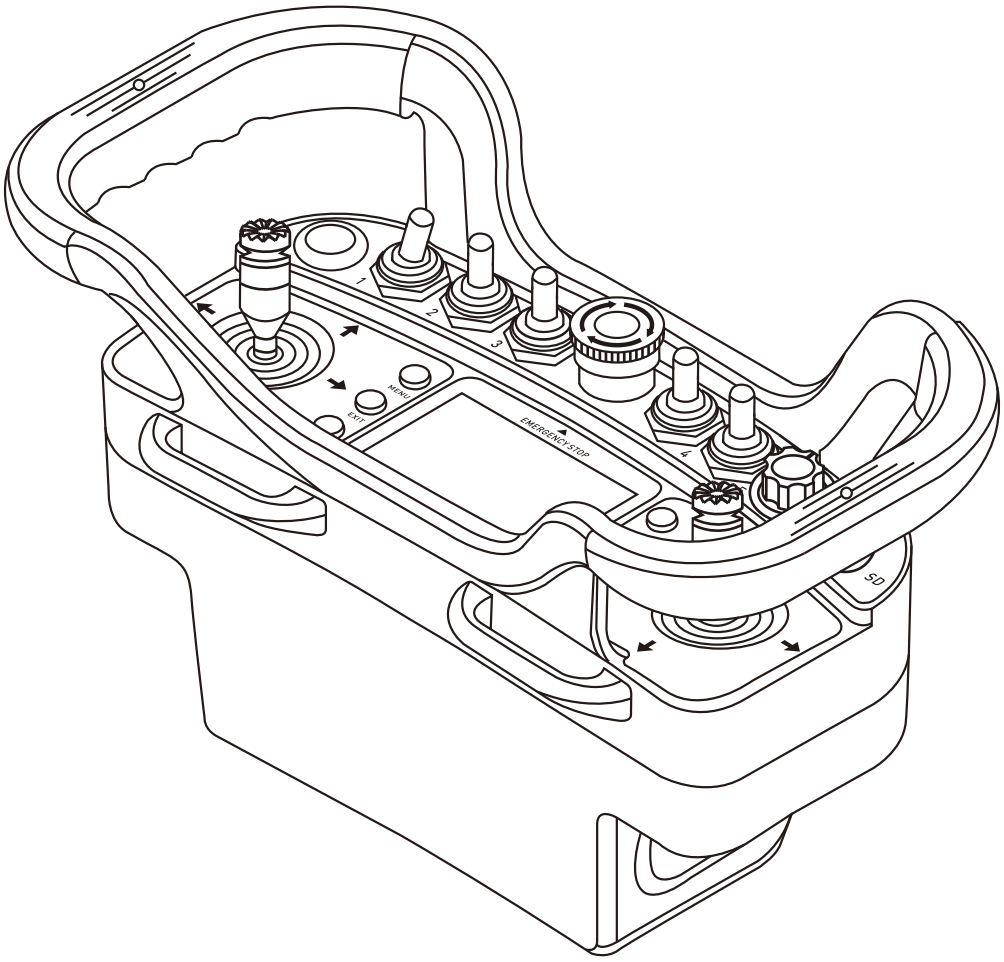
Microzone®
DIGITAL PROPORTIONAL R/C SYSTEM

2.4GHz
FHSS

M450

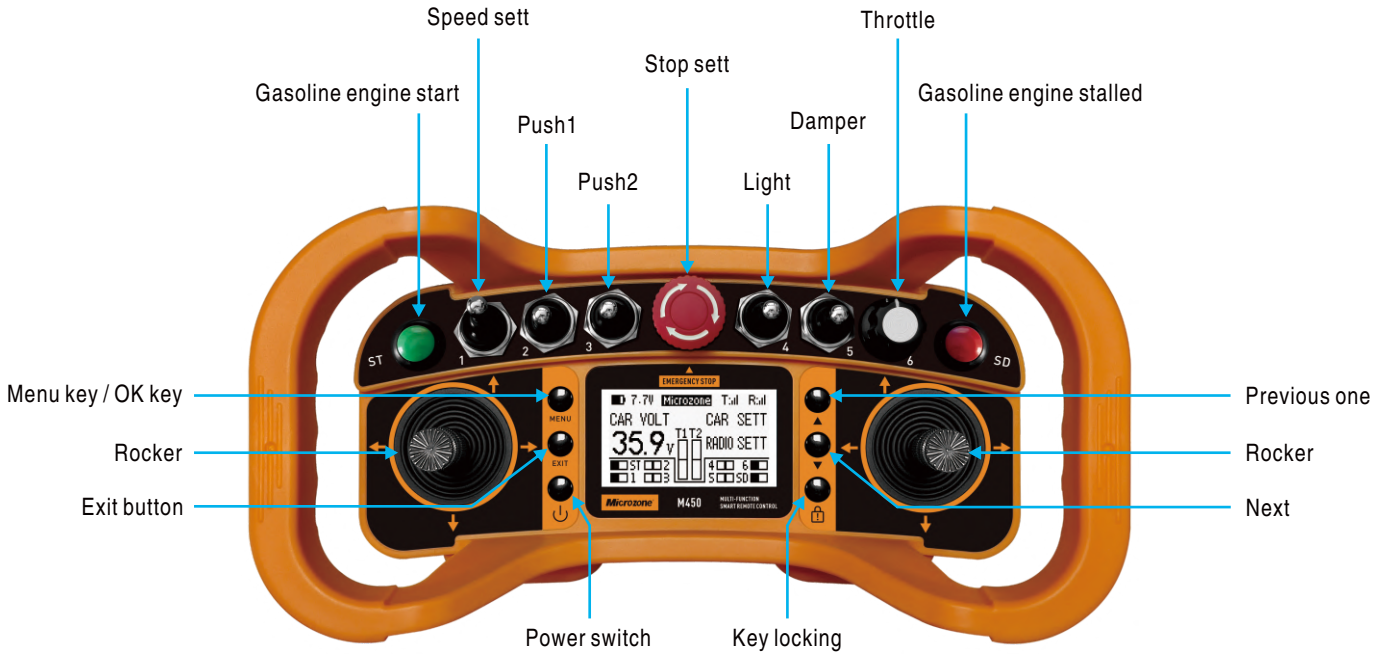
VERSION NUMBER:V1.0.5



PRODUCT MANUAL

Please read the manual before use

REMOTE CONTROL FUNCTION ANALYSIS





REMOTE CONTROL SPECIFICATIONS PARAMETERS

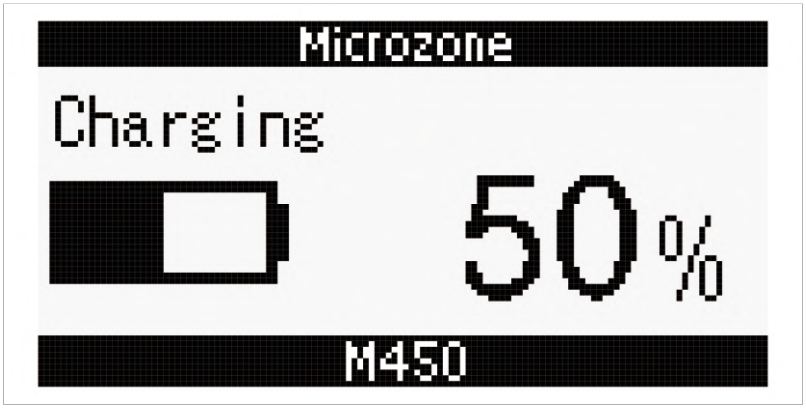
Model	M450
Color	Orange-black, greyish-black
Display color	Black and white 128*64 px
Language	Chinese (Simplified), English, Japenese
Applications	Remote control lawn mowers, Remote control agricultural machinery, Transport tank vehicles, Photovoltaic cleaning robots
Channel quantity	10
Channel resolution	PCM2048
Radio band	2405MHz-2475MHz
Transmitting power	≤100mw
Maximum control distance	300m
Frequency hopping technology	2.4G multi-point frequency hopping technology (supports multiple remote controls being powered on at the same time)
Supply voltage	5V
Low voltage alarm	Yes
Charging port	Type-c
Size(length, width, height)	261*131*155mm
Weight	1035g

DETAILED DESCRIPTION

CHARGING:

Use the Type-c cable + charger to connect the remote control for charging, as shown below, the.



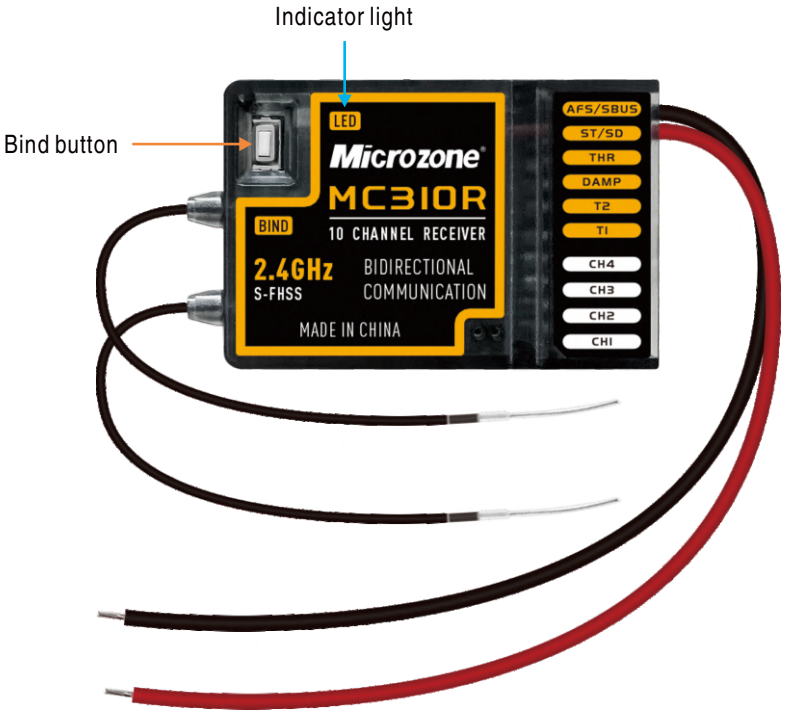


FIRST TIME USE:

When unpacking using for the first time, please bind the remote control with the receiver/receiving converter, once bind is successful, success of the remote control and receiver/receiving converter for a short distance distance test, hand holding the remote control from the receiver/receiving converter 10 to 15 metres away, and then toggle the remote control joystick, to observe whether the device is controlled by the remote control, if controlled by a remote control, remote control and the receiver/receiving converter is working properly.

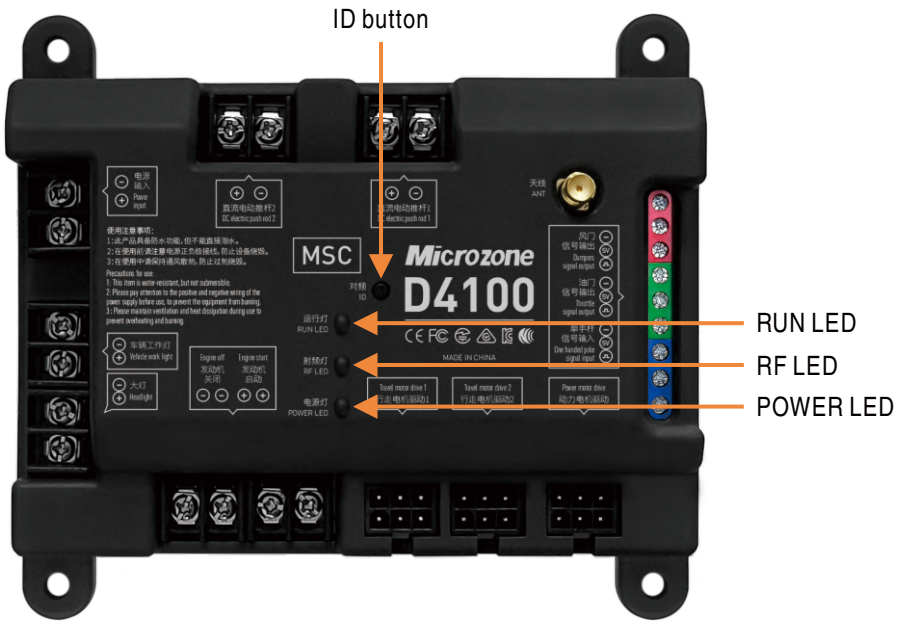
REMOTE CONTROL AND STANDARD RECEIVER BIND:

Remote control is power off, after the receiver is powered up, the <Orange indicator light> always on, press the <Bind button> on the receiver, two <Indicator light> flash alternately, indicate that the receiver is in the bind mode, then power on the remote control, the receiver <Green indicator light> always on, indicate that the bind has been successful.



REMOTE CONTROL AND RECEIVING CONVERTER BIND:

Remote control is power off, after the receiving converter is powered up, the <RF LED> and <POWER LED> always on, press the <ID button> on the receiving converter, the <RUN LED> and the <RF LED> flash alternately, the <POWER LED> always on, indicate that the receiving converter is in the bind mode, then power on the remote control, the <RUN LED> on the receiving converter blinks fast, the <RF LED> blinks slowly, the <POWER LED> always on, indicate that the bind has been successful.



SAFE SHUTDOWN RECOMMENDATION:

To ensure the safety of your equipment and yourself, wait until the equipment motor has stopped running, then turn off the power to the equipment, and finally turn off the remote control.

LOW VOLTAGE ALARM:

When the remote control voltage is below 6.8V, it will emit a sound, and the battery icon will flash, indicating low battery, please charge it as soon as possible.

ROCKER CALIBRATION:

In the power-on state, and while in the main screen, press the <EXIT> key and <▼> key simultaneously for 2 seconds, as follows, the,



When the remote control makes a sound and enters the joystick calibration state, it will display "ROCKER Calibration" as shown in Figure 1. First, adjust the two joysticks of the remote control up, down, left, and right to the maximum rotate the range once, as shown in Figure 2,

Figure 1

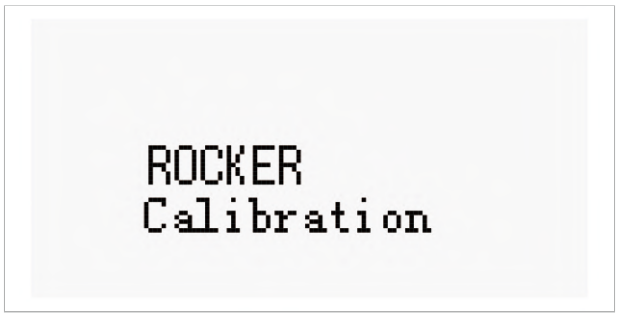
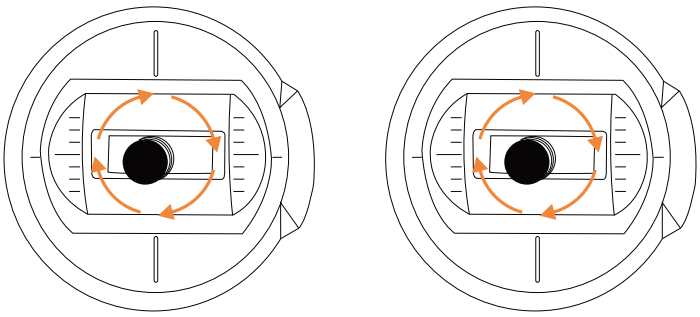


Figure 2



Then toggle the joysticks back to the center position, as shown in Figure 3. Finally, toggle the fixed-speed switch, as shown in Figure 4. The sound stops, and calibration is complete.

Figure 3

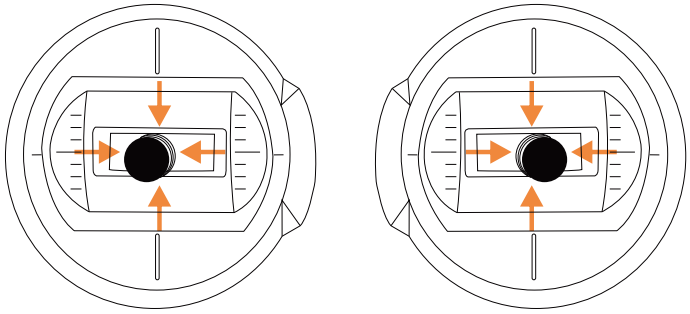


Figure 4

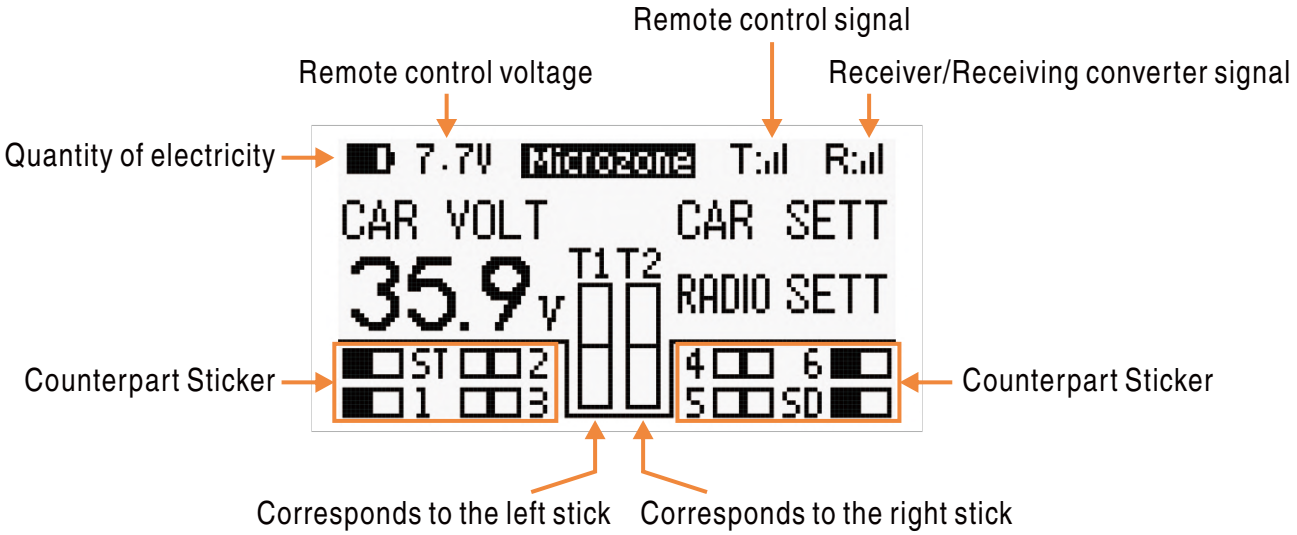


OPERATION SCREEN DESCRIPTION

BOOT SCREEN:



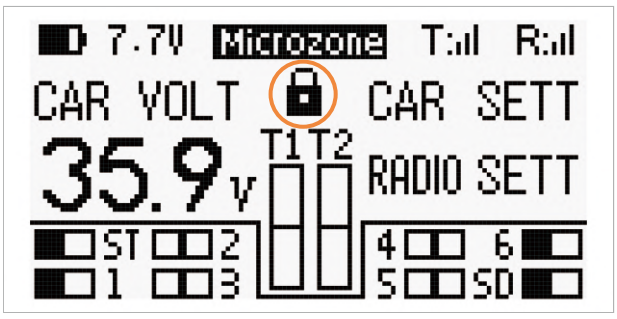
MAIN SCREEN:



KEY LOCKING :

When there is no menu selection in the main screen, long press <Key locking> key for 2 seconds to lock the key, when the key is locked, press <MENU> key, <EXIT> key, <▲> key, <▼> key are ineffective, and the lock symbol will appear on the screen, then long press <Key locking> key for 2 seconds to unlock the key.

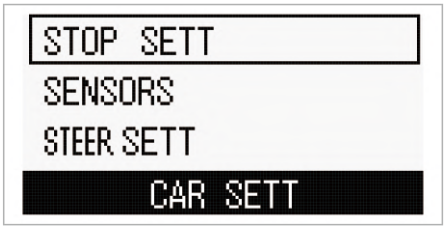




CAR SETT:

When there is no menu selection in the main screen, press <MENU> key to select “CAR SETT”, then press <MENU> key to enter the vehicle setting, press <▲> key or <▼> key to select the corresponding option, then press <MENU> to enter.







LIGHT SETT:

Press <▲> key or <▼> key to select the corresponding option, press <MENU> key, then press <▲> key or <▼> key to toggle between “OPEN” and “CLOSE”, then press <MENU> key to confirm;

LIGHT OPEN: Toggle the headlight switch forward, the headlight turns on, then toggle the headlight switch forward, the headlight turns off; Toggle the headlight switch backward, the rear headlight turns on, then toggle the headlight switch backward, the rear headlight turns off; When the front headlight turns on, toggle the headlight switch backward, the front and rear headlights turn on at the same time; When the rear headlight turns on, toggle the headlight switch forward, the front and rear headlights turn on at the same time as well;

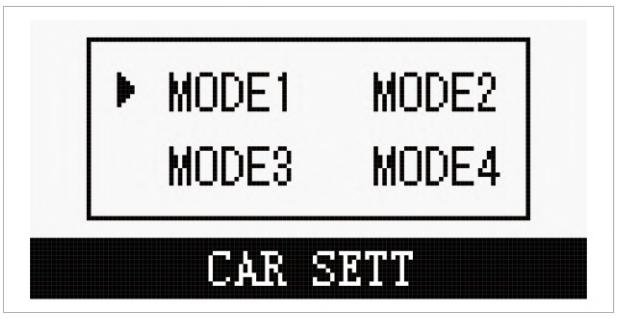
LIGHT CLOSE: toggle headlight switch is invalid;

TURN LAMP OPEN: when the vehicle turns, the turn signal light flashes; turn on the left and right turn signal lights according to the direction of the left and right toggle of the rocker, and then select the turn signal light mode (the selection of the mode should be based on the structure of the vehicle);

TURN LAMP CLOSE: turn signal is invalid when the rocker is toggled to the left or right.



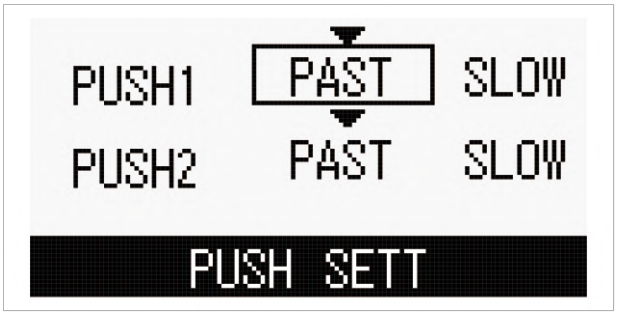




PUSH SETT:

Controls putter expansion and contraction;
PUSH <PAST>: Fast speed; PUSH <SLOW>: Slow speed;
Press <▲> key or <▼> key to select the corresponding option, then press <MENU> key to confirm.



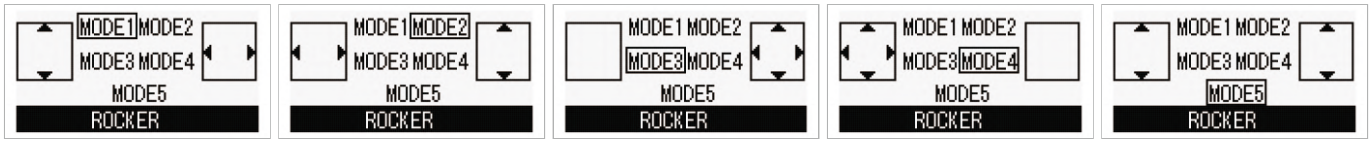


SPEED SETT:

OPEN: Toggle the fixed-speed switch backward to turn on the fixed-speed, and then toggle the fixed-speed switch backward to turn off the fixed-speed; when the fixed-speed is on, each time you toggle the rocker in the forward and backward direction (depending on the rocker setting to determine which rocker controls the forward and backward, as shown in the figure below), each time, it will increase or decrease the speed by one level and emit an audible alert; after the forward/backward joystick is released, the speed will not change either;
CLOSE: Toggling the fixed speed switch is not effective;
Press <▲> key or <▼> key to select the corresponding option, then press <MENU> key to confirm.







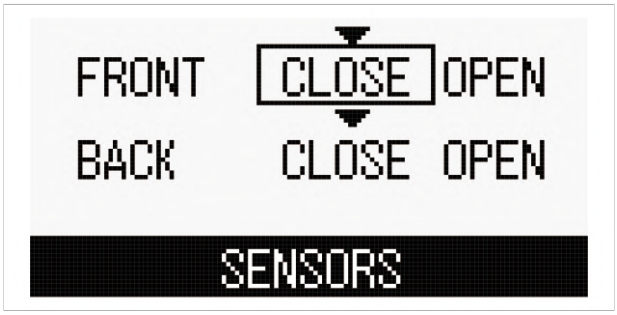
STOP SETT:
BRAKE OPEN: Press the emergency switch, the emergency brake is on, when the emergency brake is on, the remote control and the device will pause the work, the screen will be flashing and ringing, rotate the emergency switch to the right to turn off the emergency brake;
BRAKE CLOSE: Pressing the emergency switch is invalid;
THR LINK OPEN: When the emergency brake is “OPEN” on the screen, press the emergency switch and the throttle amount is minimized;
THR LINK CLOSE: Press the emergency switch, the throttle volume remains unchanged;
Press <▲> key or <▼> key to select the corresponding option, then press <MENU> key to confirm.







SENSORS:
FRONT OPEN: Pause when the front of the unit hits an object;
FRONT CLOSE: Front anti-collision sensing is not effective;
BACK OPEN: Pauses when the back end of the unit hits an object;
BACK CLOSE: Rear anti-collision sensing is not effective;
Press <▲> key or <▼> key to select the corresponding option, then press <MENU> key to confirm.



STEER SETT:

The left motor controls forward or reverse rotation of the left wheel and the right motor controls forward or reverse rotation of the right wheel;

Press <▲> key or <▼> key to select the corresponding option, then press <MENU> key to confirm.



MOTOR CAL:

Optimize control parameters, improve system efficiency and stability, adapt to different motors, simplify commissioning, and assist in fault diagnosis;

Note: Before motor learning, please lift the wheels off the ground to prevent accidental injury;

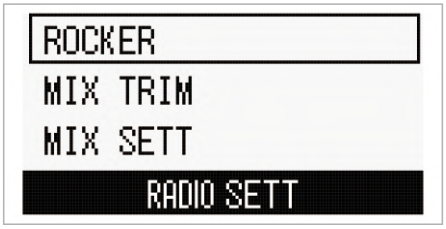
Press < > key or < > key to select the corresponding option, then press <MENU> key to confirm.





RADIO SETT:

When there is no menu selection in the main screen, press <MENU> key, then press <▲> key or <▼> key to select “RADIO SETT”, and then press <MENU> key to enter the remote control setting, you can press <▲> key or <▼> key to select the corresponding option, and then press <MENU> key to enter.







ROCKER:

MODE 1: Left stick forward and backward controls forward and backward, right stick left and right controls left and right turns;

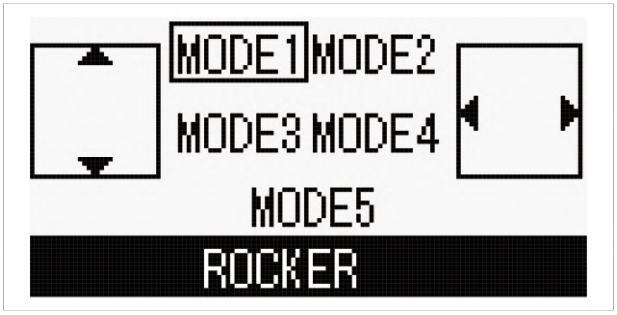
MODE 2: Left joystick left and right control left turn and right turn, right joystick front and back control forward and backward;

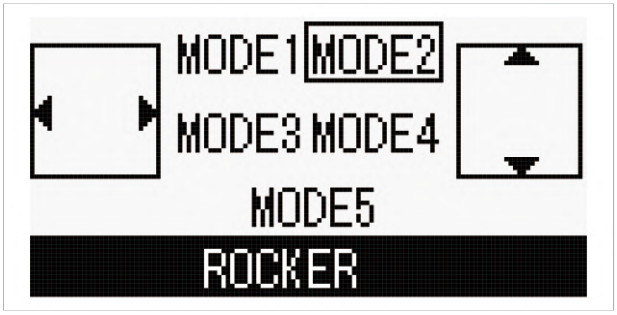
MODE 3: Left joystick is invalid, right joystick controls forward, backward, left turn and right turn;

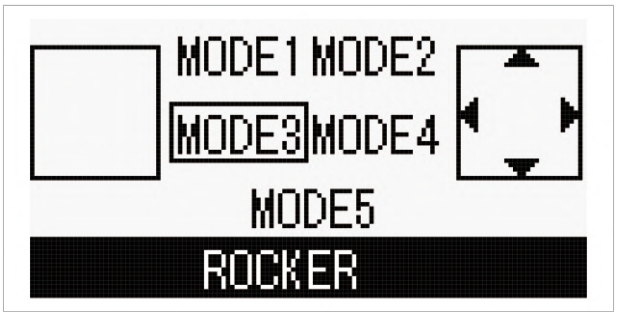
MODE 4: Left joystick controls forward, backward, left turn and right turn, right joystick is invalid;

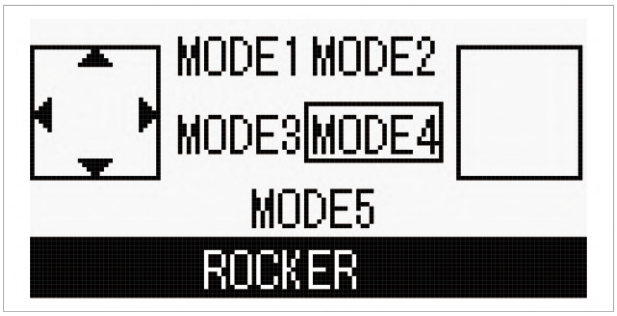
MODE 5: Left joystick controls the left wheel forward and backward, right joystick controls the right wheel forward and backward;

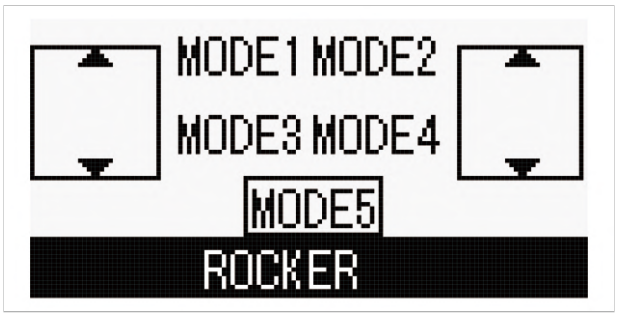
Press <▲> key or <▼> key to select the corresponding option, then press <MENU> key to confirm.











MIX TRIM:

When the speed of the left and right motors is different, use to coordinate the speed of the left and right motors, so that the speed of the left and right motors remains consistent;

Press <▲> key or <▼> key to select the corresponding option, then press <MENU> key, press <▲> key or <▼> key again to adjust the value, then press <MENU> key to confirm.



MIX SETT:

OPEN:1/2 channel mixing control; CLOSE: No mixing control;

Press <▲> key or <▼> key to select the corresponding option, then press <MENU> key to confirm.



RESPONSIVITY:

Adjust the reaction speed of the joystick, the larger the value, the faster the reaction speed, the smaller the value, the slower the reaction speed;

Press <MENU> key, then press <▲> key or <▼> key to adjust the value, then press <MENU> key to confirm.



LIGHT SETT:

OPEN: The screen normal display;
AUTO: When the key is pressed, the screen normal display, the key is not pressed for 11 seconds, the screen turns on the backlit display;
Press <▲> key or <▼> key to select the corresponding option, then press <MENU> key to confirm.



Normal display



Backlit display

DAMPER:

DAMPER SW: When “DAMPER SW” is selected, the damper function of the receiver/receiving converter works;
GEAR: Toggle the damper switch front and rear to modify the speed gear;
Press <▲> key or <▼> key to select the corresponding option, then press <MENU> key to confirm.





LANGUAGE:

Supports Chinese (Simplified), English, Japanese;
Press <▲> key or <▼> key to select the corresponding option, then press <MENU> key to confirm.

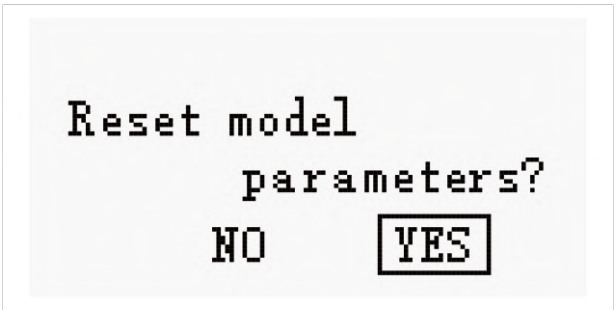


Model Reset:

Reset the parameters and settings of the current model;

Press <EXIT> and <▲> at the same time for 2 seconds in the main screen, press <▲> or <▼> to select “YES”, then press <MENU> to confirm.





STANDARD CONFIGURATION LIST

Packaging box * 1, remote control * 1, receiver * 1, lanyard*1.

MATTERS NEEDING ATTENTION

Before starting to use the remote control, carefully read the following precautions!

1. This product is not a toy and is not suitable for children under the age of 12, adults should keep this product out of reach of children and keep it out of reach of children be careful when operating this product in the field.

2. Do not use at night, in thunderstorms, snow, low visibility or other adverse weather conditions.

3. Do not use the remote control in snowy or watery places, if rainwater enters the remote control, the circuit will be short-circuited and cannot be used.

4. Signal interference may cause the remote control to go out of control, places where interference affects more than others are as follows:

A. Near the mobile phone signal transmission tower

B. Near high-voltage power lines and communication broadcasting antennas

C. Near the military radar launch tower

D. Commercial roads with complex wireless communications and human activity

E. Navigation domain

5. Please do not use this product after feeling tired, uncomfortable, drunk, or excited about drugs, otherwise it will cause serious injury to oneself or others the value of is.

6. 2.4G radio band is completely different from the low-frequency radio band used previously, make sure that the product is operated within your line of sight when using it, as large obstacles can block the radio signal and cause loss of control of the remote control and the device.

7. Make sure that the remote control and equipment are installed correctly, and that all servos operate in the same direction as the controls before use, otherwise serious damage to the equipment may occur.

8. If the remote control distance continues to be long, loss of control may occur, so please shorten the control distance appropriately; low voltage of the remote control, the remote control will not be able to send out a signal, which may result in loss of control, so when the remote control low voltage alarm, please recharge the batteries as soon as possible.

9. After keeping the remote control off, be sure to turn off the power to the receiver/receiving converter and then turn off the remote control, if you turn off the power to the remote control first and the receiver/receiving converter is still operating, the equipment may go out of control or the engine may continue to operate, resulting in a serious accident.

10. Improper use of the remote control may cause serious injury or even death to the operator or others, to ensure the safety of you, others, and equipment, please be careful read this guide and follow the instructions.

11. The remote control and receiver/receiving converter required for our company's 2.4G wireless transmission system are used in pairs, while other company products cannot be connected to our company's products.