

Installation notice

- (I) The receiver's installation site should be away from inverter, motor and their cables to keep from disturbing. The further, the better.
- (II) The receiver should not be installed electric cabinet. The correct installation is to fix the receiver on the outside top or surface of the electric cabinet and connect the receiver cable with the electric cabinet.
- (III) The remote controllers of the series are with 4 billion groups' safety code and the end products are with different safety code. Please be sure that there is not products with the same code in the same working zone to avoid malfunction of disturbing.
- (IV) In 20 meters' zone, there should not be equipments with same frequency channel to avoid mutual disturbing.

III. Emergency situation handling

Please handle as following steps and inform the dealer.

1. Press emergency button(STOP).
2. Pull out the transmitter's key switch.
3. Turn off the crane power
4. Inform the dealer to find the reasons.

IV. Normal operation

1. Insert the batteries of AA type with full power in the transmitter.
2. Power on the controller according as the power on mode.
Note: The red LED indicator flashes if the operation is not according as power on steps.
3. Operate the transmitter on the buttons function.
4. Handling after operation:(1) Press emergency button(2) Turn off the key switch and pull it out(to F21-E1B/4SB/2D/2S, pull out magnetic key.
5. Take out the batteries if it would be not used for long time.

V. Batteries

The transmitter are with two alkaline AA batteries. The LED indicator flash green after pressing the button if the batteries are full electric. Otherwise the LED Indicator flash red or does not flash if the electric is not enough. Then the batteries should be changed soon.

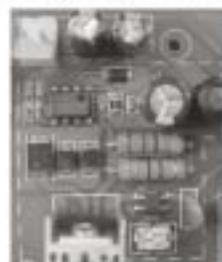
VI. Receiver's power choices.

Power Supply

F-21 is with switching power

(1) AC/DC 18~65V

The advantage of switching power, small volume, light weight, high efficiency, strong anti-interference, wide input power and modularization



(Pic.1)

1. Low power of 18V~65VDC/AC power unit(Refer to above pic1)

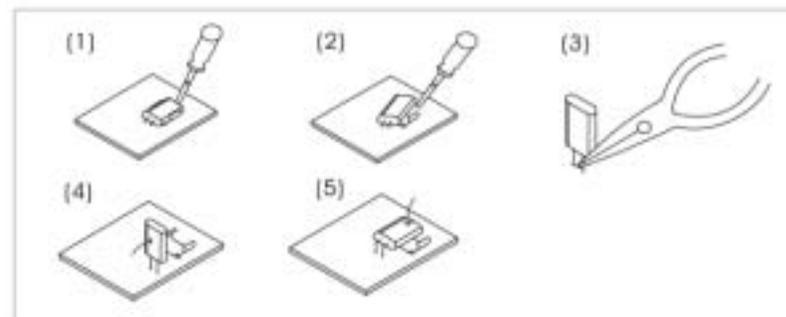
VII. The transmitter and receiver's changing and labels.

The controller have different circuits for frequency bands, VHF and UHF.

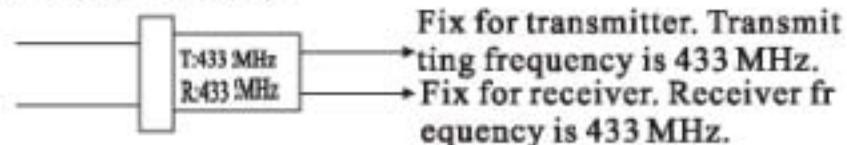
In same band, please change the quartz crystal to change the channel. The quartz crystals of transmitter and receiver should be in matching pairs. Pay attention to the VHF or UHF frequency band and choose right quartz crystal with VHF or UHF.

In the circuit board, there is "V" behind the letter V or U to imply the frequency band. Followings are the changing steps:

- (1) Pry the front part of the quartz crystal.
- (2) Take out the quartz crystal.
- (3) Make the quartz crystal's pins to be straight by sharp-nose pliers.
- (4) Insert the quartz crystal to the blocks in the circuit board.
- (5) Press the quartz crystal into the protecting block slantingly.



Quartz crystal labeling



Note: The transmitting and receiving frequency must be same.

VIII. Fuse wire's changing

Push down the fuse blocks' cover by screw driver, contra rotate it and take out the fuse. Then put correct fuse on the cover and put them together in the fuse block. Then fasten the cover.

IX. LED indicators error warning

1. Insert the batteries and press the buttons. If the LED flashes red quickly, check following items:
 - A. Buttons are stuck(inform the dealer)
 - B. Stop button has not been rotated and pulled up.
 - C. Power on is not in right steps.
2. The transmitter LED indicator flashes yellow slowly.
The transmitter memory goes wrong. Please inform the dealer to deal with it.

X. Easy trouble clearing ways:

1. Because of wrong operation or improper operation, transmitter's LED indicator flashes red. Please take out the batteries, insert and power on the transmitter again.
2. The receiver does not act. Please power off the receiver for more than 20 seconds. Then power on again.

XI. Explain:

Do not make any changes or modifications to the equipment unless otherwise specified in the instructions. If such changes or modifications should be made, you could be required to stop operation of the equipment.

This device can be expected to comply with part 15 of the FCC Rules provided it is assembled in exact accordance with the instructions provided with this kit.

Operation is subject to the following 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.

F21 SERIES E1,E1B,4D,4S,4SB,2D,2S USER MANUAL

I. Warranty

Quality Assurance

UTING company assure that the end products conform to the known specifications. It works normally after proper installation. However UTING company do not assure that the products do not break in the least or zero error.

Warranty period

The product has one year warranty period since ex-factory date and the company assure that the products work normal during warranty period. In warranty period, UTING company would repair the products with quality problems. Any products service required should be sent to assigned repairing place. The user pay the one way freight cost and the UTING company return the products in certain time and pay one way freight cost.

Items out of repairing

The repairing range above does not include button, relay, fuse wire, battery and other wearing parts, the damaged board caused by handling mistake or the problems caused by improper using, act of God, natural hazards, insufficient maintenance, ignored operational environment standard, modification without permission, wrong using or site setting by users.

Remarks

- ** The warranty items above do not have other stated or implied items.
- ** The compensation in the warranty is the only compensation. ANT company is not responsible for direct, indirect, special, unexpected or causal present damaging.

II. Attentions

General attentions

- ** The products should not be disassembled by personal without professional training. Otherwise it may cause damaging or injured person.
- ** The overhead traveling crane should be power off after using to cut off the receiver power and the transmitter key switch should be pulled out.
- ** The overhead traveling crane should have power relay, limit switch and other safety equipments.