

## Installation document for alcohol interlocks

### 1. Product overview

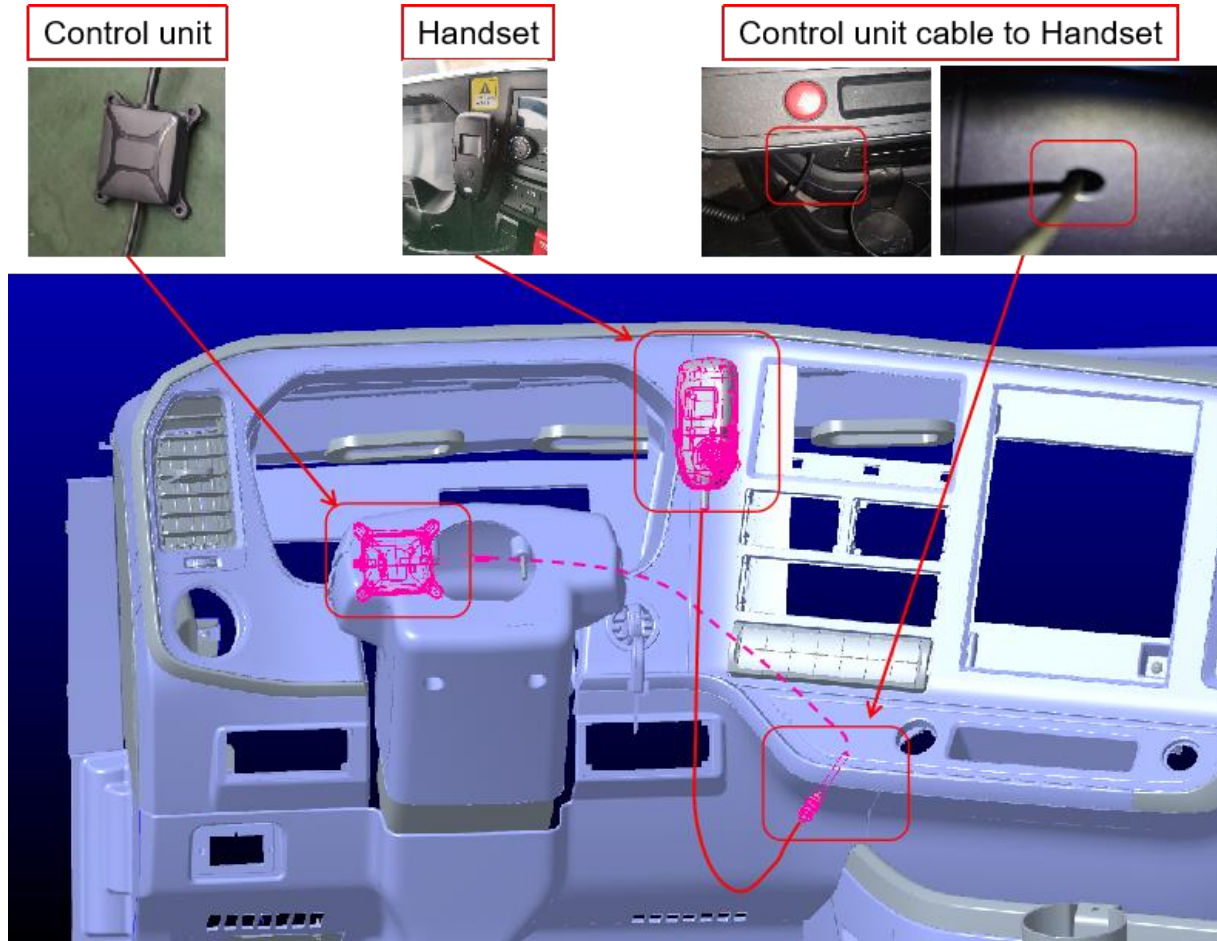


Figure 1

### 2. Connection schematics

Figure 2 shows a general wiring diagram. The handset is connected with control unit through LIN communication. The control unit is installed under the dashboard, which is connected to the vehicle through CAN communication.

If the vehicle is in ON position, it will trigger the control unit to wake up from sleep, which will switch on the handset, after self-check, the handset will be in ready state, the driver can do blow test, if the breath alcohol concentration (BrAC) is below the preset limit ( $<20\text{mg}/100\text{mL}$  normally, but different countries and regions will have different limits), the control unit will send command to the VCU of the vehicle to allow the vehicle to be in the "READY" state through CAN communication, then the driver can start the vehicle, otherwise the driver can not start the vehicle.

This solution meets the requirement in EN 50436-7:2016 Annex C 3c.

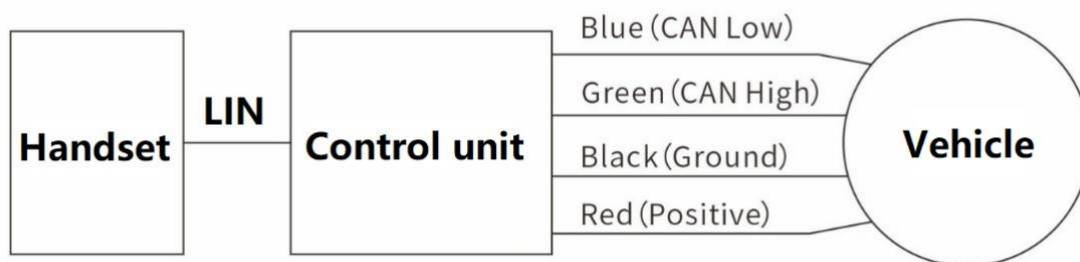


Figure. 2

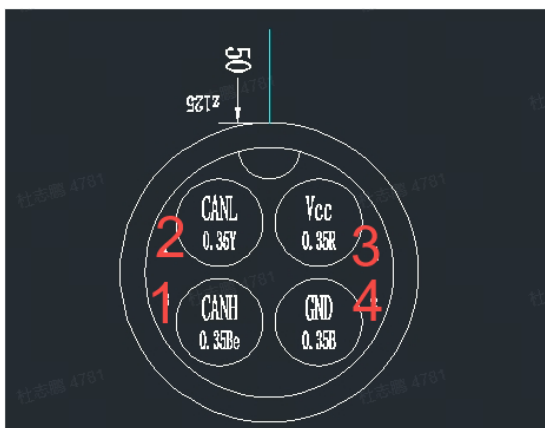


Figure 3

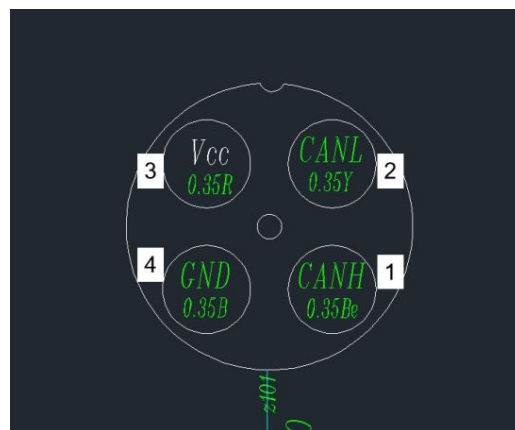


Figure 4

Table 1 Interface of the vehicle


	Function	Pin	Corresponding alcohol lock controller wiring	Connection position
1	CAN High	1	Pin1 Green cable,1.3 mm <sup>2</sup>	The connector is located inside dashboard behind central screen as showing in figure 5 
2	CAN Low	2	Pin2 Blue cable,1.3 mm <sup>2</sup>	
3	Positive	3	Pin3 Red cable,1.3 mm <sup>2</sup>	

Figure 5

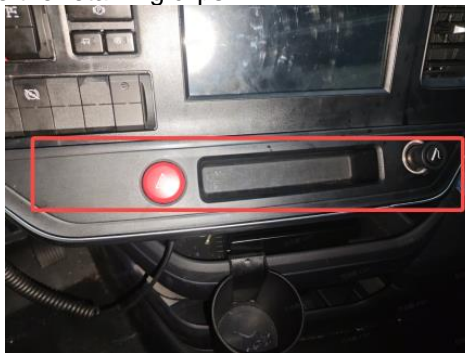
### 3. Safety risk at installation and items to be considered

1. This manual is intended for use only by trained technicians having a knowledge of vehicle electronic systems and the unique installation requirements.
2. Disconnect battery earth lead before further work.
3. Fire hazard! A clean and reliable connection between the leads must be ensured!
4. Pay attention to the impact on the interior and do not damage or scratch the interior.
5. The ground connection should be made first to prevent any damage to the control unit.
6. Install in a place that does not affect the normal operation of the driver, avoid high-pressure parts, and avoid falling off. As shown in Figure 5.
7. The connection between the Handset and the control unit needs to be fixed to avoid shaking or interfering with the operation of the driver and the passenger.

### 4. Assembly instruction

Step 1. After parking the car, turn off and break the low-voltage battery.

Step 2. Remove the cigarette lighter cover panel (shown in Figure 6). Apply force simultaneously on both the upper and lower sections to release the retaining clips.



**Figure 6**

Step 3. Use a Phillips screwdriver to remove the screw indicated in Figure 7.



**Figure 7**

Step 4. Lift the installation tab of the rocker switch shown in Figure 8, then remove the rocker switch.



**Figure 8**

Step 5. Along the groove of the instrument cluster bezel, release its retaining clips as illustrated in Figure 9.


**Figure 9**

Step 6. Use a Phillips screwdriver to remove the mounting screws on the backside of the instrument panel, as shown in Figure 10.


**Figure 10**

Step 7. Remove the infotainment screen bezel. Then, use a Phillips screwdriver to remove the four infotainment screen mounting bolts and extract the screen, as depicted in Figure 11.

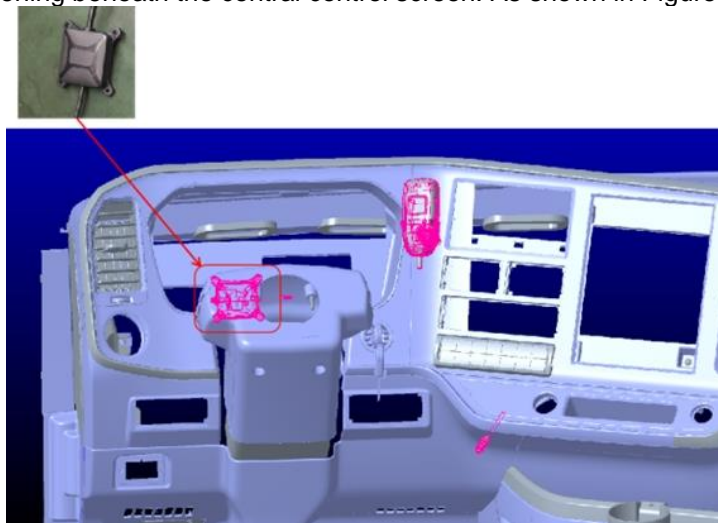

**Figure 11**

Step 8. Secure the alcohol interlock installation cable to the main wiring harness. The cable routing is shown in Figure 12



**Figure 12**

Step 9. Install the control unit in a position that does not affect driving behavior, such as the backside of the dashboard. Simultaneously, route the wire harness connector connecting the controller to the handheld device through the reserved opening beneath the central control screen. As shown in Figure 13.


**Figure 13**

Step 10. Mount the handset bracket in an accessible location for the driver. Make certain that it does not obstruct any of the vehicle controls. The handset bracket can be mounted on the dashboard of the vehicle using self-tapping screws (M4). Please attach the handset bracket to a flat surface to prevent internal damage and avoid customer complaints.

Step 11. Plug the handset cable into the control unit and the other end into the handset. Place the handset in the handset bracket. As shown in Figure 14.

**Figure 14**

Step 12. After completing all the steps above, reconnect the low-voltage battery.

	Technical Information Document No. : SYGM636C-EU/2021/1243-00	Page: 6 / 6
---	--	----------------

Step 13. Start the vehicle, try "ready", at this moment it should not be shift unless the alcohol test is carried out and passed.

## 5. Attentions

- Do keep the unit clean and dry at all times.
- Do use a clean, dry mouthpiece when providing breath tests.
- Do contact your Service Provider with any questions or concerns.
- The alcohol interlock should be installed in accordance with the manufacturer's instructions and in accordance with national regulations by a qualified installer.
  - Unqualified installation may affect safety and reliability of the vehicle.
- Do not place the handset on the vehicle's floor while driving. If the device is not secured it may interfere with the pedals and the safe operation of the vehicle.
- Do not attempt to disable the Alcohol Interlock after fail to provide a random retest. This will shorten the service interval or alert your monitoring agency and these actions are recorded in memory.
- Do not tamper with, abuse, misuse, and/or neglect the Alcohol Interlock device. Tampering with the device is a violation of the law and may result in fines and/or incarceration.
- Keep all radio frequency transmitting devices (such as mobile phones or laptops) away from the device to minimize interference, particularly when performing a test.

Note: Vehicle type SYGM636C equipped with alcohol lock as standard configuration (alcohol lock ECU, alcohol lock blowing machine installed on vehicle before vehicle registration), if the user subsequently need to replace to other alcohol lock products, please use the reserved connectors on vehicle-side, the layout of the location see Figure 5. And also please See Table 1 for specific connector definition functions.