

Radio Remote Controls Manual

K Series



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1.0 Warning and Caution

The following symbols may be found on the product or throughout the documentation.

Symbol	Description
	Refer to Manual Refer the user manual for additional information when product marked with this sign.
	Dangerous Voltage Indicated presence of hazardous voltage. Unsafe practice could result in severe personal injury.
	Warning Denotes a hazard. Included text gives proper procedures. Failure to follow instructions could result in severe personal injury and/or property damage.
	Caution Denotes a hazard. Included text gives proper procedures. Failure to follow instructions could result in minor personal injury and/or property damage.

2.0 Important Information Before You Start

2.1 Important

Due to the complex nature of equipment, read this entire manual carefully before operation and installation.

- 2.1.1 Never allow any unauthorized personnel to dismantle equipment as this may cause the equipment damage.
- 2.1.2 The equipment has been stringently tested for quality assurance before delivery from factory. However, it must not be used in extremely dangerous situations, or where damage may result.
- 2.1.3 After operation, switch off crane main power as well as receiver unit and remove rotary key from transmitter unit.
- 2.1.4 The transmitter should be kept in a safe place when not in use to avoid any unintentional operation.
- 2.1.5 The crane should be equipped with main power relay, limit switch and the other safety devices required.
- 2.1.6 Do not use this device during electrical storms or where there are conditions of high electrical interference.
- 2.1.7 Always check transmitter battery and receiver input power conditions before operation.
- 2.1.8 The installation and maintenance service is allowed only when the crane and receiver power are turned off to avoid electrical shock.
- 2.1.9 The contents of the manual may be amended by the manufacturer without notice.
- 2.1.10 The specification and function is subjected to change without notice by manufacturer.

2.2 Precautions

- 2.2.1 Press EMS button and switch off main power of crane and receiver after operation. Then remove transmitter rotary key and keep in a safe place.
- 2.2.2 The following situations may cause receiver response delay and stop operation immediately when situation occurs.
 - a) Beyond operation range
 - b) During sever radio interference
- 2.2.3 Remove transmitter batteries when not in use for a long period of time.
- 2.2.4 To extend product life, please follow the standard operation procedure and maintain system regularly.
- 2.2.5 Check EMS button and other main functions before operation.
- 2.2.6 Press EMS button during system failure or any abnormal conditions occur.
- 2.2.7 The operator must be familiar with emergency procedures before operating the system.

2.3 Emergency Procedures

In case of emergency, please follow the procedure below:

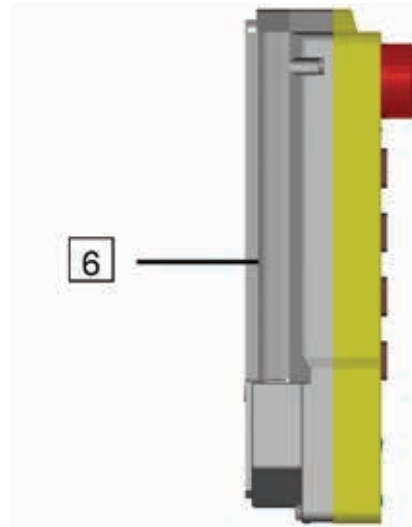
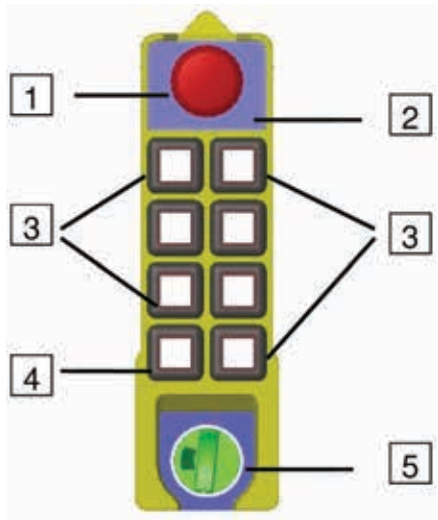
- 2.3.1 Press EMS button and stop operation.
- 2.3.2 Switch rotary key to "OFF" position and remove it from transmitter unit.
- 2.3.3 Switch off crane main power.
- 2.3.4 Contact the authorized distributor for further assistance.

3.0 Specification

General Specification	
ID Code	Over 1 Million Sets
Channel Space	25 KHz
Hamming Distance	≥ 4
Structure	Enhanced Glass-Fiber
Operation Environment	-40°C ~ +85°C
Operating Distance	Up to 100 M
Transmitter	
Power	AA Battery x 4
Emission Power	< 10mW
Dimension	163x49x45mm (Series K1/K2) 274x77x42mm (Series K3/ K4)
Weight	210 g (Series K1/K2) 385 g (Series K2/K3)
Receiver	
Power	24/48/110/220/380VAC ($\pm 20\%$)
Dimension	167x154x88mm (Series K1/K2) 310x160x95mm (Series K2/K3)
Weight	2100g (Series K1/K2 with cable) 2900g (Series K2/K3 with cable)

4.0 Transmitter & Receiver Overview

Series K1/K2 Transmitter Overview



1 EMS Button

3 Function Button

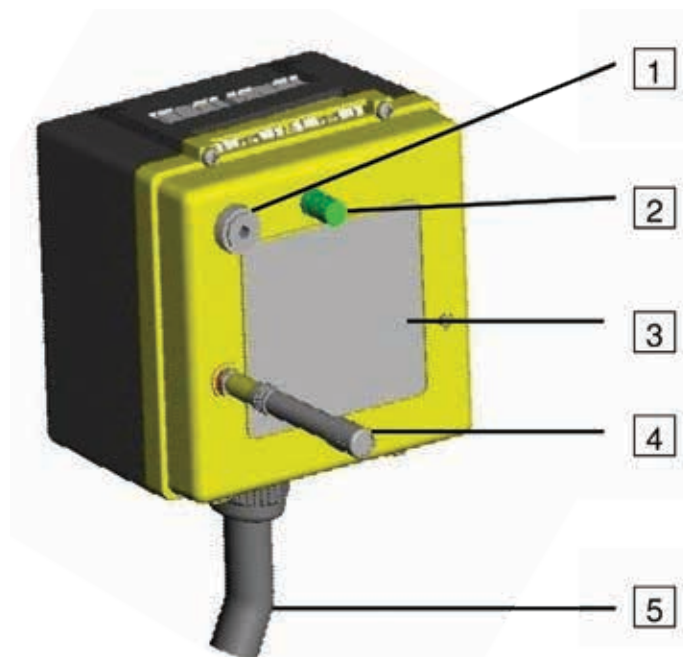
5 Rotary Key

2 LED Indicator

4 START / Alarm Button

6 Battery Cover

Series K1/K2 Receiver Overview



1 Alarm (Horn)

3 Receiver Wiring Diagram

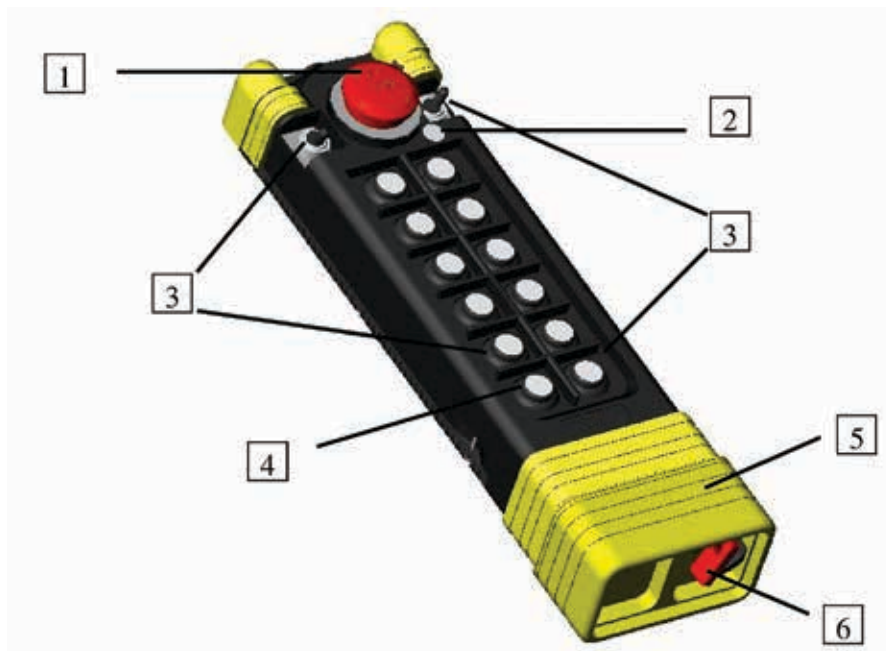
5 Cable

2 Power - On Indicator

4 Antenna

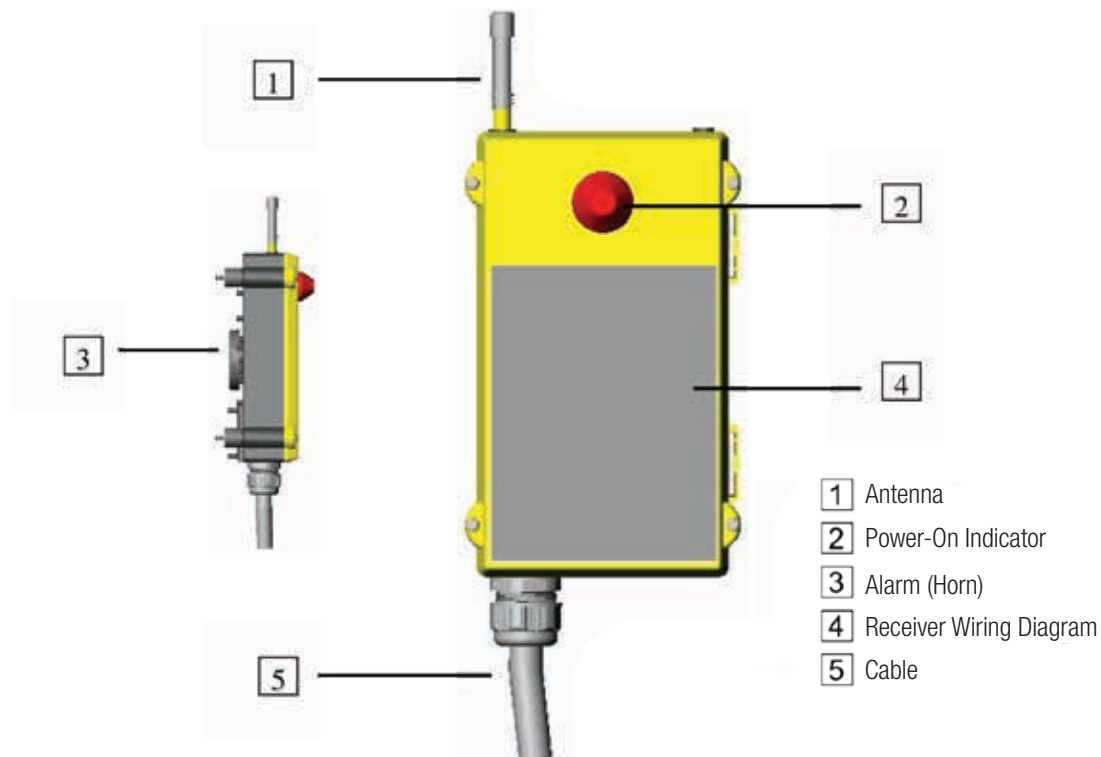
4.0 Transmitter & Receiver Overview

Series K3/K4 Transmitter Overview



- | | |
|---------------------------------------|-------------------------------|
| 1 EMS Button | 2 LED Indicator |
| 3 Function Button & A/B Switch | 4 START / Alarm Button |
| 5 Battery Cover | 6 Rotary Key |

Series K3/K4 Receiver Overview



- | |
|----------------------------------|
| 1 Antenna |
| 2 Power-On Indicator |
| 3 Alarm (Horn) |
| 4 Receiver Wiring Diagram |
| 5 Cable |

5.0 General Operation

5.1 Getting Started

5.1.1 Install 4 new AA-size batteries in the battery compartment (make sure batteries correctly installed according to the indication of “Positive” & “Negative”) and close battery cover firmly.

5.1.2 Insert rotary key into transmitter unit and switch to “ON” position.

5.1.3 Press START button to power the system.

Note: Red LED indicator will flash when fail to follow procedures above accordingly.

5.1.4 Press function button for operation.

5.1.5 Follow the procedure below when finished with operation.

1. Press EMS button.
2. Switch rotary key to “OFF” position.
3. Remove rotary key and keep in a safe place.
4. Remove batteries if not to be used for long period of time.

5.2 Transmitter LED Indicator

Green (Full Power)	Operate as usual.
Yellow (Mid Power)	Unload the article as soon as possible and stop operation until batteries are replaced.
Red (Low Power)	An EMS signal will be sent to receiver automatically to turn off receiver. To avoid the interruption during operation, check battery power frequently.

Note: Switch rotary key to “OFF” position to turn off transmitter completely thus extending the battery life, otherwise transmitter is in standby mode when rotary key remains in the “ON” position.

5.3 Changing Receiver Input Voltage

If the factory preset receiver voltage is different from application, follow the procedures below to change input voltage. (Three different voltage options for each receiver as shown in the picture with yellow label.)

5.3.1 Switch off receiver main power.

5.3.2 Remove the connector from original position.

5.3.3 Insert connector to new voltage position accordingly.

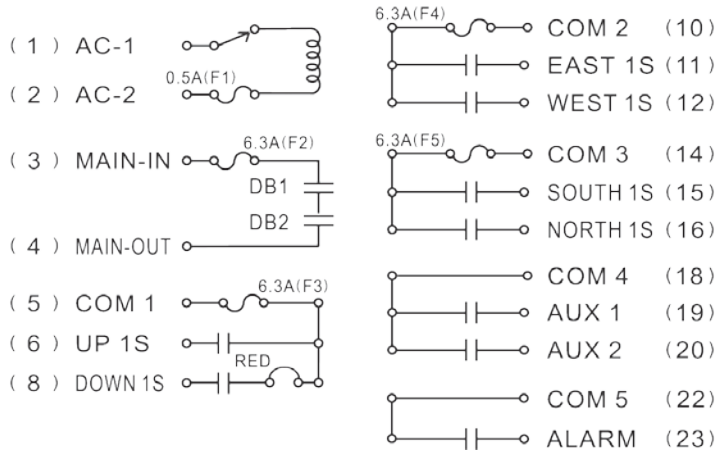


Note: Four different transformer options are available for K Series.

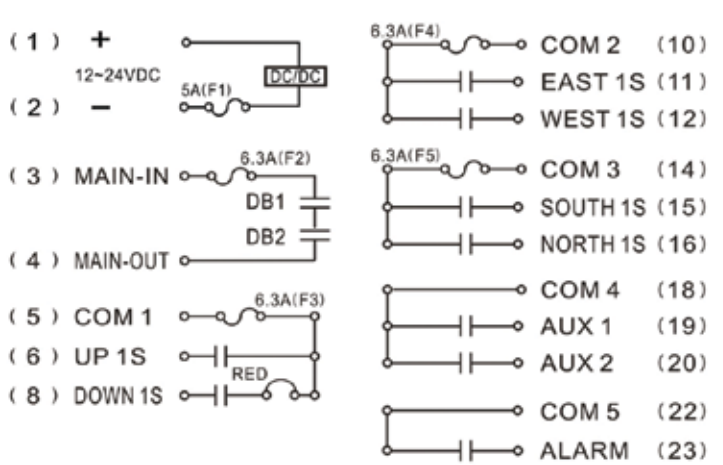
- (1) 24V/42V/230V
- (2) 48V/110V/220V
- (3) 110V/220V/380V
- (4) 48V/220V/380V

6.0 Receiver Wiring Diagram

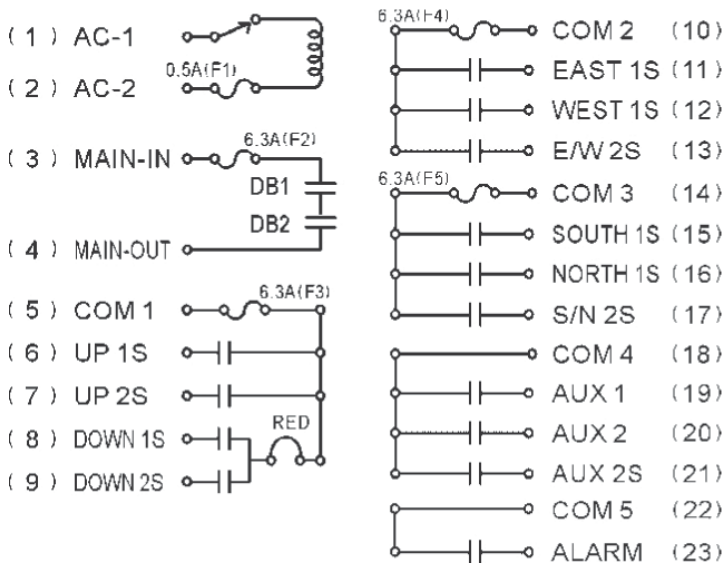
K1 Series



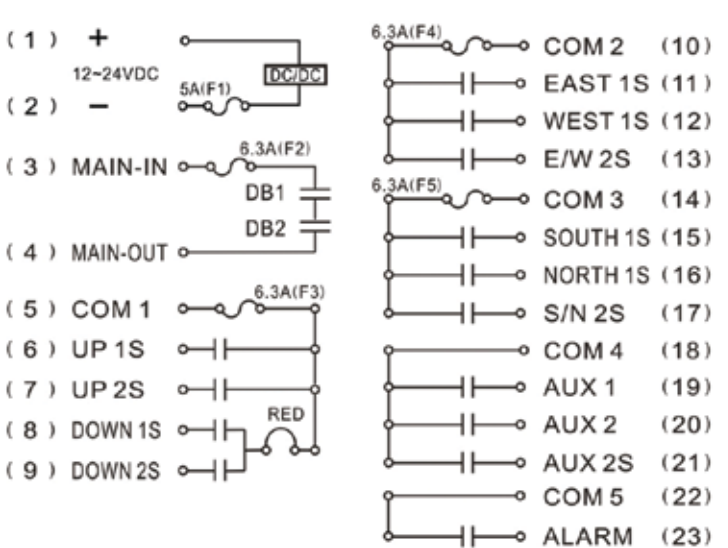
K1 Series (DC)



K2 Series



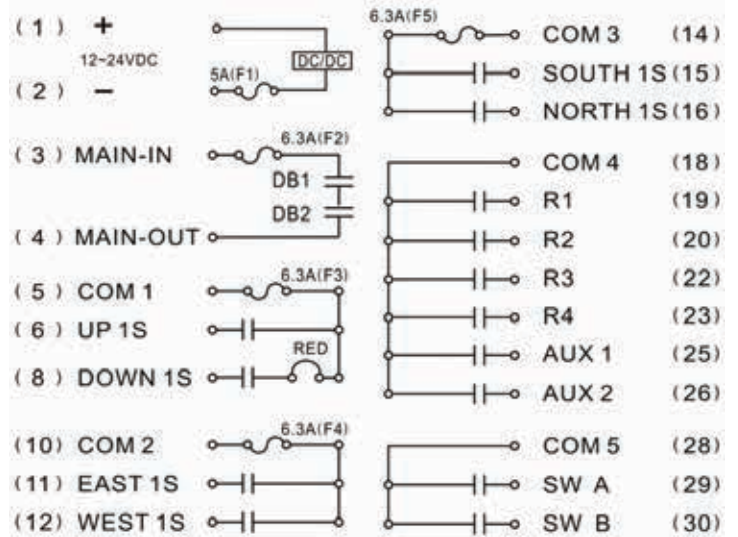
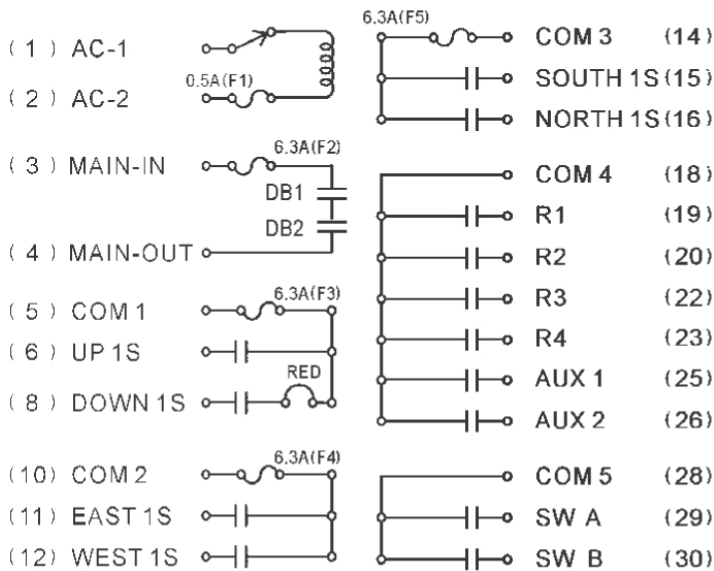
K2 Series (DC)



6.0 Receiver Wiring Diagram

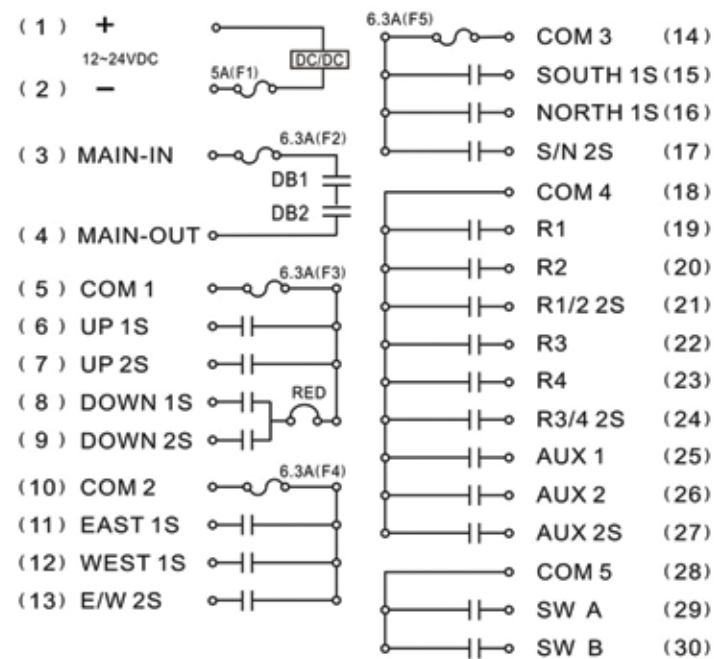
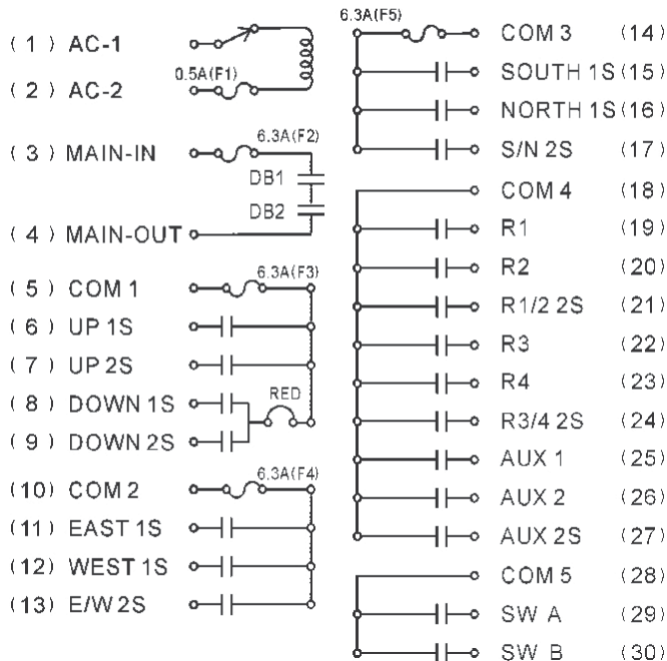
K3 Series

K3 Series (DC)



K4 Series

K4 Series (DC)



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