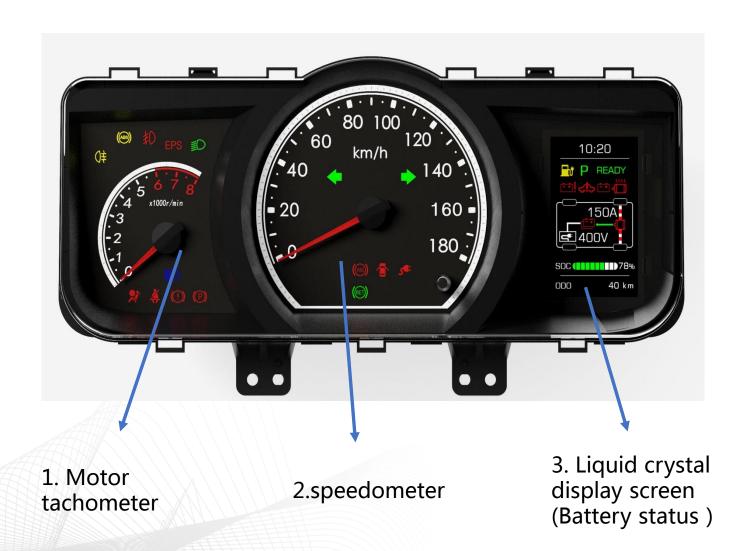
Joylong Hiace EV User Manual



1.1 Instruments and displays



MOTOR TACHOMETER

The tachometer displays the motor's revolutions per minute. To avoid overloading and damaging the motor, we recommend that you drive the vehicle at no more than 4,500 RPM whenever possible. To avoid overloading and damaging the motor, we recommend that you do not drive the vehicle at more than 4,500 RPM if possible.

Speedometer

The speedometer displays the actual speed of the vehicle in "kilometers per hour".

LCD DISPLAY (BATTERY STATUS)

When the vehicle's key is "ON", the LCD panel displays the time, battery current value, battery voltage and battery SOC status, accumulated mileage, and battery charge. battery SOC status, accumulated mileage, trip distance (trip meter), vehicle status and fault status. Vehicle status and fault status are displayed at the top and bottom respectively.

Time

Displayed in 12-hour increments, adjustable by pressing the reset button.

Total Battery Current Value

Displays the total available current of the vehicle (minimum display unit is 1A). The red arrow is displayed if the battery is discharging, the blue arrow is displayed when the battery is charging.

Total Battery Voltage

The battery voltage shows the total voltage actually available to the vehicle. The minimum display unit is 1V.

SOC

Displays the status of the remaining battery power. The display ranges from 0% to 100% as shown below.

SOC 45%

Accumulated mileage/interval mileage (odometer)

The accumulated mileage display ranges from 000000 to 999999 as shown below.

ODO 000000 km

The display range of the trip mileage (trip meter) is 000.0 ~ 999.9, and the display is shown below.

TRIP 000.0 km

A short press on the reset button will alternately display "Accumulated Mileage" and "Trip Mileage".

Press and hold the reset button to reset the trip odometer.

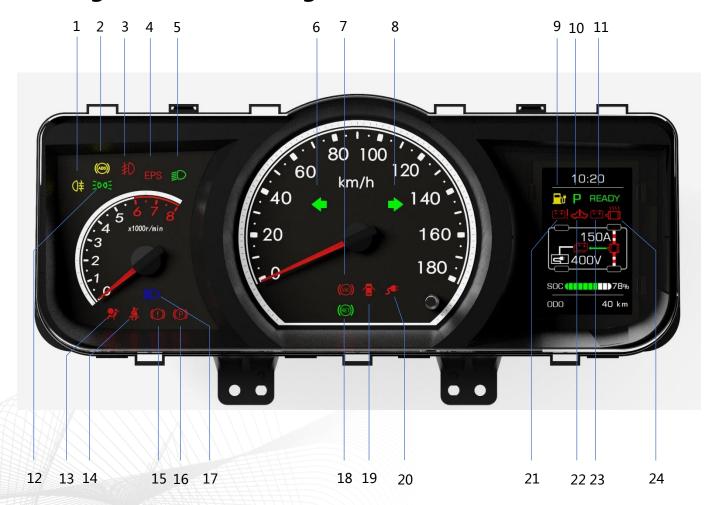
Regardless of the odometer display, the accumulated mileage is always displayed on reset.

Vehicle status and failure modes

When the reset button is pressed and held, the LCD switches to the second page, showing the status of the vehicle's major components (motor, battery, etc.).

Status information (motor, battery, etc.) and fault information.

1.2 Warning and Indicator Lights



1.3 Warning and Indicator Light List

Serial No.	Name	Logos	Serial No.	Name	Logos
1	High beam indicator	≣ D	13	Airbag Indication	R
2	ABS indication	(ABS)	14	Labeled seat belts	
3	Front Fog Lamp Indic ator	却	15	Brake fault labeling	(!)
4	Low beam indicator	≣ D	16	Parking brake display	(P)
5	Left turn indicator	—	17	Motor Output Limit	
6	Right turn indicator		18	Regenerative Brake	(RET)
7	Vacuum brake system failure	(VAC)	19	Door status	a
8	Power Battery Chargi ng Status Indication	\\\ _ \'	20	Charger Connection	5
9	Economic models	ECO	21	DC fault indication	<u>= +</u> !
10	Gear Indicator	R N D	22	Vehicle system malfunction	₹\$
11	Warning/Vehicle Drivi ng Status	WARNING READY	23	Main Battery Charge	
12	Small light indicator	₹0 0 €	24	Motor failure	=

1) EPS EPS

This vehicle is equipped with EPS steering system.

- 2) Vacuum system fault indicator (VAC)
 Lights up when the vacuum system fails
- 3) Engine Malfunction Indicator Light This indicator comes on when the motor drive system protects the motor by itself, in which case reduce the vehicle speed or do not accelerate.
- 4) Battery Failure Indicator The Run light is on to indicate a drive battery failure.
- 5) DC Fault Indication

The driving indicator light comes on to indicate that there is a malfunction in the DC-DC system, and the battery may lose power if driving is continued for an extended period of time in this condition.

6) Vehicle System Fault Indicator
When the light comes on while driving, it indicates a serious malfunction in the vehicle's electrical system.

7) warning indicator WARNING

If this light comes on while driving, it indicates a malfunction in the vehicle's system, in which case reduce speed and avoid accelerating, however, if the battery SOC falls below 20%, "READY" on the instrument panel will change to "WARNING".

8) Charger connection indicator **5**

When charging, the charger connection indicator lights up to indicate that the charging connector is connected; if the indicator does not light up, the charging connector is not properly connected and the charger connection should be checked.

9) Battery system fault indicator If the charging indicator light is illuminated, the vehicle is charging.

10) Ready indicator READY

After inserting the ignition key and turning it to ACC-ON, the vehicle will make a clicking sound (1-2 seconds). Turn the ignition key to the right (clockwise) for a short period of time (1 second) and then release it, a "buzzing" sound will be heard. When the green "READY" light on the instrument panel comes on, the vehicle is ready for you to drive away. The vehicle is ready to drive. If the "READY" light does not come on, turn the ignition key again. (Note: The shift lever must be in the "N" position when operating the ignition key)

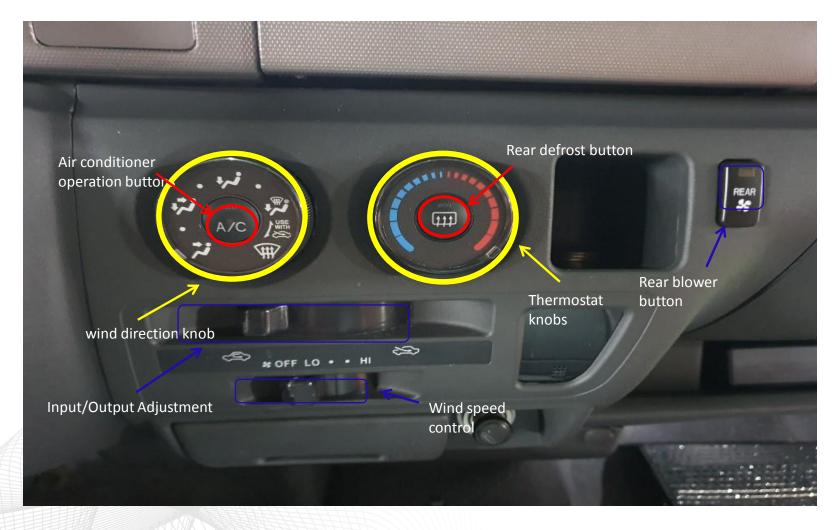
11) Regenerative brake indicator (iii)

When the brake pedal is pressed or the accelerator pedal is released, the green indicator light comes on and the energy recovery system is activated.

12) Economic (ECO) model ECO

When the ECO button on the left side of the instrument panel is pressed, the ECO mode indicator light on the instrument panel illuminates and the vehicle enters the ECO mode, the vehicle will be driven economically by limiting the discharge current of the main battery to a maximum of 150A, however, when overtaking at high speeds or driving uphill, please turn off the ECO mode and drive safely

1.4 How to use the air conditioner



1.5 12V Auxiliary Battery Disconnect Switch (Auxiliary battery power off switch)

It is used to control the 12V low voltage circuit and is mounted on the left side of the vehicle, when the switch is inserted into the bracket and rotated to the right it will "click" to connect to the 12V battery and supply power to all controls at the same time. If the vehicle will not be used for an extended period of time, turn the switch off and disconnect it from the 12V battery.







Charger Charging Precautions

The vehicle battery must be recharged if its SOC falls below 30%. The vehicle charger, charging cables and plugs, and vehicle charging outlets must be kept clean and in use. Before starting charging, make sure it has ground fault protection. Park the vehicle, turn on the vehicle charging socket and plug the charger gun into the vehicle charging socket. (The vehicle charging socket is located on the outside of the passenger seat and is turned on and off with the ignition key).

After connecting the charging cable, check to see if the connection indicator appears on the instrument panel. If it does, the charger is connected. If it does not appear, the cable connection should be rechecked. Press the charge start button on the charger or use the charge card to start charging. Stop charging the charger when charging is complete (SOC \gg 95%) or interrupted (user stop, overcharging protection, etc.) and remove the charging gun from the vehicle charging socket after approx. 3 seconds. Remove the vehicle charging gun from the vehicle charging socket and close the protective cover. Organize the charging cable and hang it in the correct position.

Close the vehicle charging port cover with the ignition key. The charger must be equipped with a separate device that can disconnect the power supply in case of emergency. Disconnect the charger from the vehicle as soon as the charging of the vehicle battery is completed. Failure to do so may render the vehicle inoperable.

Stop the vehicle (check the parking brake). Make sure the ignition key is in the off position or is removed.

On the passenger side of the vehicle, use the ignition key to unlock and open the charging hatch by turning it counterclockwise







Disconnect the charging connector after charging or during charging (for fast charging, follow the charger shutdown procedure) After charging, press the unlock button on the charging connector to confirm that the charging connector is unlocked, then disconnect the connector. To end charging while charging, press the unlock button and the vehicle will end charging after 1-2 seconds. (Do not press too hard). Then, press the button again to straighten the charging connector horizontally.







Unlock (request to end charging) button

The charging port/charging connector may be damaged under the following conditions





Pulling without pressing the unlock button





The charging connector shakes violently from side to side or up and down.

Plug the charging connector of the charger into the charging port of the vehicle, making sure it is fully seated.

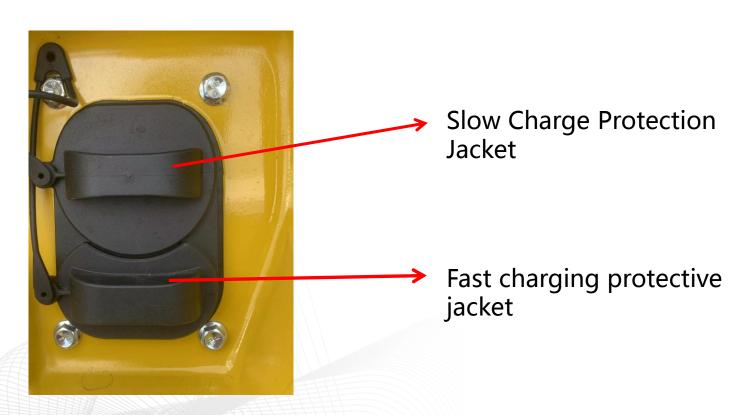
If the charging connector is plugged in correctly and communication is successful, the vehicle's dashboard will light up and charging will begin







When charging is finished please close the charging port external protection.



Precautions:

Improper handling of the power battery may cause serious accidents, resulting in damage to the power battery or injury to personal safety. In order to avoid accidents, the following matters should be noted: the power supply equipment, the vehicle to be charged, the charging cable and the charging plug must not be placed in the environment with rain, snow, water or near the fire source.

When charging, the ventilation of the charging place must be guaranteed, and it must not be carried out in a confined and narrow space. Charging must not take place in rain, snow or fog. Before charging, please check whether the skin and shell of the charging cable are damaged, if so, please contact Giolong aftersales service for repair or replacement.

Please keep your hands dry when connecting the charging plug. Before charging, please make sure the charging power supply has a leakage protection system. If the vehicle has been driven in the rain before charging, please dry the bodywork before charging. Pay special attention to the body charging socket and its vicinity to avoid residual rainwater.

Precautions:

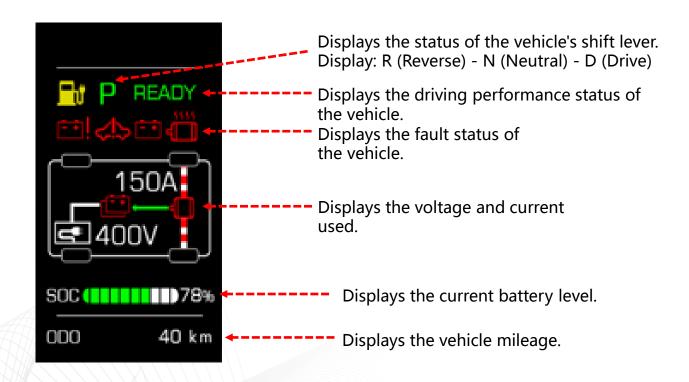
During charging, please keep the charging port dry and clean, and take appropriate precautions if necessary. If there is a sudden change in the weather during the charging process (windy, rainy or snowy), please check whether the charging plug is firm and in a dry state, and suspend charging if necessary.

If there is moisture near the charging port during the charging process, please disconnect the charging plug from the power supply outlet first under safe conditions (do not touch the metal piece of the charging plug with your hands or other parts of your body, so as not to cause safety accidents when the charging system may malfunction), then disconnect the charging port end of the body, use insulated gloves if necessary, and contact the after-sales service of Nine Dragons Automobile as soon as possible for inspection and confirmation. Protective measures should be taken during the charging process to avoid children and other non-related persons from approaching the charging vehicle and charging cables as far as possible.

The ambient temperature when charging the vehicle is recommended to be between 0°C~35°C, avoid charging in low or high temperature environment (it is recommended to do it at noon in winter and in the morning and evening in summer). Try to avoid charging in high temperature environments such as direct sunlight. During the charging process, make sure the charging cable is in a natural elongated state, please do not hang it in the air.

2.2 Battery Charge Indicator Dashboard

The LED instrument panel displays all information such as battery level, operating voltage and current values as well as fault messages.



2.3 Drive

Ignition Key After the key is inserted into the ignition switch, the key can be turned to four different positions. NOTE: It is not permissible to remove the key while the vehicle is in motion; removing the key will lock the steering wheel. The ignition switch is located on the right side of the steering column under the steering wheel. The switch has four positions, LOCK, ACC, ON, and START.

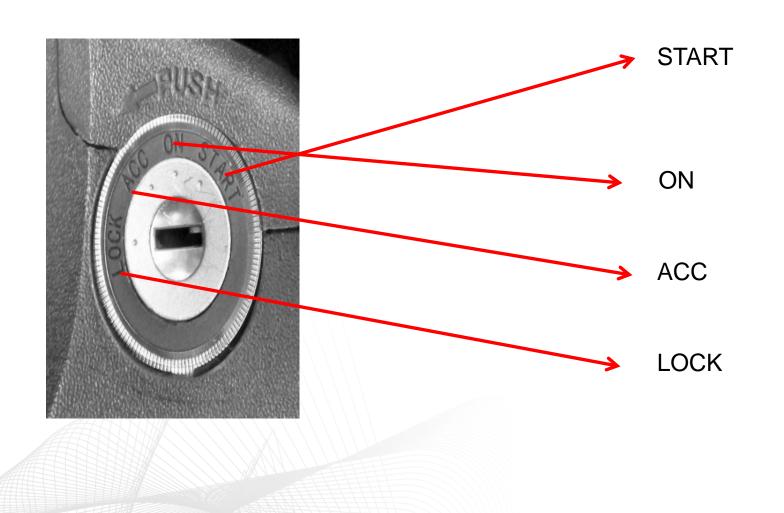
The LOCK key can only be inserted or removed in this position. Parking lock, you should turn the key counterclockwise, from the "LOCK" position to pull out the key and then turn the steering wheel until you hear the sound of the steering wheel locking pin engaged, the steering wheel chanting lock to prevent vehicle theft.

ACC part of the low-voltage components, such as lights, windshield wipers connected to the ON key to turn to this position, the corresponding indicator light on the dashboard will be lit to Self-check. At the same time, the low voltage parts and high voltage parts of the whole vehicle are connected, and all the facilities and components of the vehicle are in a state of readiness.

When the vehicle is running, the key is in this position. when the START key is turned to this position, you can hear a "beep" sound and see the green light "READY" on the instrument panel, the vehicle enters into a state where it can be exercised. Driving the vehicle to start the vehicle: turn the key to "ON" gear, the instrument background lights are all on, the low voltage parts and high voltage parts are connected, and then the key is turned to "START" gear and released, you can hear the "Tick" sound, and the vehicle is ready to be exercised.

Then turn the key to "START" gear and release it, you will hear a "beep" sound, and you can see the "READY" green light on the instrument panel, the vehicle enters into a drivable state.

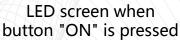
2.3 Drive



- 1) Insert the vehicle key into the fob and turn it on, you will hear a click and see a green "N" on the LED panel. A green "N" appears on the LED panel.
- 2) Turn the key to the "START" position again and a "READY" indicator will appear next to the "N" indicator, indicating that the vehicle is now ready to drive.

 Ready to drive.







LED screen when key "START" is pressed

3) Apply the brake and rotate the knob to the corresponding gear to shift. Forward or reverse.

* Shift lever position

- N : N gear

- D : Drive gear

- R : Reverse gear



4) Release the brake pedal, depress the accelerator pedal, and the vehicle begins to move.

5) Regenerative braking systems

The regenerative braking system is activated when the brake pedal is pressed while the vehicle is in motion or when the accelerator pedal is released while driving.

Regenerative braking system. In this case, you may feel that the vehicle speed is somewhat under control.

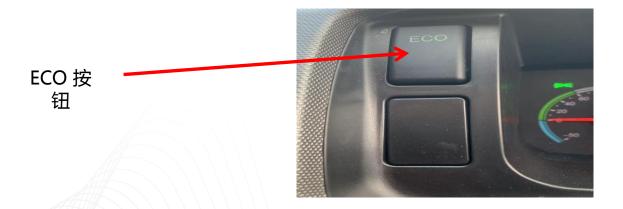
- 6) To park, place the shift lever in neutral and pull the parking brake. To park side-by-side, put in neutral and remove the ignition key.
- 7) The SOC displayed on the instrument panel indicates the actual battery availability (0% to 100%)

However, the actual range of SOC is 30% to 100% over the life of the battery during normal driving.

2.4 ECO mode with emergency stop switch

If you need to limit the speed to get a higher range, just press the ECO switch in the picture below, the economy mode indicator light on the meter will light up, and then it enters the economy mode. The maximum speed is limited to 60km/h. If you need to disengage the economy mode, simply press the economy mode button again, at which point the button will pop up and the economy mode indicator light will go out.

(Driving at high speeds or on steep grades in ECO mode may overload the vehicle's electrical system, so be sure to disengage ECO mode before driving).



When the vehicle is parked, all switches are turned off to avoid draining the battery. If the vehicle will not be driven for an extended period of time, turn off the external 12V auxiliary battery disconnect switch.

2.4 ECO mode with emergency stop switch

The emergency stop switch is located on the left side of the handbrake in the position shown above. When the vehicle encounters an emergency (e.g., electrical leakage, fire, etc.) immediately press this switch to disconnect the high voltage power supply of the entire vehicle.

Never press the emergency stop button during normal driving as well as during charging.



emergency stop switch

CAUTION

- 1) When towing an electric vehicle, the entire vehicle must be lifted. Grounding and dragging the rear wheels as if towing a normal vehicle may damage the electric motor. If the rear wheels are grounded for towing like a normal vehicle, the vehicle's drive motor may be severely damaged.
- 2) The vehicle must not be driven under water or, if it must be driven under water, it must be driven at a speed of 10 km/hour on a road surface where the depth of water does not exceed 30 cm. The vehicle should be driven on the road at a speed of 10 km/h for a maximum of approximately 15 minutes.
- 3) OTHER NOTES You can view faults in the instrumentation by accessing the fault information bar by long pressing the zero return button, rotating clockwise and counterclockwise to adjust the options, and short pressing OK.

If a fault message appears on the motor, battery, high power supply or circuit breaker, immediately turn off the ignition, press the emergency stop button and disconnect the battery. For your safety, do not come into direct contact with electrical system components.

3.1 Instrument Fault Viewing

The following faults can be accessed in the fault information column of the instrument display: the fault information column can be accessed by long-pressing the zero return button, knob to the information you want to view and press, after which the type of fault appears.



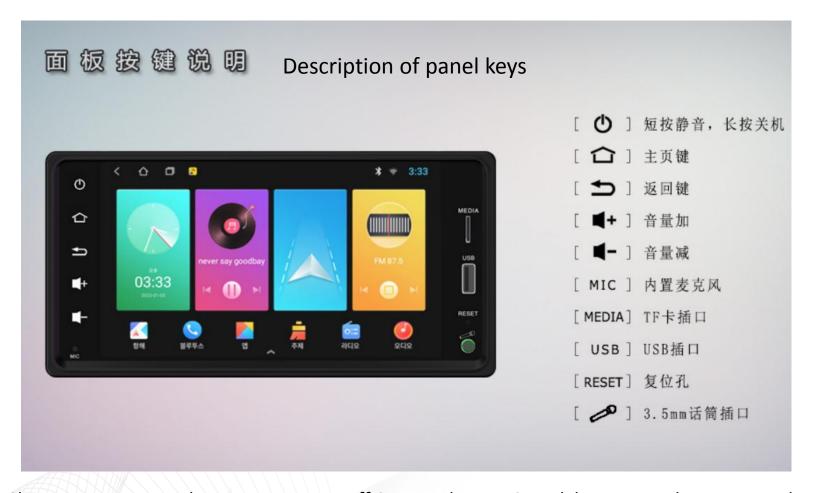


3.1Instrument Fault Viewing

- 1, Vehicle fault, can lock the cause of the fault.
- 2, Battery management, you can view the battery single maximum voltage, battery single minimum voltage, battery single maximum temperature, battery single minimum temperature.
- 3, Battery single, you can view the voltage information of all the single batteries of the whole vehicle.
- 4, Battery and motor faults, you can view some of the faults of the battery.
- 5 Motor faults, you can view the information of the motor faults.
- 6, Motor faults, you can view the information of the motor faults.
- 7, Motor faults, you can view the information of the motor faults.

下	页	退出	退出	下页	退出	下页 退出	下页 上	页 退出
4	空制器故障:	正常	最高单体电压;	电池单体电压	(V)	电池均衡故障: 正常	电机IGBT保护	: 正常
į	真空度故障:	正常	03.34V 4 # 007 -	1# 3.33	2# 3.32	模块温差故障: 正常	电机驱动欠压	保护: 正常
	IC状态:	正常	最低单体电压:	3# 3, 33	4# 3, 32	总电压超限故障: 正常	电机上下桥直流	通保护:正常
Ė	机系统故障	正常	03, 287 4 Ã 039 5	5# 3, 33	6# 3, 32	总电流超限故障: 正常	电机IGBT过温	保护: 正常
¥	池系统故障	: 正常		7# 3.33	8# 3, 32	增均电压超限故障: 正常	电机过温保护:	正常
\$	基车控制器被	[章: 正常		9# 3.33	10# 3.33	单体过压故障: 正常	电机母线过流	保护: 正常
	(泵故障:	正常		11# 3. 33	12# 3.33	单体欠压故障: 正常 电池SOC低故障: 正常	电机相电流过	
	《扇故障:	正常		13# 3.33 15# 3.33	14# 3, 33 16# 3, 33	下位机无响应故障: 正常	电机控制欠压	
	至系故障:	正常		17# 3.33	18# 3. 33	电池故障等级: 正常	电机控制反接	
	电池故障:	正常		19# 3.33	20# 3.33	绝缘故障等级: 正常	电机控制过压	

4.1 MP5 instructions for use



- 1,Short press to mute, long press to turn off 2,Home button 3,Back button 4,Volume up 5,Volume Down
- 6, Built-in microphone 7,TF card socket 8, USB Socket 9, Reset Hole 10, 3.5mm microphone jack

4.1 MP5 instructions for use



WIFI Setting: You can set it by clicking WIFI function in the drop-down menu or through the application interface - Setting - Network and Internet → WLAN. Input Method Setting: App interface a setting a setting a system a language and input method a keyboard and input method to set, the default is Korean G0 input method. Time Setting: The device defaults to auto-calibrate the current time but requires your GPS to be active, or you can manually set the date, time, time zone and format.

5.1 Precautions to be taken in the event of a vehicle accident:

- 1, when the vehicle collision, rollover and other accidents, the vehicle personnel must immediately leave the vehicle, conditions permit, please press the emergency stop button, and disconnect the high-voltage maintenance switch, and try not to touch the body metal.
- 2, if the personnel are trapped and can not disconnect the high-voltage maintenance switch, please try to confirm in the professional staff, in the vehicle cutting, cutting the process, pay attention to do not touch high-voltage cables (All high-voltage cables are colored orange)
- 3, After the accident, you must notify the professional technicians of JD Auto franchised aftersales service store at the first time to check the vehicle, otherwise, no one is allowed to approach, touch or move the vehicle.
- 4, the maintenance of the vehicle needs to be carried out by JD Auto franchised after-sales service store, and no disassembly is allowed.
- 5, it is strictly prohibited to disassemble any high-voltage wiring harness and high-voltage parts privately, and the high-voltage wiring harness table has an orange skin.
- 6, it is prohibited to disassemble any high-voltage wiring harness and high-voltage parts privately under any circumstance. Under any circumstances, it is prohibited for any personnel to carry out maintenance work on the vehicle when the vehicle is not completely de-energized.
- 7, When the vehicle is on fire due to an accidental circumstance, please press the emergency stop switch and disconnect the high-voltage maintenance switch of the battery pack when the condition permits.
- 8, When the vehicle has been flooded, it is necessary to wear insulated gloves, insulated shoes and insulated clothing before touching the submerged vehicle. When the vehicle has been flooded, the vehicle must be insulated with a high voltage switch and the ignition switch must be switched off. If possible, turn off the ignition switch, press the emergency stop button and disconnect the high voltage service switch. Vehicles submerged in water need to be left in the water for a certain period of time before they can be salvaged.

6.1 Car wash safety precautions:

- 1, Before washing the vehicle, you must close the window glass, turn off the ignition switch, and press the emergency stop button.
- 2, Do not use a high-pressure water gun to rinse the front grille, the undercarriage of the vehicle, and the charging port cover.
- 3, After washing the vehicle, you must clean the surface of the vehicle without leaving any water stains.