



Read this manual before operation

- The content include of electric connections and operating steps
- Read the manual to operate the systems

BWK301R

operating instructions

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CERTIFICATION DECLARATION



CE

The product has been certified by the CE (Commutate European) safety certification. It has passed the corresponding conformity assessment procedure and the manufacturer's declaration of conformity, in accordance with the relevant EU directive.



ROHS

This product has been certified by EU legislation (Restriction of Hazardous Substances) Safety certification; comply with relevant EU environmental regulations.



FCC

This product has been certified by the Federal Communications Commission for safety, Comply with us electronic safety regulations.

SAFETY INFORMATION

When using this system, please make sure the operation is correct and the usage is safe. Some signs or text will be used to remind you to pay attention to the dangerous matters and some important information.



Dangerous:

Indicates a serious danger. In the process of use, if the operation is improper or the way of use is wrong, it may cause serious injury or even death to the user. Please do not operate it easily until you have made sure that the operation method is correct and the way of use is correct.



Warning:

Danger. In the process of use, if the operation is improper or the use is wrong, which may lead to the injury of the personnel, please do not operate the personnel and related personnel easily, until ensure the correct operation method and use method is correct before use.



Cautious:

Represents the potential risk of the product. In the process of use, if the use method is wrong or improper operation, it may cause damage to the product or some parts. Please do not use it until you have made sure that the operation method is correct and the usage is correct.



Important:

Represents important information to be paid attention to during the use of the product. Please do not ignore this information, this information will provide effective operational help.



This sign indicates laser radiation, which is usually posted on products with laser output. Please be careful with laser and pay attention to safety when using this kind of equipment.

Sign in、Devanning、Examine cargo

The product itself with plastic or metal shell, can protect the external electrical components from damage. The products are packed in foam bags and anti-static bags. If there is any external damage to the package, check the equipment and notify the carrier and carrier in writing of the damage.

Important:



After receiving the product, please check whether the outer package is intact, check whether the product is complete after unpacking and whether all parts are intact. If any damage is found, please contact ruida immediately.

Remove all cargo from package and keep packing material and wiring parts. Please take care of the safety of the goods when unpacking them. After taking out the goods, please check whether the parts are complete and intact. If any missing parts or damaged parts are found, please contact ruida technology immediately. Do not install or debug the equipment if any obvious damage is found.

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Section 1 Overview

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 Overview

1.1 Overview

The wireless controller BWK301-232 consists of two parts: a wireless controller and a wireless receiver. The wireless controller establishes wireless communication with the wireless receiver, and the wireless receiver is wired to the RDC64XXG main board, so that the user can perform stable and reliable control of the cutting process through the wireless controller within a certain range (40m), which is convenient for the user to operate. The system enables the user to operate the system in the place where the object is processed in the production process without having to return to the console every time to operate the system through the operation panel, thereby improving work efficiency and being convenient and reliable. Works in parallel with the operator panel of the controller without interference.

Section 2 wireless controller

CONTENTS:

 wireless controller

2.1 wireless controller

Wireless controller and receiver are shown as picture 1。



Picture 2-1 BWK301R wireless controller

The definition of the keys on the panel are as follows:

“Shutter”  : shutter of the laser source, enable the laser or disable the laser

“Aux”  : switch on or switch off the auxiliary gas

“Follow”  : Enable/disable the distance controller

“Pulse”  : Laser emission

“Frame”  : Moving with the maximum border of the cutting file

“U”  : Manual movement of U axis

“X +/-”  : Manual movement of X axis

“Y +/-”  : Manual movement of Y axis

“Z +/-”  : Manual movement of Z axis

“fast/slow”  : Set the fast or slow manual speed of axes

“Home”  : Back stop position

- “Origin”  : Set the origin position
- “Cancel”  : Cancel the current operation
- “Start”  : Start cutting
- “Reset”  : Reset the motion controller
- “Stop”  : Stop the cutting and cancel the job
- “F 0/1/2/3”  : Reserved for manufactures
- “F3”  : Switch on or switch off the auxiliary gas

LED indicator definition, shown in table 2-1;

Table 2-1 BWK301R LED indicator overview

LED	status	definition
	on	Main board work status
	on	Shutter open
	on	Indicate the current fast manual speed
	on	Switch on the auxiliary gas
	on	Enable the distance controller
	on	alarm
	on	Limit trigger
	on	Going frame
	on	Communication ok

	on	Battery low power
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Section3 Receiver of the wireless controller

CONTENTS:

- Receiver of the wireless controller

3.1 Receiver of the wireless controller

BWK301R wireless receiver, shown as picture 3-1.



DB9 connect to the female DB9 of the cable

Antenna prot

Picture3-1 BWK301R receiver

LED indicator definition, shown as table3-1.

Table 3-1 BWK301R LED indicator definition

器件	状态	无线手柄含义
RF-LED	on	Connect successfully between receiver and wireless controller
	off	Connect failed between receiver and wireless controller
RS232-LED	on	Receive the information from the mainboard
Power	on	Power indicator
	off	No power

Port DB9 interface definition, see table 3-2;

Table3-2 wireless controller port definition

Terminal	signal	definition	remark
PIN1	RXD	receive	
PIN2	TXD	send	
PIN3		No connect	
PIN4		No connect	
PIN5		No connect	
PIN6	GND	Ground	Referenced ground
PIN7		No connect	
PIN8		No connect	
PIN9	+5V	+5V power in	

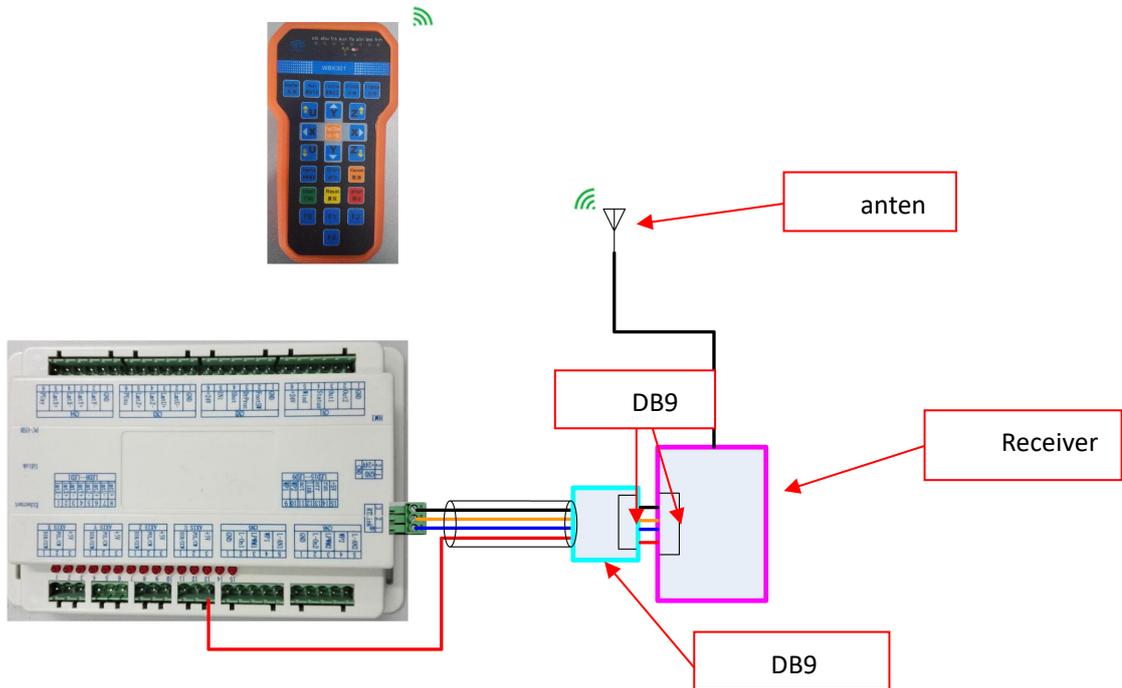
Section 4 Connection between wireless controller and main board

CONTENTS:

-  Connection with
RDC64XXG

4.1 Connection with RDC64XXG

Overview for connection with RDC64XXG,



Picture 4-1 Connection with BWK301R and RDC64XXG 主

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If there are any question or suggestion about our products and manuals, please tells us.

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