BOHOS®

Industrial Wireless Remote Control System

USER MANUAL

●Products and applications

The radio remote controls belonging to this series are designed for industrial use. Data is checked via a linking code and the resulting movements are carrried out using the high performance CPU. The data checker communicates via a high frequency element. All units are small and stable with a powerful anti–interference feature, which is possible because they are packed with high–precision SMD. This ensures the reliability of the product.

The products comply with JB/T8437–1996 Wireless Remote Controller. They can be widely used for systems that require wireless control.

●Technical features

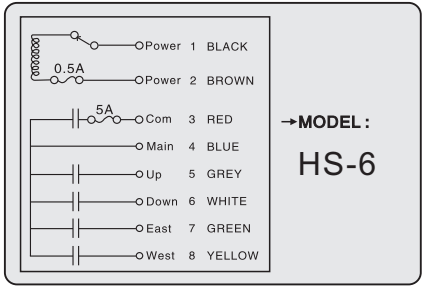
1. Operating Frequency Band: 433.55MHz band
2. Range: ≤100m in open area
3. Power Supply, Transmitter: 2 AA or AAA batteries
4. Power Supply, Receiver: see label on receiver
5. Output Interface: Relay 12V, 5A
6. Direction: Omnidirection
7. Working/Storage Temperature: –20°C ~ +85 °C
8. Relative Humidity: ≤85%
9. Protection Class: IP65

● Instructions

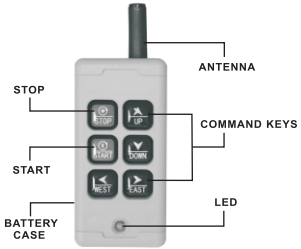
Receiver

1. Installation: Fix the receiver onto the machine frame properly, and the receiver must be installed outside the electric panel only.

2. Wiring: Wire the receiver correctly following one of the layouts below corresponding to the model acquired. (Power supply voltage shall be same as the label shown on the receiver, Red Com wire shall connect to the same voltage as that to the controlled devices.)



Transmitter



1. Put the two new AA or AAA batteries (depending on model) into the battery case of the transmitter, tighten the screws on the battery cover ensuring it is properly closed.

2. For HS-6 , press the STOP button first to reset the program of the transmitter. Then press the START button, so that both the transmitter and the receiver are working. When the START button is pressed, the LED on receiver flashes in GREEN and the system is in **standby.**

3. Press any button on the transmitter to start work.

4. When using the transmitter, buttons within the same group, for example UP and DOWN, NORTH and SOUTH, cannot be pressed at the same time. If this happens, the transmitter will lock and will not transmit any command until only one button of the group is pressed.

5. The following procedure must be done after completing work:
(1) Press STOP or E–Stop, (2) Remove the KEY TILE or ON/OFF KEY.
To continue using the transmitter carry out STEP 2 of this section.

6. If the system will be out of work for a long time, please remove the batteries and shut off power to the receiver.

Advice

1. When using the transmitter, the operator must not shake, knock or mishandle the device. Change the batteries as soon as they become discharged. Do not shake, drop or throw the batteries. The batteries must be disposed according to local regulations.

2. The product shall not be opened or used by an untrained operator. This could cause serious injury to people and objects.

3. Do not press the buttons casually– this may cause serious injury to persons or objects.

4. Do not use the device during thunderstorms or when there is strong interference.

5. After use, turn off the power supply to the machinery being controlled to shut off power to the receiver, remove the KEY TILE or ON/OFF KEY from slot.
6. To avoid signal interference from other equipment, the receiver must be installed away from inverters, generators, transformers, motors and cables.
7. The Receiver must not be installed inside electric panel. It must be fixed in an appropriate position outside. The output cable must then be passed through into the electric panel.
8. This series of radio controls comes with different pre–set frequency and ID. If more than one set will be applied in the same area, please inform this before purchasing, the systems with different S/N shall be chosen and installed to avoid frequency interference.

●Emergency Procedure

In case of emergency, follow the steps shown below.

1. Remove the KEY TILE or Press E–Stop.
2. Shut off the power to the radio control system.
3. Shut off the power to the machinery and inform a qualified technician.

●Troubleshooting

1. If the transmitter LED does not flash after pressing the START button, please check correct positioning of the batteries and close the cover securely using the screws.
2. If the system does not work, shut off power for 20seconds and restart.
3. If the control work intermittently or the operational range becomes reduced; it is possible that there is a loss of power which could be due to low battery power. Replace the batteries.
4. Frequency problems and problem solving(See the following Table).

Error	Possible reason	Solution
No response from any command key	1. Poor contact of the terminal block	Screw down the terminal block securely
	2. Broken/damaged relay	Contact a qualified technician
	3. Damage to the AC connection	Contact a qualified technician
Intermittent response and reduced operating range	1. Lack of power supply to the transmitter	Check the transmitter LED, replace the batteries if the LED is dim
	2. Interference	Ensure there is no same channel remote control within a 100 m radius
	3. Incorrect positioning of the receiver	The receiver should not be placed inside electric panel. It must also be located at least 0,5 m away from the generators and transformers
	4. Damage to the high–frequency element	Contact a qualified technician
Lack of response from transmitter	1. Lack of power supply or transmitter is damaged	Replace batteries or the transmitter
	2. No power to the receiver	Check connections and correct power supply
	3. The power supply does not match the voltage indicated on the receiver	Check the label on the receiver and supply the correct power
	4. Damaged fuse	Open the receiver casing and replace the fuse
	5. The receiver is damaged or wrongly connected	Contact a qualified technician

*If the problem encountered cannot be solved, contact agent or distributor.

●Remarks

The remote control system complies with all the features described in this booklet. All products must be installed and used solely by qualified personnel.

The following circumstances are not included in the official warranty:

Components liable to wear and tear such as buttons, batteries and fuses. Damage caused by incorrect installation, improper use, force majeure, natural phenomena, improper maintenance, non–compliance with the working environment requirements, product tampering or unauthorized modifications.

Replacement or repair during the warranty period (not including shipping costs) is the only compensation possible. The manufacturer or its dealers are not responsible for any direct or indirect accidents and/or damage. The warranty will be deemed void in the case of unauthorized modification or misuse.

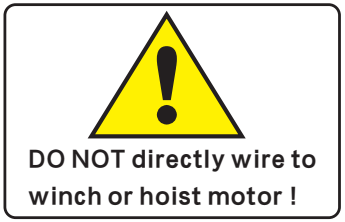
Thank you for choosing our products. Please do not hesitate to contact us if you have any enquires, clarifications or information.

NOTES:

1. Retain the original box, packaging and accessories, maintenance schedule, Instruction Manual and the Certificate in good condition in order to ensure correct after–sales service.
2. Carefully read the User Manual before using the product.
3. Inspect the product carefully before carrying out installation.

Packing List and Accessories

1. Transmitter unit
2. Plastic protection pouch
3. Safety strap
4. Receiver unit
5. Fuses (0.5A and 5A)
6. User Manual



FCC WARNING

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Any changes or modifications not expressly approved by the party responsible for compliance
could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception,
which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-- Reorient or relocate the receiving antenna.
-- Increase the separation between the equipment and receiver.
-- Connect the equipment into an outlet on a circuit different
from that to which the receiver is connected.
-- Consult the dealer or an experienced radio/TV technician for help. The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction