technology currently available fulfils all practical requirements of drink driving offender programmes. Prices are however still at about 1,500 euros per piece. The price is expected to drop as the market grows.

2. Commercial transport

In Europe, a trial was run from 1999 to 2002 in Sweden in which alcohol interlocks were installed in 300 commercial vehicles to be used in both passenger and goods transport. Meanwhile, more and more transport companies install interlocks in their fleet voluntarily. Estimates are that currently, about 5-6,000 vehicles are equipped with interlocks in Sweden. Their number is rapidly growing, as big companies now also demand alcohollocks in their vehicle fleet. Also customers from the public domain, such as communes buying school bus services, increasingly require alcohollocks as part of the procurement procedure.

In **SWEDEN**, all trucks of 3.5 tons and over, which are contracted by the Swedish Road Administration (SRA) for more than 100 hours per year will have to be fitted with alcohol interlocks from 2007. This requirement is already part of the procurement criteria. It affects about 10,000-15,000 trucks, including winter maintenance vehicles.

The goal set by the government is to require alcohol interlocks in all governmental transport services at some point around 2010. A plan for the first steps in this direction is being worked out by the SRA. The interlocks used for this purpose will have to fulfil the requirements set out by each of the different governmental bodies. It is however most likely that everyone will use the requirements used by the SRA.

There has been no evaluation of the impact that alcohol interlocks used in commercial transport have on road safety, but experiences show that most companies did actually stop drivers who were trying to drive while over the limit.

The companies present their efforts as a positive step reassuring customers that they 'have no drink driving problems' rather than making them suspicious of these problems. They do not make consumers pay for the extra costs incurred, but expect this 'quality assurance' feature to give them a competitive advantage over other companies. Support from the media has been crucial. They have reported on drivers identified by individual companies.

In Sweden rehabilitation programmes using alcohol interlocks are also used in commercial vehicles. In fact the number of alcohol interlocks installed in such vehicles is meanwhile higher than the number of interlocks installed in drink driving offenders' cars. The technology used is a simplified version of the alcohollocks used in offender programmes in order to allow companies to have more than one driver able to use the interlocks (as opposed to offender programmes where this would figure as 'fraud'). As the worldwide market is very small, the devices used in commercial transport are however the same as those used for offenders. This leads in effect to a higher price than necessary. Further development of this 'leaner' version of alcohol interlock will help reduce costs in the future.

As far as other EU countries are concerned, trials with truck and bus companies from Spain and Germany were started in 2005 as part of an EU-financed research project coordinated by the Belgian Road Safety Institute (IBSR/BIVV). First results of this project are expected before the summer 2005.

References

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- 2 Beirness, D. J. and Marques, P.R. (2004): Alcohol Ignition Interlock Programs. In: Traffic Injury Prevention 5, 299-308
- 3 SWOV (2001): Alcohol Interlock Implementation in the European Union: Feasibility study