

9、Dashboard 组合仪表

◆Effect of the Dashboard 组合仪表效果图



- | | |
|---------------------|--------|
| ① Tachometer | 转速表 |
| ② Speedometer | 车速表 |
| ③ LCD display area | 液晶屏显示区 |
| ④ Alarm symbol area | 报警符号区 |

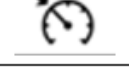
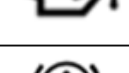
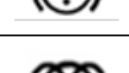
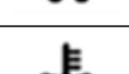
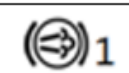
The instrument cluster is installed in the instrument panel in front of the steering wheel in the driver's cab. It is the main interaction interface between the driver and the car, providing the driver with the required information about the car's operating parameters, faults, mileage, etc., and controlling some of the electrical parts of the whole car functions through the driver's operation in its interface.

组合仪表安装在汽车驾驶室内方向盘前的仪表台面板中，是驾驶员与汽车主要的交互界面，为驾驶员提供所需的汽车运行参数、故障、里程等信息，并通过驾驶员在其界面中的操作来控制部分整车功能的电器件。

15、Dashboard 组合仪表

◆Indicator Lights (All symbols, including optional devices)

Titles	Symbols	Colours	Instructions
Main vehicle left turn indicator		Green	LED
Trailer left turn indicator		Green	LED
High beams		Blue	LED
Small lights		Green	LED
Front fog light		Green	LED
Rear fog light		Yellow	LED
Emergency stop light	STOP	Red	LED
Parking brake indicator		Red	LED
EDC diagnostic indicator		Red	LED
Trailer right <u>turn</u> indicator		Green	LED
Main vehicle right turn indicator		Green	LED
Main vehicle ABS indicator		Yellow	LED

Names	Symbols	Colors	Instructions
Trailer ABS indicator		Yellow	LED
OBD warning light		Yellow	LED
Battery charge indicator		Red	LED
Cruise status indicator		Green	LED
Unbuckled seat belt indicator		Red	LED
Low oil pressure indicator		Red	LED
E Low brake air pressure indicator		Red	LED
Intake preheat indicator		Yellow	LCD
High coolant temperature indicator		Red	LCD
Trailer ABS indicator		Yellow	LCD
Auxiliary brake 1st gear indicator		Yellow	LCD

15、Dashboard 组合仪表

◆组合仪表指示灯（全部符号，包括选用装置）

名称	符号	颜色	说明
主车左转向指示灯		绿色	LED
挂车左转向指示灯		绿色	LED
远光灯		蓝色	LED
小灯		绿色	LED
前雾灯		绿色	LED
后雾灯		黄色	LED
紧急停车灯	STOP	红色	LED
驻车制动指示灯		红色	LED
EDC 诊断指示灯		红色	LED
挂车右转向指示灯		绿色	LED
主车右转向指示灯		绿色	LED
主车 ABS 指示灯		黄色	LED

名称	符号	颜色	说明
挂车 ABS 指示灯		黄色	LED
OBD 报警灯		黄色	LED
蓄电池充电指示灯		红色	LED
巡航状态指示灯		绿色	LED
安全带未系指示灯		红色	LED
机油压力低指示灯		红色	LED
制动气压低指示灯		红色	LED
进气预热指示灯		黄色	液晶屏
冷却液温度高指示灯		红色	液晶屏
排气制动指示灯		黄色	液晶屏
辅助制动 1 档指示灯	 1	黄色	液晶屏

15、Dashboard 组合仪表

◆Indicator Lights (All symbols, including optional devices)

Names	Symbols	Colors	Instructions
Auxiliary brake 2nd gear indicator		Yellow	LCD
Low fuel level indicator		Yellow	LCD
Maintenance indicator		Red	LCD
Low gear indicator for machine gearboxes		Green	LCD
ASR indicator		Red	LCD
Daytime running lights		Red	LCD
High coolant temperature indicator		Red	LCD
ESP work light		Yellow	LCD
Anti-theft engine light		Red	LCD
Cab overturn indicator		Yellow	LCD
Carriage lift indicator		Yellow	LCD

Names	Symbols	Colors	Instructions
Low Coolant Level Indicator		Red	LCD
EDC Maintenance Indicator		Yellow	LCD
Low Urea Level Indicator		Yellow	LCD
Tire Pressure Warning Indicator		Yellow	LCD
Disc Brake Wear Indicator		Yellow	LCD
Retarder Fault indicator		Red	LCD
Transmission Fault Indicator		Red	LCD
Axis Differential Lock Working Indicator		Yellow	LCD
ECAS Fault Indicator		Red	LCD
ECAS Working Indicator		Yellow	LCD
Retarder Working Indicator		Green	LCD

15、Dashboard 组合仪表

◆组合仪表指示灯（全部符号，包括选用装置）

名称	符号	颜色	说明
辅助制动 2 档指示灯	 2	黄色	液晶屏
燃油油量低指示灯		黄色	液晶屏
维修指示灯		黄色	液晶屏
变速箱低档指示灯		绿色	液晶屏
ASR 指示灯		黄色	液晶屏
日间行车灯		绿色	液晶屏
遥控钥匙电量低指示灯		黄色	液晶屏
ESP 工作灯		黄色	液晶屏
发动机防盗指示灯		红色	液晶屏
驾驶室翻转指示灯		红色	液晶屏
车厢举升指示灯		红色	液晶屏

名称	符号	颜色	说明
冷却液位低指示灯		红色	液晶屏
EDC 维修指示灯		黄色	液晶屏
尿素液位低指示灯		黄色	液晶屏
胎压报警指示灯		黄色	液晶屏
盘式制动器磨损指示灯		黄色	液晶屏
缓速器故障指示灯		红色	液晶屏
变速箱故障指示灯		红色	液晶屏
轴差速锁工作指示灯		黄色	液晶屏
ECAS 故障指示灯		红色	液晶屏
ECAS 工作指示灯		黄色	液晶屏
缓速器工作指示灯		绿色	液晶屏

15、Dashboard 组合仪表

◆Indicator Lights (All symbols, including optional devices)

Names	Symbols	Colors	Instructions
Wheel Differential Lock Working Indicator		Yellow	LCD
Floating Bridge Indicator		Green	LCD
High Temperature Transmission Oil Indicator		Red	LCD
Parking Power-taking Indicator		Yellow	LCD
Air Filter Blockage Indicator		Yellow	LCD
Driving Power-taking Indicator		Yellow	LCD
Transfer Case High Gear Indicator		Green	LCD
Transfer Case Low Gear Indicator		Red	LCD
Main Cab Door Status Indicator		Yellow	LCD
Sub Cab Door Status Indicator		Yellow	LCD

Names	Symbols	Colors	Instructions
Adaptive Front Lighting Working Indicator		Green	LCD
Adaptive Front Lighting Warning Indicator		Red	LCD
Hill Assist Indicator		Yellow	LCD
ACC Cruise Indicator		Green	LCD
ACC Cruise Fault Indicator		Yellow	LCD
All-wheel Drive Indicator		Yellow	LCD
Whole Vehicle Information Indicator		Yellow	LCD
Collision Warning indicator		Yellow/Red	LCD
Fatigued Driving Indicator		Yellow	LCD
Gas Leak Warning indicator		Green (Normal) Red (Warning)	LCD
ADR Abnormal Working Indicator		Red	LCD

15、Dashboard 组合仪表

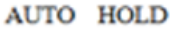
◆组合仪表指示灯（全部符号，包括选用装置）

名称	符号	颜色	说明
轮差速锁工作指示灯		黄色	液晶屏
浮动桥指示灯		绿色	液晶屏
变速箱油温高指示灯		红色	液晶屏
停车取力指示灯		黄色	液晶屏
空滤器阻塞指示灯		黄色	液晶屏
行车取力指示灯		黄色	液晶屏
分动器高档指示灯		绿色	液晶屏
分动器低档指示灯		红色	液晶屏
主驾侧门开关状态信号		黄色	液晶屏
副驾侧门开关状态信号		黄色	液晶屏

名称	符号	颜色	说明
自适应前照工作灯		绿色	液晶屏
自适应前照报警灯		红色	液晶屏
坡道辅助提示指示灯		黄色	液晶屏
ACC 巡航指示灯		绿色	液晶屏
ACC 巡航故障指示灯		黄色	液晶屏
全轮驱动指示灯		黄色	液晶屏
整车信息指示灯		黄色	液晶屏
碰撞报警指示灯		黄色/红色	液晶屏
疲劳驾驶提示指示灯		黄色	液晶屏
燃气泄漏报警指示灯		绿色（正常） 红色（报警）	液晶屏
ADR 工作异常指示灯		红色	液晶屏

15、Dashboard 组合仪表

◆Indicator Lights (All symbols, including optional devices)

Names	Symbols	Colors	Instructions
Front Wheel Inter-wheel Differential Lock Indicator		Green	LCD
EBS Red Indicator		Red	LCD
EBS Yellow Indicator		Yellow	LCD
Low Spray Pot Level		Yellow	LCD
Assisted Steering Warning		Red	LCD
Auto Park Status Indicator		Yellow	LCD
Independent Parking Brake Status Indicator		Yellow	LCD
Load Transferring Indicator		Yellow	LCD
Rear Wheel Steering Warning Indicator		Red	LCD
Diesel Particle Filter Indicator Control		Yellow/Red	LCD
Diesel Particle Filter Regeneration Prohibition Status		Red	LCD
High Exhaust Temperature Indicator		Yellow	LCD

Names	Symbols	Colors	Instructions
Over-speed Warning Indicator		Yellow	LCD
Advanced Assisted Driving Status Indicator		Red/White/Green	LCD
NCD Indicator		Yellow	LCD
ADAS Early-warning System On		Green	LCD
ADAS Early-warning System Off		Yellow	LCD
Front Camera Failure		Yellow	LCD
LDP On/LCC On		Yellow	LCD
LDP Intervention		Green	LCD
AEB System Off		Yellow	LCD

15、Dashboard 组合仪表

◆组合仪表指示灯（全部符号，包括选用装置）

名称	符号	颜色	说明
前轮轮间差速锁指示灯		绿色	液晶屏
EBS 红灯	EBS	红色	液晶屏
EBS 黄灯	EBS	黄色	液晶屏
喷淋壶液位低		黄色	液晶屏
助力转向报警		红色	液晶屏
自动驻车状态指示灯	AUTO HOLD	黄色	液晶屏
驻车独立制动状态指示灯		黄色	液晶屏
负载转移指示灯		黄色	液晶屏
后轮转向报警指示灯		红色	液晶屏
柴油粒子过滤器指示灯控制		黄色/红色	液晶屏
柴油粒子过滤器再生禁止状态		红色	液晶屏
排气温度过高指示灯		黄色	液晶屏

名称	符号	颜色	说明
超速报警指示灯		黄色	液晶屏
高级辅助驾驶状态指示灯		红色/白色/绿色	液晶屏
NCD 指示灯	NCD	黄色	液晶屏
ADAS 预警系统开启		绿色	液晶屏
ADAS 预警系统关闭		黄色	液晶屏
前摄像头故障		黄色	液晶屏
LDP 开启/LCC 开启		黄色	液晶屏
LDP 介入		绿色	液晶屏
AEB 系统关闭		黄色	液晶屏

15、Dashboard 组合仪表

◆Installation Position of the Dashboard 组合仪表安装位置

Assembly Instruction: The Dashboard is mounted in the instrument panel in front of the steering wheel in the driver's side of the car and is secured by four screws.

装配需知：组合仪表安装在汽车驾驶室内方向盘前的仪表台面板中，并通过4个螺钉固定。

Dashboard Disassembly: Remove the instrument panel cover screws and the instrument cover.

Remove the four screws that hold the dashboard in place.

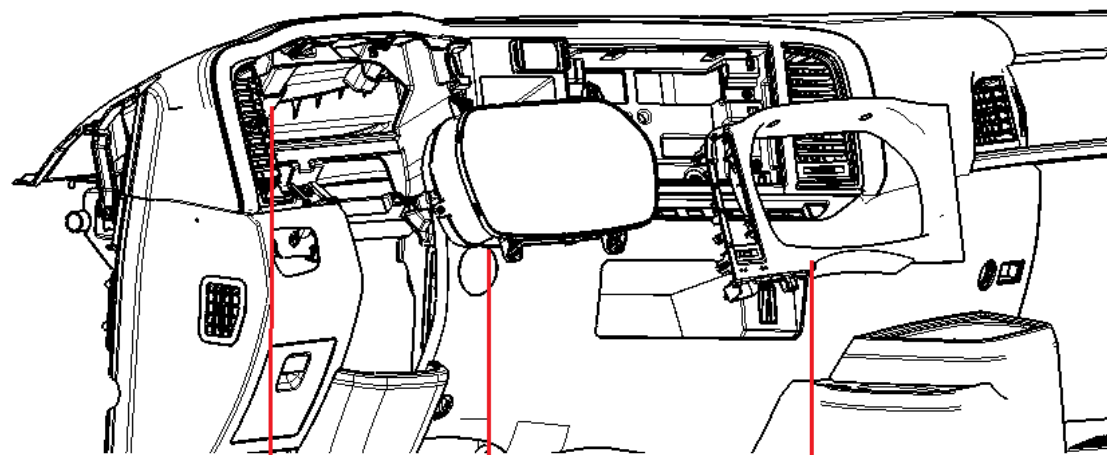
Unplug the blue and green plugs from the back to remove the dashboard.

仪表拆卸：拆除仪表台面罩螺钉，取下仪表罩。

将固定仪表的4个螺钉拆掉，

拔掉仪表背面的蓝色和绿色插接器，

可拆掉仪表。



仪表台总成
Dashboard
Assembly

组合仪表
Combination
Instrument

组合仪表面罩总成
Combination instrument
cover assembly

15、Dashboard 组合仪表

Pin Definition Description

针脚定义说明

Blue plug-in connector

蓝色插接器：



No.	Name	Signal Attributes	Signal Descriptions
B-1	Power Supply	B+ Power -Input	GND
B-2	Sensor ground wire	Sensor Circuit Ground	GND
B-3	Axis differential lock indicator	Digital Input	Active-low
B-4	Wheel differential lock indicator	Digital Input	Active-low
B-5	Power Supply+	15+Power Input	24V Key Power
B-6	Battery Power Supply +	B+ Power Input	24V Standing Electricity
B-7	Driving Power Takeoff	Digital Input	Active-high
B-8	Parking Power Takeoff	Digital Input	Active-high
B-9	ADR Abnormal working indicator	Digital Input	Hard line, low level or overhang invalid, pulse signal valid (low level: 0V, high level 0.8-1.6V, frequency: 1Hz)
B-10	Gas leak sensor 1# alarm signal	Digital Input	Hard wire, active-low
B-11	Gas leak sensor 2# alarm signal(reserved)	Digital Input	Hard wire, active-low
B-12	All-wheel drive working indication signal	Digital Input	Hard wire, active-low
B-13	Transfer low gear signal	Digital Input	Hard wire, active-low
B-14	Trailer ABS indication (port parallel 330R/5W resistor to dashboard 24V key power)	Digital Input	Hard wire, active-low
B-15	External buzzer input -	Digital Input	Hard wire, active-low
B-16	Oil sensor signal (reserved)	Analog Input	Resistance signal
B-17	CNG Gas volume sensor signal	Analog Input	Voltage signal
B-18	Barometric 1# sensor signal	Analog Input	Voltage signal
B-19	Barometric 2# sensor signal	Analog Input	Voltage signal
B-20	Speed sensor signal	Digital Input	Impulse signal
B-21	Speed signal output 1#	Impulsive Signal Output	Hard wire、 Impulse signal
B-22	Speed signal output 2#	Impulsive Signal Output	Hard wire、 Impulse signal
B-23	Speed signal output C3	Impulsive Signal Output	Hard wire、 Impulse signal
B-24	12V Power output 1	Analog Input	12V Power Output/50mA
B-25	5V Power output	Analog Input	5V Power Output/100mA
B-26	12V Power output2	Analog Input	12V Power Output /2A
B-27			
B-28			
B-29	CAN1_m		
B-30	CAN1_H	ICAN_H	CAN+
B-31	CAN1_L	ICAN_L	CAN-
B-32	Low spray pot level warning	Digital Input	Hard wire, active-low

15、Dashboard 组合仪表

Pin Definition Description
针脚定义说明
Blue plug-in connector
蓝色插接器：



序号	名称	信号属性	信号描述
B-1	仪表电源-	B+电源-输入	GND
B-2	传感器地	传感器回路地	GND
B-3	轴差速锁指示灯	数字量输入	低有效
B-4	轮差速锁指示灯	数字量输入	低有效
B-5	仪表电源+	15+电源输入	24V钥匙电源
B-6	蓄电池电源+	B+电源输入	24V常电
B-7	行车取力	数字量输入	高有效
B-8	停车取力	数字量输入	低有效
B-9	ADR工作异常指示灯	数字量输入	硬线、低电平或悬空无效，脉冲信号有效（低电平：0V，高电平0.8-1.6V，频率：1Hz）
B-10	燃气泄漏传感器1报警信号	数字量输入	硬线、低有效
B-11	燃气泄漏传感器2报警信号（预留）	数字量输入	硬线、低有效
B-12	全轮驱动工作指示信号	数字量输入	硬线、低有效
B-13	分动器低档位信号	数字量输入	硬线、低有效
B-14	挂车ABS指示（端口并联330R/5W电阻到仪表24V钥匙电源）	数字量输入	硬线、低有效
B-15	蜂鸣器外部输入-	数字量输入	硬线、低有效
B-16	油量传感器信号（预留）	模拟量输入	电阻信号
B-17	CNG气量传感器信号	模拟量输入	电压信号
B-18	气压1传感器信号	模拟量输入	电压信号
B-19	气压2传感器信号	模拟量输入	电压信号
B-20	车速传感器信号	数字量输入	脉冲信号
B-21	车速信号输出1	脉冲信号输出	硬线、脉冲信号
B-22	车速信号输出2	脉冲信号输出	硬线、脉冲信号
B-23	车速信号输出C3	脉冲信号输出	硬线、脉冲信号
B-24	12V电源输出1	模拟量输出	12V电源输出/50mA
B-25	5V电源输出	模拟量输出	5V电源输出/100mA
B-26	12V电源输出2	模拟量输出	12V电源输出/2A
B-27			
B-28			
B-29	CAN1 m		
B-30	CAN1 H	ICAN H	CAN+
B-31	CAN1 L	ICAN L	CAN-
B-32	喷淋壶液位低报警	数字量输入	硬线、低有效

15、Dashboard 组合仪表

Pin Definition Description

针脚定义说明

Blue plug-in connector

绿色插接器：



No.	Name	信号属性	信号描述
G-1	Safety belt	Digital Input	Hard wire, active-low
G-2	Cab flipping	Digital Input	Hard wire, active-low
G-3	Cab Lifting	Digital Input	Hard wire, active-low
G-4	Passenger seat belt (reserved)	Digital Input	Hard wire, active-low
G-5	Low coolant level	Digital Input	Hard wire, active-low
G-6	Clogged air filter	Digital Input	Hard wire, active-low
G-7	Transmission low gear indication	Digital Input	Hard wire, active-low
G-8	Battery Charging	Digital Input	Hard wire, active-low
G-9	Drive Axle 1 Oil Temperature Sensor Signal	Analog Input	Hard wire, resistive signal Hard wire, voltage signal
G-10	Drive Axle 1 Oil Level Sensor Signal	Analog Input	
G-11	Drive Axle 2 Oil Level Sensor Signal	Analog Input	Hard wire, resistive signal Hardwire, voltage signal
G-12	Drive Axle 2 Oil Level Sensor Signal	Analog Input	
G-13	Steering Oil Temperature Sensor Signal	Analog Input	Hard wire, resistive signal Hard wire, active-low
G-14	Steering Oil Temperature Sensor Signal	Analog Input	
G-15	Disc Brake Wear Alarm	Analog Input	Hard line, high or overhang valid, low invalid
G-16	Engine Oil Temperature Sensor Signal	Analog Input	Hard wire, resistive signal Hardwire, voltage signal
G-17	Engine Oil Temperature Sensor Signal	Analog Input	
G-18	CAN2_m		
G-19	CAN2_H	ICAN_H	CAN+
G-20	CAN2_L	ICAN_L	CAN-
G-21			
G-22	Reserve 1	Digital Output	Hard wire, active-low, invalid for dangling, output current capacity 300mA
G-23	Main vehicle parking chamber air pressure	Analog Input	Voltage signal
G-24	Trailer control chamber air pressure	Analog Input	Voltage signal
G-25	Front inter-wheel differential lock indicator	Digital Input	Hard wire, active-low
G-26	Operation	Digital Input	Hard wire, active-high
G-27	Transfer case high gear instruction	Digital Input	Hard wire, active-low
G-28	Floating Bridge Instruction	Digital Input	Hard wire, active-low
G-29	Automatic Parking Circuit Air Pressure	Analog Input	Voltage signal
G-30	Clutch Alarm	Digital Input	Hard wire, active-low
G-31	Reserve 4	Digital Output	Hard wire, active-low, invalid for dangling, output current capacity 300mA
G-32			

15、Dashboard 组合仪表

Pin Definition Description

针脚定义说明

Blue plug-in connector

绿色插接器：



序号	名称	信号属性	信号描述
G-1	安全带	数字量输入	硬线、低有效
G-2	驾驶室翻转	数字量输入	硬线、低有效
G-3	车厢举升	数字量输入	硬线、低有效
G-4	副驾驶安全带（预留）	数字量输入	硬线、低有效
G-5	冷却液位低	数字量输入	硬线、低有效
G-6	空滤器堵塞	数字量输入	硬线、低有效
G-7	变速器低档指示	数字量输入	硬线、低有效
G-8	电池充电	数字量输入	硬线、低有效
G-9	驱动桥1机油温度传感器信号	模拟量输入	硬线、电阻信号
G-10	驱动桥1机油液位传感器信号	模拟量输入	硬线、电压信号
G-11	驱动桥2机油温度传感器信号	模拟量输入	硬线、电阻信号
G-12	驱动桥2机油液位传感器信号	模拟量输入	硬线、电压信号
G-13	转向机油温度传感器信号	模拟量输入	硬线、电阻信号
G-14	转向机油液位报警器信号	数字量输入	硬线、低有效
G-15	盘式制动器磨损报警	数字量输入	硬线、高或悬空有效，低无效
G-16	发动机机油温度传感器信号	模拟量输入	硬线、电阻信号
G-17	发动机机油液位传感器信号	模拟量输入	硬线、电压信号
G-18	CAN2_m		
G-19	CAN2_H	ICAN_H	CAN+
G-20	CAN2_L	ICAN_L	CAN-
G-21			
G-22	预留1	数字量输出	硬线、低有效、无效为悬空， 输出电流能力300mA
G-23	主车驻车气室气压	模拟量输入	电压信号
G-24	挂车控制气室气压	模拟量输入	电压信号
G-25	前轮轮间差速锁指示灯	数字量输入	硬线、低有效
G-26	作业	数字量输入	硬线、高有效
G-27	分动器高档指示	数字量输入	硬线、低有效
G-28	浮动桥指示	数字量输入	硬线、低有效
G-29	自动驻车回路气压	模拟量输入	电压信号
G-30	离合器报警	数字量输入	硬线、低有效
G-31	预留4	数字量输出	硬线、低有效、无效为悬空， 输出电流能力300mA
G-32			

15、Dashboard 组合仪表

◆ Combined parameter adjustment 组合参数调整

1、Engine emissions options 发动机排放选择：

Since the meter can be applied to different engine types with different emissions (National 6/non-National 6), it needs to be set for the corresponding engine emission type.

由于仪表可适用于不同排放的发动机类型（国六/非国六），因此需要对相应的发动机排放类型进行设置。

2、Engine type selection 发动机类型选择：

Since the gauges can be applied to different engine types, the initial settings need to be made for the corresponding engine type of the model.

由于仪表可适用于不同的发动机类型，因此需要对车型相应的发动机类型进行初始设置。

3、Transmission type selection 变速箱类型选择：

Since the instrumentation can be applied to different transmission types, including mechanical transmission, Fast AMT, Eaton AMT, Allison AT, and Shunde AT, initial settings for the transmission type are required.

由于仪表可适用于不同的变速箱类型，包括机械变速箱、法士特AMT、伊顿AMT、艾利逊AT、双特AT，因此需要对变速箱类型进行初始设置。

15、Dashboard 组合仪表

4、K value setting K值设置:

Calculation and setting of K-value parameters according to the configuration of the entire vehicle powertrain assembly:

根据整车动力传动总成配置进行K值参数计算和设置: $K = \frac{8000000 \times i}{i_b \times 3.14 \times D_l}$
式中:

i : Main reduction ratio of drive axle
 i : 驱动桥主减速比;

i_b

D_l : Tire diameter(m)
 D_l : 轮胎直径, 单位为米 (m)

5、Model selection 车型选择:

Since the meter can be applied to different models, including domestic non-mixing, domestic mixing, Gulf Cooperation, and other exporting countries, the initial settings for the matching models are required.

由于仪表可适用于不同车型, 包括国内非搅拌、国内搅拌、海湾七国、其他出口国, 因此需要对匹配的车型进行初始设置。

6、Fuel tank capacity setting 油箱容量设置:

Since the meter can be applied to different models of fuel tanks, the initial settings need to be made for the matching model.

由于仪表可适用于不同型号的油箱, 因此需要对匹配的车型进行初始设置。

15、Dashboard 组合仪表

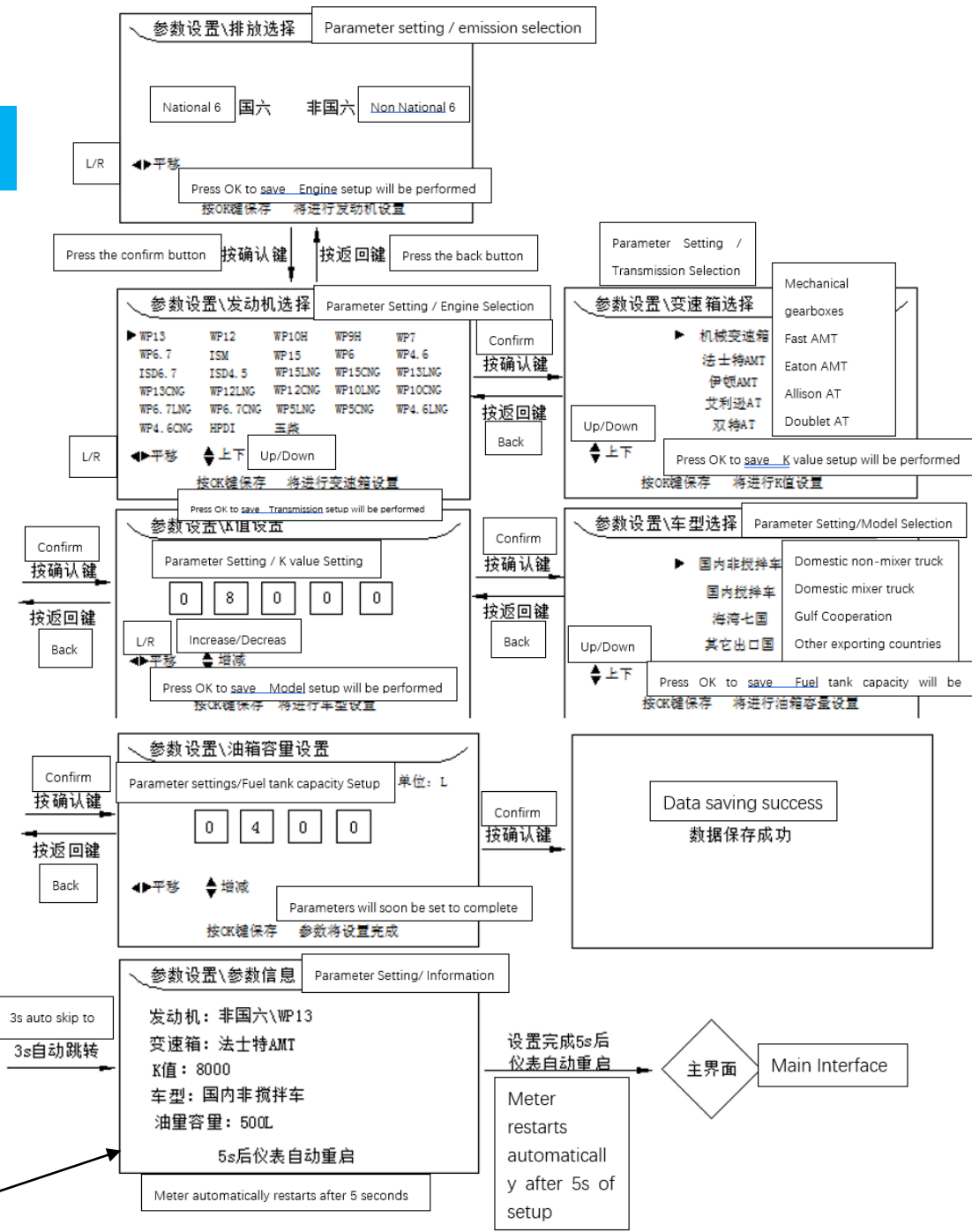
◆Combination parameter adjustment组合参数调整

7、 The specific operation process of the above configuration items is as follows

以上配置项具体操作流程如下：

Press and hold the "OK" button on the multifunction steering wheel, then turn on the key. Enter the interface of "Engineering Mode", while "National 6" in "Emission Selection" is highlighted . Highlight and select, then follow the flow chart below.

先按住多功能方向盘“OK”键不放，然后钥匙电源打开，进入“工程模式”界面，同时“排放选择”中的“国六”高亮选中，之后按下图流程图进行操作。



Engine: Non-national 6 /WP13
Transmission: Fast AMT
K value: 8000
Model: Domestic non-mixer
Fuel capacity: 500L

15、Dashboard 组合仪表

◆Common troubleshooting methods常见故障排查方法

NO. 序号	Failure phenomena 故障现象	Causes Analysis 原因分析	Solution Measures 解决措施	Flow Chart 流程图
1	Large error in speedometer indication 车速表指示误差大	Incorrect dial code or K value setting 拨码或K值设置错误	Reset the dial code or K value 重新设置拨码或K值	<pre>graph TD; A{仪表菜单中查看K值} --> B[Check K value in the menu]; A -- YES 是 --> C{核实仪表设置的K值与理论计算K值一致性}; A -- NO 否 --> D{更换仪表, 设置K值}; C --> E{进入仪表工程模式进行设置}; C -- NO --> D; E --> F[完成 Complete]; D --> G[Replace the meter and reset the K value];</pre>
2	No indication on speedometer车速表无指示	Driving recorder cable electrical connection abnormal, speed sensor failure, instrument quality faults 行驶记录仪电缆电气连接异常、车速传感器故障、仪表质量问题	Check the electrical reliability of the driving recorder cable first, then check the speed sensor 先检查行驶记录仪电缆电气可靠性、其次检查车速传感器	<pre>graph TD; A{检查传感器与仪表信号、电源通断} --> B[Check the sensor and instrument signals, power on/off]; A -- 正常 Normal --> C{更换车速传感器}; A -- 异常 Abnormal --> D{修复线路问题}; D --> C; C --> E{未解决 Unsolved}; E --> F{更换仪表}; F --> G[Replace the instruments];</pre>

15、Dashboard 组合仪表

◆Common troubleshooting methods常见故障排查方法

NO. 序号	Failure phenomena 故障现象	Causes Analysis 原因分析	Solution Measures 解决措施	Flow Chart 流程图
3	The oil pressure gauge and water temperature gauge pointer drifted when the headlights were turned on. 打开大灯时，油压表、水温表漂移	Cab hitch points are not secure 驾驶室搭铁点不牢靠	Check the hitch points 检查搭铁点	/
4	ECU cannot limit speed ECU无法限速	Speed line problems or engine data errors 车速线路问题或发动机数据错误	For CAN gauges: check the engine data 对于CAN仪表：检查发动机数据； For non-CAN gauges: check the speed signal line collected by the engine 对于非CAN仪表：检查发动机采集的车速信号线路	
5	The instrumentation shows "vehicle network failure", no indication of oil pressure and tachometer 仪表显示“车辆网络故障”，机油压力和转速表无指示	Bus Failure 总线故障	Check CAN wire connection or termination resistance between engine and instrument 检查发动机和仪表之间CAN线连接或终端电阻	/

15、Dashboard 组合仪表

◆Common troubleshooting methods 常见故障排查方法

NO. 序号	Failure phenomena 故障现象	Causes Analysis 原因分析	Solution Measures 解决措施	Flow Chart 流程图
6	The pointer does not return to zero after the key power is disconnected 断钥匙电源后指针不归零	Meter standing power abnormal 仪表常电异常	Checking the meter standing power 检查仪表常电	/
7	Fuel gauge does not display 油量表不显示	The sensor is damaged or the oil level signal is not transmitted to the meter 传感器损坏或油量信号没有传输给仪表	First check whether the sensor output resistance value is correct, and then check whether the signal connection is normal 先检查传感器输出电阻值是否正确，再检查信号连接是否正常	/
8	Air pressure gauge does not display 气压表不显示	Abnormal air pressure sensor signal 气压传感器信号异常	First check whether the barometric pressure sensor signal is normal (0.5-3.77V), and then check whether the barometric pressure sensor 5V power supply is normal 先检查气压传感器信号是否正常（0.5-3.77V），再检查气压传感器5V供电电源是否正常	/
9	Instrument dead 仪表死机	1, when the whole car appears abnormally high current, such as when xenon headlights work, the instrumentation appears dead phenomenon; 1、当整车出现异常的大电流，如氙气大灯工作时，仪表出现死机现象； 2. There are defects in instrument data and accidental crash occasionally appears; 2、仪表数据存在缺陷，偶发死机现象	Please contact the designers of SHACMAN for troubleshooting 请联系陕汽设计人员排查； Temporary solution: plugging and unplugging meter B + power 临时解决方案：插拔仪表B+电源	/
10	Pointers go off the charts 指针飞天	Stepper motor soldering problem or pointer stalling 步进电机焊接问题或指针卡滞	Need to replace the combination meter 需更换组合仪表	/