



## USER MANUAL



### **Installation instructions and use of the device JK series with receiver RELAY output model H / HS / HM**

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## Warnings

Carefully read the instructions contained in this manual before proceeding with the installation and use of radio control.

Failure to follow the procedures described in this manual, it may cause damage to people and property. Do not use the transmitter as spare parts for other remote controls.

It is recommended to comply with the laws in force concerning safety and prevention of accidents at work. It 'also need to always observe all applicable regulations regarding the use of the remote control of industrial machinery.

**Wis not responsible for the application and use of the remote control outside the regulations.**

## Risk analysis

Qualified personnel, should carry out a thorough risk assessment of the machine connected to the transmitter assuming full responsibility.

**W** disclaims any liability arising from an erroneous assessment of the risks.

Any loss of communication between the transmitter and receiver caused by noise or interference, must determine the automatic shutdown of the remote control as required by clause **9.2.7.3 EN 60204-32**. Therefore, in the case in which this condition occurs, it is necessary to perform a new start-up procedure of the remote control and the machine connected to it.

## Applications

The remote control system is widely used in the lifting and transport sector at the edge of building cranes, hoists, cranes, concrete pumps, etc.

However, you can also use it for many other applications, as long as they are always observe the safety conditions described in this chapter.

The remote control can only be used in the presence of suitable electrical and climatic conditions, as specified in this manual. It's also strictly prohibited to use the remote control in explosive environments or that require explosion-proof features. The appliance installation, must be performed by qualified personnel according to the applicable regulations.

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## Preventive maintenance

Before proceeding with any maintenance, power down both receiver and equipped machine and remove the batteries from the transmitter.

- Do not expose to heat sources
- Do not expose directly to the sun for long periods
- Do not soak in the water
- Do not wash with high pressure jets
- Avoid contact with oils or solvents
- In case of opening, reclose the casing paying particular attention to the gasket sealing

In order to keep the device in conditions of maximum efficiency and safety, it's necessary to periodically perform cleaning and control operations. Clean using a simple brush and a damp cloth and avoid the use of alcohol, solvents or harsh cleaners which may damage the casing itself.

### Periodic maintenance by the user

Periodically clean the outside of the transmitter in order to avoid build up of debris or dirt may impede the smooth operation of buttons.

**Check with particular attention to the functionality of the STOP button.**

Remove any oxide from the contacts of the batteries and check that the constituent parts of the radio control (casing, buttons, etc..) for cracks or other signs of breakage and failure. Also check all the rubber parts such as buttons, gaskets and bellows for cracks or tears.

**In case of damage of one or more constituent parts of the appliance, it's necessary to proceed to their replacement in a timely manner so as to prevent the penetration of liquids or substances could impair the safety and the good functioning.**

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## Periodic maintenance by qualified personnel

After about a year of use, the unit must undergo a general inspection by technicians who will perform the following steps, **paying special attention not to come into contact with live parts of the receiving unit:**

- Check the tightness of the seals of transmitter and receiver casing
- Check the tightness of cableglands
- Check fixing screws and tightness of terminals and connectors
- Check mounting of the electronic boards and various components
- Remove any traces of dirt and moisture inside the enclosures
- Check the operation of all controls
- Verify proper operation of the STOP circuit (by pressing the STOP button, the STOP relays in the receiver will be deactivated)
- Replacement of any faulty or damaged parts with original parts, so as not to affect the characteristics of safety and the proper functioning of the device

Pay particular attention to the closing of the transmitter housing, in order to avoid the risk of possible ingress of dust or moisture.

## Radio control installation

The installation of the radio control, must be carried out only by qualified personnel.

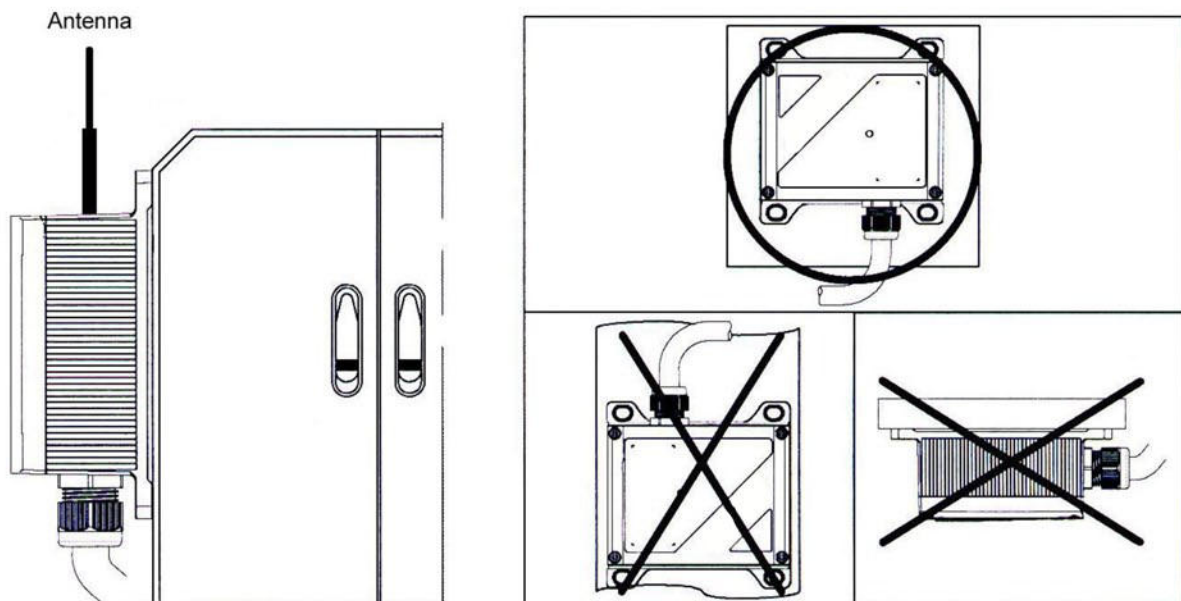
The receiving unit, must be positioned so that the antenna is visible from the area where the transmitter is used and in a place free from electromagnetic shielding. it's advisable to avoid the installation of the receiver on metallic surfaces that may reduce the operating range of the device.

Do not attempt to bypass the security systems of the machine equipped with the remote control and follow all instructions provided by the manufacturer thereof.

Do not install the receiver unit in position too high relative to the ground (10 or 20m) in order to prevent that reception of environmental radio signals, could compromise the correct operation of the appliance.

Install the receiver in vertical position and with the cable facing downwards so as to prevent any water infiltration.

In the presence of strong vibrations, install the receiver using the appropriate anti-vibration mounts.



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## Electrical connection of the receiver

Make sure that during installation, the receiver and the machine connected to it, remain unpowered.

The power supply of the receiver, must be taken downstream of the main switch of the machine.

**It's forbidden to connect the power supply of the receiver, directly to the distribution network and the main disconnect switch, must be provided with a suitable device (padlock) to prevent unauthorized power-on.**

The electrical connection between receiver and machine, must be removable and in case of direct connection to the terminal block on the remote control, it must be employed a connector that allows if necessary, to quickly disconnect the remote control and use a corded pendant station. The wiring of the receiver, shall comply with the EN60204 standard and wires used must be self-extinguishing with a minimum section of 0,50/0,75 sq. mm. Pay attention to the supply voltage of the receiver and verify the correspondence between the controls on the transmitter and the outputs on the receiver.

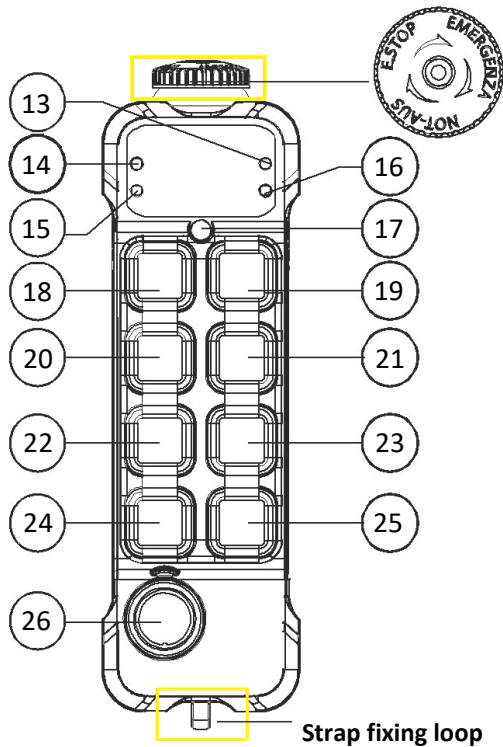
Once the wiring of the receiver has been completed, check the real correspondence between the pushbuttons on the transmitter and the various functions of the machine.

**Also check the operation of the circuit STOP: Pressing the button on the transmitter, verify that the opening of the contacts of the 2 STOP relay in the receiver.**

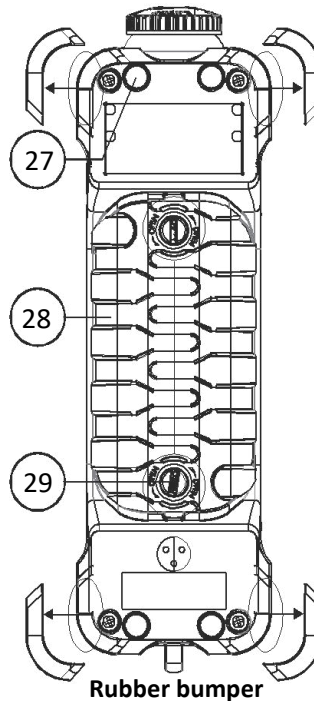
Proceed with the compilation of the wiring board, indicating the correspondence between the outputs of the receiver and the related machine controls.

# Transmitters description

Front view

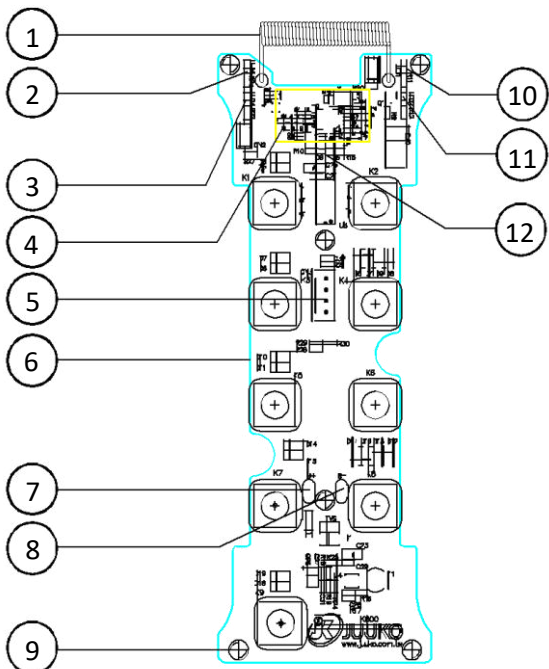


Rear view



- (13) LED2
- (14) LED 1
- (15) Low battery LED
- (16) Error LED
- (17) Status LED
- (18-25) Function buttons
- (26) Start/horn button
- (27) Stainless legs
- (28) Battery cover
- (29) Battery cover screw

## Transmitter board



- (1) Antenna
- (2) LED 1
- (3) Low battery LED
- (4) Radio module
- (5) Programming connector
- (6) Pushbuttons PCB
- (7) Battery connector +
- (8) Battery connector -
- (9) Fixing holes
- (10) LED 2
- (11) Error LED
- (12) Status LED



K200-C2E



K202-C2E



K400-C2E



K404-C2E



K600-C2E



K606-C2E



K800-C2E



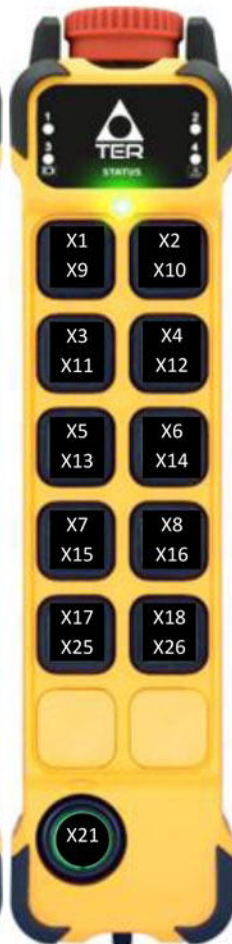
K808-C2E



K1000-C2E



K1010-C2E



K1200-C2E



K1212-C2E



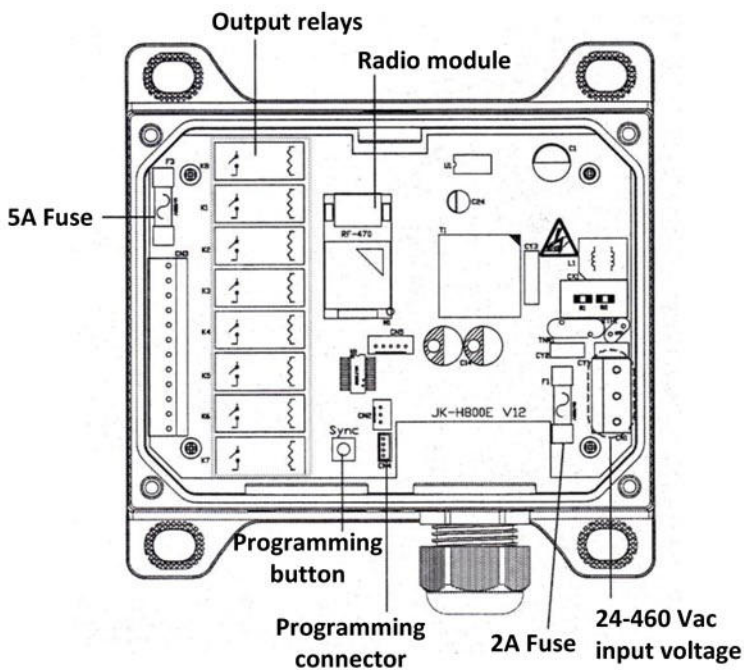
# Receiver description

Before removing the cover of the receiver to do any work, first make sure you have unplugged the power cord.

**WARNING !** Relay on receiver board are named with **K** (coil relay). For every K relay there is an **Y** number contact as wiring diagram of this manual.

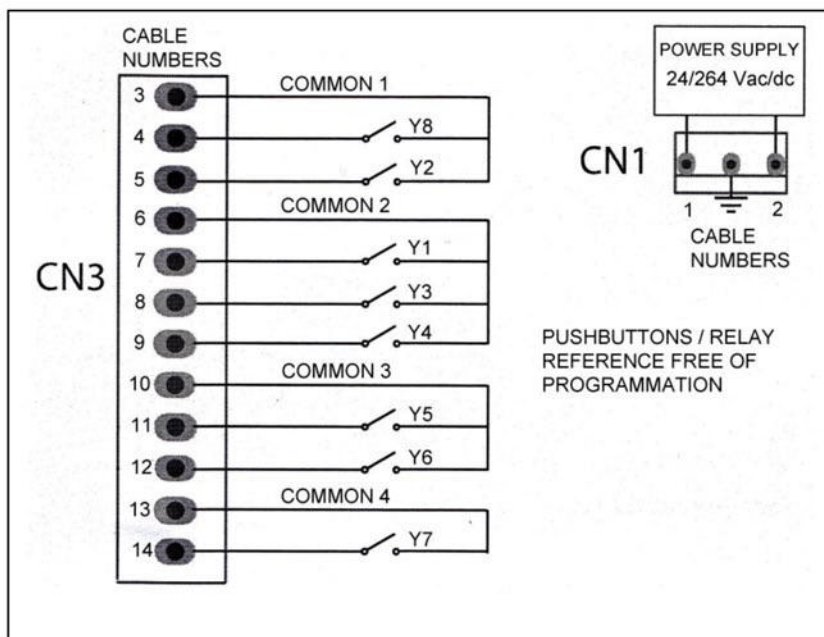
## H...C4 type receiver

24~264 Vac/dc



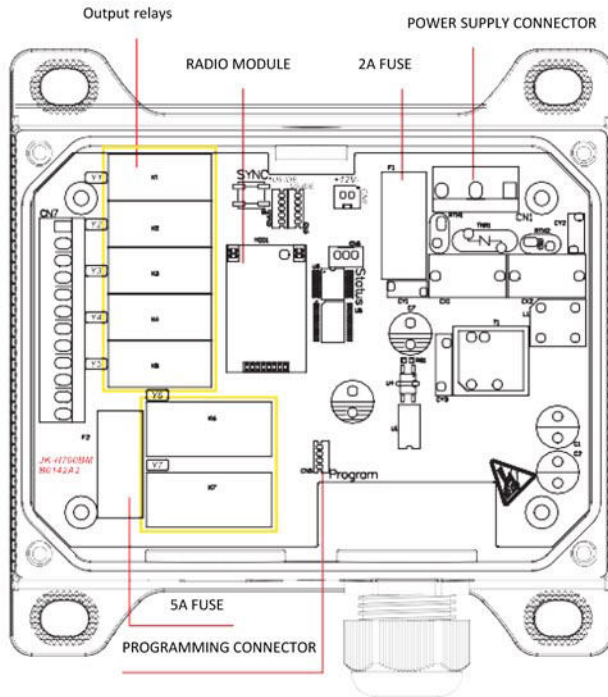
Overall size:  
 Width 142 mm  
 Height 141,20 mm  
 Depth 58,5 mm

Distance between mounting brackets:  
 Width 116 mm  
 Height 125 mm



# H...C2 Alim. Type receiver

**24~264 | 90~460 Vac/dc**

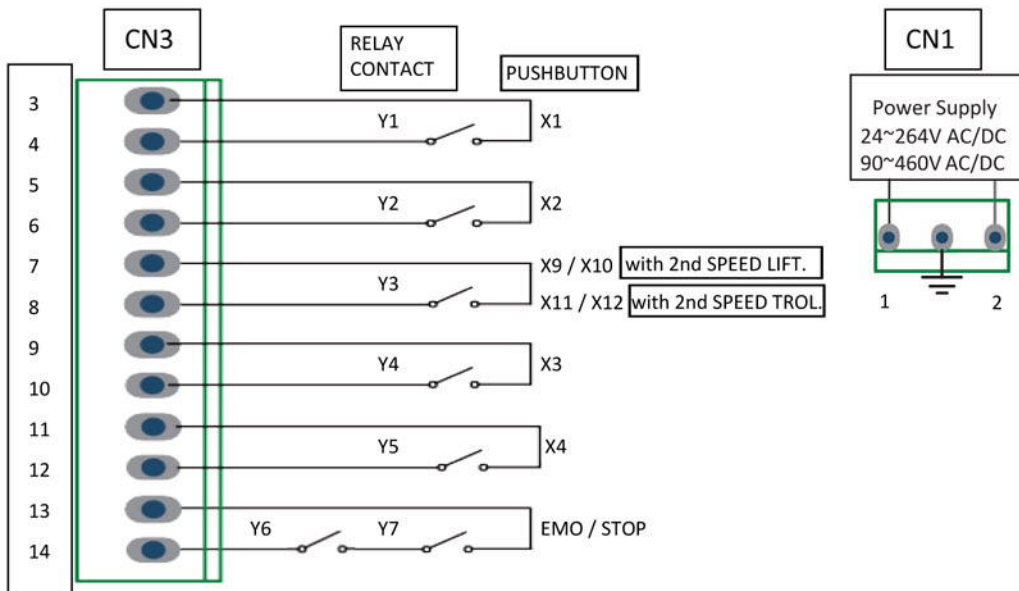


Overall size:

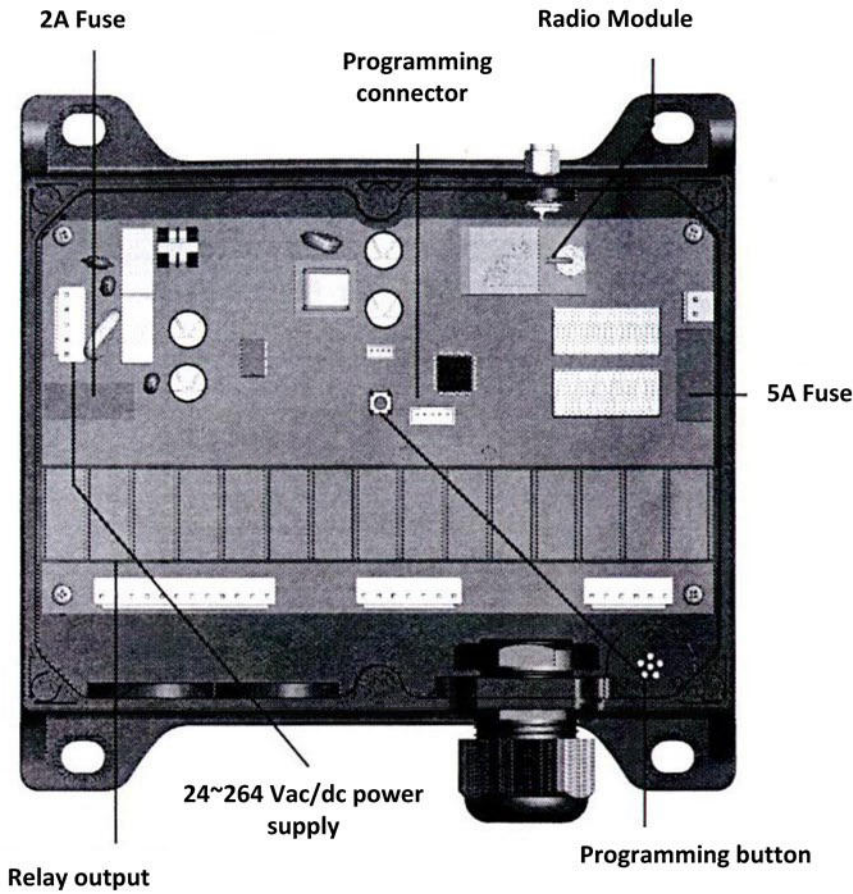
Width 141,20 mm  
Height 141,20 mm  
Depth 58,5 mm

Distance between mounting brackets:

Larghezza 116 mm  
Altezza 125 mm



## HS...C2 type receiver



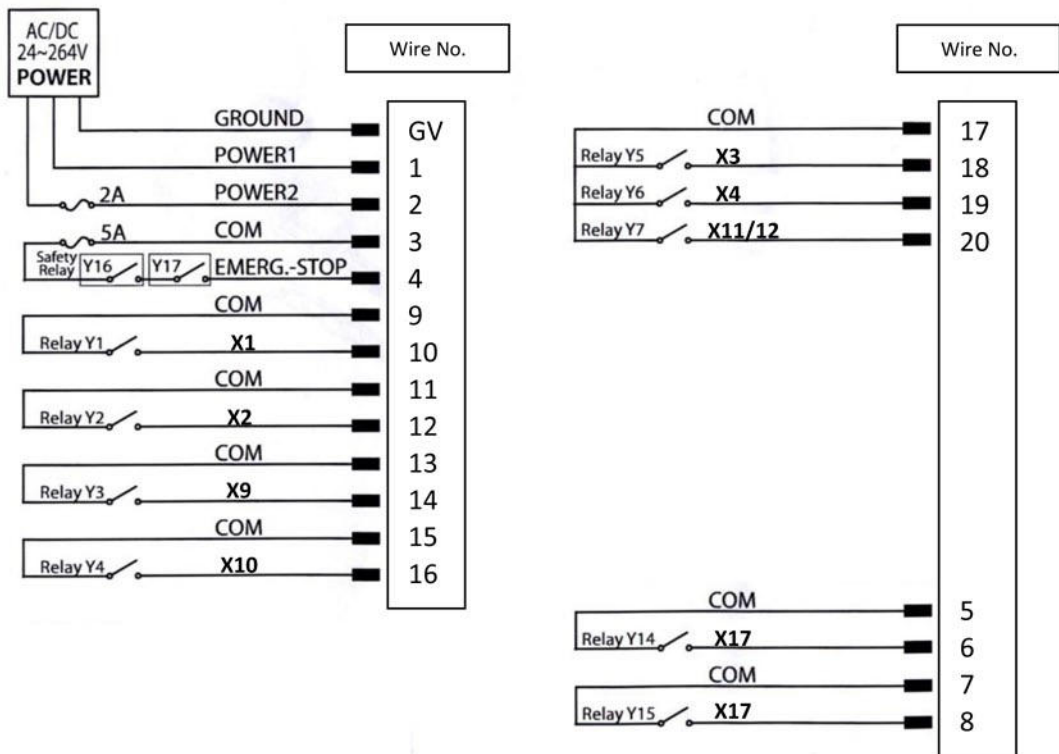
Overall size:

Width            190 mm  
 Height          184 mm  
 Depth           64 mm

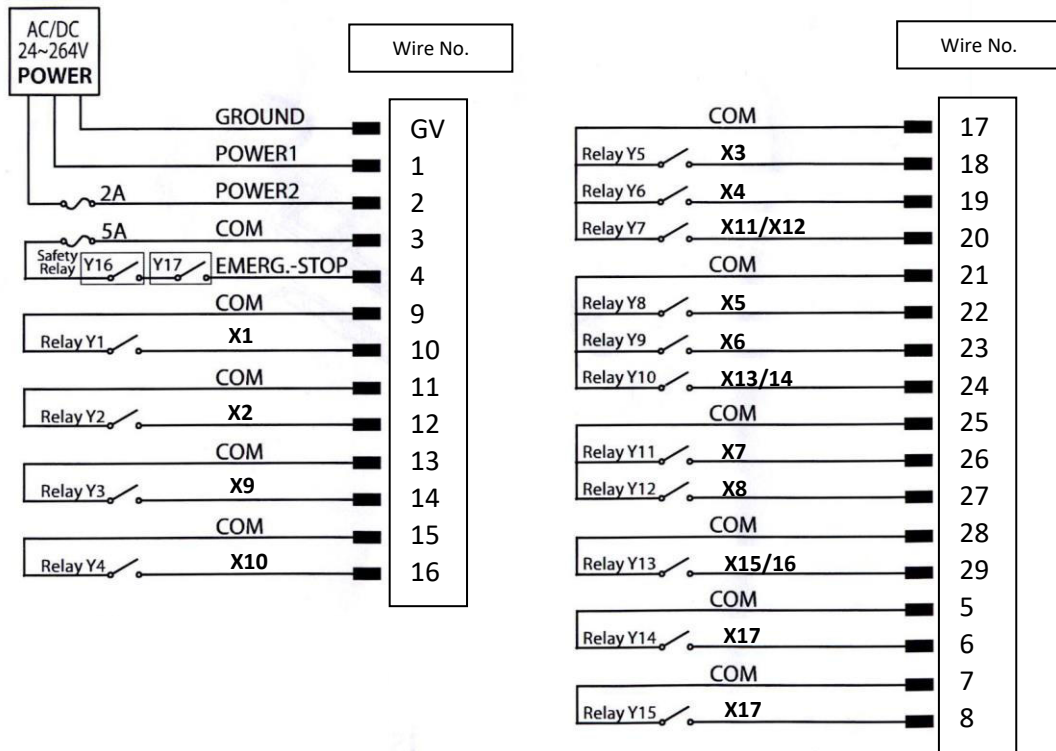
Distance between mounting brackets:

Width            156 mm  
 Height          165 mm

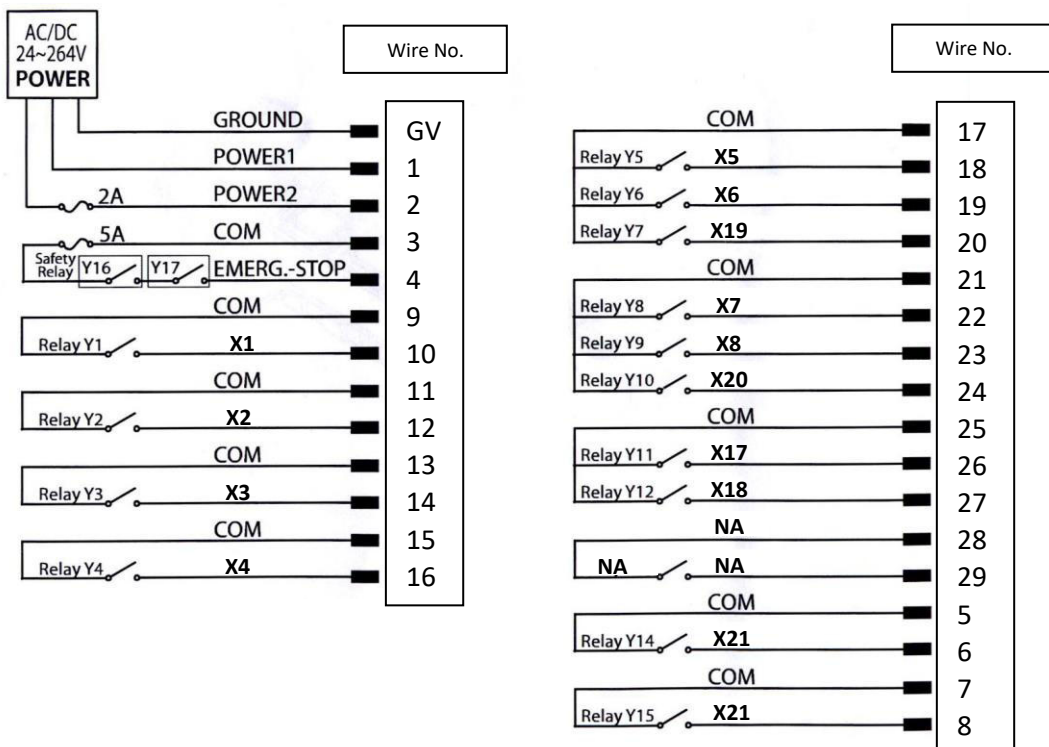
## HS-A type receiver



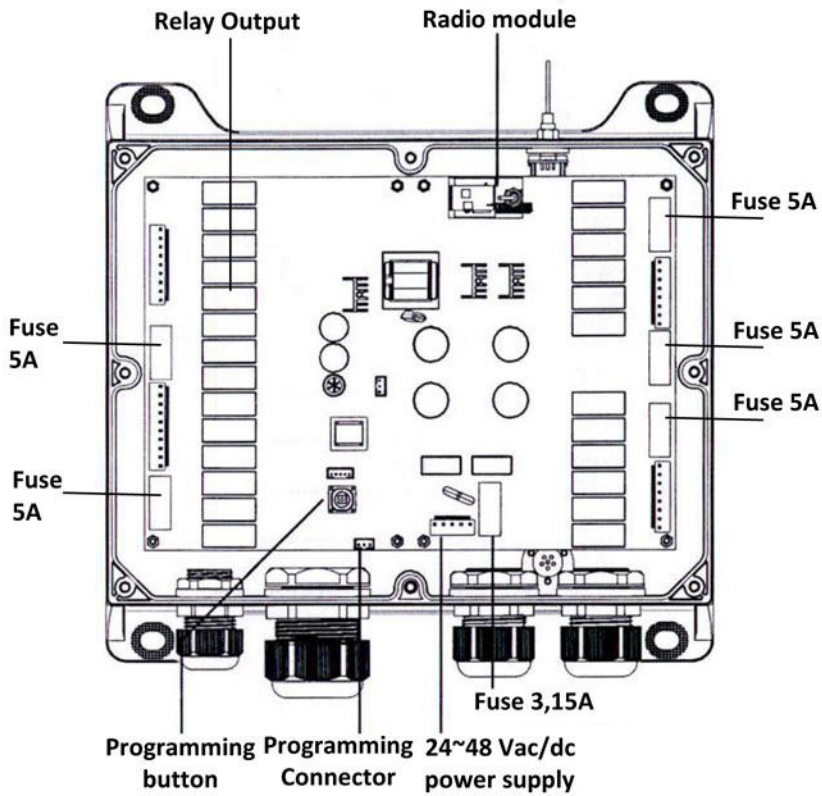
## HS-B type receiver



## HS-C type receiver



## HM...C2 type receiver



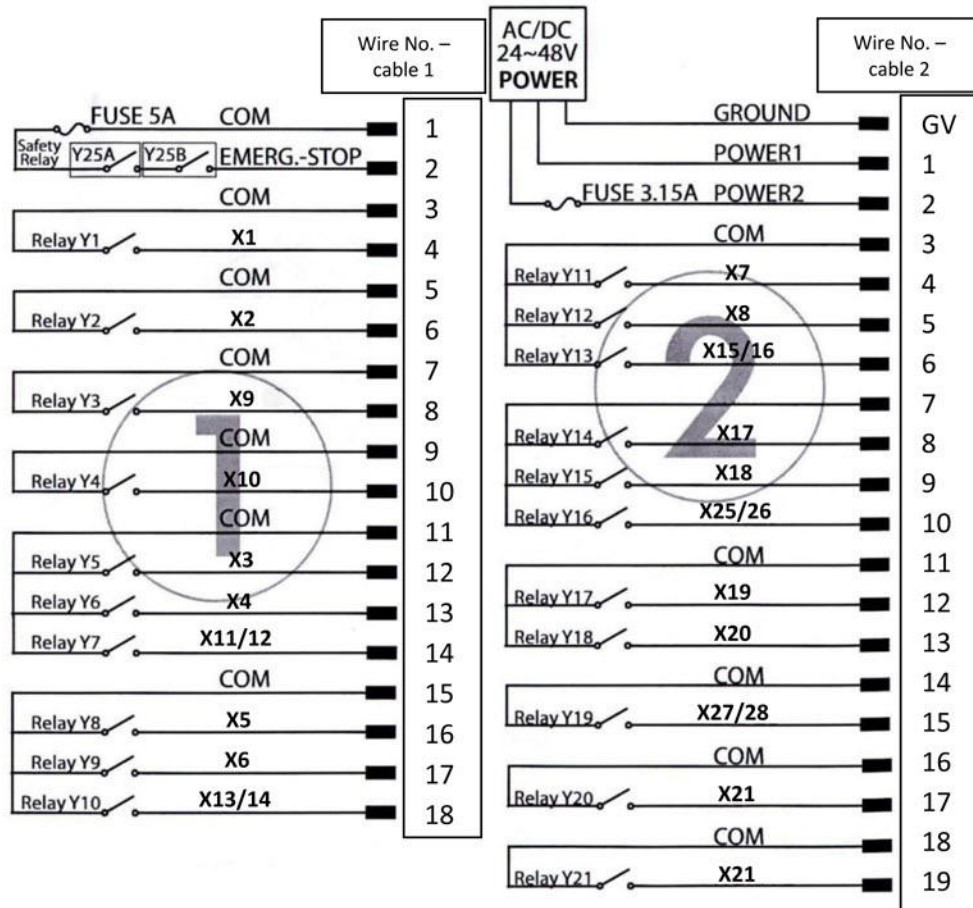
Overall size:

Width 272 mm  
 Height 260 mm  
 Depth 96 mm

Distance between mounting brackets:

Width 230 mm  
 Height 240 mm

## HM type receiver



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## Usage information

**For a correct use of the radio remote control, you must observe the following basic rules for safety at work.**

- The remote control should be used only by operators who are perfectly familiar with the operation of the equipment and machinery attached to it.
- Never operate the transmitter without having the visual of the machine controlled by the remote control.
- Once you have finished using the device even for short periods, it's necessary to turn off the transmitter and keep it in a place inaccessible to unauthorized personnel.

### Start-up procedure

- With the STOP button pressed, remove the back cover of the transmitter and insert 2 AA batteries (AA) in the battery compartment according to the polarity indicated.
- As soon as the batteries are inserted, the 5 LEDs present on the front of the transmitter, will emit some flashes which indicate proper operation.
- Power up the receiver and the machine connected to it.
- As soon as the receiver is powered, its LED indicator will flash red once and then it flashes slowly in green to indicate proper operation.
- Now releasing the STOP button and then pressing the START button, the remote control turns on and while the LED on the receiver remains on, the status LED on the transmitter will blink slowly.
- In case of malfunction due to electromagnetic interference, the LED on the receiver will blink red in rapid succession.

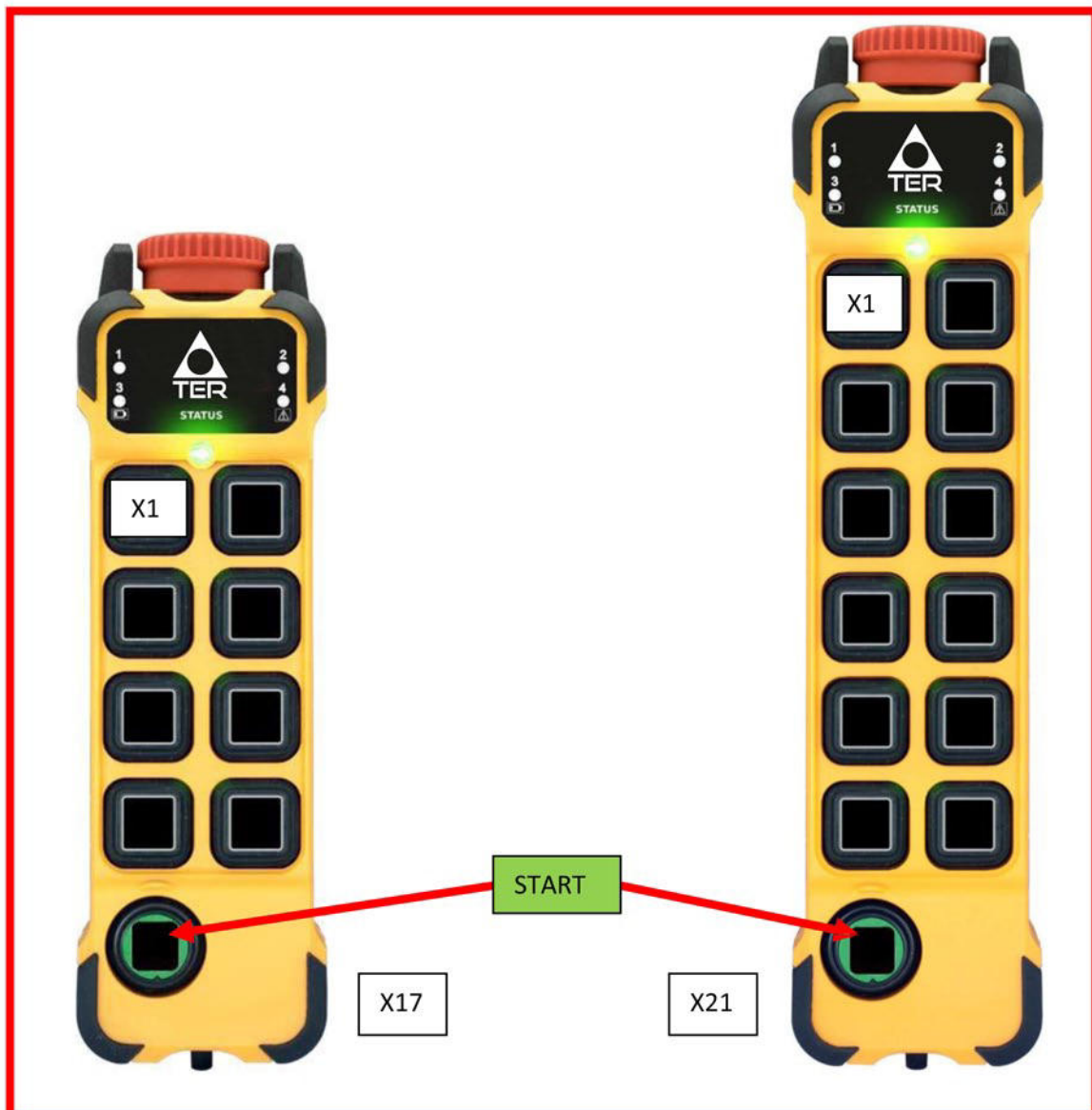
### Switch-off procedure

- Pressing the red mushroom button, you will get an immediate opening of the STOP circuit on the receiver and at the same time, all active commands will be disabled.
- When not in use, the remote control will remain active (without sleep), or there is the option to set a delay time to sleep, selectable in 1, 2, 3, 5, 10, 30, 45 minutes.

Every TER remote control is factory set with SAFETY PIN code for START function (Regulation IEC 60204-32).

To make the START operation, carry out the following procedure:

1. Receiver unit must be under POWER SUPPLY
2. STOP mushroom pushbutton unlocked (STATUS LED flashing RED)
3. Push the START pushbutton (X17 for 2-4-6-8 pushbuttons release) (X21 for 10-12 pushbuttons release)
4. consecutively push the X1 pushbutton (normally combined with the hoist UP)
5. consecutively push the START pushbutton (STATUS LED flashing GREEN)
6. WARNING: in the procedure the buttons must never be pressed simultaneously. The sequence must be carried out within a maximum of 2 seconds between one press and the next





### Replacement of transmitter batteries

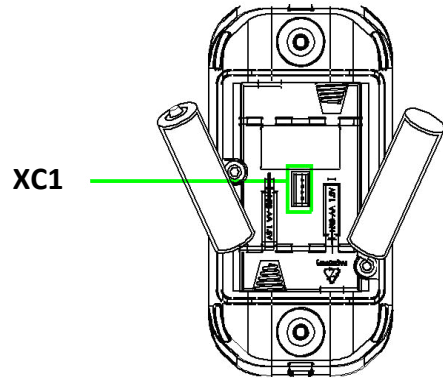
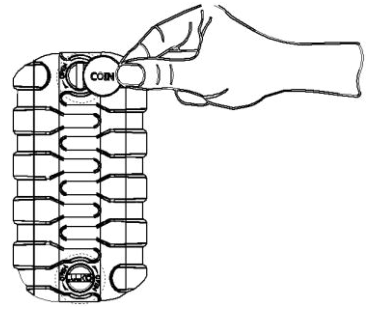
1- Using a slotted screwdriver or a coin, turn the 2 outlet screws to remove the back cover

2- Replace the batteries with 2 new batteries (AA) according to the polarity indicated

### Programming the transmitter

1- Remove the back cover

2- Remove the batteries and connect the special cable to the programming connector XC1



## Frequency change and copy TX-RX

### Frequency change

Each radio control can operate on 2 different operating channels selected from the program and it will be the device itself that, during operation, will choose to use the one that among the 2 channels is free and free of disturbances.

This selection can take place, not only when the radio control is switched on but also during its operation. In fact, in the event that radio disturbances occur on the channel currently used, the radio control will autonomously retune on the other free channel.

### Copy TX-RX

Using the simple procedure illustrated on the next page, you can:

- Copy the operating frequency, the identification code and the programming of a transmitter, onto a new transmitter, in order to obtain a new exact copy of the original transmitter.
- Copy the frequency, code and programming of a receiver onto a new transmitter, creating a complete and fully functional radio control.
- Copy the frequency, code and programming of a transmitter onto a new receiver, creating a complete and fully functional radio control.
- The example procedures refer to the 8-key transmitter model. If you are operating on a transmitter with fewer or more than 8 keys, the function performed by X7 and X8 will always be carried out by the last 2 keys of the transmitter (in the case of the JK200 they will be the only 2 keys present).

## Make a copy of a secondary transmitter from an original transmitter



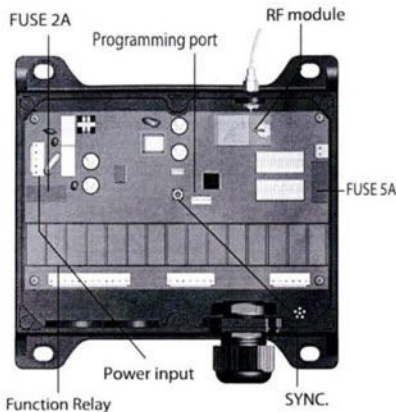
**TRANSMITTER ORIGINAL**

1st step - start of configuration	2nd step - predisposition to data transfer	Step 3 - data transfer
<p><b>Position the transmitters at least 50 cm away from each other.</b> Make sure the batteries are inserted in both transmitters. Press STOP button.</p>	<p><b>Operation to be performed on BOTH TRANSMITTERS.</b> Press buttons <b>X7</b> and <b>X8</b> alternately 4 times each until the <b>STATUS LED</b> starts to flash GREEN / RED. At this point the TRANSMITTERS are receptive to programming.</p>	<p>On the <b>ORIGIN</b> transmitter, press and hold down the <b>X1</b> button.  <b>AT THE SAME TIME</b>                      On the transmitter to <b>copy</b> to, press and hold down the <b>X2</b> button.                      You will see LED 1 flash on both TXs. After 5 seconds, LED 1 + LED 2 will flash on both TXs.                      After 3 seconds of simultaneous flashing LED 1 + LED 2 on both TXs, LEDs 1/2 will become steady after which they will turn off.                      At this point the COPY of the program has been carried out correctly.  <b>IMPORTANT, THE PROCEDURE MUST BE PERFORMED BY KEEPING X1 AND X2 PRESSED FOR THE ENTIRE TIME OF THE CONFIGURATION.</b></p>



**TRANSMITTER COPY**

## Make a copy of a secondary transmitter from an original receiver



**RECEIVING ORIGINAL**

1st step - start of configuration	2nd step - predisposition to data transfer	Step 3 - data transfer
<p><b>Position the transmitter and receiver at least 50 cm away from each other.</b> Make sure the batteries are inserted into the transmitter. Press STOP button. Make sure the receiver is powered.</p>	<p>On the receiver, press the SYNC button for 4 seconds. The LED located on the receiver cover will start flashing GREEN / RED.                      On the transmitter, press buttons <b>X7</b> and <b>X8</b> alternately 4 times each until the <b>STATUS LED</b> starts to flash GREEN / RED. At this point the devices are receptive to programming.</p>	<p>On the transmitter to <b>copy</b> to, press and hold down the <b>X2</b> button.                      You will see LED 1 flash. After 5 seconds, LED 1 + LED 2 will flash. Subsequently LED 1 will become steady while LED 2 will go out. When LED 1 is also turned off, copying will have been carried out correctly.  <b>IMPORTANT, THE PROCEDURE MUST BE PERFORMED BY KEEPING X2 PRESSED FOR THE ENTIRE TIME OF THE CONFIGURATION.</b></p>



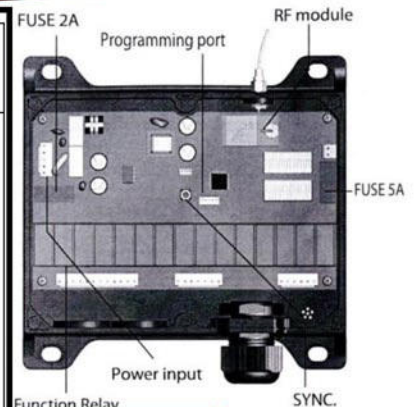
**TRANSMITTER COPY**

## Copy a secondary receiver from an original transmitter



**TRANSMITTER ORIGINAL**

1st step - start of configuration	2nd step - predisposition to data transfer	Step 3 - data transfer
<p><b>Position the transmitter and receiver at least 50 cm away from each other.</b> Make sure the batteries are inserted into the transmitter. Press STOP button. Make sure the receiver is powered.</p>	<p>On the receiver, press the SYNC button for 4 seconds. The LED located on the receiver cover will start flashing GREEN / RED.                      On the transmitter, press buttons <b>X7</b> and <b>X8</b> alternately 4 times each until the <b>STATUS LED</b> starts to flash GREEN / RED. At this point the devices are receptive to programming.</p>	<p>On the transmitter from which you want to make the <b>COPY</b>, press and hold down the <b>X1</b> button.                      You will see LED 1 flash. After 5 seconds, LED 1 + LED 2 will flash. Subsequently LED 1 will become steady while LED 2 will go out. When LED 1 is also turned off, copying will have been carried out correctly.  <b>IMPORTANT, THE PROCEDURE MUST BE PERFORMED BY KEEPING X1 PRESSED FOR THE ENTIRE TIME OF THE CONFIGURATION.</b></p>



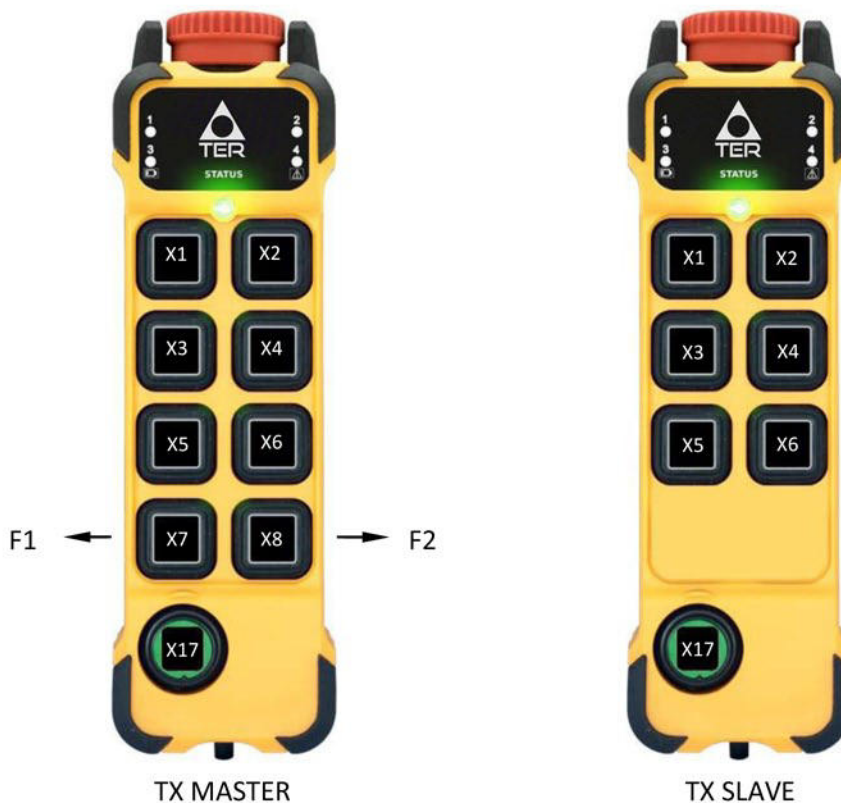
**RECEIVING COPY**

## Master & Slave Option

- MASTER: during the START function, flashing green STATUS LED and LED 1 active (orange light led).
- SLAVE: during the START function, flashing green STATUS LED (LED 1/2 not active).

Command both the gantry cranes with the Master TX (single operator).

1. Deactivate SLAVE TX with the emergency mushroom pushbutton (gantry crane 2).
2. Activate MASTER TX.
3. Select RX1/RX2/RX1+2 using F1 (gantry crane 1) and F2 (gantry crane 2) pushbuttons.
4. The selection made will be indicated by the activation of LED1/2/1+2 on the transmitter LED1/2/1+2 (orange light led).
5. If the MASTER TX is using RX1+2 the SLAVE TX will not have access to RX2 (gantry crane 2) and will give alarm signal by red STATUES LED flashing.
6. If the “free” MASTER TX RX2 (orange light led 2 off) the SLAVE TX will return to have access to its receiver RX2 (gantry crane 2).
7. For safety reasons, in the MASTER mode 1+2, if one of the two receivers loses the signal and/or goes off, it will also stop the second receiver.



# Troubleshooting

## Transmitter

LED signal			Failure analysis	Solution
<span style="color: green;">●</span> Short <span style="color: red;">—</span> Long				
	red LED	green LED	Battery contacts oxidized  Batteries low or defective	Remove the oxide from battery contacts  Replace batteries
STATUS				
	●●●●●●			
	red LED	green LED	Transmitter is not communicating with receiver	Check the power supply of receiver  Check receiver supply fuse
STATUS		●●●●●●		
	red LED	green LED	Pushbutton jammed or defective	Contact the dealer
STATUS		●●●●●●		
	—●●			

## Receiver

LED signal			Failure analysis	Solution
<span style="color: green;">●</span> Short <span style="color: red;">—</span> Long				
	red LED	green LED	Communication error	Check the antenna and make sure is not loose
STATUS	—●●●			
	red LED	green LED	Receiver is not communicating with transmitter	Check the antenna and make sure is not loose
STATUS		— — —		
	red LED	green LED	Receiver is properly working	
STATUS		—————		

## Technical data

### TRANSMITTER (from K200C2E to K808C2E)

<b>Frequency</b>	433.0525 > 434.7775 MHz
<b>Modulation method</b>	4GFSK
<b>Operating range</b>	100 m
<b>Control system</b>	PLL
<b>Antenna impedance</b>	50 ohm
<b>Commands response time</b>	50 > 100mS
<b>Power supply</b>	2 AA size batteries
<b>Antenna</b>	Internal
<b>Average current consumption</b>	16mA at 3Vdc
<b>Emission power</b>	< 10dBm
<b>Operating temperature</b>	-10°C > +75°C
<b>Protection degree</b>	IP65
<b>Dimensions</b>	H193xW57xD51 (mm)
<b>Weight</b>	290g
<b>Housing material</b>	Nylon and glass fiber

### TRANSMITTER (from K1000C2E to K1212C2E)

<b>Frequency</b>	433.0525 > 434.7775 MHz
<b>Modulation method</b>	4GFSK
<b>Operating range</b>	100 m
<b>Control system</b>	PLL
<b>Antenna impedance</b>	50 ohm
<b>Commands response time</b>	50 > 100mS
<b>Power supply</b>	2 AA size batteries
<b>Antenna</b>	internal
<b>Average current consumption</b>	16mA at 3Vdc
<b>Emission power</b>	< 10dBm
<b>Operating temperature</b>	-10°C > +75°C
<b>Protection degree</b>	IP65
<b>Dimensions</b>	H245xW57xD51 (mm)
<b>Weight</b>	350g
<b>Housing material</b>	Nylon and glass fiber

### H...C4 type RECEIVER

<b>Frequency</b>	433.0525 > 434.7775 MHz
<b>Modulation method</b>	4GFSK
<b>Sensitivity</b>	-112dBm at 1,2Kbps
<b>Control system</b>	PLL
<b>Antenna impedance</b>	50 ohm
<b>Commands response time</b>	50 > 100mS
<b>Power supply</b>	24~264Vac/dc
<b>Antenna</b>	External
<b>Standby current consumption</b>	16mA at 220Vac
<b>Emission power</b>	+ 10dBm
<b>Operating temperature</b>	-10°C > +75°C
<b>Relays</b>	8 function
<b>Dimensions</b>	H142xW141,2xD58,5 (mm)
<b>Weight</b>	800g
<b>Housing</b>	Nylon and glass fiber IP65

### H...C2 type RECEIVER

<b>Frequency</b>	433.0525 > 434.7775 MHz
<b>Modulation method</b>	4GFSK
<b>Sensitivity</b>	-112dBm a 1,2Kbps
<b>Control system</b>	PLL
<b>Antenna impedance</b>	50 ohm
<b>Commands response time</b>	50 > 100mS
<b>Power supply</b>	24~264 Vac/dc   90~460 Vac/dc
<b>Antenna</b>	External
<b>Standby current consumption</b>	16mA a 220Vac
<b>Emission power</b>	+ 10dBm
<b>Operating temperature</b>	-10°C > +75°C
<b>Relays</b>	2 stop + 5 function (1 N.A. 5A 250Vca)
<b>Dimensions</b>	H142xW141,2xD58,5 (mm)
<b>Weight</b>	800g
<b>Housing</b>	Nylon and glass fiber IP65

## HS...C2 type RECEIVER

<b>Frequency</b>	433.0525 > 434.7775 MHz
<b>Modulation method</b>	4GFSK
<b>Sensitivity</b>	-112dBm at 1,2Kbps
<b>Control system</b>	PLL
<b>Antenna impedance</b>	50 ohm
<b>Commands response time</b>	50 > 100mS
<b>Power supply</b>	24~264 Vac/dc
<b>Antenna</b>	External
<b>Standby current consumption</b>	16mA at 220Vac
<b>Emission power</b>	+ 10dBm
<b>Operating temperature</b>	-10°C > +75°C
<b>Relays</b>	2 stop + 13 function (1 N.O. 5A 250Vac)
<b>Dimensions</b>	H190xW184xD64 (mm)
<b>Weight</b>	1795g
<b>Housing</b>	Nylon and glass fiber IP65

## HM...C2 type RECEIVER

<b>Frequency</b>	433.0525 > 434.7775 MHz
<b>Modulation method</b>	4GFSK
<b>Sensitivity</b>	-112dBm at 1,2Kbps
<b>Control system</b>	PLL
<b>Antenna impedance</b>	50 ohm
<b>Commands response time</b>	50 > 100mS
<b>Power supply</b>	24~48Vac/dc
<b>Antenna</b>	External
<b>Standby current consumption</b>	45mA at 48Vac
<b>Potenza d'emissione</b>	+ 10dBm
<b>Temperatura di funzionamento</b>	-10°C > +75°C
<b>Relays</b>	2 stop + 19 function (1 N.O. 5A 250Vac)
<b>Dimensions</b>	H272xL260xP96 (mm)
<b>Weight</b>	2950g
<b>Housing</b>	Nylon and glass fiber IP65

# Transmitter & Receiver Standard Combinations

Transmitter	Receiver	Wiring connection
K200C2E	H	Universal
K200C2E / K202C2E / K400C2E / K404C2E	HS	A
K600C2E / K606C2E / K800C2E / K808C2E	HS	B
K1000C2E / K1200C2E	HS	C
K1010C2E / K1212C2E	HM	Universal

## Warranty and service

The radio remote control is guaranteed 12 months (twelve) with extension to an additional 24 months for electronic parts that may be defective in manufacture from the date of purchase shown on the invoice on which must be clearly marked model and serial number of the system. Juuko Italy guarantees the product against manufacturing defects, therefore, all the components which in our sole discretion present anomalies of construction, will be replaced at no charge to the customer. However, it's absolutely ruled out the complete replacement of the device. The repair will be performed at our service center where the equipment must be received without any charge to us regarding transport costs or other incidental expenses. Should it be necessary the intervention of one of our technicians at the place of installation of the system, the replacement of defective parts and related labor will be done under warranty and all expenses incurred, will be borne by the customer. The warranty does not apply to loss or damage during transport and it also does not cover damage caused by misuse, improper installation, improper power supply or static electricity discharges.

The warranty expires when the unit is tampered or repaired by unauthorized personnel, and also does not include consumable parts and accessory such as batteries, signaling devices, antennas and external connectors. Juuko Italy assumes no responsibility for damage caused by the equipment to persons or property, therefore, is not subject to possible claims for damages. However in case of any disputes, the court of jurisdiction is the **Foro di Novara** (Novara, Italy).

### The warranty does not cover

- Faults resulting from normal wear
- Consumable Parts
- Products that have been subject to unauthorized changes
- Faults resulting from improper installation or use
- Damage due to moisture, water, or external events

### Repair and maintenance

- Repairs and maintenance must be performed by qualified personnel
- Use only original Juuko spare parts
- Contact your dealer for service or maintenance needs
- Store in a clean, dry place
- Keep the battery contacts clean
- Remove dust and dirt with a clean, damp cloth




**Keep this manual and certificate of conformity issued which shall contain the number and serial number of the product.**





**JUUKO ITALY** – Via Don Signini 43 – 28010 – BRIGA NOVARESE – NO – ITALY - Tel. +39 0322 93574 / 953788 – Fax. +39 0322 953787 –  
[www.juukoitaly.it](http://www.juukoitaly.it) - [www.juukoreMOTEcontrol.com](http://www.juukoreMOTEcontrol.com)

**DECLARATION OF CONFORMITY**  
**CERTIFICATE OF COMPLIANCE WITH TECHNICAL,**  
**FUNCTIONAL AND SAFETY STANDARDS**

The producer:  <b>SHUN HU TECHNOLOGY CO. LTD</b>	No.21, Zhonggoong Rd., Xihu Township, Changhua County 514, Taiwan	
The distributor: 	Via don Signini 43 28010 – Briga Novarese (NO) ITALY	

**JK SERIES RADIO REMOTE CONTROL** Which consider in the set Trasmitter Unit and Receiver Unit that work together in dual transmission.  
 Transmitter unit list: **K200C2E – K202C2E – K400C2E – K404C2E – K600C2E – K606C2E – K800C2E – K808C2E – K1000C2E – K1010C2E – K1200C2E – K1212C2E**  
 Receiver unit list: **H...C4 – HS...C2 – HM...C2**

It's suitable to be installed on machines or other equipment conforming to the "Directive 2006/42/EC" and complies with the technical requirements of the standards and specifications listed below:

Essential requirement	Regulation / Standard applied	Result
Machinery Directive	2006/42/EC (revisione della 98/37/EC)	compliant
Low Voltage Equipment Directive	2014/35/UE	compliant
Electromagnetic Compatibility Directive	ETSI - EN 301 489-1: V.2.1.1, EN 301 489-3: V.1.4.1 e 2014/30/UE	compliant
Radio Equipment Directive	ETSI - EN 300 220-1: V.2.3.1 - EN 300 220-2: V.2.3.1 e 1999/5/EC	compliant
Electromagnetic Compatibility Directives	EN55022/2010 – EN61000-3-2:2006 +A1:2009+A2:2009 EN61000-3-3:2006 EN61000-4-2:2009 EN61000-4-3:2006+A1:2008+A2:2010 EN61000-4-4:2004+A1:2010 EN61000-4-5:2006 EN61000-4-6:2009 EN61000-4-11:2004 EN62368-1:2004 +A11:201762479:2010 EN IEC 61000-6-2:2019 EN60529:1991+A1:2001+A2:20013 EN61000-6-3:2007+A1:2011	compliant

This declaration of conformity is also compliant with the under-reported harmonized directives:

Essential requirement	Regulation / Standard applied	Result
Cranes – Control	EN 13557/2003 (31/12/2005)	Compliant
Safety of Machinery	EN60204-32:2008 - EN13557:2003+A2:2008 - IEC 60950-22/2017 e EN ISO 13849-1/2015 Category 4 for STOP circuit – Category 3 for control circuit	Compliant
Safety of Machinery Electrical equipment	EN60204-1/2006	Compliant
Safety of Machinery Electrical equip. for Cranes	EN60204-32/1998	Compliant

**SAFETY FUNCTION PERFORMANCE LEVEL ACCORDING TO EN 13849-1:2008 STOP OF ALL MOTORS**      **PL d**      **EMERGENCY STOP FUNCTION: EMERGENCY STOP CONTROL FOR SAFE**

Briga Novarese October 24th, 2022

JUUKO ITALY – Gli Amministratori  
Paolo Cerutti e Matteo Zanetta

This device also complies with the standards required by Article 3 of the R & TTE Directive 1999/5/EC and Directive 2004/108/EC.

This document reflects the opinion of the certifying body: **MRT Technology** - Certificate No: **1806TW2702-E1, 1806TW2702-E2, 1807ESU01101** issued on 28/07/2018. Technical documentation kept in archive files certification body (Taoyuan City), manufacturer (Xihu Township) and distribution company in Briga Novarese, via Don Signini 43 at JUUKO ITALY. The reference person is the Eng. Paolo Cerutti.



MRT Technology (Taiwan) Co., Ltd

## Verification Of Compliance

**Report No.: 1806TW2702-E1, 1806TW2702-E2, 1807ESU01101**

**Issued Date: 2018-07-25**

**Product** : Radio remote control transmitter  
**Trademark** :   
**Model Number** : K200, K202, K400, K402, K404, K600, K602, K604, K606, K800, K802, K804, K806, K808  
**Company Name** : SHUN HU Technology Co., Ltd.

This verification does not imply assessment of the production of the product. This product, which has been issued the test report listed as above in MRT-TW, MRT-SU Laboratory, is based on a single evaluation of one sample and confirmed to comply with the requirements of the following standard.

EN 301 489-1 V2.1.1: 2017	EN 300 220-1 V3.1.1: 2017
EN 301 489-3 V2.1.1: 2017	EN 300 220-2 V3.1.1: 2017
IEC 61000-4-2: 2008	
IEC 61000-4-3: 2010	
IEC 61000-4-4: 2012	
IEC 61000-4-5: 2014	
IEC 61000-4-6: 2013	
IEC 61000-4-8: 2009	
IEC 61000-4-11: 2004/AMD1:2017	

  
Chenz Ker / Manager

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