

ANNEX 2 Installation document for alcohol interlocks





Product



Supplier: Alcohol Countermeasure Systems Corporation

Model: V3

1.Product Introduction

Table 1.1

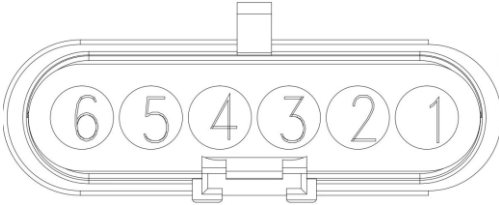
No	Part Name and Description	Picture
1	ECU	 A black rectangular electronic control unit (ECU) with the Dräger logo on the top surface. Several colored wires (red, blue, green, yellow) are connected to the bottom edge.
2	Handset	 A black handheld device with a small screen and two buttons (one blue, one green) at the bottom. It has a clip at the top for attachment to a headset.
3	Handset clip fixture	 A black plastic component designed to hold the handset in place, featuring a clip mechanism and a mounting bracket.
4	ECU to interlock handset cable	 A black cable with a coiled section in the middle, used to connect the ECU to the handset.

5	ECU to interlock handset extension cable	
6	mouthpieces	

2.Product end connectors and vehicle end connectors pin definition

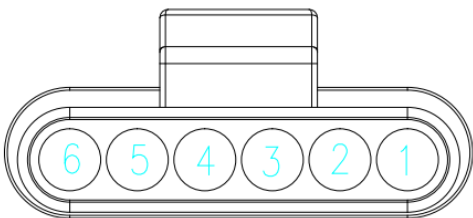
(1) Projection diagram of product end connectors: (ECU end harness)

Sinotruk mating connector in accordance with the relevant requirements of the supplier of alcohol locks



(2) Projection diagram of wire harness end connectors: (Distribution box end harness on vehicle, connect with ECU end connectors)

Sinotruk mating connector in accordance with the relevant requirements of the supplier of alcohol locks

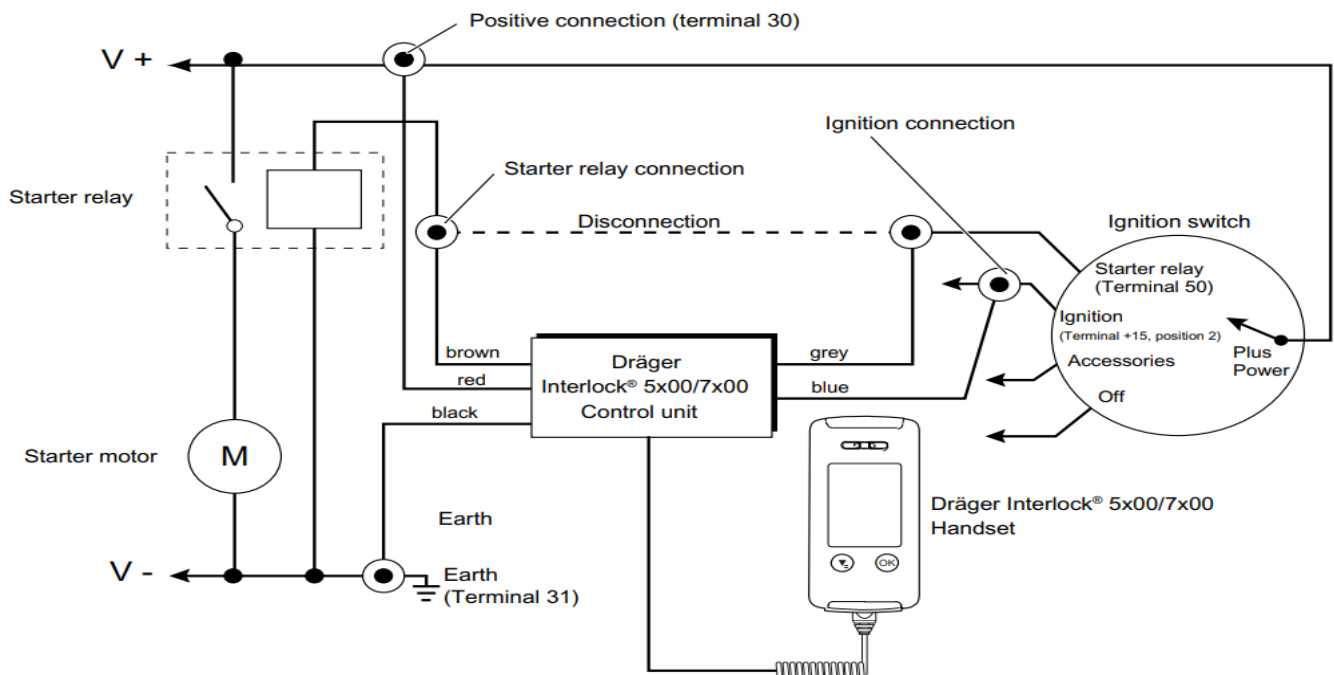


(3) Pin Definition

Table 2.1

Pin	ECU wiring harness color (Alcohol lock ECU comes with harness)	Product end harness color (Sinotruk mating connector)	Port definition	Connection end (vehicle end connectors)	Connection end color	Steady state operating current	Power supply
1	/	/	/	/	/	/	/
2	Red	Red-Purple	KL30	Distribution box	Red-purple	7A	Constant electricity
3	Black	brown	Ground	Distribution box	brown	/	Ground
4	Blue	Black-Light blue	KL15	Ignition switch	Black-Light blue	7A	ON position
5	Grey	White	From ignition	Distribution box	Gray	7A	ON position
6	Brown	White-Red	To starter	Starter relay	White-Red	7A	ON position

(4) System principle



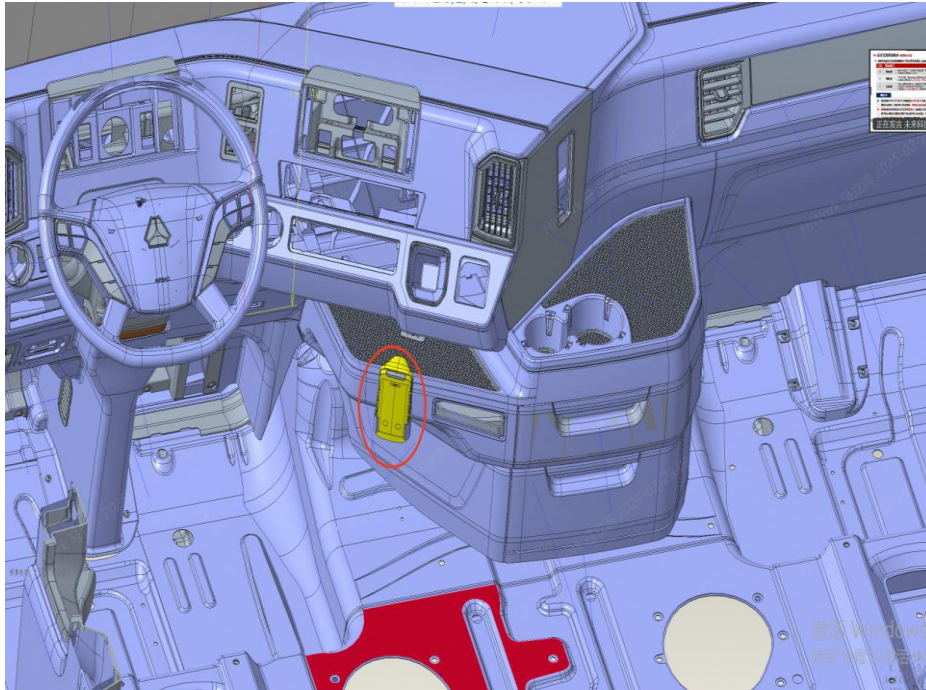
The detailed guide pin definition is shown in the table.

The 1 pins are empty pins, represents no need to connect with any product.

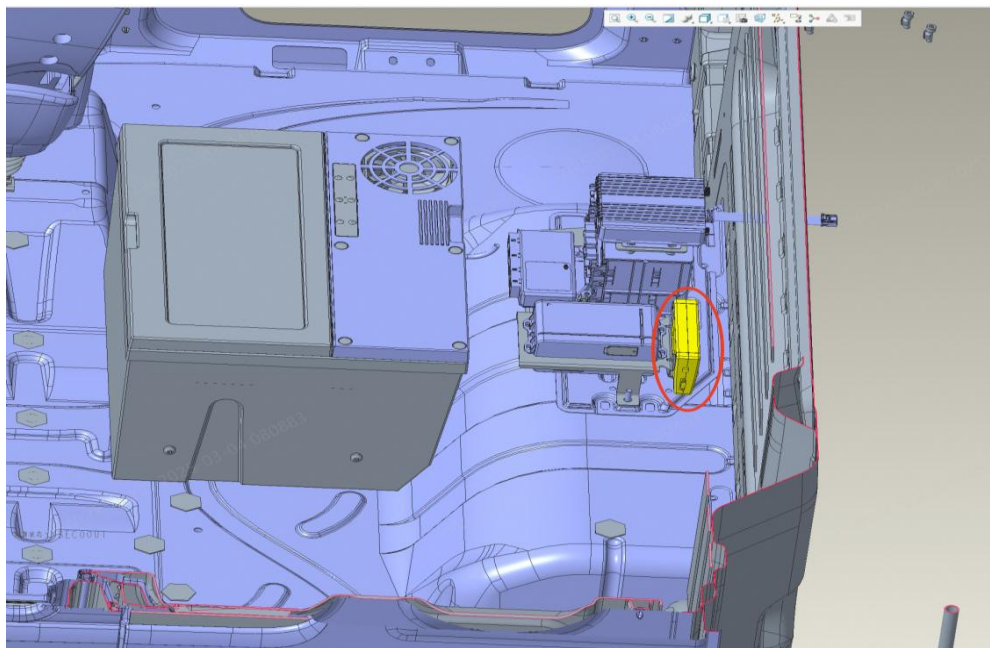
3.Product installation

The handset is installed in a place that the driver can reach and is not affected by other components of the vehicle.

The handset is connected to the ECU by the product's built-in harness. The handset is installed on the Handset clip fixture, AS shown in the figure.



The ECU is concealed and installed below the sleeper area.



4.Product function

Before starting a vehicle equipped with the alcohol lock device, the driver must undergo an alcohol test. The vehicle can only be started when the measured alcohol concentration is below the set limit value. (Attention: The device is not a safety device and cannot replace the anti-theft locking device)

The alcohol lock device only interferes with vehicle movement before the vehicle starts and does not affect the vehicle in motion.

5.Product working principle

Alcohol locks prevent ignition. The alcohol lock disconnects the path between the ignition switch and the starting relay. Only after the alcohol blowing test and the alcohol connects the ignition switch to the starting relay, the vehicle can be allowed to start, in other cases The alcohol lock does not connect the ignition switch to the starting relay, so that the vehicle can not be able to drive.

6.Functional testing process

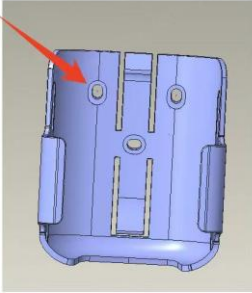
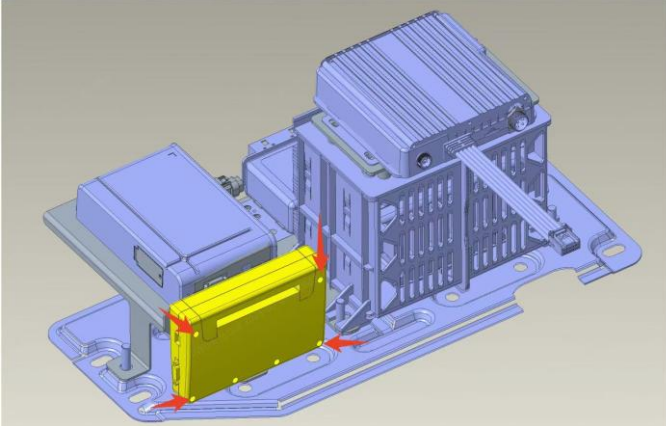
Table 6.1

No	Operation Steps	Implementation Results
1	The Interlock wakes up when the ignition is switched on (Connection 15)	The display message on the handset shows: "Ready for test. Please blow."
2	Provide a breath sample. Keep blowing air into the blowpipe while making a sustained signal tone.	2.1 The display message on the handset shows: "Test passed" ,it means that the blowing is successful; you can start the engine. 2.2 The page displays "Blow longer " indicating that the attempted blowing does not meet the requirements, reminding the need to blow longer and harder.
3	The vehicle starts ignition operation.	The vehicle can now be started. The display message on the handset shows: "Drive Safely!"

4	OFF position, if no alcohol lock blow test is performed, or if the blow test is failed.	4.1 if no alcohol lock blow test is performed, vehicle will not start 4.2 if the blow test is failed,The page will show "Test failure" ,which means that the breath test was not passed. If you are sure there is no alcohol on your breath, wait 5 minutes and then try the test again.
5	After blowing successfully, the vehicle is in starting condition: When the driver turns off ignition switch for no more than 30 minutes.	The page shows " Free start time: ": This means that the vehicle can be powered up without having to repeat the breath test and can be driven.

7.Installation steps

Table 7.1

No	Products	Installation Location/Photo	Fasteners	Number of fasteners
		 <p data-bbox="528 840 639 867">Figure 7.1</p> <p data-bbox="341 902 1007 959">1.1 Secure the Handset clip fixture to the panel with 3 cross recessed pan head tapping screw.</p>	Cross recessed pan head tapping screw	3
1	Alcohol Lock Parts	 <p data-bbox="539 1593 655 1620">Figure 7.2</p> <p data-bbox="363 1655 1034 1712">1.2 Secure the Alcohol Lock ECU to the Metal support below the sleeper area using 4 pieces of type 1 hex bolts and nuts.</p>	Type 1 hex bolts and nuts	4

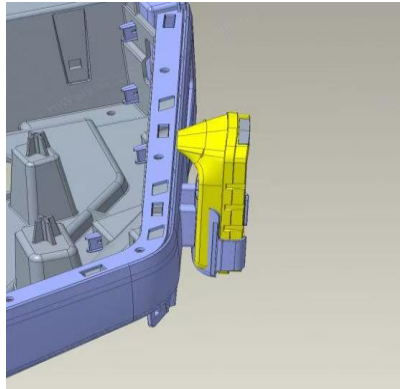


Figure 7.3

1.3 Attach the handset to the Handset clip fixture.

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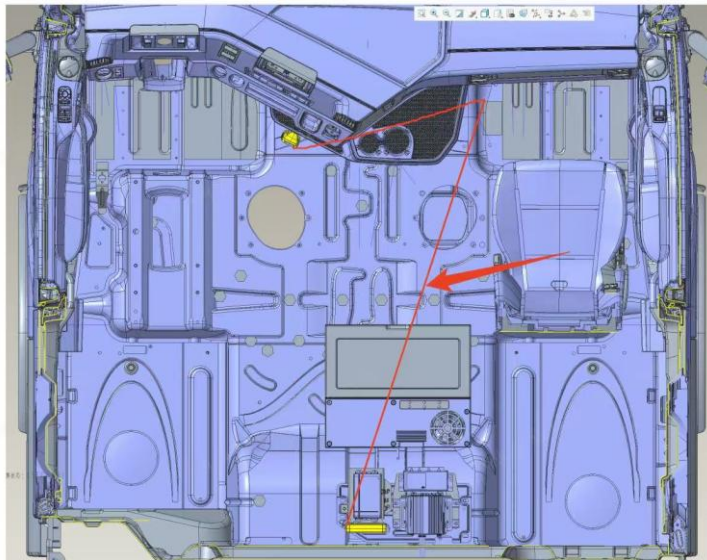


Figure 7.4

2.1 The handset screw harness connects directly to the Alcohol Lock ECU at the location shown.

2 Alcohol
Lock
Parts
Harness

/

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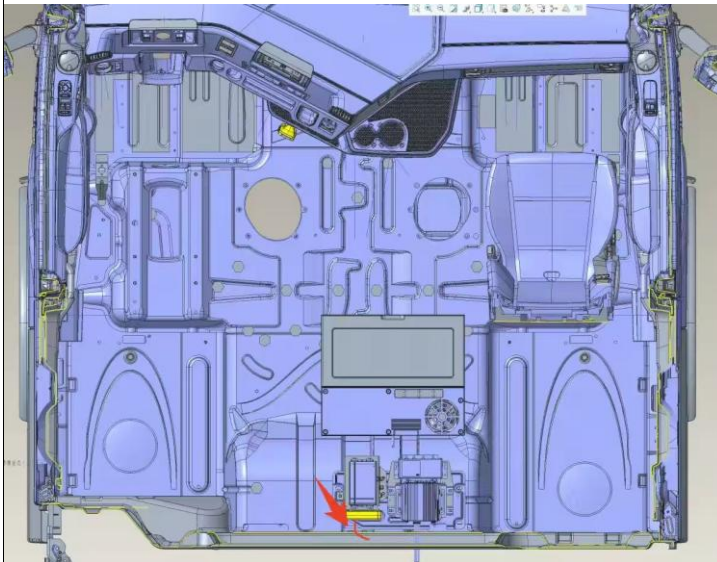


Figure 7.5

2.2 Connect product end connectors to Cab harness
Connectors, Installation is complete.