



**CERES**  
Control Systems



REMOTE CRANE CONTROL  
**SYSTEMS**  
**CRH-A SERIES**  
**2018**



## CRH Series product specification V1.0-Button

The 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 CRH series 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 420 - 520MHZ 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 CRH series button type and receiver is CRH-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

CRH 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, conform to EN13849-1 standard; button durable, comfortable, life up to more than 2 million times; low power design, the use of three section 5 batteries can be operated over 400 hours, low power sound and light alarm; intelligent key CRH iKey protection; marking for 15 minutes automatic shutdown (15 or 30 minutes adjustable).

**Start method:** first shortly press start button(locate in left and bottom button), release it, within three second then press the button for 1 second again until the gree LED flash.





## 2.1.1 The transmitter parameters



Tip : CRH-A6S

Dimensions : 180×65×50mm

Weight : 380g

Antenna : inside

Start : short press+long press start button

Emergency : conforms to EN13849-1 standard.

Housing:plastics

Protection : IP65

Buttons : 6 single-speed buttons

Intelligence key : CRH iKey

Distance : ≥150 metersopen environment

Temperature : -25~+70

Frequency : 420.000-520.000MHz

LED : operating instructions / battery status

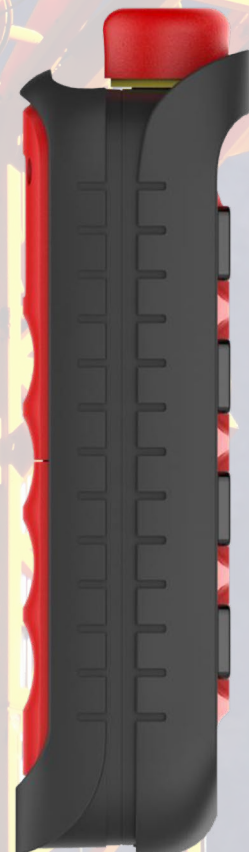
Button life : ≥2,000,000 times

Power supply : 3 pieces battery(1.5v).

Continuous working time : 400 hours (at room temperature)

Automatic shutdown : 15 minutes or 30 minutes

Working with R10R15 receiver







Tip : CRH-A6D

Dimensions : 180×65×50mm

Weight : 380g

Antenna : inside

Start : short press+long press start button

Emergency : conforms to EN13849-1 standard.

Housing:plastics

Protection : IP65

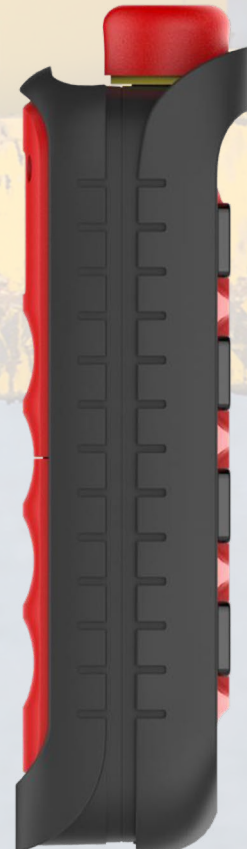
Buttons : 6 double-speed buttons

Intelligence key : CRH iKey

Distance : ≥150 meters open environment

Temperature : -25~+70

Frequency : 420.000-520.000MHz



LED : operating instructions / battery status

Button life : ≥2,000,000 times

Power supply : 3 pieces battery(1.5v).

Continuous working time : 400 hours (at room temperature)

Automatic shutdown : 15 minutes or 30 minutes

Working with R10R15 receiver





## Tip : CRH-A8S

Dimensions : 180×65×50mm

Weight : 380g

Antenna : inside

Start : short press+long press start button

Emergency : conforms to EN13849-1 standard.

Housing:plastics

Protection : IP65

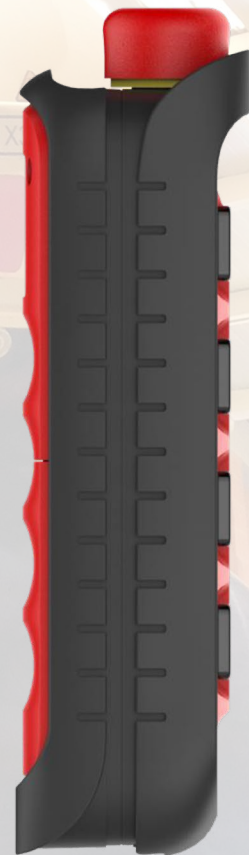
Buttons : 8 single-speed buttons

Intelligence key : CRH iKey

Distance : ≥150 meters open environment

Temperature : -25~+70

Frequency : 420.000-520.000MHz



LED : operating instructions / battery status

Button life : ≥2,000,000 times

Power supply : 3 pieces battery(1.5v).

Continuous working time : 400 hours (at room temperature)

Automatic shutdown : 15 minutes or 30 minutes

Working with R10R15 receiver





Tip : CRH-A8D

Dimensions : 180×65×50mm

Weight : 380g

Antenna : inside

Start : short press+long press start button

Emergency : conforms to EN13849-1 standard.

Housing:plastics

Protection : IP65

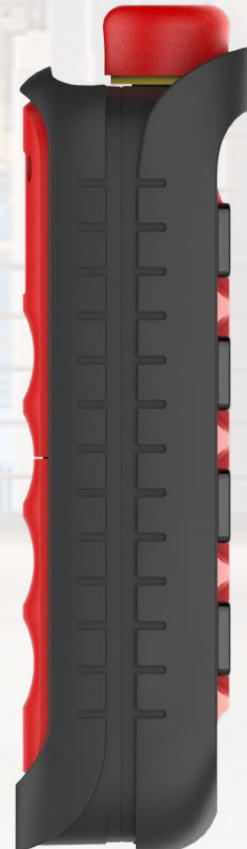
Buttons : 6 double-speed buttons

Intelligence key : CRH iKey

Distance : ≥150 meters open environment

Temperature : -25~+70

Frequency : 420.000-520.000MHz



LED : operating instructions / battery status

Button life : ≥2,000,000 times

Power supply : 3 pieces battery(1.5v).

Continuous working time : 400 hours (at room temperature)

Automatic shutdown : 15 minutes or 30 minutes

Working with R10R15 receiver





### Tip : CRH-A10S

Dimensions : 220×65×50mm

Weight : 450g

Antenna : inside

Start : short press+long press start button

Emergency : conforms to EN13849-1 standard.

Housing:plastics

Protection : IP65

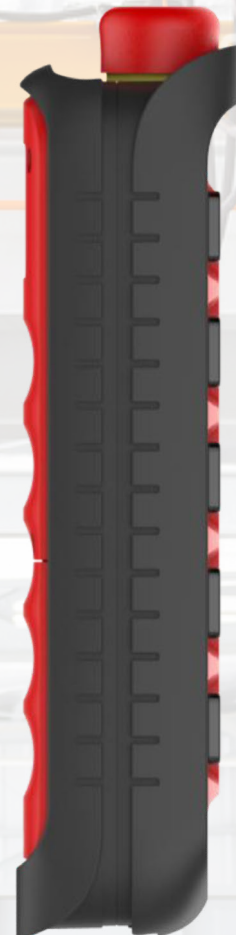
Buttons : 8 single-speed buttons

Intelligence key : CRH iKey

Distance : ≥150 meters open environment

Temperature : -25~+70

Frequency : 420.000-520.000MHz



LED : operating instructions / battery status

Button life : ≥2,000,000 times

Power supply : 3 pieces battery(1.5v).

Continuous working time : 400 hours (at room temperature)

Automatic shutdown : 15 minutes or 30 minutes

Working with R10R15 receiver





### Tip : CRH-A10D

Dimensions : 220×65×50mm

Weight : 450g

Antenna : inside

Start : short press+long press start button

Emergency : conforms to EN13849-1 standard.

Housing:plastics

Protection : IP65

Buttons : 8 double-speed buttons

Intelligence key : CRH iKey

Distance : ≥150 meters open environment

Temperature : -25~+70

Frequency : 420.000-520.000MHz



LED : operating instructions / battery status

Button life : ≥2,000,000 times

Power supply : 3 pieces battery(1.5v).

Continuous working time : 400 hours (at room temperature)

Automatic shutdown : 15 minutes or 30 minutes

Working with R10R15 receiver



## 1.2.1 Alicılar

### CRH-R10,CRH-R15,CRH-R20

Output : 10, 15, 20 relay output

Output interface : heavy load connector, cable optional

Size : 175 x 165 x 75mm

Weight : 1000g

Material : engineering plastics

Protection grade : IP65

Temperature range : -25 C ~+70 C

Frequency range : 420.000-520.000 MHz;

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

A6S, A6D, A8S, A8D, A10S, A10D

### Power supply

- 24-280 VAC/DC
- 10-30VDC
- 57-528 VAC
- 80-745 VDC





## 2. Special Function

### 2.1 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

### 2.2 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

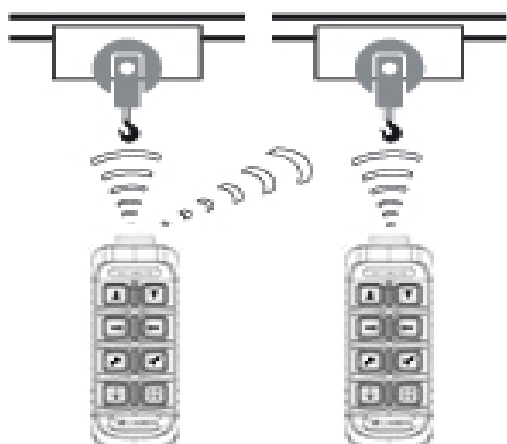
The C transmitter chooses the release button, and the C transmitter will be in standby state, and the control of the receiver will be cancelled.

#### 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.

### 2.3 Two-to-two function



Several transmitters can control several receivers. Through "takeover/release" function on the transmitter, select control and decontrol on the receiver. The receiver can only be taken over by the transmitter under "release" status.



### 3. Remote control system installation operation

#### 3.1 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.

#### 3.2 Installation Attention

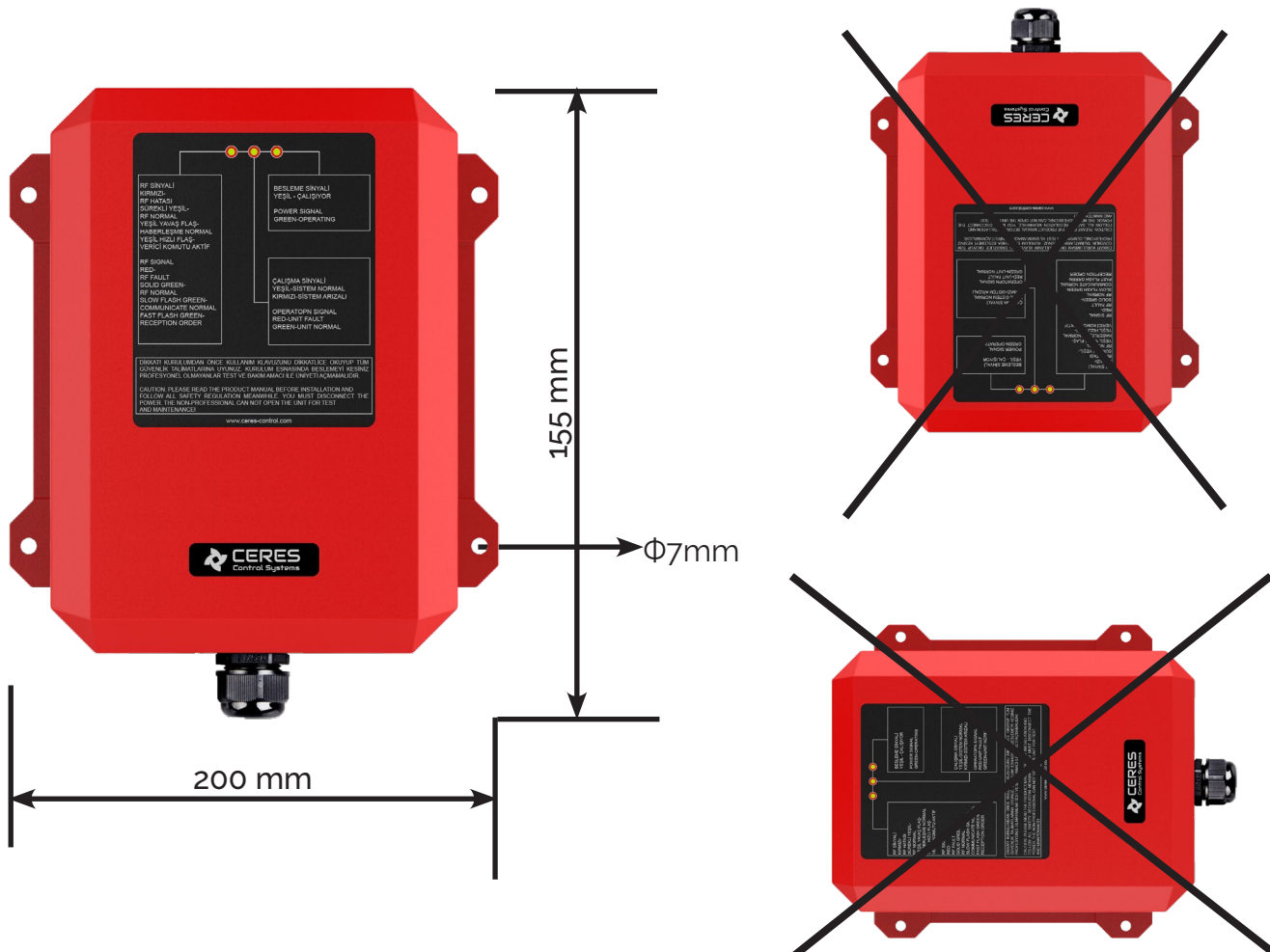
Before installation, please turn off the total power of the crane and strictly prevent live installation.

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.

#### 3.3 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.

#### 3.4 Installation Diagram





## 4. Technical Support Maintenance and Failure Explanation

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

### 4.1. 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.

### 4.2. 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 CRH iKey is not recognized	Check whether CRH 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



## 5. Safety Instructions

### 5.1 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.

### 5.2 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.



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