

WECAN-RADIO

——User Manual

User Manual

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1, Introduction

WECAN series wireless remote control system, which is easily used, can be alone applied in different working condition and industry equipment system, such as automatic controlling. It can ensure safety requirement of modern industry. Through many years professional knowledge and technical experience on Industry communication field, we keep on develop and make technology first, try to be a leader of wireless remote control field.

The design of WECAN series wireless remote control system, is based on the maximal safeguard for the user, and can pass kinds of interfere test of complex condition.

The major features of WECAN600 series are as follow:

- * The system uses advanced microprocessors with highly evolved software that has redundant error checking and correcting capabilities to ensure 100% error-free transmission, decoding, and control of all output relays.
- * The typical character of WECAN series wireless remote control system includes system parts self-diagnosing function. the transmitter has communication check function and know the situation between transmitter and receiver (for the detailed, see the manual)
- * WECAN600 series wireless remote control system, no matter transmitter or Receiver can be matched according to special operation. (for the detailed, see the manual)
- * With more than 250 noninterference and different RF channel, it can guarantee many machines be operated at the same time in the same area.
- * The Degrees of protection of receiver and transmitter can be above IP65 with good configuration. The transmitter can be used outside completely against the water come in, as the degrees of protection of water-proof and dust-proof can be reached IP-66. The receiver is ensure to be used in bad environment as IP65.
- * The life of batteries can be used more with lower transmit power. Use 2 pcs „AA“ batteries in the transmitter to make sure at least transmit 100 hours in the smallest distance.

2. Safety Instruction

WECAN600 series wireless remote control system are relatively simple to use, however, please read manual before installation, and operate with correct procedure. It can bring good effect with correct installation and use WECAN600 series wireless remote control system.

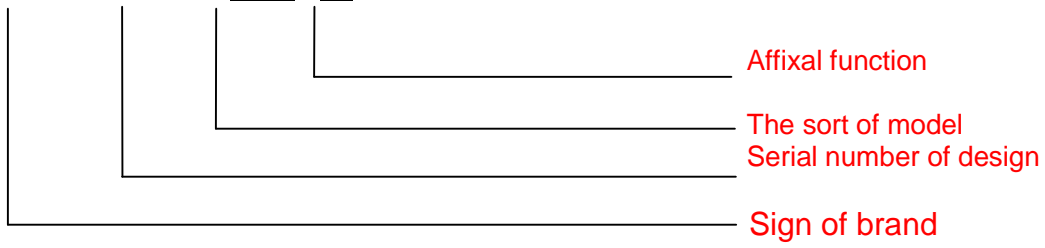
The following points should be followed when using:

1. Check the transmitter casing and pushbuttons daily. Should any damage be found, the unit should be removed from service.
2. The transmitter voltage should be checked. If the voltage is low (red status light blinking or completely off), the batteries should be replaced. If the transmitter is not used for a long time, please take out the batteries and keep it safe.
3. The red emergency stop button should be checked daily to ensure it is in proper working. If any question, the receiver should be prohibited to use.
4. Turn the power switch "off" after each use to avoid the mis-operation.
5. Do not use the same RF channel and ID code as any other system in use at the same facility or test within distance.
6. Never operate a crane or equipment with two transmitters at the same time with the same RF channel and ID code.

3. Model definition and function introduction

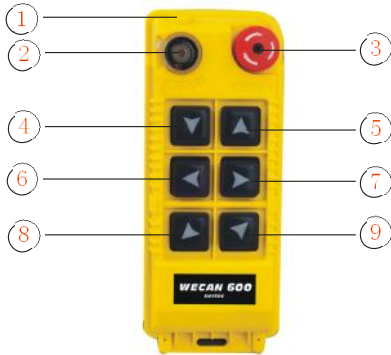
3.1 WECAN series model definition

WECAN-6 ** *



3.2 Transmitter function introduction

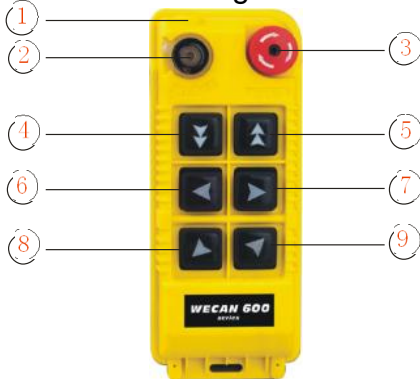
WECAN600S: 6 one-speed buttons,



Shell Power switch EMS button Down Up West East South ⑨North

WECAN610S: 2 two-speed buttons + 4 one-speed buttons

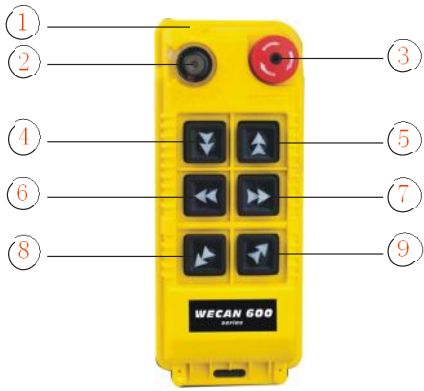
Attached drawing and instruction



Shell Power switch EMS button Down Up West East South ⑨North

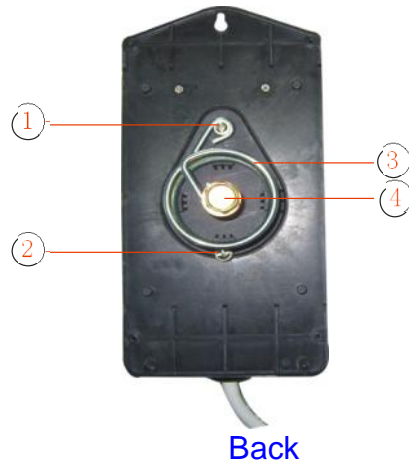
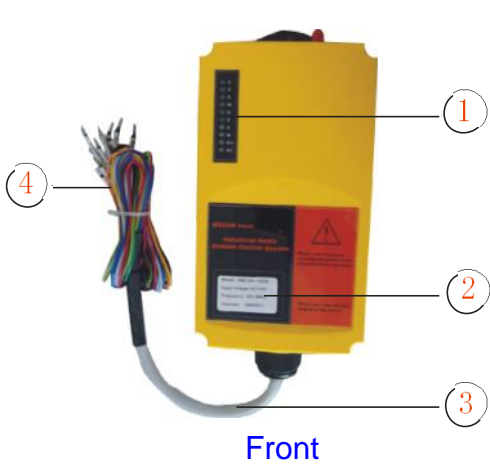
WECAN620S: 5 two-speed buttons

Attached drawing and instruction



Shell Power switch EMS button Down Up West East South ⑨North

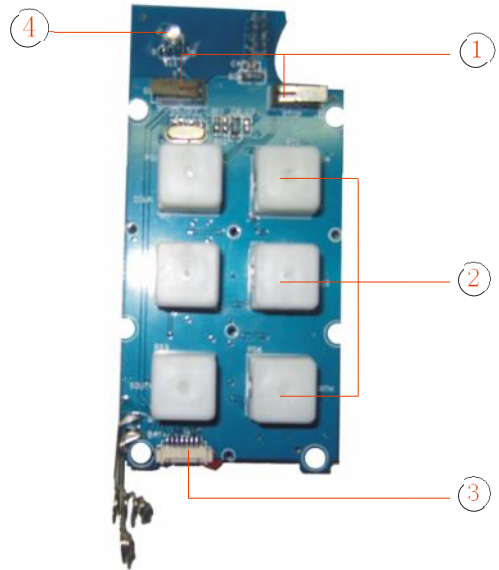
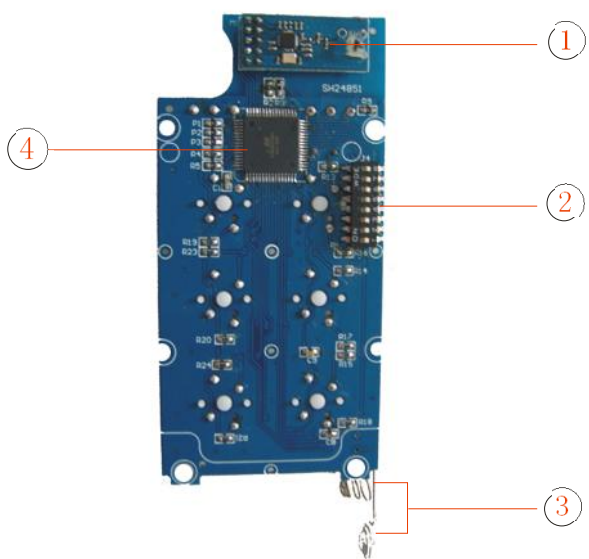
3.3 Receiver function introduction



1、LED Indicator light 2、Label 3、Cable 4、Fastness screws1
 5、Fastness screws2 6、Anti-vibration spring 7、Installation screw

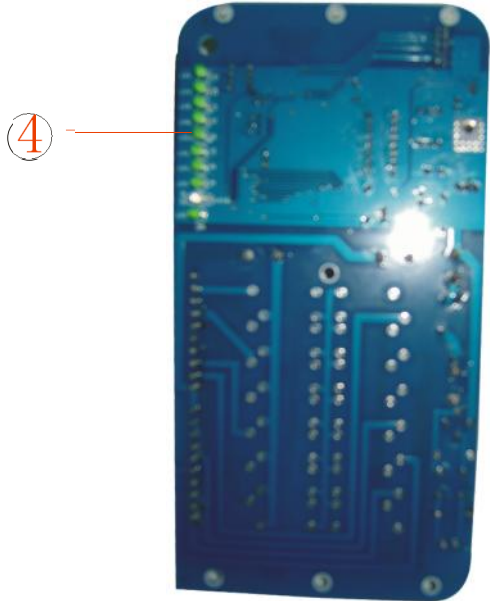
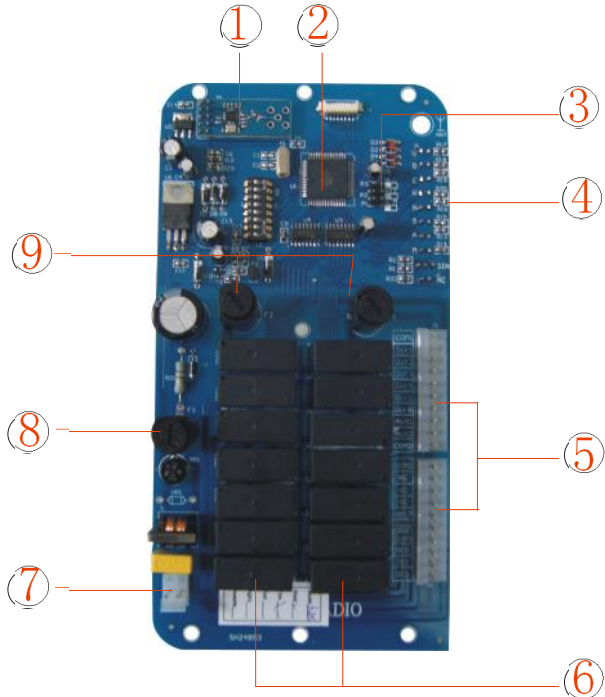
4. Internal structure

4.1 Transmitter internal structure



1、Transmitting RF board 2、IP code dip-switch 3、Battery contact 4、Micro-cpu 5、 Power buton 6、 EMS button 7、 Double speed 8、 Indicator light

4.2 Receiver internal structure

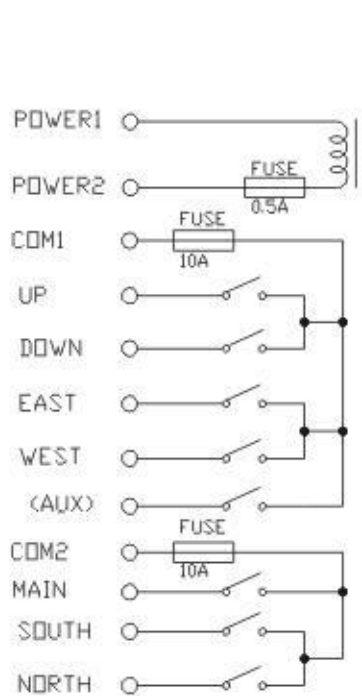


1、 Receiving RF board 2、 Micro-cpu 3、 Position for function 4、 Indicator light 5、 Output cable connection 6、 Relay 7、 AC power input socket 8、 1A fuse 9、 5A fuse

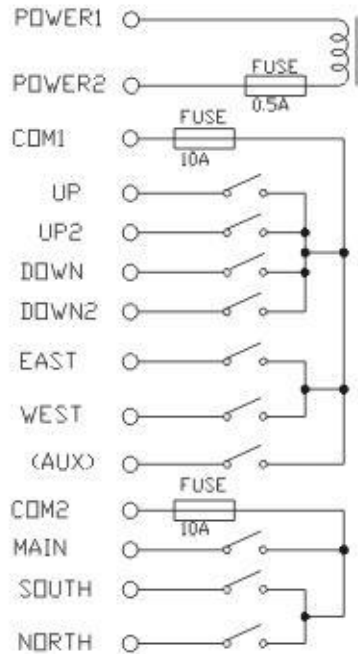
5. Exterior connection

5.1 600S, 5.2 610S, 5.3 620S,

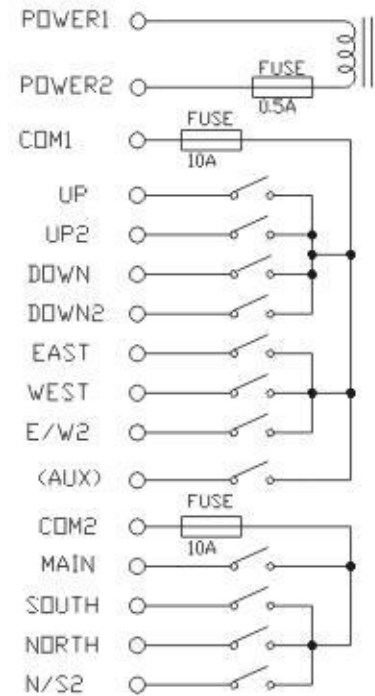
wiring diagram



WECAN 600S



WECAN 610S



WECAN 620S

Note: please install the yellow-green wire into the equipment shell rightly.

7. System configuration

7.1 how to set the jumper.

The receiver has 3 function positions(details on the picture), you can set your system functions to meet your different requirements, the function settings is below:

1. Special function setting

Join the terminal to the receiver port P3, the relay action for button B is lock form. On the contrary, the relay action will be action by pressing.

2. Automatic shutoff setting

Join the terminal to the receiver port P2, the main relay will be automatic broken after 600s by

the receiver, if no signal for the open, the receiver won't answer any command. On the contrary, the automatic function of the receiver will be responsive.

3. Masterslave setting

Join the terminal to the receiver port P1, then it is master receiver, the transmitter will control it directly. On the contrary, the receiver is slave receiver, you will switch to this receiver by "A" button.

You can change the port P1 to make one is master or slave. This function is only for 600A, 610A and 620A.

Note: please shut off the receiver power first and change the port, then it is valid to open the receiver.

7. 2 Receiver RF channel setting

Both the transmitter and the receiver have a ID code dip -switch, if this is changed, the RF channel of the transmitter and the receiver will be changed.

Note:

1. Finishing ID code dip-switch setting, then cut off the equipment, it will be effective after electricity
2. WECAN series supply more than 256 channels to you, please choose the allowed channel to operate. We promise most channels is availability and reliability, but not every channel, if you find wrong channel, please trip off to use.

7.3 How to set ID codes

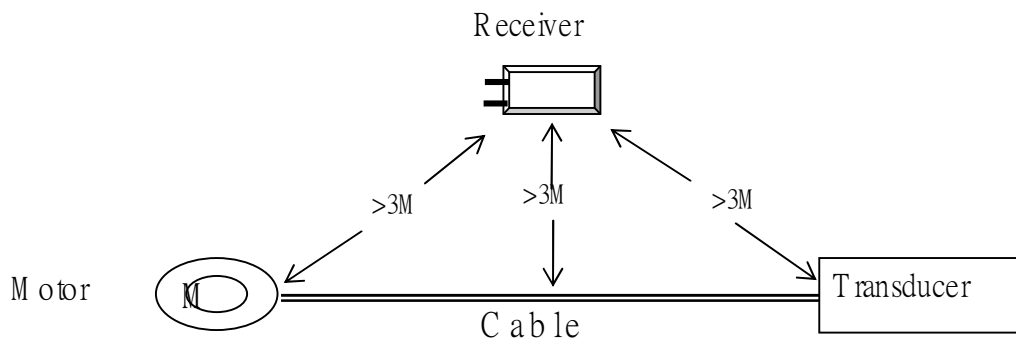
WECAN600 series have been set ID code, each system has exclusive code. We can give the right to modify ID code for special customer, those customer can obey the operational process to match the transmitter and the receiver at random.

7.4 Frequency Channel Table

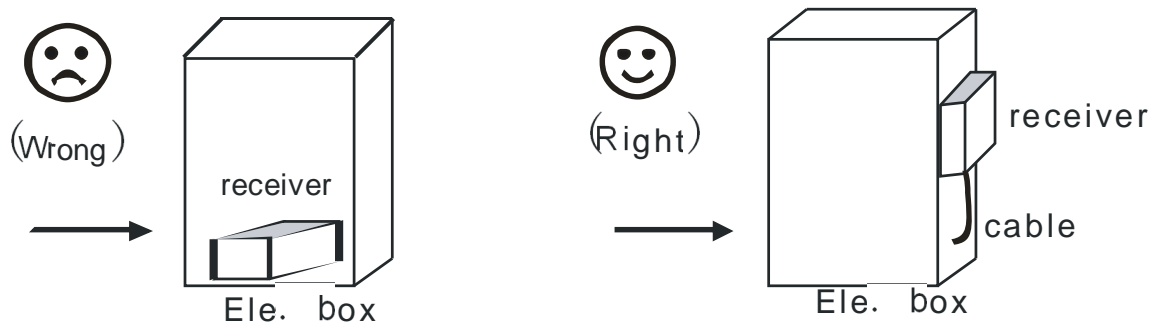
8 Receiver installation

8.1 Installation attention

- 1, Check and confirm the control traveling crane is normal before installation.
- 2, Turn off the power.
- 3, For the receiver position, wherever the crane goes, it should not impact any building extruded.
- 4, The receiver should be fixed tightly, otherwise it maybe loose and dropped.
- 5, It should learn about the crane power and emitter's function settings (include relay output) to avoid incorrect connection.
- 6, The receiver position should be away from motor, transducer and cable at least 3 meters, (see following picture) to avoid unnecessary interference.

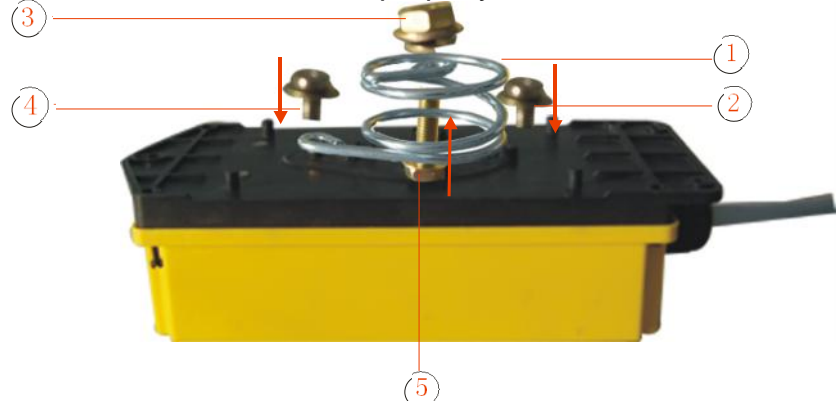


7, The receiver should be at the top of the electricity box and then take the output cable into the electricity box, don't fix the receiver inside the box. If must be inside the box, then please install the Antenna outside the box.



8.2、 Receiver fixation

Please install the receiver properly to avoid the shake



Installation of the shockproof spring

8. 3 System test

Notice: please sure that all wiring is right and under good protection, all screws are t ight, fix the cable between the reciever and the crane to avoid the cable be short by the crane shake. Then open the crane power supply.

1, Test process

First loosen the EMS button,method: rotate the button 1/4 circle clockwise, it will bounce automatic. Then rotate the left rotary switch to "ON" position, the center indicator will be red, later turn to blue.

Note 1: when you press the EMS button, you must redo the above operation to open the receiver.(loosen the EMS, and rotate the switch to ON position)

Note 2: don't press any button of the transmitter during the power on, or it will make the

transmitter into protection.(not sending any signal)

Note 3: after the power on, the transmitter appear red 3 seconds, then turn to blue, or sparkle one time on red then one time on blue, etc two different condition, details see the manual.

2, Under default state, the control relay of the receiver will disconnect after 10minutes starting from not any signal. If you don't need this function, I give a suggestion for you: move the relevant connecting pieces, then the control relay keep contact until receiving the EMS signal. Details operation see the manual.

3, Make sure that the contactor is off after pressing the EMS button.

4, Test each function of the relay to meet your requirement.

5, Operate the emitter farthest to check the signal. If the crane action is discontinuous or blind, then the operation is very dangerous.

Note: whenever keep your emitter and leave it at proper place. Make sure no one can operate it, or it will cause very serious aftereffect.

9. Transmitter instruction

1. Install the alkalic battery rightly, suggest to use above 1600AH battery to make the use time reach 100hours. Don't use NIH battery, its voltage is only 1.2V.

2. Make sure the EMS button is loose and then turn the emitter power button to ON.

3. Please pay attention to observe the indicator, it will help you to use the remote system.

The explication between the indicator of the transmitter and the corresponding status

LED status	Complement	Explication	Processing method
Red light blink then close	And then operate normal (blue light is bright)	The transmitter is normal, the voltage & buttons are normal, communication good	Operation normal
Red light light 3s then warning	And then red blink one time after pressing any buttons	The transmitter is low voltage, please change the battery on time.	Please open the machine after change the battery.
	And then no action after pressing any buttons	There is any button in touch status, the transmitter protect itself.	Please check the buttons blocked or depressed and then open the machine.
	And then normal operation (blue light is bright)	Weak signal, please ensure that there is no shielding or interferent between the transmitter and the receiver.	Weak signal, please attention to use.

4, Every time you press EMS button, the emitter will send stop signal to the receiver continuously, the signal keeps 3 seconds then stop sending, you must press EMS button to continue. If you turn the power to "OFF", then the EMS is invalid.

5, Before close the power of the emitter, please press the red EMS button, then turn the power button to "OFF". Don't close the power directly, it won't disconnect the relay and keeping on.

6, Button interlock: the emitter has the function, when you press "UP" button, then the emitter won't respond "DOWN" command.

7, Change the battery: please change the battery on time when the voltage is low, you can open the battery cover, take out them and put new battery.

10. Failure Remove

If the remote control is not working, please remove the failure according the following explain.

When the controller can't work normally (pressing the emitter buttons, the receiver has not action), please check the failure by the following steps:

Item	Failure description	Method
1.	Emitter LED light doesn't shine, Receiver has no action.	1. Confirm if the battery power is normal. a. Check the battery directions b. Check the battery box directions c. Check the battery capacity d. Check if the tube is break or uncertain close 2. send to repair
2.	Emitter LED light is normal, but Receiver has not action.	1. Confirm the receiver power input is normal. 2. Check if AC power fuses and DC power fuse melt, if it is necessary, turn off the power and use the spare fuse. 3. Confirm if the relay output fuse melt, if it is necessary, please use the spare fuse. 4. Send to repair.
3.	Some actions is not working	1. Confirm if the relay output fuse melt, if it is necessary, please use the spare fuse 2. Confirm if original cable control system works, if so, find the factory to repair. 3. Send to repair.
4.	The Controller Distance become near	1. Confirm the emitter battery is abundance 2. Confirm the receiver doesn't shield by corresponding metal cover or net. 3. Confirm surround has not be interfered by strong wireless. 4. Confirm no same frequency interfered, which can use to change the channel. 5. Send to repair.

11. System parameter

WECAN-600 two-speed series Constant technique parameter

The emitter			
Model	WECAN600S	WECAN610S	WECAN620S
Button	6	6	6
Shell	ABS enhanced plastics		
Button mode	High reliability two step button		
Antenna	Inside or outside		
Battery	2pcs AA battery		
Battery life	>100hours		
Frequency	400-460MHz		
Power	Less than 10mW		

The receiver			
Model	WECAN 600S	WECAN 610S	WECAN 620S
Input voltage	DC12V, DC24V, AC85-400V		
Wiring	Pin-insert connection		
Relay	10A 250V		
Respond time	<100ms		
Temperature	-20-70		
Antenna	Outside		
Enclosure	IP66		
RF mode	Frequency modulation		
Range	100 meter		
Enclosure	IP66		

Notice: the environment is bad or distance more than 100m, please add the antenna.

Attention

- 1, Please read the manual before installation and usage
- 2, Please close the main power when you install and maintain the remote control to avoid touch electricity.
- 3, The transmitter is lay at safety place, nobody can push the button to avoid accident happen.
- 4, Controlable crane should has mainpower relay, limit switch and other safety facilities.
- 5, Please stop using when there is lightning strike or disturbance.
non-training person don't open the machine to avoid break it.
- 6, This manual is for user reference, please contact us for details.
- 7, We hold the right to amend the machine and manual without notice, operation manual is not confirmed to the machine, please enquiry our company.