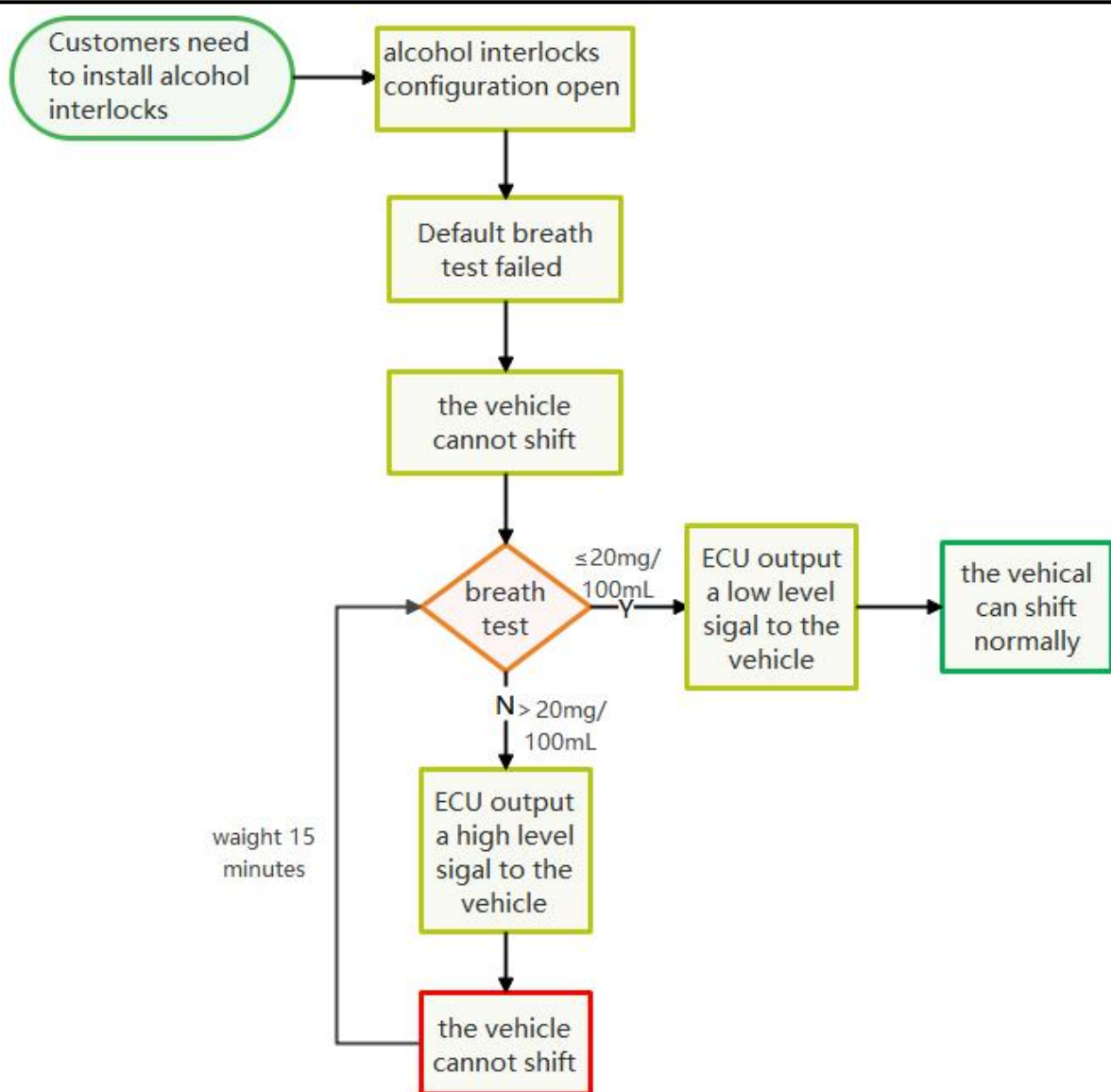
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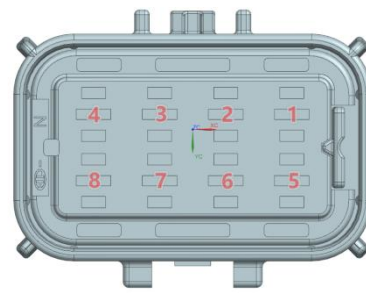



**Figure 2**


**Connection diagram**


Figure 3.Connectors connected to the alcohol monitoring device reserved for the end of the vehicle harness. The five terminal definitions are listed in Table 1.


Figure 4 shows the wiring harness connector of the product end of the alcohol lock device.



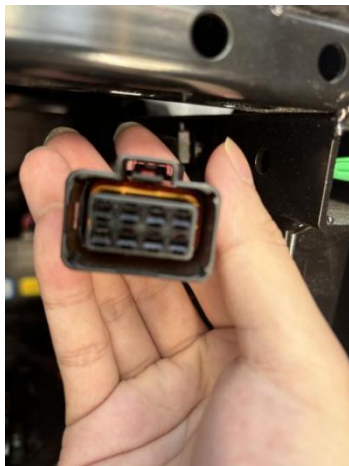

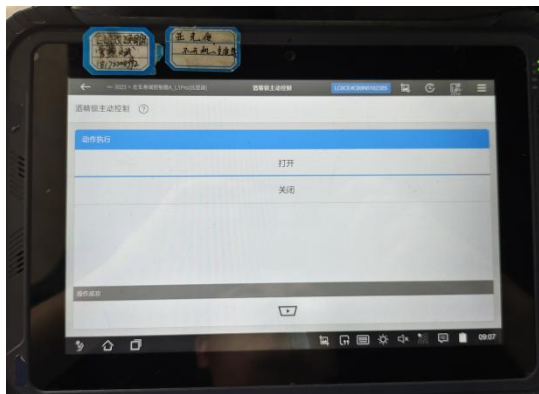
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<div><div></div><div></div><div><div>Figure 3</div><div>Figure 4</div></div></div> <table><tr><th colspan="4">Table 1 Interface of the vehicle</th></tr><tr><th>No.</th><th>function</th><th>wiring/pin</th><th>Connection position</th></tr><tr><td>1</td><td>Battery feed, 12V, uninterrupted</td><td>Pin 1 Red cable, 0.25mm<sup>2</sup></td><td>Pin 1 (figure 2) in the connector, the connector is under the carpet under the passenger seat.</td></tr><tr><td>2</td><td>Ground</td><td>Pin 2 Black cable, 0.25mm<sup>2</sup></td><td>Pin 2 (figure 2) in the connector, the connector is under the carpet under the passenger seat.</td></tr><tr><td>3</td><td><b>Alcohol monitor switch input signal</b> When the signal is high level, not allowed to shift; When the signal level is low, allow shifting.</td><td>Pin 3 Gray cable, 0.25mm<sup>2</sup></td><td>Pin 3 (figure 2) in the connector, the connector is under the carpet under the passenger seat.</td></tr><tr><td>4</td><td><b>Activation electrical signal</b> 12V, Vehicle control unit, Continuous output after activation</td><td>Pin 4 Blue cable, 0.25mm<sup>2</sup></td><td>Pin 4 (figure 2) in the connector, the connector is under the carpet under the passenger seat.</td></tr><tr><td>5</td><td>Ground</td><td>Pin 5 Brown cable, 0.25mm<sup>2</sup></td><td>Pin 5 (figure 2) in the connector, the connector is under the carpet under the passenger seat.</td></tr></table> <div><table><tr><th colspan="4">Table 2 Hardware list</th></tr><tr><th>No.</th><th>Information</th><th>Material code</th><th>Remarks</th></tr><tr><td>1</td><td>Drager Interlock 7000 alcohol interlock device</td><td>8322570</td><td>Includes handset and ECU control unit and mouthpiece(3 pieces)</td></tr><tr><td>2</td><td>Drager Interlock 7000 GPRS</td><td>8322534</td><td></td></tr></table></div>	Table 1 Interface of the vehicle				No.	function	wiring/pin	Connection position	1	Battery feed, 12V, uninterrupted	Pin 1 Red cable, 0.25mm <sup>2</sup>	Pin 1 (figure 2) in the connector, the connector is under the carpet under the passenger seat.	2	Ground	Pin 2 Black cable, 0.25mm <sup>2</sup>	Pin 2 (figure 2) in the connector, the connector is under the carpet under the passenger seat.	3	<b>Alcohol monitor switch input signal</b> When the signal is high level, not allowed to shift; When the signal level is low, allow shifting.	Pin 3 Gray cable, 0.25mm <sup>2</sup>	Pin 3 (figure 2) in the connector, the connector is under the carpet under the passenger seat.	4	<b>Activation electrical signal</b> 12V, Vehicle control unit, Continuous output after activation	Pin 4 Blue cable, 0.25mm <sup>2</sup>	Pin 4 (figure 2) in the connector, the connector is under the carpet under the passenger seat.	5	Ground	Pin 5 Brown cable, 0.25mm <sup>2</sup>	Pin 5 (figure 2) in the connector, the connector is under the carpet under the passenger seat.	Table 2 Hardware list				No.	Information	Material code	Remarks	1	Drager Interlock 7000 alcohol interlock device	8322570	Includes handset and ECU control unit and mouthpiece(3 pieces)	2	Drager Interlock 7000 GPRS	8322534	
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		module			
	3	Drager Interlock 7000 LTE module	8327080		
	4	Drager Interlock 7000 camera	8322413		
	5	Mouthpiece(3 pieces) individually packed	8326550		
	6	Mouthpiece(50 pieces) individually packed	8327627		
	7	Mouthpiece(300 pieces) individually packed	83225978		
	8	Protective cover for handset	8322458		
	9	Handset holder I	8322497		
	10	Handset holder II	8322610		
	Table3 Software list				
	No.	Hardware version	Software version	Remarks	
	1	Left body controller V04	3.00.01		

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<p><b><u>Safety risk at installation and items to be considered</u></b></p> <p>1. This manual is intended for use only by trained technicians having a knowledge of vehicle electronic systems and the unique installation requirements.</p> <p>2. Disconnect battery earth lead before further work.</p> <p>3. Fire hazard! A clean and reliable connection between the leads must be ensured!</p> <p>4. Please be careful when removing the driver's seat, pay attention to the impact on the interior and do not damage or scratch the interior.</p> <p>5. The ground connection should be made first to prevent any damage to the ECU.</p> <p>6. It is necessary to avoid installing the Handset machine in front of the airbag and attach the high voltage components, and it is necessary to avoid falling off.</p> <p>7. The connection between the Handset machine and the control box needs to be fixed to avoid shaking or interfering with the operation of the driver and the passenger.</p> <p><b><u>Assembly instruction</u></b></p> <p><b>Step 1.</b> After parking the car, turn off and break the low-voltage battery.</p> <p><b>Step 2.</b> Open the driver's door, loosen and place the fixed bolts of the driver's seat with tools, and move the seat outside the car. Please be careful when removing the co-driver's seat, pay attention to the impact on the interior and do not damage or scratch the interior.</p> <p><b>Step 3.</b> Find the access hole on the back of the driver's seat bracket, open the access hole, and then find the harness connector in Figure 6. Place the connector near the access hole. (Figure 7)</p> <p><b>Step 4.</b> Connect the connector of the alcohol lock to the interface under the seat bracket》 When all applicable cables are connected, insulated has been tested, proceed to mount the control box. To mount the control box to the vehicle use adhesive buckle straps or cable ties. We can install the control box in the reserved space of the car. (Figure 7)</p>					

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<p><b>Step 5.</b> 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 adhesive buckle straps or using screws. If screws are being used, attach the handset bracket to a flat part. However, it is necessary to communicate with customers in advance to avoid customer complaints due to damage to the interior.</p> <p><b>Step 6.</b> Plug the handset cable into the control box and the other end into the handset. Place the handset in the handset bracket.</p> <p><b>Step 7.</b> Move the drive’s seat back into it’s original position and secure the cable under the seat with cable ties to avoid affecting the driver and passengers, and ensure that the seat adjusted does not cause pressure or damage to the cable.</p> <p><b>Step 8.</b> After completing all the steps above, reconnect the low-voltage battery, use VDS (BYD Diagnostic Equipment) to connect to the vehicle OBD port, and enter the vehicle diagnostic system. Then turn on the alcohol interlock switch with VDS to complete the function configuration. (Figure 8)</p> <p><b>Step 9.</b> Start the vehicle and try to shift gear, at this moment it should not be shift unless the alcohol test is carried out and passed.</p>					

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	<p><b><u>Modification of vehicle operation</u></b></p> <p>1. After you have completed all the steps of Assembly instruction, representative the vehicle have already have equip the alcohol monitoring systems. Before passing the alcohol test or failing the test, the driver or the passenger cannot shift gears and drive the vehicle, but it will not affect the normal use of the vehicle start, air conditioning, multimedia, instrumentation, lights, horns and other systems.</p> <p>2. Before passing the alcohol test or failing the test, if you try to shift the gear, instrumentation will remind the driver “Please pass the alcohol test first and then shift gears and drive”. At the same time, the buzzer will ring one time.</p> <p>3. The alcohol interlock device may remain on standby in 30minutes after the vehicle is turn off, at which point the alcohol interlock device has less operating current so do not worry about the SOC (the device generally sleeps in 30minutes).</p> <p>4. For other tips from the handset and control box, please refer to the instruction manual for the alcohol interlock device.</p> <p><b><u>Mounting position of alcohol interlock handset and the alcohol interlock control-unit</u></b></p> <p>1. About the installation position of the control box On BYD vehicle, the installation position of the controller is reserved, which is located behind the main driver's seat. We will reserve a manhole, which is reserved for the installation position of the controller.</p> <p>2. About the installation position of the handset You can choose to place the handset in the armrest box or co-drive’s drawer for easy use by the driver when need. It can also be mounted on the dashboard using adhesive buckle straps or using adhesive buckle straps or using screws, but it is necessary to avoid mounting within the range of the steering wheel and airbag.</p>				

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<u>Example with pictures</u>					
<div><div><p>Figure 5</p></div><div><p>Figure 6</p></div><div><p>Figure 7</p></div><div><p>Figure 8</p></div></div>					