

Instruction Manual Remote Control

1. Product presentation and application areas

The wireless remote control, for industrial use in the HS series, controls code data and run commands by means of the main component, a high-performance CPU. The data that are controlled are transferred by the high frequency unit. All units are small and have stable functional devices and strong protection against interference, thanks to high precision surface mounting, which guarantees product reliability. The wireless remote control in the HS series complies with the requirements in JB/T8437-1996 Wireless Remote Controller for Hoisting Machine. It can be used for wireless control and data transfer systems for electric winches and hoisting machinery etc.

2. Technical specification

Technical specification	Remote control
1. Operating frequency	422 – 440 MHz
2. Range	≤100 m in open field
3. Operating voltage transmitter	2 pcs AA batteries for HS-8/10/12 2 pcs AAA batteries for HS-4/6
4. Operating voltage receiver	12 – 24 VAC DC
5. Outgoing interface	Relays 5 A
6. Received direction	Non-directional
7. Operating temperature	-20 °C to +85 °C
8. Relative humidity	≤85 %
9. Enclosure class	IP65

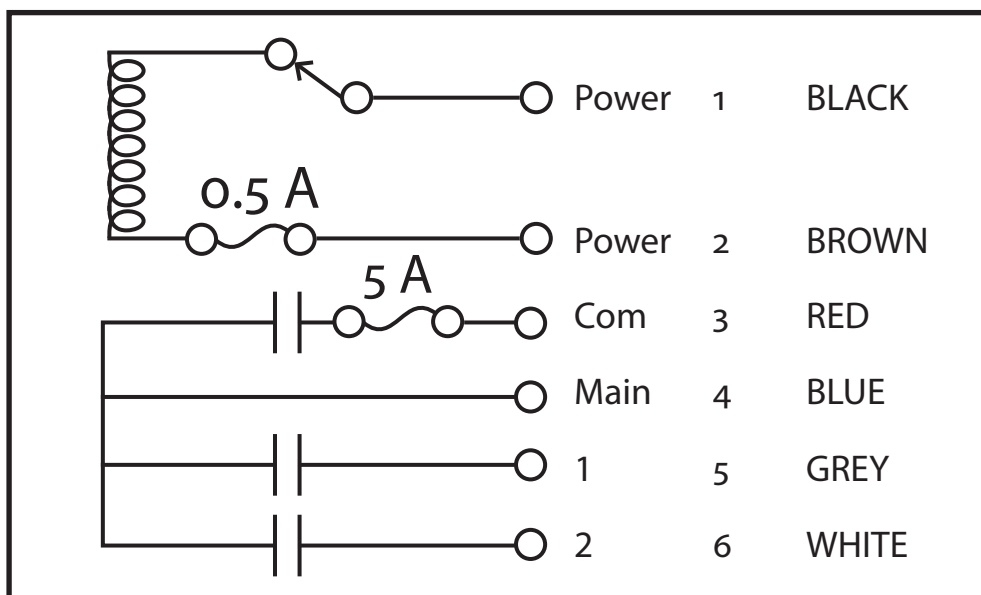
3. Parts

1. One transmitter
2. An emergency key (only HS – 8/10/12)
3. Two batteries
4. A protective cover for transmitter
5. One belt
6. One receiver
7. One mounting rail
8. One 0.5 A
9. One 5 A
10. One instruction manual

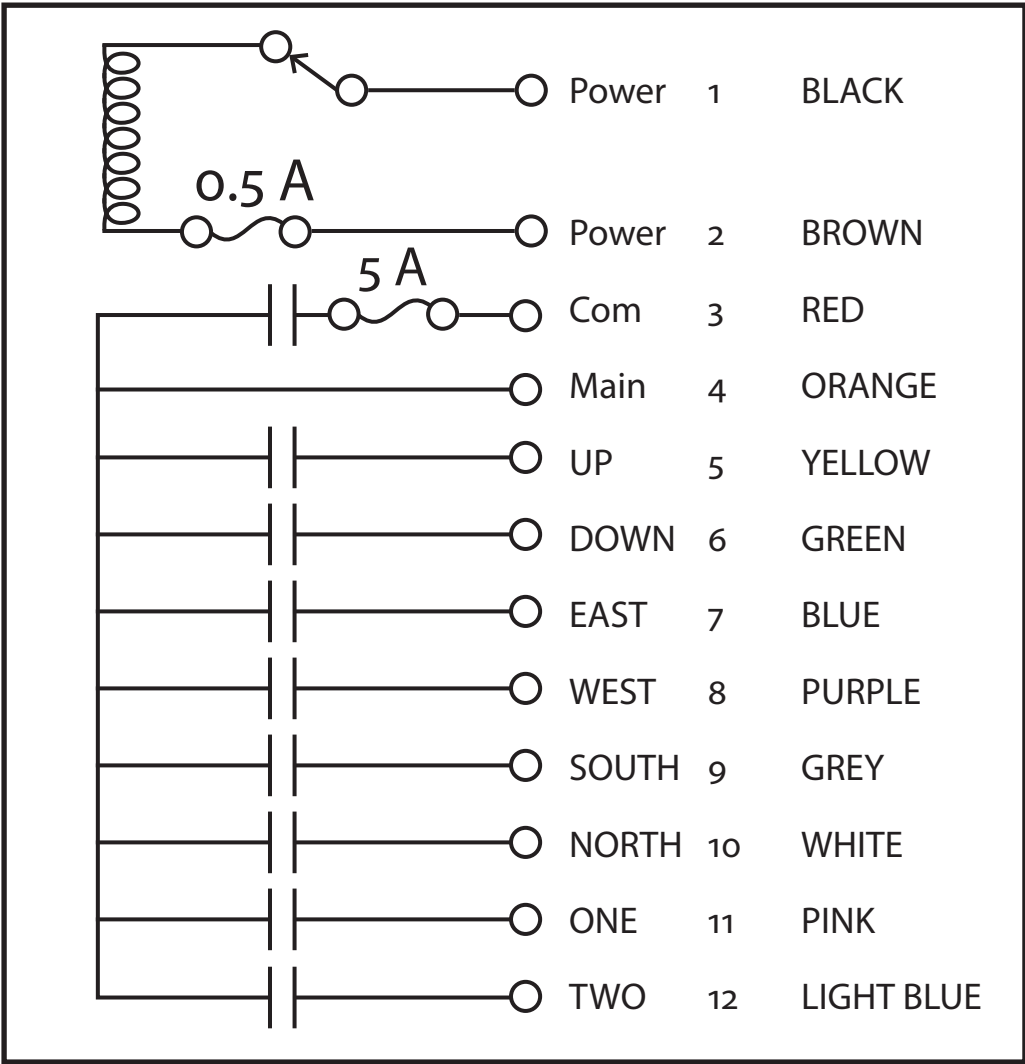
4. Installation and connection

1. Installation: Fasten the receiver's locking nut on one side of the mounting rail. Then fasten the other side to the electric winch's upper load-bearing frame, using screws.
2. Wiring diagram

HS-4



HS-10



5. Use

1. Installation: Fasten the receiver's locking nut on one side of the mounting rail. Then fasten the other 1) Place 2 AA batteries in the transmitter's battery compartment. Tighten the three screws on the battery compartment.
2. Select the right power supply for the receiver according to the control voltage for the distribution box AC contacts.
3. Place the key in the transmitter's key box. First, press STOP to zero the program in the transmitter, and then START to activate the transmitter and receiver as well as the other buttons. On models with two speeds, the receiver's red indicator lamp flashes when the START button is depressed. The system is put into wait mode and other buttons are activated. If the STOP button is depressed during operation, both the transmitter and receiver are switched off.
4. The transmitter sends a signal corresponding to the button depressed on the transmitter.
5. If buttons in the same group, e.g. DOWN/UP, are pressed simultaneously, the buttons lock. On models with one speed, 1/2 does not lock.
6. Switch off the system correctly after use by following these steps: 1) Press STOP. 2) Remove the emergency key (only HS – 10). 3) Store the system securely.
7. If the product is not to be used for a while, remove the batteries from the transmitter and turn off the power supply to the receiver.

6. Trial run

Check that everything is correctly connected. Start the oil flow and move the lever(s) away from the valve until the motor starts to turn. Check that the motor couples in and out properly. Check to ensure no hoses are stretched too much, or are pinched or rubbing against sharp edges or similar. When controlling by radio, start the transmitter by keeping the START button depressed for a few seconds, test run by pressing UP ▲ and DOWN ▼. If the buttons do not agree, swap the cables on the valve and try again.

7. Safety instructions

1. Do not subject the transmitter to impacts or shocks as it could be damaged. Replace the batteries when the voltage is low. Avoid impacts, shocks and throws.
2. Never open the case if you do not have the technical authorisation to do so. It could damage components and cause personal injury.
3. Do not test the buttons blind; it could involve serious safety risks.
4. Do not use the system during thunder storms or powerful interference.
5. After use, switch off the power supply to the receiver and remove the emergency key (only HS – 10).

6. Prevent other signals interfering by placing the receiver at a distance from transformers, motors and umbilical cables.
7. The receiver cannot be installed in the distribution box. It should be installed over or on a suitable location outside the distribution box.
8. The remote control for industrial use in the HS series has several ID codes set at the factory. If two or more units are used in the same area, different ID codes must be selected. To keep the frequencies separate, check the ID codes on the box, case or the printed circuit board. If the last two figures for two or more units are identical (e.g. 383C93), interference occurs. If this is not the case, the signals do not interfere with each other.

8. Emergencies

Follow the instructions below in an emergency.

1. Press STOP.
2. Pull out the key (only HS – 10)
3. Switch off the machine being controlled.
4. Contact the dealer for help to find the cause.

9. Common problems and solutions

1. If the transmitter's indicator lamp doesn't flash when the button is depressed, it may be because the batteries are not inserted correctly. Remove the batteries and then put them back again.
2. If the receiver does not receive a response, switch it off, wait 20 seconds and restart.
3. If the range shrinks, or the receiver works irregularly, it could be due to low battery level. Replace the batteries.
4. Other common problems and solutions.

Problem	Possible cause	Action
Command button doesn't respond	1. Poor contact with terminals	Tighten the screws
	2. Damaged AC contact	Replace AC contact
	3. Poor contact with connector in receiver	Open the receiver case, lift up the connector and replace it
The response is irregular and the range is shrinking	1. Weak power supply to the transmitter	Check the transmitter's indicator lamp and replace the batteries if the lamp is shining weakly
	2. Interference	Make sure no other radio control unit within 100 m is using the same channel
	3. Incorrect placement of receiver	The receiver must not be placed inside a metal casing and it should be placed at least 0.5 m from any generator or transformer
	4. Damaged high-frequency unit	Contact authorised technicians or local representative
No complete response	1. Weak power supply or damaged transmitter	Replace batteries or transmitter
	2. Weak power supply to the receiver	Check circuits and power supply
	3. The power supply doesn't correspond to the given voltage for the receiver	Check the label on the receiver and select a supply with the correct voltage
	4. Damaged fuse in the receiver	Open the receiver case and replace fuse
	5. Receiver damaged due to incorrect connection	Contact authorised technicians or local representative

** If none of the above actions rectify the problem, contact the dealer or distributor.*

10. Service and maintenance

The end product is inspected and approved and should comply with the stated specifications. If the product is correctly installed, it functions effectively and safely. Read these instruction carefully, so you will know your rights. If you have any questions, contact the dealer or distributor.

Check the product carefully before installation.

Read the instruction manual carefully prior to use.

Store the box, accessories and instruction manual securely for future service needs.

Notes

Reimbursement can only be granted during the warranty period. The company does not accept liability for direct, indirect or unforeseen damage, consequential damage or any other damage. OBOHOS Electronic Technology Co., Ltd reserves the right to final interpretation of any points that are missing.