

ANNEX 2 Installation document for alcohol interlocks





Product



Supplier: Alcohol Countermeasure Systems Corporation

Model: V3

1.Product Introduction

Table 1.1

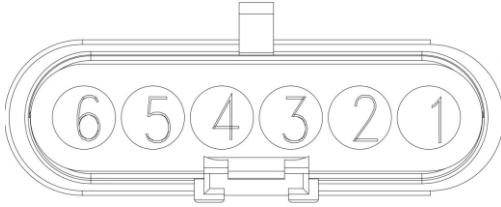
No	Part Name and Description	Picture
1	ECU	 A black rectangular electronic control unit (ECU) with the Dräger logo on the top surface. Several colored wires (red, blue, green, yellow) are connected to the bottom edge.
2	Handset	 A black handheld device (handset) with a small screen and two buttons (one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

5	ECU to interlock handset extension cable	
6	mouthpieces	

2.Product end connectors and vehicle end connectors pin definition

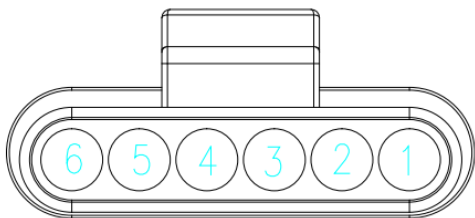
(1) Projection diagram of product end connectors: (ECU end harness)

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

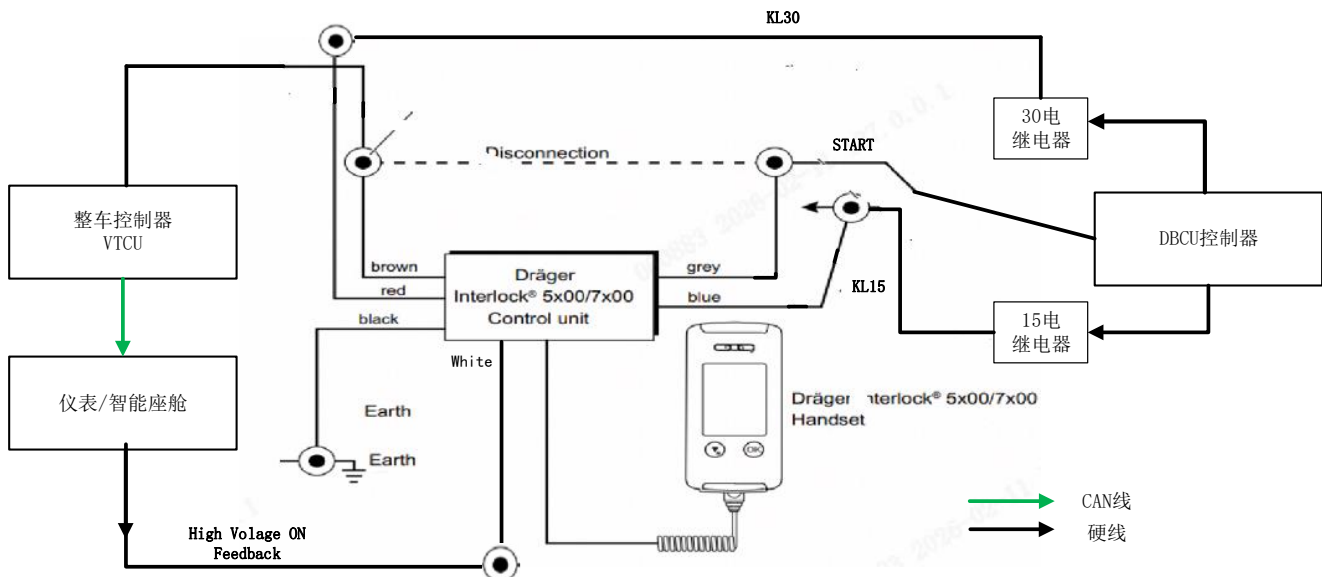


(3) Pin Definition
Table 2.1

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	White	Red-Orange	High Voltage On Feedback	Instrument Cluster	Red-Orange	/	ON position
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 switch	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.



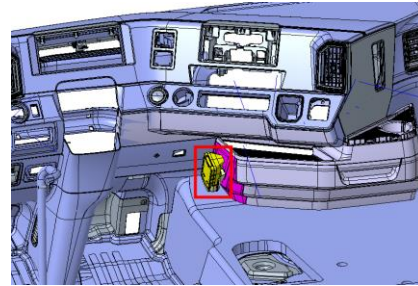
3.Product installation

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.

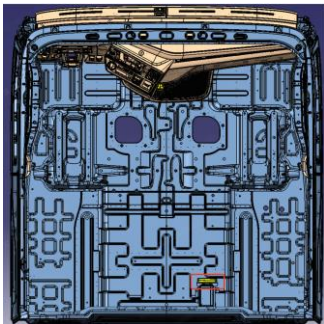


4x2, 6x2 and 6x4

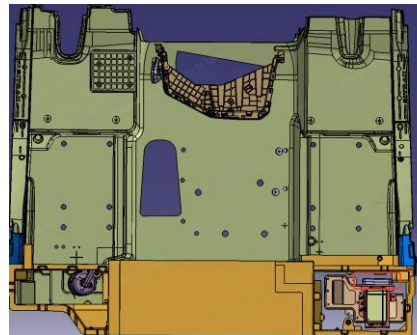


8x4

The ECU is concealed and installed below the sleeper area.



4x2, 6x2 and 6x4



8x4

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

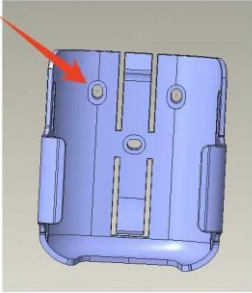
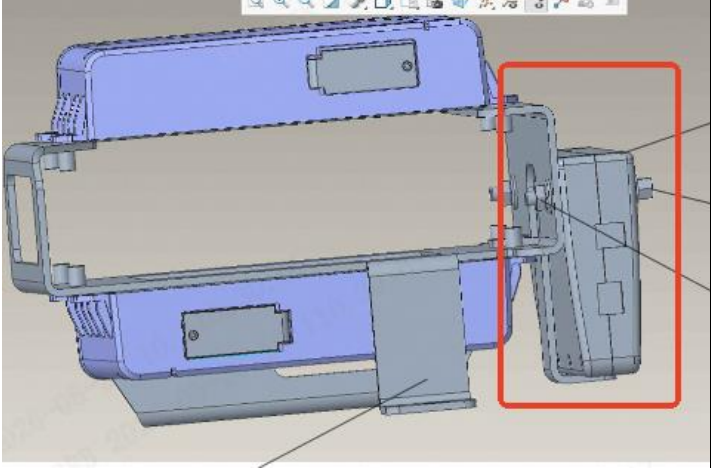
Table 6.1

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 Repeat test" 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 "Interferent detected Repeat test" ,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>	<p data-bbox="1075 684 1289 741">Cross recessed pan head tapping screw</p>	<p data-bbox="1378 714 1394 741">3</p>
<p data-bbox="161 1196 177 1223">1</p>	<p data-bbox="213 1150 300 1235">Alcohol Lock Parts</p>	 <p data-bbox="539 1632 651 1660">Figure 7.2</p> <p data-bbox="363 1694 1034 1786">1.2 Secure the Alcohol Lock ECU to the Metal support below the sleeper area using 2 Hexagon Flange Bolt and 2 Hexagon Flange Nut.</p>	<p data-bbox="1075 1506 1310 1563">Hexagon Flange Bolt; Hexagon Flange Nut</p>	<p data-bbox="1378 1517 1394 1545">2</p>

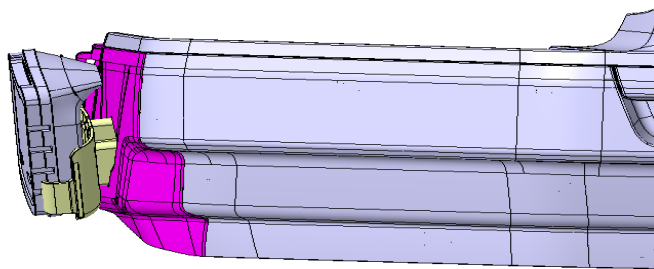


Figure 7.3

1.3 Attach the handset to the Handset clip fixture.

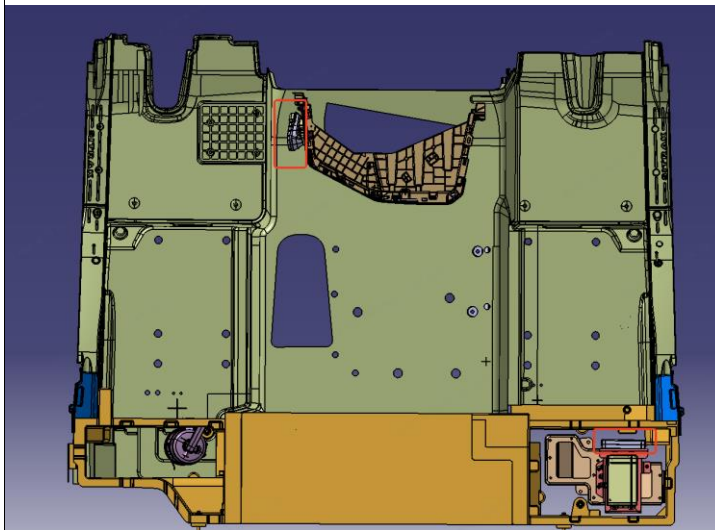


Figure 7.4

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

2 Alcohol
Lock
Parts
Harness

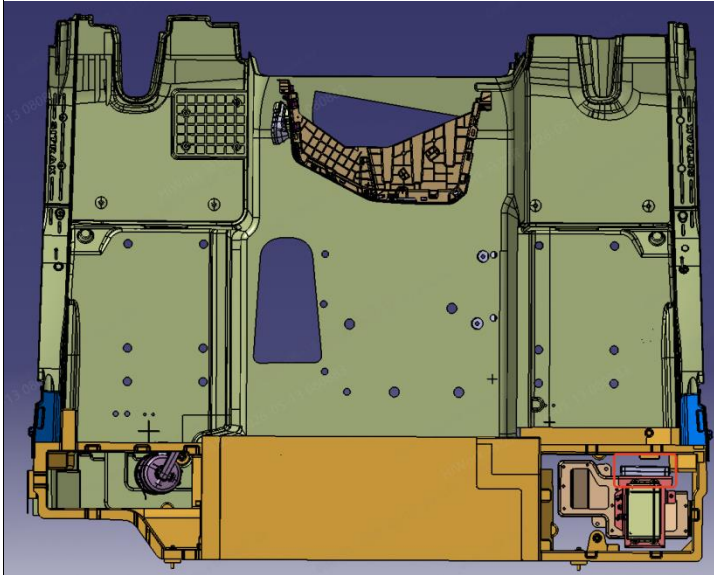


Figure 7.5

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