JREMO T.M.

JEICO PRODUCTS

JREMO 3K MANUAL

Rev. 1

JEICO®.COM

WARRANTY

JREMO® SERIES Remote Controllers must be handled, installed, operated, and maintained by (an) authorized and (a) qualified person(s), and

Upon the above condition guaranty period from the date of (delivery, installation, inspection) shall be one calendar year,

Subject to confirming defects not caused by improper installation, improper operation and/or insufficient maintenance, unauthorized modification, ignorance of environmental specifications, or improper interfacing, irresistible forces such as war(s), strike(s), Act(s) of God, and so on; all such the defects shall be treated as in no warranty.

JEICO® INDUSTRIAL REMOTE CONTROLLER		
MODEL NAME	**JREMO 3K**	**JREMO 3K**
SERIAL NO.		
CHANNEL NO.		
LOT. NO.		

PRECAUTIONS

A. ANNOUNCEMENT

◎ This O&M Manual is for **JREMO 3K** and the specification is referred to Chapter 1.
◎ Before installation and operation look through this manual and make sure having a full acknowledgement of this manual.
◎ **JREMO®** series' remote controllers compose a High-Tech systemized, and a full knowledge of this manual is a must in advance of installation as well as operation of this remote controllers.
◎ Do not try to dismantle or unscrew **JREMO®** series except a skilful, an expert, and an authorized.
◎ This manual is for reference and good for installation and for maintenance, for better functions and qualities it may be changed, modified, revised without notice in advance. For more details consult an adjacent agent and/or supplier.
◎ Each and all the **JREMO®** series' remote controller is tested under severe condition and passed without any default found at factory and is ready for an immediate use for a normal/insufficient condition or so, however, in an emergency and/or in an any dangerous possibility, do not use.
◎ After use switch off the main power of the equipment(ex. winch) and confirm the receiver power off, and also confirm EMS button of the transmitter is in a pressed down position.
◎ When not in use stay the transmitter in a safety area and do not allow an unauthorized to attempt to use it.
◎ Equipment(ex. winch) using this remote controller must have main relays, limit switches, separate COM lines, and other appropriate devices for safety operation.
◎ When metal container for receiver casing is used make sure Ground(GND) to be sure connected to metal part of equipment(ex. winch).
◎ Do not use in a severe interfered area and/or lightening or so.
◎ Make sure power sources are correct.
◎ Power off and do not use during installation and/or maintenance so as to avoid any electric shock or so.
◎ Do not try to copy, modify, or release this remote controllers without

permission in advance by **JEICO**, such an action is illegal. **JREMO®** series' remote controller have many international patents, certificates, and so on.

◎ Without notice in advance and within **JEICO**'s discretion this manual may be revised, added, and/or deleted for better use.

B. GENERAL CAUTIONS

☆ Every operator must be healthy both physically and mentally.

☆ Even though this remote controller is versatile, durable, and good for outdoor use try to avoid to contact directly by an excessive shock, pressure, wind, snow, rain, ices, or sunlight, high temperature, humid, gas, and etc.

☆ During operation when found power is weak replace all the batteries with all AA batteries.

☆ When rechargeable batteries (however, it is not recommended because of shorter life) are used, use all new 2 AA 1.2V Ni-MH 2,500 mAH or above.

☆ When not in use for a long time take out batteries from the transmitter and put aside in a different area.

☆ In an emergency follow up the below emergency measures.

C. EMERGENCY MEASURES

JREMO® series has designed for safety, meeting with various kind of emergencies and for self-recovering. Billions of different I.D. code, Self-Diagnoses, super qualified and isolated protection against voltage surges and/or interferes, etc. are the basic integral functions for solving any unexpected accident or trouble in an emergency. So when such an emergent function is detected, **JREMO®** series will off the work immediately and stop all the function automatically.

For emergency follow up the below procedure in advance and then call an adjacent **JEICO** agent and/or supplier for an emergency service.

1. Press down EMS Button(red mushroom button placed at top).
2. Power off receiver power. Power off main power of Equipment.
3. Inquire adjacent **JEICO** agent and or supplier who can help.

CHAPTER I : GENERAL SPECIFICATIONS

1.1. COMMON SPECIFICATION

- Frequency Ranges & Channel Numbers
  433 Bands : 433.050~434.7750 Mhz, 70 channels

output power tolerance: 1.23±0.01dBm

- I.D. Code : 2^{32} (Over 4 Billion)
- Temperature : -10 ℃ ~ +60 ℃
- Remote Distance : 30 ~ 150 M.
- Case Construction : Glass-Fiber
- Protection Grade : (Tx) IP55 / (Rx) IP66

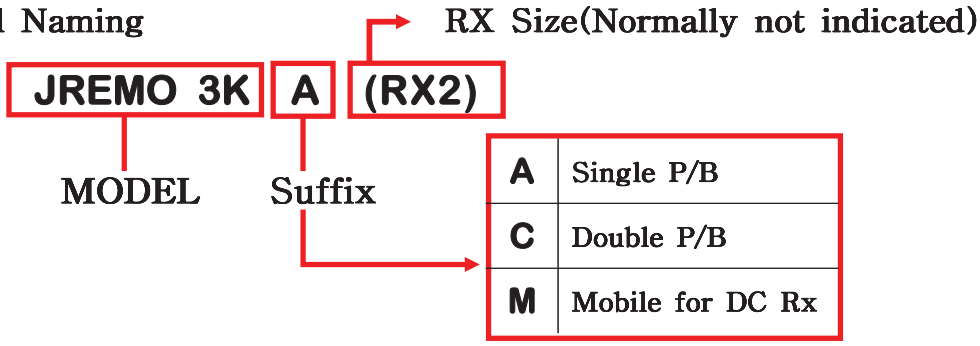
1.2 Transmitter(Tx)

- Modle : **JREMO 3K**
- Batt. Power: 2 x 1.5 V Alkaline Batteries (LR6 AA Size)
- Type : Single or Double Push Button Type
- Size : 148 x 48 x 45 mm (L x W x H)
- Weight : Approx. 170/185/210 gr. (Batteries Incl.)

1.3 Receiver(Rx)

- Casing : **RX2**
- Power : AC100~240V, DC12~40V(OPT.~60V)
- Type : Remote ON Main Lamp Indication
- Ralay : AC =>"A" Contact, 250VAC/5A, 125VAC/10A
  DC =>"A" Contact, 24VDC/15A, 120VAC/15A
- Size, mm : 90 x 152 x 105
- Weight, gr. : 950(Antenna & Power/Relay Cable Incl.)

1.4 Model Naming



Note : Suffix is normally not indicated on for **A** type.

CHAPTER II **JREMO 3K** Standard Set

JREMO 3K Standard Set comprises one transmitter and one receiver as following as a set

2-1 STANDARD SET

JREMO 3K

A/C/M

■ FUNCTIONS MODEL NAME RECEIVER

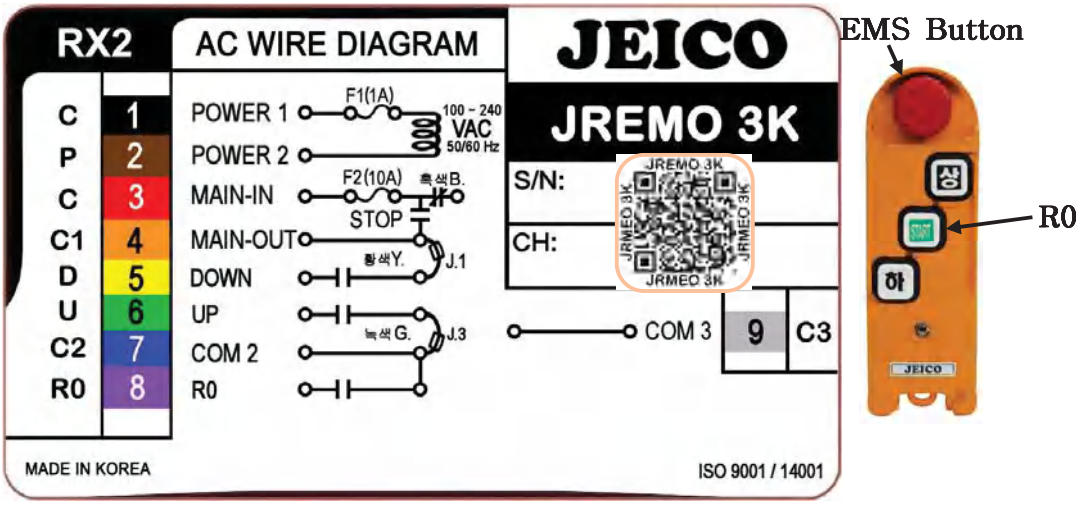
Single P/B	: **JREMO 3K A**	==>	**RX2** (9 Core Color Cable)
U/D Creep P/B	: **JREMO 3K C**	==>	**RX2** (12 Core Cable)
Single P/B for DC	: **JREMO 3K M**	==>	**RX2** (9 Core Color Cable)

■ Tx Butten Labelling can be in English, Chinese, Japanese, Spanish, or other languages upon request.

2-2 CONTROL CONTACT WIRE DIAGRAM

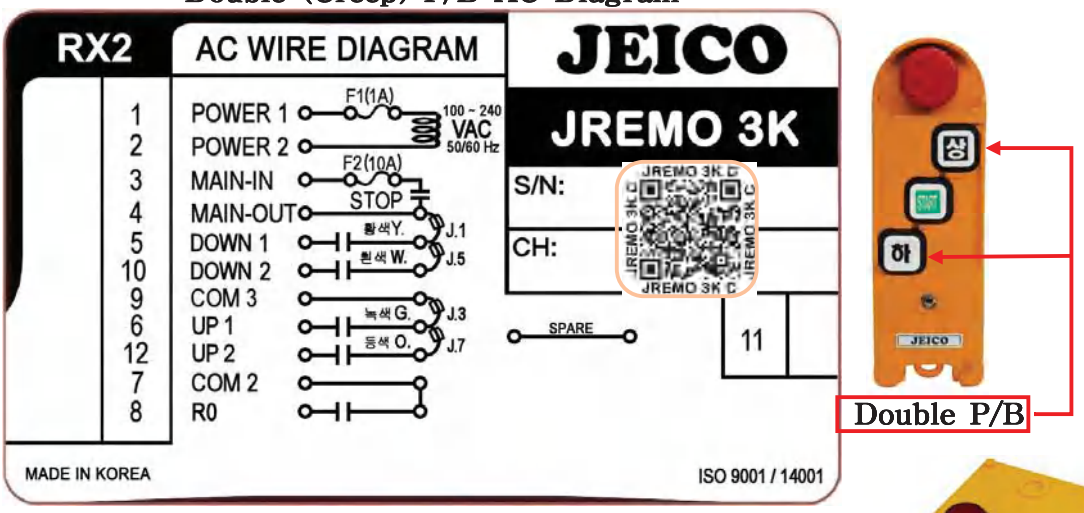
■ **JREMO 3K A**

Standard Single P/B AC Diagram



■ **JREMO 3K C**

Double (Creep) P/B AC Diagram



■ RECEIVER : **RX2**

SIZE : 90 x 152 x 105 mm, approx. 950 gr.

■ CABLE SPEC. : 0.75 Sq, 600VAC, 18 Core,
approx. 1.7 m long, numbered

■ RELAY SPEC. : 250VAC/5A, 125VAC/10A
"A" Contact

■ INPUT POWER: AC 100~240V 60/60Hz

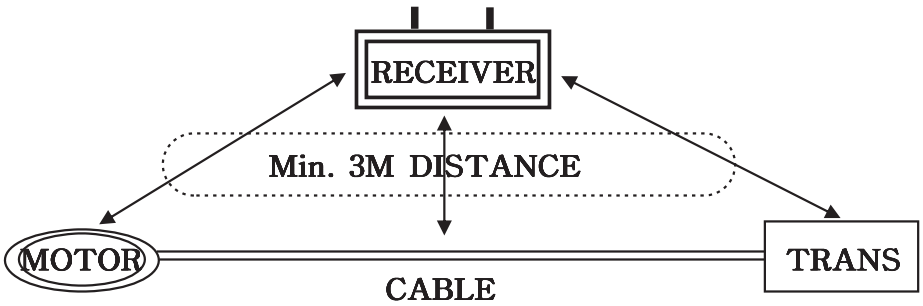
■ FUSE SPEC. : 1A(F1) / 10A(F2), 20MM Column Fuse

■ COMBINATION: Only for suffix **A** as an optional function.

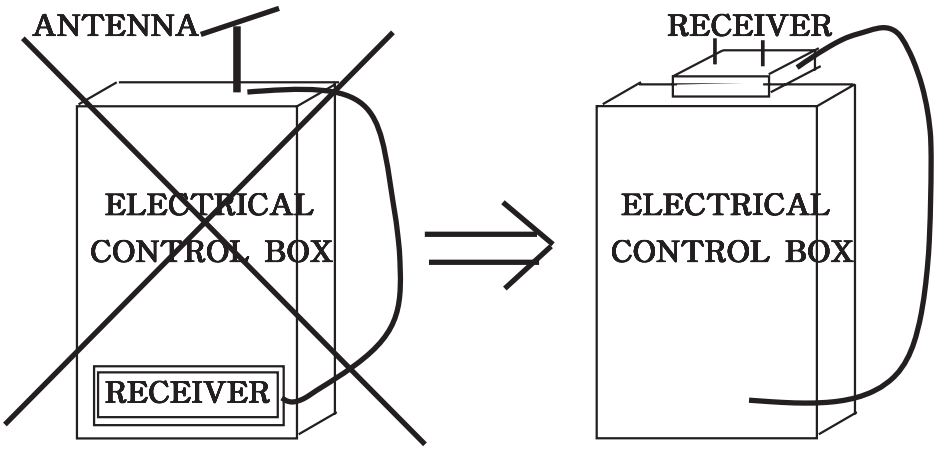
CHAPTER III :INSTALLATION & FUNCTION SETTING

3-1 CAUTIONS FOR INSTALLATION

1. Follow up all the safety rule of equipment (ex. winch)
2. Switch off the main power of equipment (ex. winch) in a first action.
3. Install receiver where there will have any other obstructions.
4. Fix receiver firmly.
5. Use an optional external antenna in case receiver installs inside the metal closed box or electrical panel.
6. Check safety devices of equipment(ex. winch) before installation and confirm it is under utmost safety condition.
7. Do not try to install without gaining in skill for electrical circuit diagrams and operation circuits of equipment(ex. winch), remote controller's functions, etc for avoiding an unexpected accident, wrong functions, etc.
8. For avoiding any possible interferes install receiver far from motor and transducer as following illustration :



9. Install receiver top outside of electrical control box and installation in inside the control box is not a proper method.



3-2 HOW TO INSTALL **JREMO®** SERIES TX

3-2-1. BATTERIES

A. Insert 2 AA batteries at right position with + and -.
An opposite position will cause an excessive heat to cause battery leakage, burning, and so on, any malfunction caused by such the poor batteries' handling will not be of free recovery no matter how long the guarantee period remained.

B. Precautions

1 : Do not use low power type rechargeable batteries.
Recommend : Use 2500mAH or above.

2 : Use all new & fully charged batteries for replacement.
Any un-fully charged one(s) may cause the same to the above clause 3-2-1 A matters.

B. Change of Batteries : When led signals with red and green flashes in turn it shows battery powers are low. Replace them all 2 batteries immediately and simultaneously with new ones.

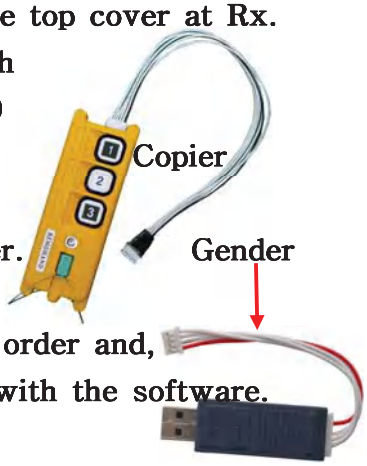
C. When not in use press down the EMS button for saving battery life as well as off the battery power, and for safety as well.

3-2-2. FUNCTION SETTING & COPYING

In case to change either Tx or Rx, or modify functions its mating transmitter and receiver must be identical and set both at the same time for sure identification. Function settings can be done either by the copier or by PC software, or from direct Rx-Rf at Rx to/from Tx. Either method is an optional.

A. Function set by Copier

1. Unscrew Battery Cap at Tx and Open the top cover at Rx.
(Please note when the Copier to use both Tx and Rx power should be shut down.)
2. Connect Copier either to Tx or Rx.
3. Follow the instruction of Copier Manual that will be provided as an optional order.



B. Function set by Software

1. Software can be provided as an optional order and,
2. It needs another connector (i.e. Gender) with the software.

C. Direct Copying from Rx

1. Connect Tx and Rx by a connector cable (an optional provision).
2. Place the COPY-RUN s/w nob to COPY position, and Tx Led will blink with green light.
3. Paring (Copying) from Rx to Tx done.
4. Unplug the connector and place the s/w to RUN position.

D. Consult **JEICO** distributor and/or agent for further support.

3-3 HOW TO INSTALL **JREMO®** SERIES RX

3-3-1. PREPARATIONS

A. Prepare tools.

B. Select a proper place for installation.

1. Choose a safe area, a visible area of receiver or antenna.
2. Avoid a spark area (ex. motors, relays, magnet switches, electric cables are likely generating sparks and interferes)
3. Avoid high voltage and current area.
4. Receiver is to be distanced at least 3cm from obstacles.

C. Match receiver power

1. Check input power source and make sure to connect to the right position.
2. In case DC power, make sure receiver is also for DC.
3. AC Power

   Use AC Receiver.

   Standard AC power source is 100 ~ 240V Free Volts.

   24V, 48V, 380V, 440V etc. are optional.
4. DC Power

   Use DC Receiver.

   Standard DC power source is DC12~40V Free Volts.

   For 48VDC, 60VDC consult **JEICO** distributor and/or agent.

3-3-2. INSTALLATION SEQUENCE

A. Power off equipment(ex. winch).

B. To install receiver always try to use with the Rx Fixing Plate or Rx Fixing Bracket when applicable.

C. Connect each wire end of receiver cable to a mating connector of equipment(ex. winch).

1. Confirm both circuit diagram of receiver and equipment(ex. winch) are in sequence and connected correctly.
2. Confirm ground is o.k.
3. Check and confirm power source.
4. Make sure the selector switch positioned to pendent if pendent is (to be) installed together with **JREMO 3K**.

D. Power on transmitter :

1. Twist up the EMS button.
2. Press Start Pushbutton of the transmitter and,
3. Confirm if the receiver MAIN Lamp is on.

E. Make sure each rx connection wires are temporarily disconnected to equipment either by on-off s/w or other means and then press each function button of transmitter and confirm remote operation in a good working condition by confirming to see each relay-led light inside the relay board of receiver.

F. Close upper case of receiver and set the selector switch to remote position if selector s/w is installed.

3-4 HOW TO START & USE PASSWORD(PWD)

For the safety and secure operation **JREMO** series has adopted several types of start functions as following to achieve enhanced safety :

■ Main ON Function

Std : EMS UP ⇨ Any button, Main ON

Opt.: EMS UP ⇨ Start P/B, Main ON

CHAPTER IV : MAINTENANCE

4-1 STANDARD OPERATION

A. Twist up the EMS button of Tx and do as START ON function procedure preset and find the Rx Main Lamp ON. During normal operation see if the Tx led shows Green light which is normal, and if the battery power of Tx goes weak then the Tx led light will turn to red and green by turns, and it still runs normally for some time. When it coms stop the operation before any abnormal functions such as delay responses, intermitting runs, no stops, etc during working with both red and green light signalling.

B. Press down the EMS button when every normal operation finished and/or in any emergency situation might occur do the same at once.

C. In case not in use for a long-term operation, take off all the batteries from tx for avoiding of any contamination and/or unnecessary consumption of battery power.

7-2 FUSES

A. A replaceable fuse is put inside the fuse column.

B. For replacement of fuse, use a flathead screwdriver or by hand to push down head of the fuse cap by rotating 90°anticlockwise to open the cap.

C. Replace with a new fuse and close the cap in opposite procedure.

CHAPTER V : TROUBLESHOOTING

5-1 SELF DIAGNOSIS (LED SIGNAL ERROR MESSAGE)

JEICO remote controllers have a renewed method of self diagnostic troubleshooting against so much complicated and riddled electronic structures, and yet it is easy to check and find causes and measures for any malfunctions may occur. **JEICO** takes a type of Led signaling error message for better, quick restoration in normal even at site.

5-2 LED Diagnosis

	Causes	LED Signals	Measures
Transmitter (TX)	EMS Button not up	Red Light	Pull up EMS Button
	Push Button defect	Red Flash	Replace with new button(s)
	Encoder Module defect	No Signal	Replace with a new module
	Batteries Consumed	No Signal	Replace with new batteries
	Low Power	Red & Green Flashes	Replace with new batteries
Receiver (RX)	Decoder defect	Lamp Off	Replace with a new Rx/Rf
	Wrong Power Source	Lamp Off	Replace Fuses and/or Replace Relay Board Connect Right Power
	Main Relay defect	Lamp Off	Replace Main Relay
	Rx-Rf COPY position	Lamp Off	Set to RUN position
	Main Power Off	Lamp Off	Engage Main Power

5-3 Troubleshooting

Appearances	Causes	Measures
Tx Led No Signal & Not Working	1. Wrong Bat. Direction 2. Battery Consumed 3. Old Batteries 4. Encoder Module defect	1. Place in right pole direction 2. Replace with new batteries 3. Replace with new batteries 4. Replace with new module
Tx Led Red Light & Not Working	1. EMS Button Not Up 2. Very Low Batteries 3. Old Batteries 4. Button Jam	1. Twist Up EMS Button 2. Replace with new batteries 3. Replace with new batteries 4. Replace with new buttons
Tx Led Red and Green Flashes & Working	1. Low Battery Power 2. Old Batteries	1. Replace with new batteries 2. Replace with new batteries
Tx Led Green Flashes & Not Working	1. Tx Antenna defect 2. Rx/Rf Module defect 3. Rx Antenna defect 4. Wrong Rx Power 5. Cable Short-circuit 6. No Remote Positioned 7. Frequency Interferes	1. Replace with new antenna 2. Replace with new Rx/Rf 3. Replace with new antenna 4. Correct Rx power source 5. Change with new Cable 6. Set to Remote Position 7. Set to other channel
Rx Lamp ON & Not Working	1. Cable Short-circuit 2. No Remote Positioned 3. Frequency Interferes 4. Relay defect 6. Out of distance	1. Change with new Cable 2. Set to Remote Position 3. Set to other channel 4. Replace relay with new one 6. Be in a running area
Rx Lamp OFF & Not Working	1. Tx Antenna defect 2. Rx Antenna defect 3. Rx/Rf Module defect 4. Power Short-circuit 5. Frequency Interferes 6. Main Fuse Burned 7. Main Relay defect 8. Rx-Rx COPY position	1. Replace with new antenna 2. Replace with new antenna 3. Replace with new Rx/Rf 4. Change with new Cable 5. Set to other channel 6. Replace fuse with new one 7. Replace relay with new one 8. Set to RUN position

APPENDIX III : OPTIONAL ACCESSORIES

RAIN/DUST COVER

MAGNET ANTENNA

Rx Fixing Plate

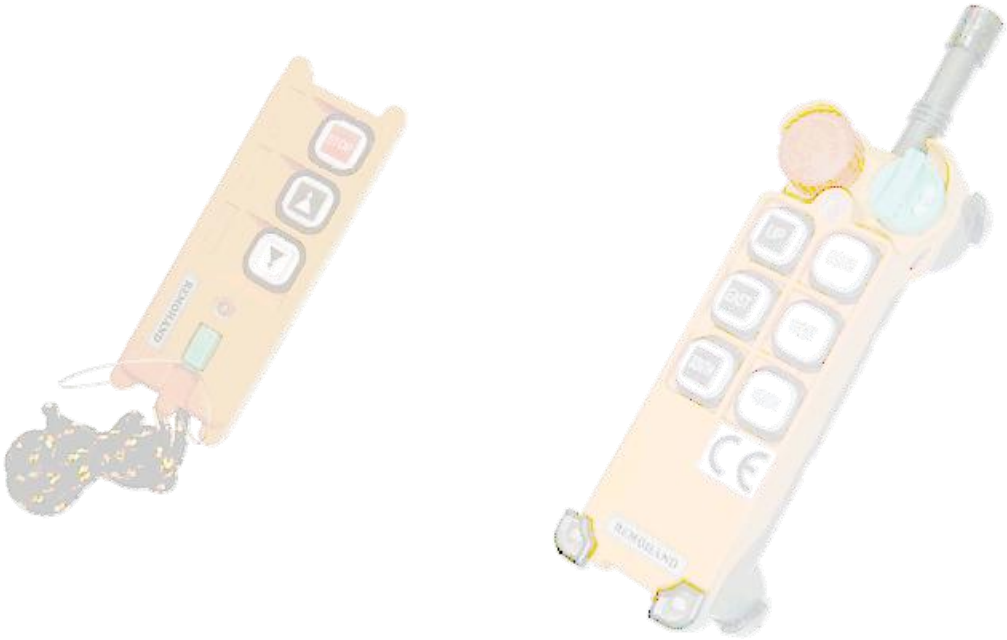
or

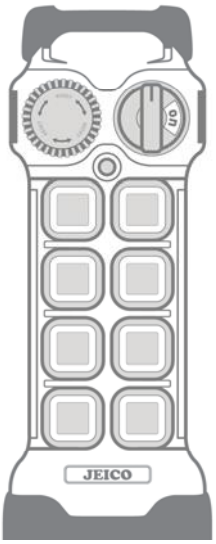
Rx Fixing Bracket

Copier

PC Gender & Software

MEMO





jREMO T.M.

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AGENT

JEICO® is the name of the remote controlling system in industries

FCC STATEMENT

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.
Warning: 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 and experienced radio/TV technician for help.