



DCH A Series product introduction V2.0-Button

DCH industrial remote control system has been used in many fields, such as crane, construction crane and so on. The industrial remote control system has two independent parts, the receiver and the transmitter, and the working range is 100-150 meters.

The emergency stop of the DCH remote control system includes the active stop (emergency stop instruction) and the passive stop (the transmitter battery power supply is insufficient or the power off, the signal is beyond the effective control range, the signal is disturbed and so on).

Each remote control system response time is less than 20ms. The receiver system uses a 903-927MHZ frequency range. The remote control system can choose to turn off the power function automatically (without any action for 15 minutes automatically). When the worker starts, the remote control will automatically judge whether the switch rocker is zero or not. Only if it is zero, it can start normally.

The transmitter is DCH-A series and receiver is DCH-R series.

Additional functional non-standard customization can be added to change the output line of the remote controller according to customer requirements.

1.1. The transmitter introduction

DCH-A series button type transmitter adopt beautiful and durable shape design and general software and hardware development platform, adopt modular development technology, adopt built-in antenna, look beautiful, using high strength engineering plastic, and use two-times packing technology, anti earthquake resistance, mushroom head type emergency stop switch; button durable, comfortable,; low power design, low power sound and light alarm; intelligent key DCH iKey protection; marking for 15 minutes automatic shutdown (15 or 30 minutes adjustable). The right button of bottom line can be used for light or change between A/B/A+B so as to be more customerized functions.

Start method: first shortly press start button(locate in left and bottom button), release it, within three second then press the button for 1 secoond again until the gree LED flash. Or you can change the start mode what you want.

1.2. The received introduction

DCH-A series button type receiver adopt beautiful and durable shape design and using high strength engineering plastic. The transmitter and the receiver communicate for all the time. And if the receiver does not receive any feedback from transmitter for more than 7 seconds, the receiver will stop all work automatically for safety design.

TYPE	FUNCTION
DCH-A2100	4 SIMPLE SPEED BUTTON +START+AUX
DCH-A2101	4 SIMPLE SPEED BUTTON +START+TOGGLE
DCH-A2200	4 DOUBLE SPEED BUTTON +START+AUX
DCH-A2201	4 DOUBLE SPEED BUTTON +START+TOGGLE
DCH-A2202	4 DOUBLE SPEED BUTTON +START+A/B
DCH-A2203	4 DOUBLE SPEED BUTTON +START+A/B/A+B
DCH-A3100	6 SIMPLE SPEED BUTTON +START+AUX
DCH-A3101	6 SIMPLE SPEED BUTTON +START+TOGGLE
DCH-A3200	6 DOUBLE SPEED BUTTON +START+AUX
DCH-A3201	6 DOUBLE SPEED BUTTON +START+TOGGLE
DCH-A3202	6 DOUBLE SPEED BUTTON +START+A/B
DCH-A3203	6 DOUBLE SPEED BUTTON +START+A/B/A+B
DCH-A4100	8 SIMPLE SPEED BUTTON +START+AUX
DCH-A4101	8 SIMPLE SPEED BUTTON +START+TOGGLE
DCH-A4200	8 DOUBLE SPEED BUTTON +START+AUX
DCH-A4201	8 DOUBLE SPEED BUTTON +START+TOGGLE
DCH-A4202	8 DOUBLE SPEED BUTTON +START+A/B
DCH-A4203	8 DOUBLE SPEED BUTTON +START+A/B/A+B

2.1.1 The transmitter parameters

type: DCH-A2100



Dimensions : 180×65×50mm

Weight : 380g

Antenna : inside

Start : short press+long press start button

Housing : plastics

Protection : IP65

Buttons : 6 single-speed buttons

Intelligence key : DCH iKey

Distance : ≥ 150 meters (open environment)

Temperature : -25°C~+70°C

Frequency : 903-927MHz ;

Button life : $\geq 2,000,000$ times

Power supply : 3 pieces AAA battery(1.5v).

Continuous working time: 400 hours (at room temperature)

Automatic shutdown: 15 minutes or 30 minutes

Working with R10 , R15 receiver

English words can be printed to replace the Chinese.

Other type :

DCH-A2101 for Light function



type: DCH-A2200



Dimensions : 180×65×50mm

Weight : 380g

Antenna : inside

Start : short press+long press start
button

Housing : plastics

Protection : IP65

Buttons : 6 double-speed buttons

Intelligence key : DCH iKey

Distance : ≥150 meters (open
environment)

Temperature : -25°C~+70°C

Frequency : 903-927MHz ;

Button life : ≥2,000,000 times

Power supply : 3 pieces AAA
battery(1.5v).

Continuous working time: 400
hours (at room temperature)

Automatic shutdown: 15 minutes or
30 minutes

Working with R10 , R15 receiver
English words can be printed to
replace the Chinese.

Other type :

DCH-A2201 for Light function

DCH-A2202 for selection

**function(A,B,A+B) to make sure
control two equipments.**



type: DCH-A3100



Dimensions : 180×65×50mm

Weight : 380g

Antenna : inside

Start : short press+long press start
button

Housing : plastics

Protection : IP65

Buttons : 8 single-speed buttons

Intelligence key : DCH iKey

Distance : ≥150 meters (open
environment)

Temperature : -25°C~+70°C

Frequency : 903-927MHz ;

Button life : ≥2,000,000 times

Power supply : 3 pieces AAA
battery(1.5v).

Continuous working time: 400 hours
(at room temperature)

Automatic shutdown: 15 minutes or
30 minutes

Working with R10 , R15 receiver

English words can be printed to
replace the Chinese.

Other type :

DCH-A3101 for Light function





type: DCH-A3200

Dimensions : 180×65×50mm

Weight : 380g

Antenna : inside

Start : short press+long press start
button

Housing : plastics

Protection : IP65

Buttons : 8 double-speed buttons

Intelligence key : DCH iKey

Distance : ≥ 150 meters (open
environment)

Temperature : -25°C~+70°C

Frequency : 903-927MHz ;

Button life : $\geq 2,000,000$ times

Power supply : 3 pieces AAA
battery(1.5v).

Continuous working time: 400 hours
(at room temperature)

Automatic shutdown: 15 minutes or
30 minutes

Working with R15 , R20 receiver

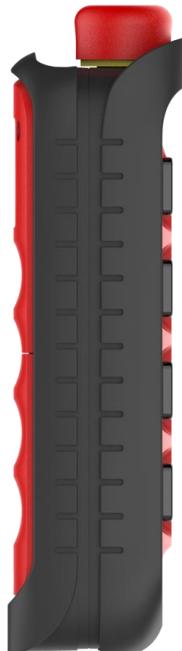
English words can be printed to
replace the Chinese.

Other type :

DCH-A2201 for Light function

DCH-A2202 for selection

**function(A,B,A+B) to make sure
control two cranes.**



type: DCH-A4100



Dimensions : 220×65×50mm

Weight : 450g

Antenna : inside

Start : short press+long press start
button

Housing : plastics

Protection : IP65

Buttons : 10 single-speed buttons

Intelligence key : DCH iKey

Distance : ≥ 150 meters (open
environment)

Temperature : -25°C~+70°C

Frequency : 903-927MHz

Button life : $\geq 2,000,000$ times

Power supply : 3 pieces AAA
battery(1.5v).

Continuous working time: 400 hours
(at room temperature)

Automatic shutdown: 15 minutes or
30 minutes

Working with R15 , R20 receiver

English words can be printed to
replace the Chinese.

Other type :

DCH-A4101 for Light function



type: DCH-A4200



Dimensions : 220×65×50mm

Weight : 450g

Antenna : inside

Start : short press+long press start
button

Housing : plastics

Protection : IP65

Buttons : 10 double-speed buttons

Intelligence key : DCH iKey

Distance : ≥150 meters (open
environment)

Temperature : -25°C~+70°C

Frequency : 903-927MHz

Button life : ≥2,000,000 times

Power supply : 3 pieces AAA
battery(1.5v).

Continuous working time: 400 hours
(at room temperature)

Automatic shutdown: 15 minutes or
30 minutes

Working with R15 , R20 receiver

English words can be printed to
replace the Chinese.

Other type :

DCH-A4201 for Light function

DCH-A4202 for selection

**function(A,B,A+B) to make sure
control two cranes.**



1.3. Receiver



Automatically shut-down: If no receive any feedback from transmitter for 10 seconds, the receiver will shut-down automatically

Totally there are 20 relays output for A series product.

Type: DCH-R10; DCH-R15; DCH-R20
Output interface: cable, heavy load connector optional
Size: 175 x 165 x 75mm
Weight: 1000g
Material: engineering plastics
Protection grade: IP65
Temperature range: -25 C ~+70 C
Frequency range: 903-927MHz ;
Relay capacity: 10A/250VAC
Relay life: more than 5 million times
LED indicator: operating status indication / RF signal
Installation accessories: installation of 4 cushions

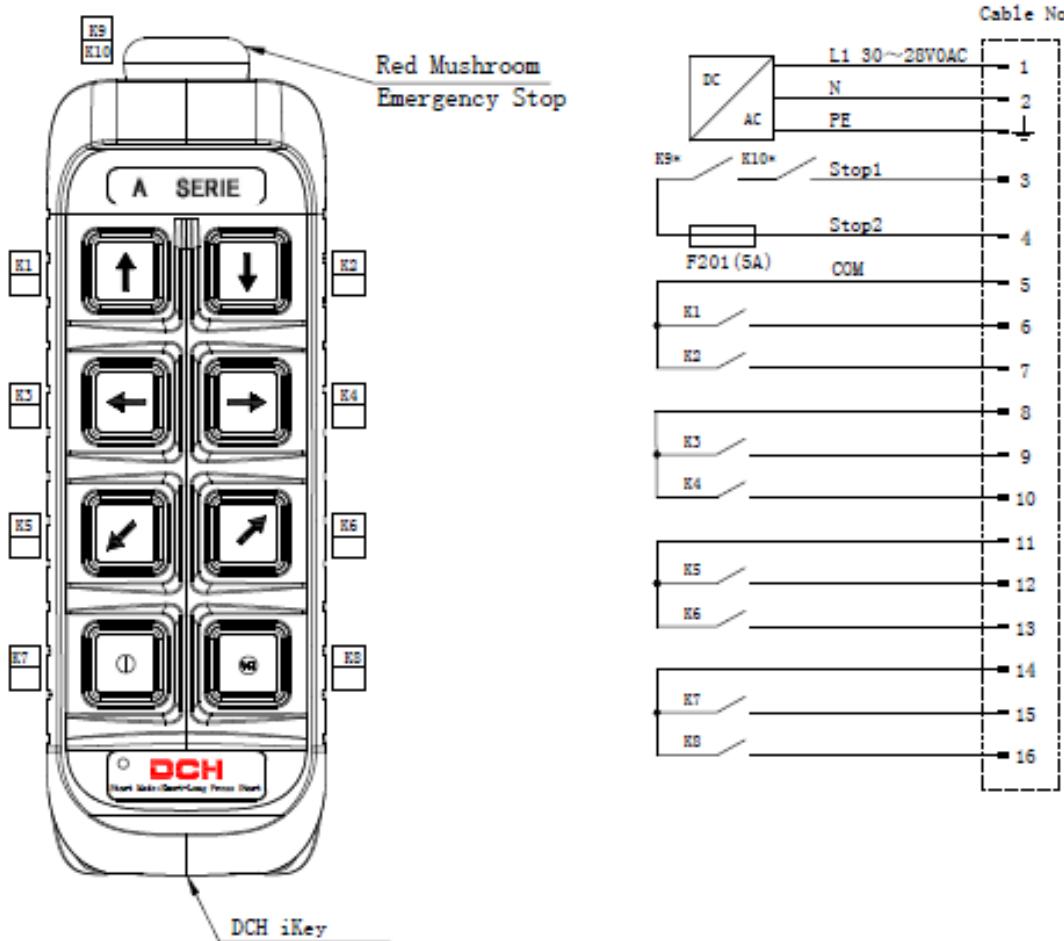
USE WITH:
A21 transmitter
A22 transmitter
A31 transmitter
A32 transmitter
A41 transmitter
A42 transmitter

Power supply:

30–400 VDC 30–280 VAC
80–745 VDC 57–528 VAC
18–36VDC

2. Typical Drawings

DCH-A3101

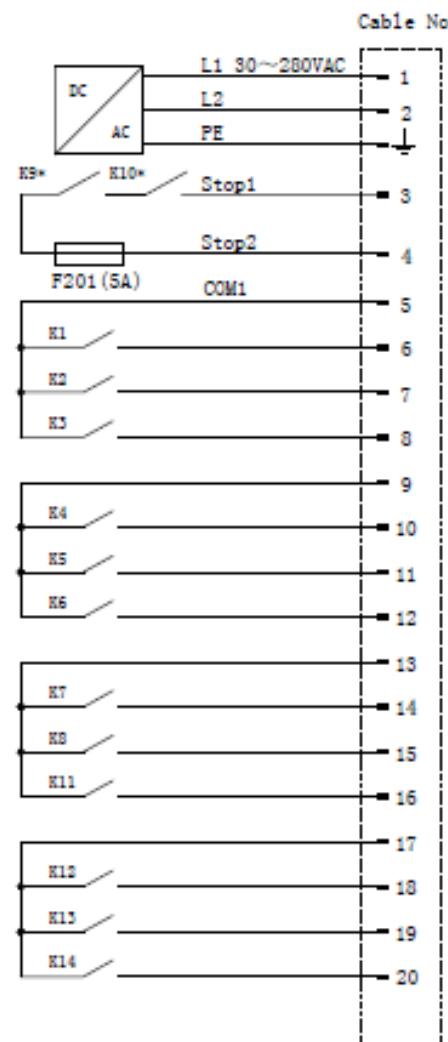
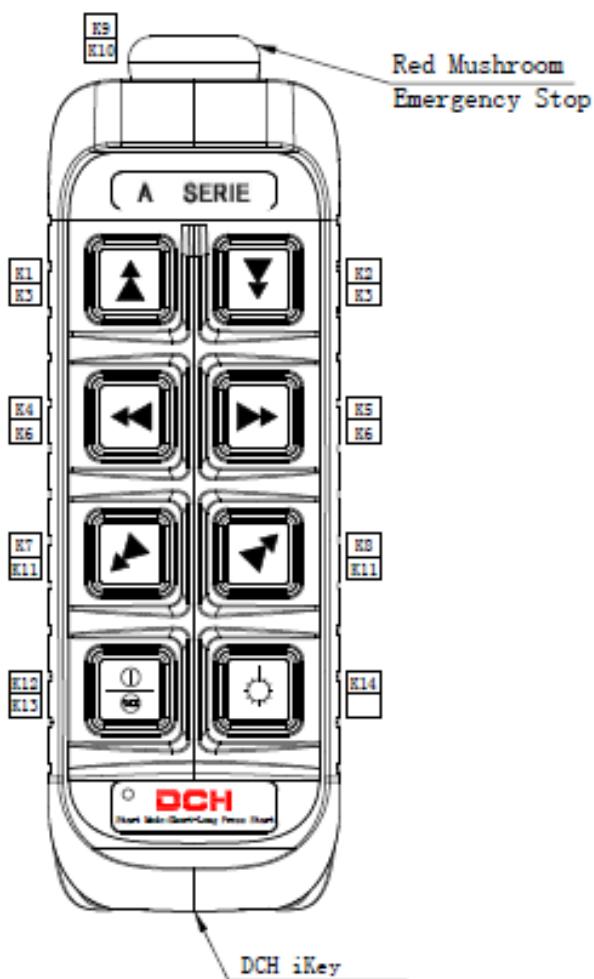


Remark:

1. Every line buttons are interlock;
2. Emergency Stop: Red mushroom;
3. Start Mode: Short+Long Press start;
4. Power Supply: 4.5VDC;
5. K9 and K10 relays are for E-Stops;
6. K8 is light(self-hold)

Model	311-32R	Date	2019-12-24
DCH RADIO COMPANY	项目名称	Mexico	
DCH	Tel: 008621-67629680	Website: www.dchradio.com	

DCH-A3201

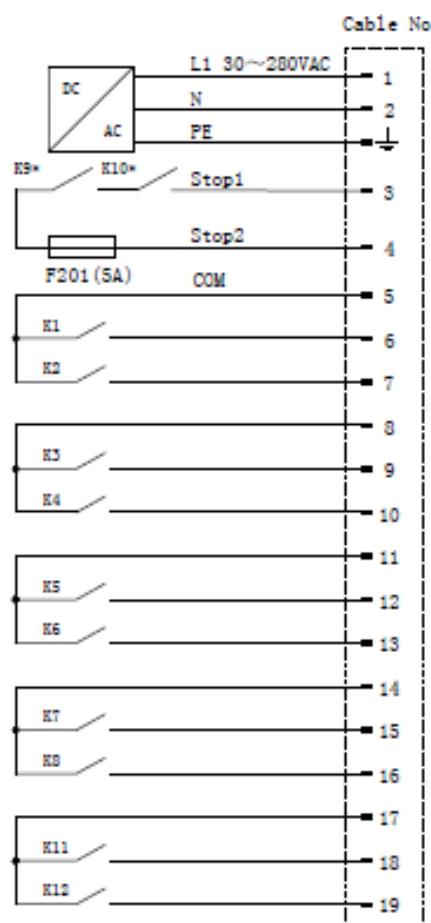
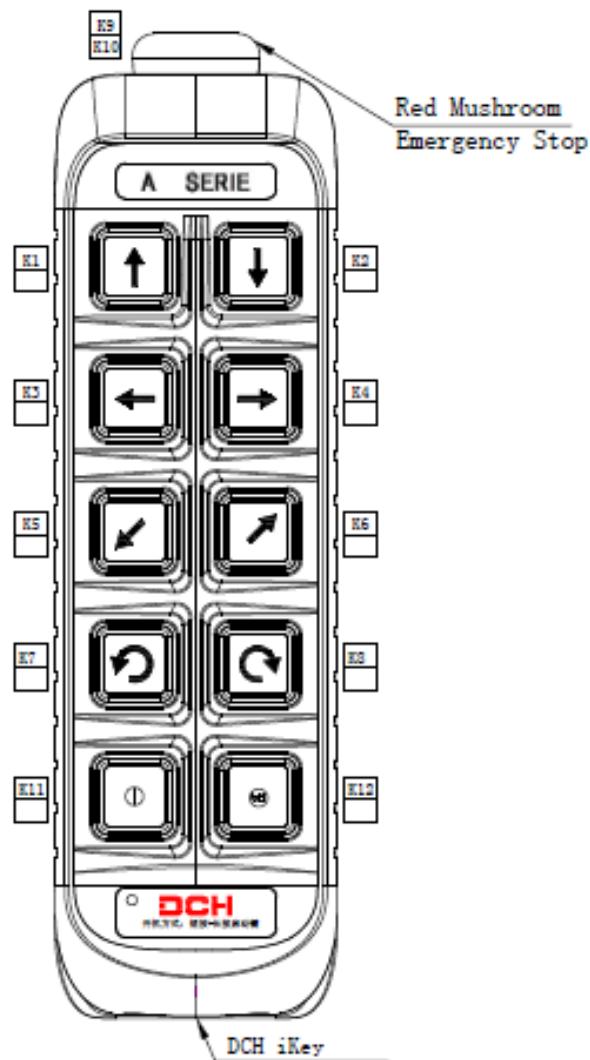


Remark:

1. Every line buttons are interlock;
2. Emergency Stop: Red mushroom;
3. Start Mode: Short+Long Press start;
4. Power Supply: 4.5VDC;
5. K9 and K10 relays are for E-Stops;
6. K14 is light(self-hold)

Model	32L-32L	Date	2019-12-24
DCH RADIO COMPANY	Nation	Mecico	
DCH	Tel: 021-67629680	Website:www.dchradio.com	

DCH-A4101

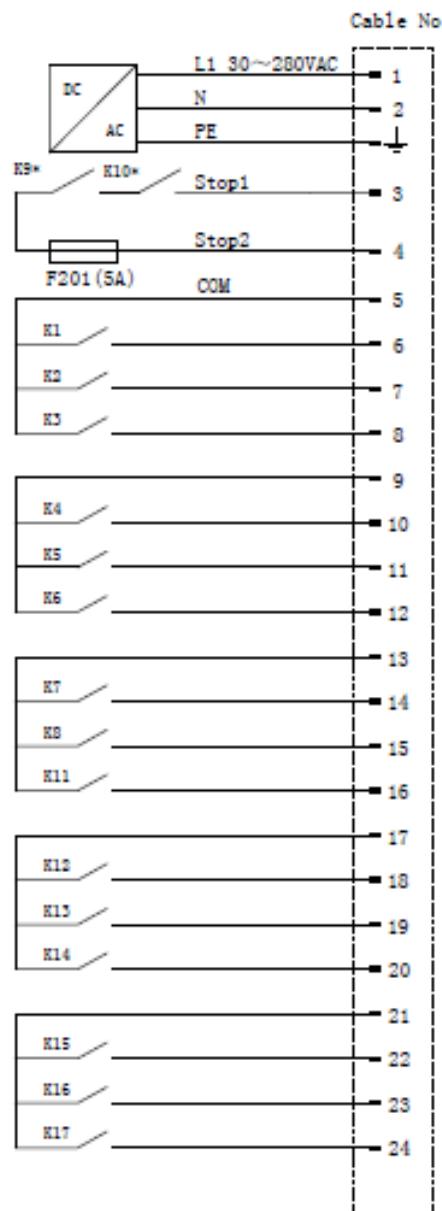
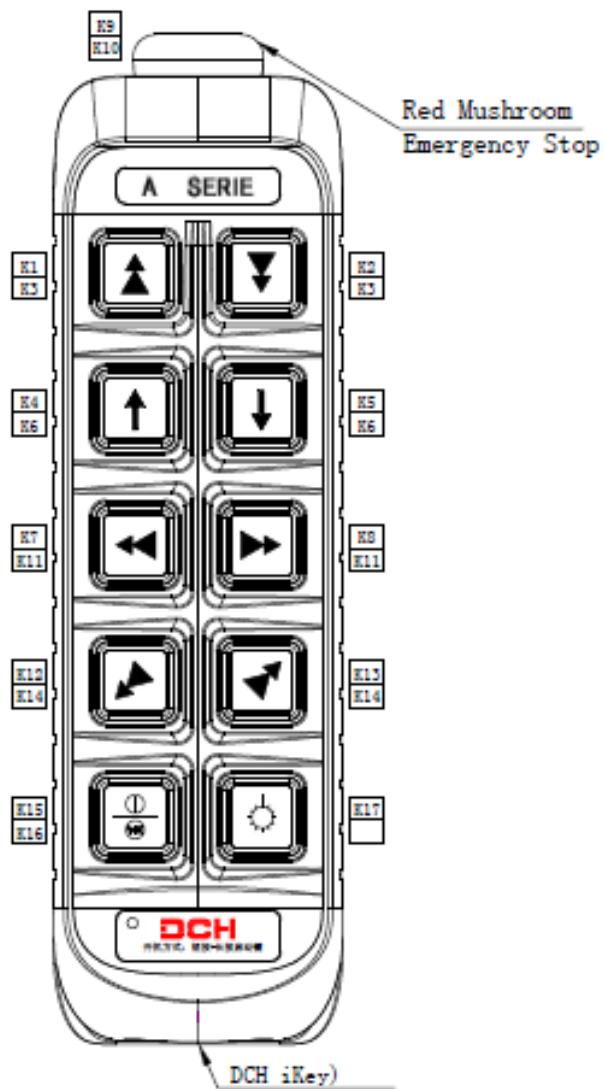


Remark:

1. Every line buttons are interlock;
2. Emergency Stop: Red mushroom;
3. Start Mode: Short+Long Press start;
4. Power Supply: 4.5VDC;
5. K9 and K10 relays are for E-Stops;
6. K12 is light(self-hold)

	Model	41L-42R	Date	2019-12-24
DCH RADIO COMPANY	Nation	Mexico		
DCH	Tel: 0086 21-67629680	Website: www.dchradio.com		

DCH-A4201



Remark:

1. Every line buttons are interlock;
2. Emergency Stop: Red mushroom;
3. Start Mode: Short+Long Press start;
4. Power Supply: 4.5VDC;
5. K9 and K10 relays are for E-Stops;
6. K17 is light(self-hold)

		Model	42L-22L	Date	2019-12-24
DCH RADIO COMPANY		Nation	Mexico		
DCH	Tel: 0086 21-67629680	Website: www.dchradio.com			

3.Special Function

3.1 one-to-two function

Using a one-to-two function one transmitter can control two cranes and the control of each crane can be selected through the button switch on the transmitter.

Switch selection method:

- A control A crane
- A+B control A.B two crane at the same time
- B control B crane

3.2 two-to-one function

Allow two or more operators to be equipped with one transmitter independently and use the same crane independently. The "takeover release" is independent of each other and does not interfere with each other.

1. gain the right to operate

Start the C transmitter, select the takeover button, and the transmitter C gets the operation right.

2. release operation permissions

The C transmitter chooses the release button, and the C transmitter will be in standby state, and the control of the receiver will be cancelled.

3. take over the right to operate,

Start the D transmitter and select the takeover to take over the operation rights released by the C transmitter.

The transmitter D wants to get the right to operate until the C transmitter releases the command.

4. Remote control system installation operation

4.1 installation instructions

The A series remote controller can be used in conjunction with all kinds of cranes. Please read this instruction before you install it for the first time.

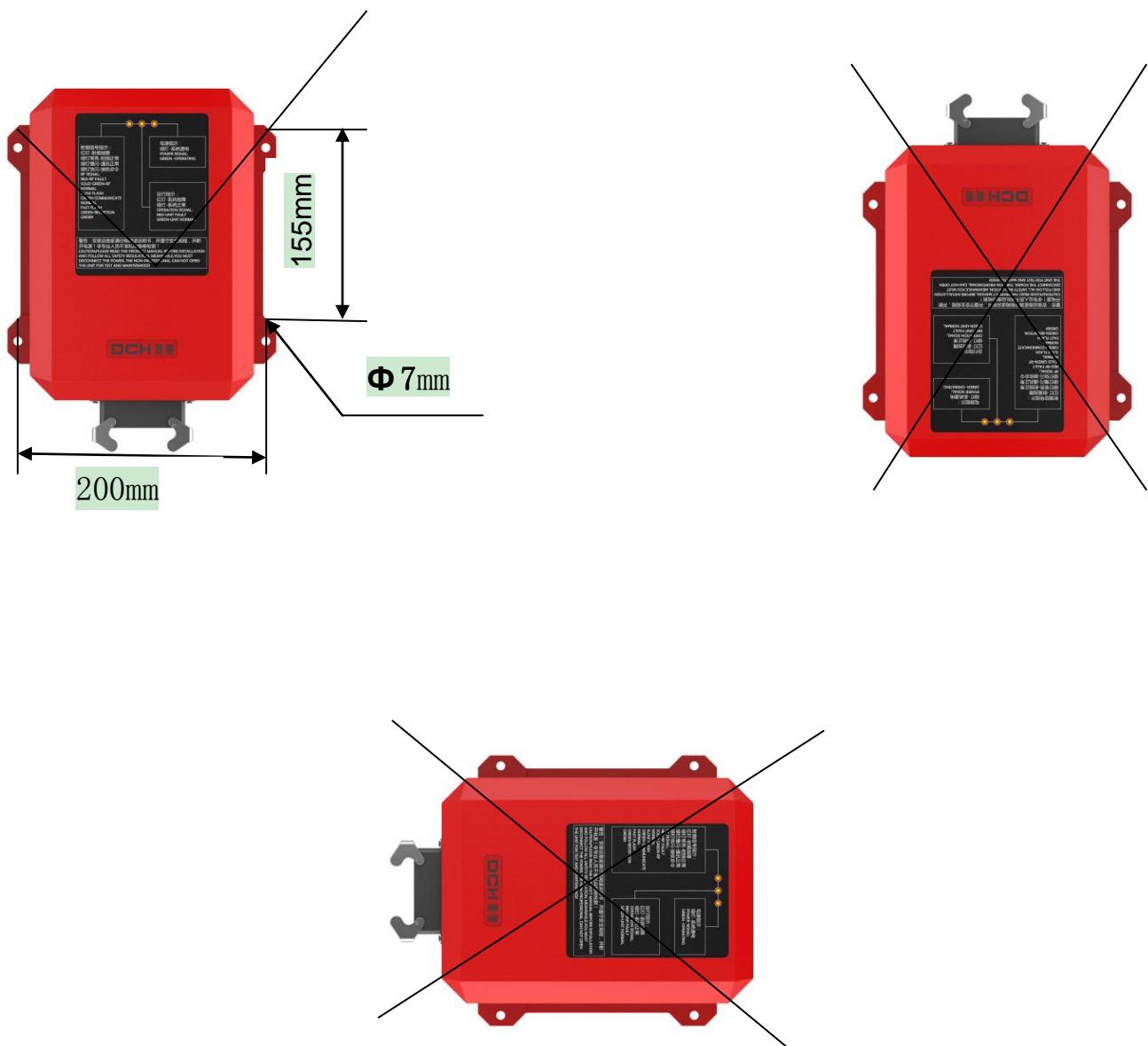
4.2 installation attention

Before installation, please turn off the total power of the crane and strictly prevent live installation. When there is a frequency converter near the receiver, the receiver must be more than 2 meters away from the frequency converter, or the receiver is installed in a shielded metal box, and the distance from the antenna is as far away from the frequency converter.

4.3 The installation of transmitter

Battery installation: please check the battery's power before installation, so that the voltage is not enough to cause the battery to fail.

4.4 installation diagram



5. technical support maintenance and failure explanation

We will provide customers with all kinds of detailed technical advice and after-sales service.

5.1. aftermarket service action time

The company promises that the maintenance action time will not exceed twenty-four hours. The maintenance time of the remote control system for returning to our company does not exceed three working days. For remote control system that can not be repaired in time, the company can provide backup remote control system. The repair of the remote control system is completed to be replaced.

5.2. maintenance

1. RF module components in the remote control system, enjoy two years' free maintenance for standard work (non-human damage).

2. provide one year warranty for other components and life warranty service.

3. all remote control systems sold by us, all kinds of components can be supplied. Spare parts are provided by our company.

Failure	Reasons	Solution
No response for transmitter	No power supply or insufficient power	check battery and change the battery
Transmitter red led flash	Emergency stop not release	Release emergency stop
Transmitter green led flash but receiver no response	Receiver failure	Check whether the receiver is energized normally. Check whether the receiver serial no to be same with the transmitter serial no
Some buttons do not have action	receiver failure	Check if the receiver cable is disconnected.
After the start of the green light, the red light is flashing continuously for transmitter.	The DCH iKey is not recognized	Check whether DCH iKey is installed correctly.
After the transmitter starts normally, the cranes automatically jumps	the same frequency with another systems	Change the frequency of the remote control

6. safety instructions

6.1 remote control application

The industrial remote control system is used to control the controlled system or controlled device remotely, to improve the convenience and efficiency of the control of the whole controlled system, and to improve the safety of the operator.

6.2 items of attention

> Please read this instruction carefully before using the wireless remote control system and observe all safety precautions.

> Only professional electricians can carry out drawings connection, and please connect them according to the attached drawings.

> All modifications to the wireless remote control system should be completed by our professional staff authorized by the company, and any changes made must be archived.

> The maintenance of the wireless system must be completed by the professional personnel authorized and trained by our company. Please use the original accessories, otherwise the security and reliability of the system can not be guaranteed, and the follow-up warranty service can not be enjoyed.

> Please do not place the transmitter in unattended location. After use, please turn off the transmitter and prevent unauthorized personnel from using it.

> Every time you start using the system, please check the status of the emergency stop. if the emergency stop is in the open position, try to start the transmitter back to the continuous sound light alarm, the battery power is not enough, please replace the battery.

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.

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 an experienced radio/TV technician for help.

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.

FOR MORE INFORMATION, PLEASE LOG ON OUR WEBSITE:

WWW.DCHRADIO.COM