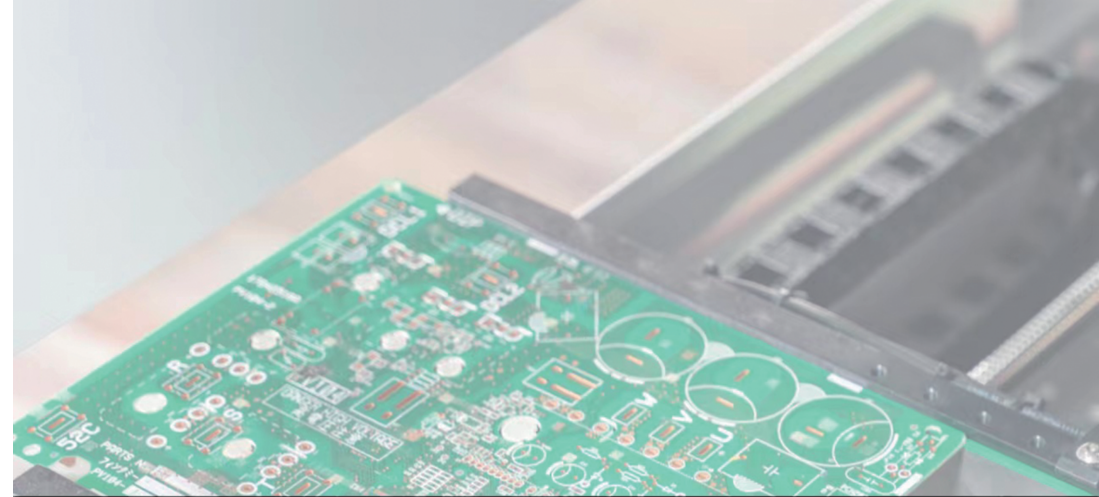


Qualified Inspection Table

Item	Test condition
Relay board	The corresponding relay board should be active with correct contact output. The corresponding LED should be active.
Decoding circuit	The corresponding action should be decoded correct.
accepted high-frequency	Sensibility: $\geq -110\text{dBm}$
Coded aperture plate	The corresponding button should be correct and have code output. The exam lights for battery level is displayed correctly. The input and output set should be right.
High-frequency	Output power: $\leq 4\text{dBm}$
Final test	Transmitter-the transmitting frequency and output power should be within acceptance range. Receiver: the receiving frequency and sensibility should be within acceptance range. The corresponding electric relay and LED should have outputs.
Package	Product appearance, shock mount and each accessories inspection.
Model	
Service No.	SERIAL NO:_____ CH:_____

Seal of Qualified Inspection:



F21 F23 F24 Series Instruction Manual



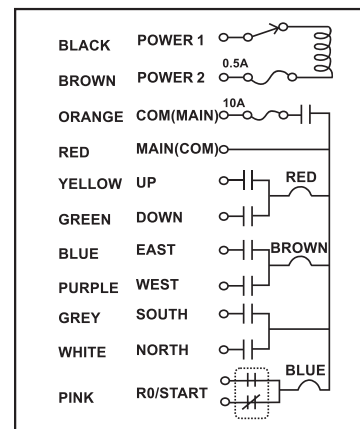
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- 11 ● F21/F23/F24 series User manual

F21-E1 Remote control

Emergency remote control

WIRING DIAGRAM



PRODUCT PHOTOS



Connection method:

- Line 1 and line 2 are connected to the corresponding power supply of the remote control respectively
- Line 3 is a public line and also connected to the power line
- Line 4 is always open (if there is no always open or not open)
- 5.6.7.8.9.10 corresponds to the control lines corresponding to the upper/lower/east/west/south/North

Matching method:

Emitter Assignment Method

- Disconnect the receiver power supply, put the transmitter on the battery, emergency stop and screw out;
- Simultaneously press the "East" and "West" keys to press the emergency stop (do not let go);
- Power on the receiver (over).

Receiver Allocation Method

- Disconnect the receiver power supply, put the transmitter on the battery, emergency stop and screw out;
- Hold down the "up" and "down" keys at the same time to press the emergency stop (do not let go);
- Power on the receiver (over).

Product features:

- Has 8 function keys, of which up to 6 single speed keys, 1 only total stop
- Control points up to 8
- Battery voltage warning device, voltage is insufficient automatically shut off the circuit
- Up/down, East/west, and South/North can be set as self-locking functions
- Wirelessly match multiple receivers (transmitters)

Emitter parameter: F21-E1

Shell	Glass fiber reinforced nylon
Protection Class	IP65
Frequency Range	433mhz
Transmitted Power	Less than or equal to 10dbm
Transmitter Power Supply	2 alkaline # 5 batteries
Security Code	32-bit (4.3 billion groups)
Temperature Range	- 40 ℃ to + 85 ℃
Control Distance	200 meters

Receiver parameter: F21-E1

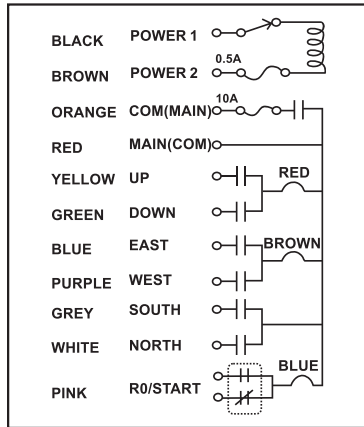
Shell	Glass fiber reinforced nylon
Protection Class	IP65
Frequency Range	VHF:310-331MHZ; UHF:425-446MHZ
Receiver Sensitivity	-110dBm
Receiver Power Supply	18-65V, 24V/36V/220V/380 (Optional)
Output Contact Capacity	8 amp fully sealed relay output
Control Cable Length	1.65m (different lengths need to be customized)
Security Code	32-bit (4.3 billion groups)
Temperature Range	- 40 ℃ to + 85 ℃

Suitable For: single hook, single speed electric hoist or hoist driving and 8 contacts below the industrial control remote control.

F21-E1B Remote control

Classic Crane Remote Control

WIRING DIAGRAM



PRODUCT PHOTOS



Connection method:

- Line 1 and line 2 are connected to the corresponding power supply of the remote control respectively
- Line 3 is a public line and also connected to the power line
- Line 4 is always open (if there is no always open or not open)
- 5, 6, 7, 8, 9, 10 corresponds to the control lines corresponding to the upper/lower/east/west/south/North

Matching method:

Emitter Assignment Method

- Disconnect the receiver power supply, install the transmitter battery, magnet on;
- Hold down the "Stop" and "West" key at the same time to pull the magnet red and green alternately flashing (do not let go);
- Power on the receiver (over).

Receiver Allocation Method

- Disconnect the receiver power supply, put the transmitter on the battery, emergency stop and screw out;
- Hold down the "Stop" and "South" key at the same time to pull the magnet red light flash (do not let go);
- Power on the receiver (over).

Product features:

- Has 8 function keys, of which up to 6 single speed keys, 1 only total stop
- Control points up to 8
- Battery voltage warning device, voltage is insufficient automatically shut off the circuit
- Up/down, East/west, and South/North can be set as self-locking functions
- Wirelessly match multiple receivers (transmitters)

Emitter parameter: F21-E1B	
Shell	Glass fiber reinforced nylon
Protection Class	IP65
Frequency Range	433mhz
Transmitted Power	Less than or equal to 10dbm
Transmitter Power Supply	2 alkaline # 5 batteries
Security Code	32-bit (4.3 billion groups)
Temperature Range	- 40 ℃ to + 85 ℃
Control Distance	200 meters

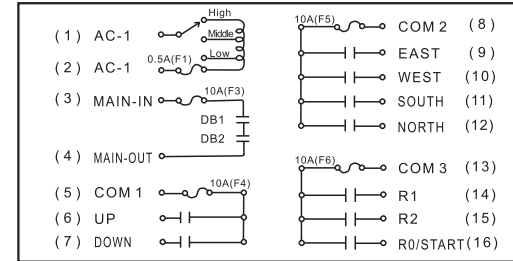
Receiver parameter: F21-E1B	
Shell	Glass fiber reinforced nylon
Protection Class	IP65
Frequency Range	433MHZ
Receiver Sensitivity	-110dBm
Receiver Power Supply	18 to 65V, 24V/36V/220V/380V (Optional)
Output Contact Capacity	8 amp fully sealed relay output
Control Cable Length	1.1m
Security Code	32-bit (4.3 billion groups)
Temperature Range	- 40 ℃ to + 85 ℃

Suitable For: single hook, single speed electric hoist or hoist driving and 8 contacts below the industrial control remote control.

F23-a ++ remote control

Standard Crane Remote Control

WIRING DIAGRAM



PRODUCT PHOTOS



Connection method:

- Line 1 and line 2 are connected to the corresponding power supply of the remote control respectively
- Line 3 is always open public line also connected to the power line (if there is no always open can not be connected)
- Line 4 is always open (if there is no always open or not open)
- 5, 8, 13 line is the public line also connected to the power supply
- Line 6, 7, 9, 10, 11, 12, 14, 15 Connects the upper/lower/East/west/South/North /1/2 to the corresponding control line

Matching method:

Emitter Assignment Method

- Disconnect the receiver power supply, install the transmitter battery, magnet on;
- Hold down the "Stop" and "West" key at the same time to pull the magnet red and green alternately flashing (do not let go);
- Power on the receiver (over).

Receiver Allocation Method

- Disconnect the receiver power supply, put the transmitter on the battery, emergency stop and screw out;
- Hold down the "Stop" and "1" keys at the same time to pull out the magnet red light flash (do not let go);
- Power on the receiver (over).

Product features:

- Has 12 single speed keys (No. 3, No. 4 keys), including 1 total stop
- Control points up to 12
- Battery voltage warning device, voltage is insufficient automatically shut off the circuit
- Safety key switch prevents unauthorized use
- Wirelessly match multiple receivers (transmitters)

Emitter parameter: F23-A++	
shell	Glass fiber reinforced nylon
Protection class	IP65
Frequency range	vhf:310-331mhz; uhf:425-446mhz
Transmitted power	Less than or equal to 10dbm
Transmitter power supply	2 alkaline # 5 batteries
Security code	32-bit (4.3 billion groups)
Temperature range	- 40 ℃ to + 85 ℃
Control distance	Up to 100 meters (200 meters to be customized)

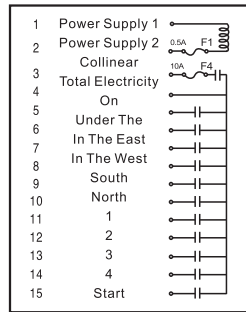
Receiver parameter: F23-A++	
shell	Glass fiber reinforced nylon
Protection class	IP65
Frequency range	VHF:310-331MHZ; UHF:425-446MHZ
Receiver sensitivity	-110dBm
Receiver power supply	36V/220V/380V (adjustable voltage)
Output contact capacity	8 amp fully sealed relay output
Control cable length	1.65m (different lengths need to be customized)
Security code	32-bit (4.3 billion groups)
Temperature range	- 40 ℃ to + 85 ℃

Suitable for: MD two speed electric hoist or hook two speed, double hook/single speed driving and 12 contacts below the industrial control remote control.

F23-a ++ remote control

Small MD Remote Control

WIRING DIAGRAM



PRODUCT PHOTOS



Connection method:

- ① Line 1 and line 2 are connected to the corresponding power supply of the remote control respectively
- ② Line 3 is the general open utility line also connected to the power line
- ③ Line 4 is open (if not always open or not)
- ④ 5.6.7.8.9.10.11.12.13.14 line corresponding to the up/down/north/south/east/west / 1/2/3/4 answer the corresponding line

Matching method:

Emitter Assignment Method

- ① Disconnect the receiver power supply, install the transmitter battery, magnet on;
- ② Hold down the "Stop" and "West" key at the same time to pull the magnet red and green alternately flashing (do not let go);
- ③ Power on the receiver (over).

Receiver Allocation Method

- ① Disconnect the receiver power supply, put the transmitter on the battery, emergency stop and screw out;
- ② Hold down the "Stop" and "1" keys at the same time to pull out the magnet red light flash (do not let go);
- ③ Power on the receiver (over).

Product features:

- Features 12 single speed keys, including 1 total stop
- Control points up to 12
- Battery voltage warning device, voltage is insufficient automatically shut off the circuit
- Safety key switch prevents unauthorized use
- All function keys can be set ordinary, jump, interlock, switch and other functions
- Wirelessly match multiple receivers (transmitters)

Emitter parameter: F23-A++

shell	Glass fiber reinforced nylon
Protection class	IP65
Frequency range	uhf:425~446mhz
Transmitted power	Less than or equal to 10dbm
Transmitter power supply	2 alkaline # 5 batteries
Security code	32-bit (4.3 billion groups)
Temperature range	- 40 °C to + 85 °C
Control distance	Up to 200 meters

Receiver parameter: F23-A++

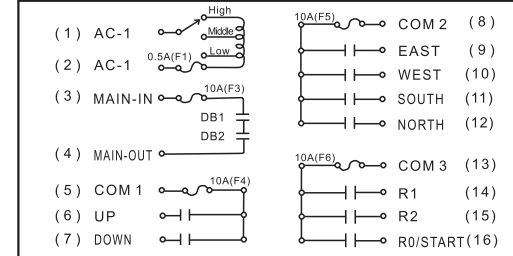
shell	Glass fiber reinforced nylon
Protection class	IP65
Frequency range	433MHZ
Receiver sensitivity	-110dBm
Receiver power supply	36V/220V/380V (adjustable voltage)
Output contact capacity	8 amp fully sealed relay output
Control cable length	1.65m (different lengths need to be customized)
Security code	32-bit (4.3 billion groups)
Temperature range	- 40 °C to + 85 °C

Suitable for: MD two speed electric hoist or hook two speed, double hook/single speed driving and 12 contacts below the industrial control remote control.

F23-a ++ remote control

Emergency Stop MD Remote Control

WIRING DIAGRAM



PRODUCT PHOTOS



Connection method:

- ① Line 1 and line 2 are connected to the corresponding power supply of the remote control respectively
- ② Line 3 is always open public line also connected to the power line (if there is no always open can not be connected)
- ③ Line 4 is always open (if there is no always open or not open)
- ④ 5.8.13 line is the public line also connected to the power supply
- ⑤ Line 6.7.9.10.11.12.14.15 Connects the upper/lower/East/west/South/North /1/2 to the corresponding control line

Matching method:

Emitter assignment method

- ① Disconnect the receiver power supply, put the transmitter on the battery, emergency stop and screw out;
- ② Simultaneously press the "East" and "West" keys to press the emergency stop (do not let go);
- ③ Power on the receiver (over).

Receiver allocation method

- ① Disconnect the receiver power supply, put the transmitter on the battery, emergency stop and screw out;
- ② Hold down the "up" and "down" keys at the same time to press the emergency stop (do not let go);
- ③ Power on the receiver (over).

Product features:

- Control points up to 12
- Battery voltage warning device, voltage is insufficient automatically shut off the circuit
- Safety key switch prevents unauthorized use
- Keystroke function mode can be set by computer interface
- Wirelessly match multiple receivers (transmitters)

Emitter parameter: F23-A++

shell	Glass fiber reinforced nylon
Protection class	IP65
Frequency range	uhf:425~446mhz
Transmitted power	Less than or equal to 10dbm
Transmitter power supply	2 alkaline # 5 batteries
Security code	32-bit (4.3 billion groups)
Temperature range	- 40 °C to + 85 °C
Control distance	Up to 200 meters

Receiver parameter: F23-A++

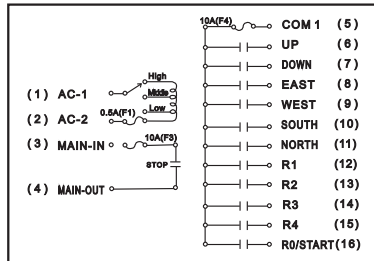
shell	Glass fiber reinforced nylon
Protection class	IP65
Frequency range	433MHZ
Receiver sensitivity	-110dBm
Receiver power supply	36V/220V/380V (adjustable voltage)
Output contact capacity	8 amp fully sealed relay output
Control cable length	1.65m (different lengths need to be customized)
Security code	32-bit (4.3 billion groups)
Temperature range	- 40 °C to + 85 °C

Suitable for: MD two speed electric hoist or hook two speed, double hook/single speed driving and 12 contacts below the industrial control remote control.

F23-BB(S) remote control

Standard Crane Remote Control

WIRING DIAGRAM



PRODUCT PHOTOS



Connection method:

- Line 1 and line 2 are connected to the corresponding power supply of the remote control respectively
- Line 3 is the general open utility line also connected to the power line
- Line 4 is always open (if there is no always open or not open)
- 5.6.7.8.9.10.11.12.13.14 line corresponding to the up/down/north/south/east/west/pick up corresponding line 1/2/3/4

Matching method:

Emitter assignment method

- Disconnect the receiver power supply, install the transmitter battery, magnet on;
- Hold down the "Stop" and "West" key at the same time to pull the magnet red and green alternately flashing (do not let go);
- Power on the receiver (over).

Receiver allocation method

- Disconnect the receiver power supply, put the transmitter on the battery, emergency stop and screw out;
- Hold down the "Stop" and "1" key at the same time to pull out the magnet red light flash (do not let go);
- Power on the receiver (over).

Product features:

- Has 12 single speed keys (No. 3, No. 4 keys), including 1 total stop
- Control points up to 12
- Battery voltage warning device, voltage is insufficient automatically shut off the circuit
- Safety key switch prevents unauthorized use
- All function keys can be set ordinary, jump, interlock, switch and other functions
- Wirelessly match multiple receivers (transmitters)

Transmitter parameters: F23-BB(S)

shell	Glass fiber reinforced nylon
Protection class	IP65
Frequency range	uhf:425-446mhz
Transmitted power	Less than or equal to 10dbm
Transmitter power supply	2 alkaline # 5 batteries
Security code	32-bit (4.3 billion groups)
Temperature range	- 40 °C to + 85 °C
Control distance	Up to 200 meters

Receiver parameters: F23-BB(S)

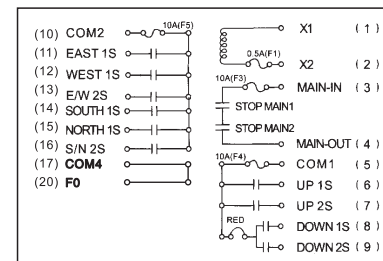
shell	Glass fiber reinforced nylon
Protection class	IP65
Frequency range	433MHZ
Receiver sensitivity	-110dBm
Receiver power supply	36V/220V/380V (adjustable voltage)
Output contact capacity	8 amp fully sealed relay output
Control cable length	1.65m (different lengths need to be customized)
Security code	32-bit (4.3 billion groups)
Temperature range	- 40 °C to + 85 °C

Suitable for: MD two speed electric hoist or hook two speed, double hook/single speed driving and 12 contacts below the industrial control remote control.

F24-6D remote control

Two-speed remote control

WIRING DIAGRAM



PRODUCT PHOTOS



Connection method:

- Line 1 and line 2 are connected to the corresponding power supply of the remote control respectively
- Line 3 is always open public line also connected to the power line (if there is no always open can not be connected)
- Line 4 is always open (if there is no always open or not open)
- 5.10.17 when the utility line is also connected to the power supply
- 6- Slow up /7- fast up /8- slow down /9- Fast down /11- Slow East /12- slow West /13- Fast east, fast West /14- slow South /15- slow North /16- fast South, fast north /20- standby START

Matching method:

Emitter assignment method

- Disconnect the receiver power supply, put the transmitter on the battery, emergency stop and screw out;
- Simultaneously press the "East" and "West" keys to press the emergency stop (do not let go);
- Power on the receiver (over).

Receiver allocation method

- Disconnect the receiver power supply, put the transmitter on the battery, emergency stop and screw out;
- Hold down the "up" and "down" keys at the same time to press the emergency stop (do not let go);
- Power on the receiver (over).

Product features:

- Control points up to 12
- Battery voltage warning device, voltage is insufficient automatically shut off the circuit
- Safety key switch prevents unauthorized use
- Keystroke function mode can be set by computer interface
- Wirelessly match multiple receivers (transmitters)

Transmitter parameters: F24-6D

shell	Glass fiber reinforced nylon
Protection class	IP65
Frequency range	433mhz
Transmitted power	Less than or equal to 10dbm
Transmitter power supply	2 alkaline # 5 batteries
Security code	32-bit (4.3 billion groups)
Temperature range	- 40 °C to + 85 °C
Control distance	200 meters

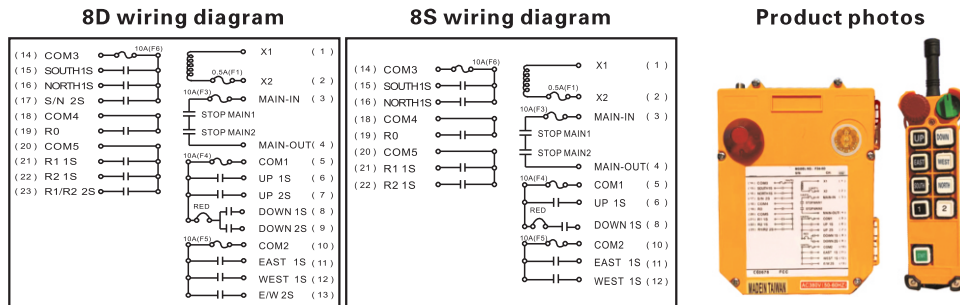
Receiver parameters: F24-6D

shell	Glass fiber reinforced nylon
Protection class	IP65
Frequency range	433MHZ
Receiver sensitivity	-110dBm
Receiver power supply	36V/220V/380V (adjustable voltage)
Output contact capacity	8 amp fully sealed relay output
Control cable length	1.65m (different lengths need to be customized)
Security code	32-bit (4.3 billion groups)
Temperature range	- 40 °C to + 85 °C

Suitable for: crane, truck. Hydraulic crane, concrete pump truck, roller coaster, mining machinery, crane, large crane, dump truck, lifting locomotive, crane and other large heavy industry machinery.

F24-8D/8S remote control

Remote control for two-speed crane



Wiring method

- Line 1 and line 2 are connected to the corresponding power supply of the remote control respectively
- Line 3 is always open public line also connected to the power line (if there is no always open can not be connected)
- Line 4 is always open (if there is no always open or not open)
- 5.10.14.18.20 Line is also connected to the power supply
- 5 6 7 – slow/fast / 8 – slow down / 9 – fast/slow 11 – east / 12 – west / 13 – slow fast slow fast east, west / 15 – south / 16–17 – fast slow north/south, north/fast21–R1 Slow /23–R1, R2 fast /19– Standby START

Matching method:

Emitter assignment method

- Disconnect the receiver power supply, put the transmitter on the battery, emergency stop and screw out;
- Simultaneously press the "East" and "West" keys to press the emergency stop (do not let go);
- Power on the receiver (over).

Receiver allocation method

- Disconnect the receiver power supply, put the transmitter on the battery, emergency stop and screw out;
- Hold down the "up" and "down" keys at the same time to press the emergency stop (do not let go);
- Power on the receiver (over).

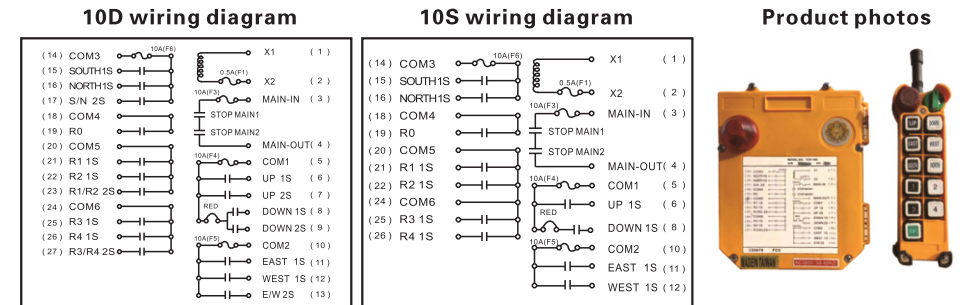
Transmitter parameters: F24-8D	
shell	Glass fiber reinforced nylon
Protection class	Ip65
Frequency range	433mhz
Transmitted power	Less than or equal to 10dbm
Transmitter power supply	2 alkaline # 5 batteries
Security code	32-bit (4.3 billion groups)
Temperature range	- 40 °C to + 85 °C
Control distance	200 meters

Receiver parameters: F24-8D	
shell	Glass fiber reinforced nylon
Protection class	Ip65
Frequency range	433MHZ
Receiver sensitivity	— 110dBm
Receiver power supply	36V/220V/380V (adjustable voltage)
Output contact capacity	8 amp fully sealed relay output
Control cable length	1.65m (different lengths need to be customized)
Security code	32-bit (4.3 billion groups)
Temperature range	— 40 °C to + 85 °C

Suitable for: crane, truck. Hydraulic crane, concrete pump truck, roller coaster, mining machinery, crane, large crane, dump truck, lifting locomotive, crane and other large heavy industry machinery.

F24-10D/10S remote control

Remote control for two-speed crane



Connection method:

- Line 1 and line 2 are connected to the corresponding power supply of the remote control respectively
- Line 3 is always open public line also connected to the power line (if there is no always open can not be connected)
- Line 4 is always open (if there is no always open or not open)
- 5.10.14.18.20.24.28 is a public line also connected to power
- 5 6 7 – slow/fast / 8 – slow down / 9 – fast/slow 11 – east / 12 – west / 13 – slow fast slow fast east, west / 15 – south / 16–17 – fast slow north/south, north/fast21–R1 slow /23–R1, R2 fast /25–R3 slow /26–R4 Slow /27 –R3, R4 fast /19– Standby START

Matching method:

Emitter assignment method

- Disconnect the receiver power supply, put the transmitter on the battery, emergency stop and screw out;
- Simultaneously press the "East" and "West" keys to press the emergency stop (do not let go);
- Power on the receiver (over).

Receiver allocation method

- Disconnect the receiver power supply, put the transmitter on the battery, emergency stop and screw out;
- Hold down the "up" and "down" keys at the same time to press the emergency stop (do not let go);
- Power on the receiver (over).

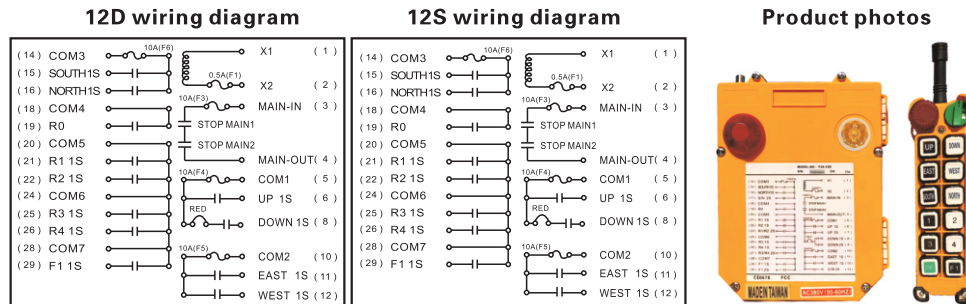
Transmitter parameters: F24-10D	
shell	Glass fiber reinforced nylon
Protection class	Ip65
Frequency range	433mhz
Transmitted power	Less than or equal to 10dbm
Transmitter power supply	2 alkaline # 5 batteries
Security code	32-bit (4.3 billion groups)
Temperature range	- 40 °C to + 85 °C
Control distance	200 meters

Receiver parameters: F24-10D	
shell	Glass fiber reinforced nylon
Protection class	Ip65
Frequency range	433MHZ
Receiver sensitivity	— 110dBm
Receiver power supply	36V/220V/380V (Optional)
Output contact capacity	8 amp fully sealed relay output
Control cable length	1.65m (different lengths need to be customized)
Security code	32-bit (4.3 billion groups)
Temperature range	— 40 °C to + 85 °C

Suitable for: crane, truck. Hydraulic crane, concrete pump truck, roller coaster, mining machinery, crane, large crane, dump truck, lifting locomotive, crane and other large heavy industry machinery.

F24-12D/12S remote control

Remote control for two-speed crane



Connection method:

- Line 1 and line 2 are connected to the corresponding power supply of the remote control respectively
- Line 3 is always open public line also connected to the power line (if there is no always open can not be connected)
- Line 4 is always open (if there is no always open or not open)
5. 10. 14. 18. 20. 24. 28 is a public line also connected to power
- 6- Slow up /7- Fast up /8- Slow down /9- Fast down /11- Slow East /12- Slow West /13- Fast East, fast West /15- Slow South /16- Slow North /17- Fast South, fast North /21-R1 slow /22-R2 slow /23-R1, R2 fast /25-R3 slow /27-R3, R4 fast /19- standby START /29-F1 slow /30-F1 fast

Matching method:

Emitter assignment method

- Disconnect the receiver power supply, put the transmitter on the battery, emergency stop and screw out;
- Simultaneously press the "East" and "West" keys to press the emergency stop (do not let go);
- Power on the receiver (over).

Receiver allocation method

- Disconnect the receiver power supply, put the transmitter on the battery, emergency stop and screw out;
- Hold down the "up" and "down" keys at the same time to press the emergency stop (do not let go);
- Power on the receiver (over).

Transmitter parameters: F24-12D		Receiver parameters: F24-12D	
shell	Glass fiber reinforced nylon	shell	Glass fiber reinforced nylon
Protection class	Ip65	Protection class	Ip65
Frequency range	433mhz	Frequency range	433MHZ
Transmitted power	Less than or equal to 10dbm	Receiver sensitivity	—110dBm
Transmitter power supply	2 alkaline # 5 batteries	Receiver power supply	36V/220V/380V (adjustable voltage)
Security code	32-bit (4.3 billion groups)	Output contact capacity	8 amp fully sealed relay output
Temperature range	- 40 °C to + 85 °C	Control cable length	1.65m (different lengths need to be customized)
Control distance	200 meters	Security code	32-bit (4.3 billion groups)
		Temperature range	— 40 °C to + 85 °C

Suitable for: crane, truck. Hydraulic crane, concrete pump truck, roller coaster, mining machinery, crane, large crane, dump truck, lifting locomotive, crane and other large heavy industry machinery.

F21, F23, F24 series user manual

First, guarantee

Quality assurance

The Company guarantees that the product is in full compliance with all specifications published by the company when it leaves the factory and can be used normally as long as it is properly installed. However, the Company does not guarantee that the operation of the product is without interruption or error.

Warranty period

The product is guaranteed for one year from the date of delivery. We guarantee that the customer will not have any problems with the product within one year. If the product quality is proved to be defective and the appearance is complete during the warranty period, our company is willing to repair it. For any product that needs to be repaired, the fault phenomenon must be written on the silver label of the receiver to avoid unnecessary trouble. And sent to the designated service office for the customer. You must bear the one-way freight of the product to the service office and our service office will bear the return cost of the product during the warranty period.

Not included item

The aforementioned warranty scope does not include failures caused by water and oil intake (the indicator light keeps flashing red), damage to the substrate caused by fuses, batteries and other lossable parts or wiring errors, and does not include improper use by customers. Irresistible causes, lightning strikes, natural factors, inadequate maintenance, neglect of operating environment specifications, unauthorized changes, wrong use, or customer Fault caused by self-setting interface.

remarks

There are no other warranties stated or implied in the foregoing warranties. The indemnity provided by the warranty is the sole indemnity of the customer and the Company is not liable for any direct, indirect, special, accidental or causal damage.

Two, precautions

General precautions

Do not connect or disassemble the machine without professional training personnel, otherwise the remote control may be damaged and personnel may be injured. After use, the main power supply of the vehicle should be turned off to cut off the power supply of the receiver and remove the key switch of the transmitter. The crane shall have main power relay, limit switch, and other safety facilities. The launcher should pay attention to waterproof, after the end of the work, should be placed in the rain out of the place.

Installation precautions

- The installation position of the receiver must be as far away from the frequency converter, motor and its connecting cable as possible to avoid the interference of noise on the receiver.
- The receiver should not be installed in the electric cabinet. The correct installation method is to fix the receiver on the top of the electric cabinet or at an appropriate position outside the cabinet, and then run the output cable of the receiver into the electric cabinet for proper wiring.
- There are 4 billion sets of codes for this series of remote controls. Each code setting is different before delivery. However, it is still necessary to confirm that there are no remote controls with the same code in the same working area during installation, so as to avoid mutual influence and misaction.
- Devices of the same channel should not be used within 200 metres to avoid radio interference.

III. Handling of emergency situations

When an emergency occurs, please follow the following steps and notify the dealer immediately.

1. Press the emergency STOP button.
2. Remove the key switch of the transmitter.
3. Turn off the main power supply of the crane.
4. Inform the dealer and find out the reason.

Four, ordinary operation

1. Load the AA type (No.5) alkaline battery with full power into the transmitter in the correct direction.
2. Press the power button and then the arrow button. Note: The LED indicator on the transmitter will flash red quickly if it is not started according to the operation steps.
3. Operate correctly according to the function set by each button on the transmitter.
4. after the completion of the operation in the following order
 - (1) Press the emergency stop button
 - (2) Turn the rotary key switch counterclockwise to the OFF position, and remove the key properly stored. (For F21-E1B/4SB/2D/2S, remove magnetic key)
5. If not used for a long time, take out the battery in the battery box.

Five, the use of transmitter battery

The transmitter uses two # 5 (AA) alkaline batteries, but rechargeable batteries are prohibited. When the battery voltage is full, press the transmitter button, and the LED indicator of the transmitter blinks green; On the contrary, when the battery is insufficient after a period of time, the LED indicator of the transmitter will flash red (or the LED indicator is not bright), and the transmitter will not be able to continue to operate, and the battery with sufficient power must be replaced immediately.

Wiring methods for receivers

In the standard control box, there are generally three 380V power input terminals, five terminals for the lifting motor, three terminals for the east–west motor and three terminals for the north–south motor, and the contactor control terminals are usually composed of a red wire (or other colors of the line) and six wires of the same color (two contactors are two, Four contactors are four)The black and brown wires in the receiver cable are the power supply cords for the remote control receiver.

For the 380V remote control, the black and brown wires should be connected to the 380V power supply (any two terminals). For the 36V remote control, the black and brown wires should be connected to the output end of the 36V transformer in the control box. Then connect the orange wire of the remote control with the red wire in the control box (the power supply cord of the contactor suction coil is also called the common wire), and then connect the six wires of yellow, green, blue, purple, white and white to the terminals of the contactor that control the upper, lower, east, south, north and west (connect the two directions with the yellow and green two wires, Connect four wires in four directions (yellow, green, blue, purple, or gray) and wrap the remaining wires with tape (note: do not let the wires touch each other). If it is

7. Simple troubleshooting steps (methods) :

1. Remove the magnet key, reinstall it, and turn it on again.
2. Replace the new battery (recommended to use Nanfu battery) If it is a new battery, reinstall the battery again. Bad contact or rust of the battery may also cause faults.
3. Open the receiver cover and see if the power indicator is on (normally it is on and off). If it is not on:
 - (a) Whether the power switch is cut off
 - (two) See whether the fuse is in good condition (36V remote control connected to 380V power supply on the fuse will burn out).When changing the fuse, we should pay attention to whether the model of the fuse is correct (there are two kinds of 2A and 10A) and then connect the black and brown two lines to the 36V power supply. Note: The power indicator of the 36V remote control is not on, and the fuse is not broken, which may be the transformer failure in the control box.
4. Turn off the main power supply for 20 seconds before powering on.
5. When one of the buttons on the transmitter is not good, the pink line can be used to replace the control line in this direction. Press the "power on" key to realize the control.
6. If the crane stops moving in a certain direction, but the relay in the receiver rattles, the contactor that controls this direction is faulty.
7. If the crane does not move around by itself, it is most likely caused by slight water intake of the launcher. Solution: Disassemble the transmitter and wipe the water on the circuit board to be used normally.
- 8, if the indicator on the transmitter, press the "Start" key is also red light flashing please check whether the magnet key is installed in the groove on the front of the transmitter.