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INSTRUCTION MANUAL

UCR

Control Box for Robot

This manual corresponds to the following references:

- **UCR245-5A**
- **UCR470-5A**

Packing List

Either Ref. UCR245-5A or Ref. UCR470-5A is included in UCR box:

Control Box for Robot .... 1 unit

Tool Cable 3m .... 1 unit
Ref. 0027924

Power Cord 1.5m .... 1 unit
Ref. 0023714 (230 V)

**Communications
Cable 3m** .... 1 unit
Ref. 0024563

**Manual** .... 1 unit
Ref. 0027876

Functions

There are up to 44 functions* to control the station, such as:

- Temperature Control
- Sleep and Hibernation Control
- Station Status
- Error Information
- Counters (Working Time, Sleep, Hibernation...)

*Download the Robot Communication Protocol for UCR unit at **www.jbctools.com/jbcsoftware.html**

Features

LED Indicator *

Equipotencial Connector

Main Switch

Fuse

Power Socket

Tool Connector

Communications Connector
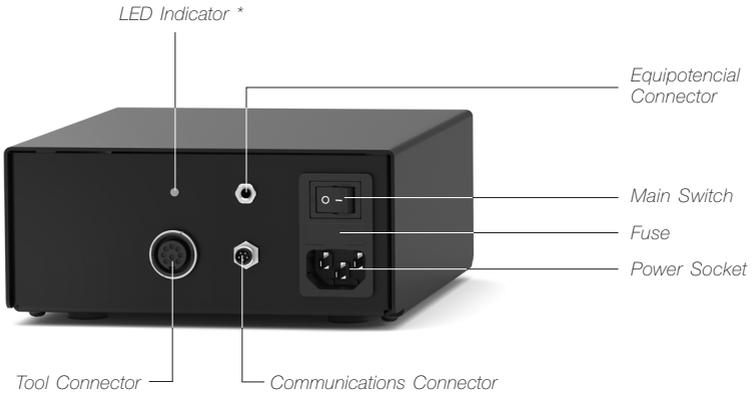
*LED Indicator:
· Blue: equipment powered
· Green: equipment working
· Red blinking: error. See table below for more info.

Trouble shooting

In case of error, a red light flashes a certain number of times, indicating an error number as shown in the table below:

| Nº Error	Description	Solution
1 times	Short-circuit	Replace Cartridge
2 times	Open circuit	Replace Cartridge
3 times	Tool not accepted	Check if the tool is compatible with the Contron Box
4 times	Tool detection error	Check the tool
6 times	Current usage leads to overloading	Due to overload wait until the device has cooled down
7 times	Short-circuit	Check if the cartridge is compatible with the Control Box
12 times	Memory error	Reset the Control Box

If the error persists, contact with JBC technical service.

Connection

- UCR can be connected to a PLC by a five-pin Communications Cable (Ref. 0020261).

- For a proper connection, it is necessary to connect only three cables to the corresponding 3 pins at a typical DB9 male connector (PLC or computer).

- Download the Robot Communication Protocol at **www.jbctools.com**

Communications Cable
Ref. 0020261

Ground - Blue cable

Brown cable

Received data - White cable

Transmitted data - Grey cable

Black cable

Optional:
Pedal activation by
relay or digital output

DB9
Connector
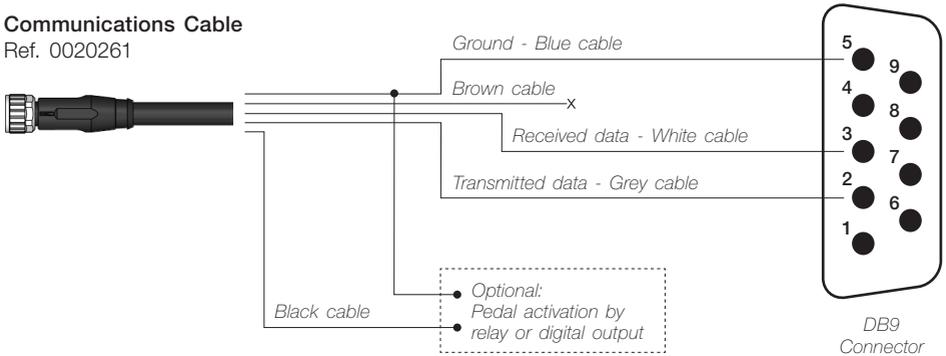
For detailed information about pin distribution see following table:

Front view
UCR Communications Connector
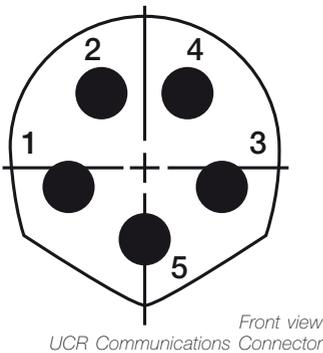
Pin Distribution		
Pin	Color	Description
1	Brown	Not used
2	White	Serial input: RS232 RX
3	Blue	Common reference: GND for RS232 and witch
4	Black	Switch input: 0V or 24V to start feeding. Leave it open to stop
5	Grey	Serial output: RS232 TX

Compatibility

UCR can be used with both solderin irons, **TR** and **TRA,** and its cartridge ranges **R245** and **R470** respectively. Connect any of those soldering irons with the provided tool cable (Ref. 0027924). See the table below to check the compatibility of the devices.


Ref. TR245-A/ TR470-A

Ref. TRA245-B/ TRA470-B

Control Box	Cartridge Range		Soldering Irons				Cartridge Stand	
	R245	R470	TR245	TR470	TRA245	TRA470	CS2R245	CS2R470
UCR245	●		●		●		●	
UCR470		●		●		●		●

SFR, GSFR and CLR are compatible with R245 and R470 cartridge ranges.

Dimensions

43
(1,693)

76
(2,992)

43
(1,693)

11,50
(0,453)

210,50
(8,287)

151,50
(5,965)

39
(1,535)

4 x M4 max. depth 12
(4 x M4 max. depth 0,472)

74,30
(2,925)

162
(6,378)

mm
(in)

6
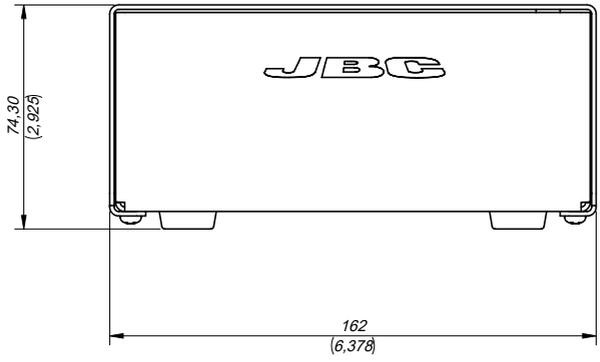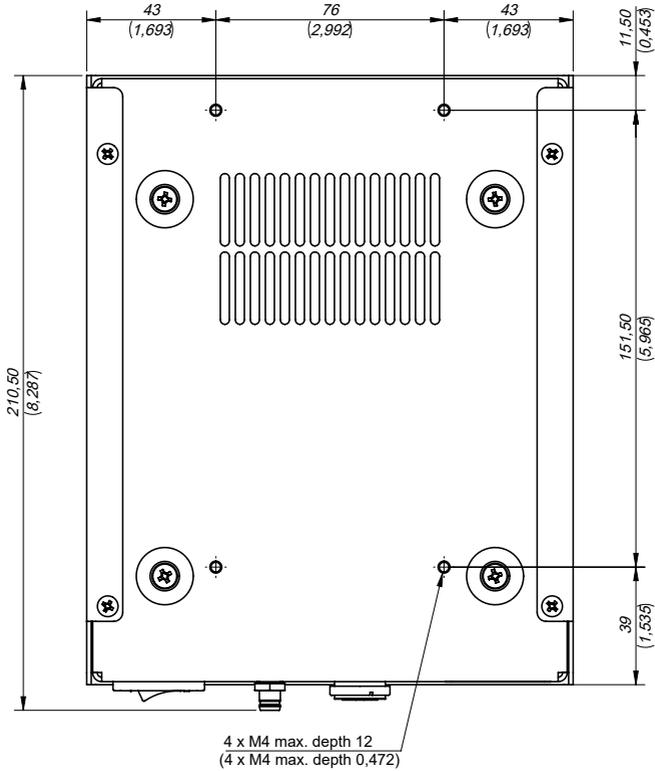
Work Place Example

SFR*

TRA*

CLR*

CSR*

UCR

GSFR*
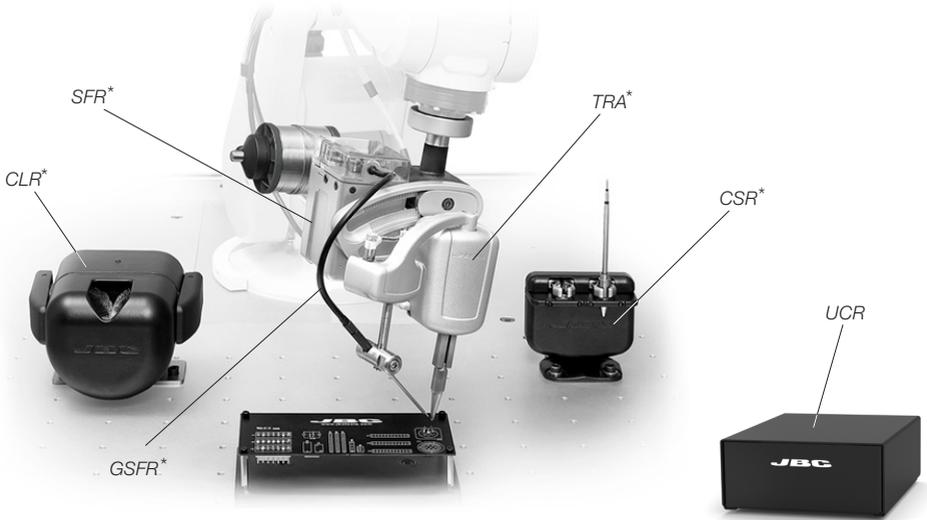
*Not included, sold separately

Maintenance

- Before carrying out maintenance, always disconnect the power supply and allow the equipment to cool down.

- Periodically check all cable and tube connections.

- Replace a blown Fuse as follows:

1. Pull off the Fuse Holder and remove the Fuse. If necessary, use a flat screwdriver to lever it off.

2. Insert the new Fuse into the Fuse Holder and return it to the station.

Fuse Holder
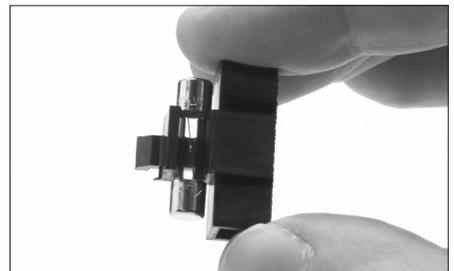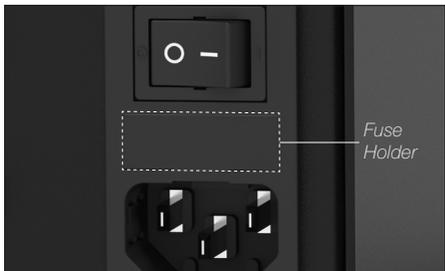
- Replace any defective or damaged part. Only use original JBC spare parts.

- Repairs should be performed only by a JBC authorized technical service.

Safety

⚠ **It is imperative to follow safety guidelines to prevent electric shock, injury, fire or explosion.**

- Do not use the equipment for any purpose other than soldering or rework. Incorrect use may cause fire.

- The main cable must be plugged into approved bases. Make sure that it is properly grounded before use. When unplugging it, hold the plug, not the wire.

- Do not leave the appliance unattended while it is on.

- Be sure that the power supply is disconnected before changing any spare part.

- The temperature of accessible surfaces may remain high after the device is turned off. Handle with care.

- Heat can cause inflamable products to ignite even when not visible.

- Avoid flux coming into contact with skin or eyes to prevent irritation.

- Be careful with the fumes produced when soldering.

- Keep your workplace clean and tidy. Wear appropriate protection glasses and gloves when working to avoid personal harm.

- Utmost care must be taken with liquid tin waste which can cause burns.

Notes

Specifications

UCR
Control Box for Robot
Ref.: **UCR245-5A**
Ref.: **UCR470-5A**

UCR245-5A 100 - 240V 50/60Hz. Input fuse: 2.5A. Output: 21V.
- Output Peak Power: 160W
- Temperature Range: 90 - 450 °C / 190 - 840 °F
- Total Net Weight: 2581 g / 5.69 lb
- Package Dimensions/Weight: 328 x 258 x 208 mm / 3160 g
  (L x W x H)   12.91 x 10.16 x 8019 in / 6.97 lb

UCR470-5A 100 - 240V 50/60Hz. Input fuse: 3.5A. Output: 42V.
- Output Peak Power: 250W
- Temperature Range: 90 - 500 °C / 190 - 930 °F
- Total Net Weight: 2635 g / 5.81 lb
- Package Dimensions/Weight: 328 x 258 x 208 mm / 3215 g
  (L x W x H)   12.91 x 10.16 x 8019 in / 7.09 lb

UCR245-5A and **UCR470-5A**
- Idle Temp. Stability (still air):   ±1.5 °C / ±3 °F
- Tip to ground resistance: < 2 ohms
- Tip to ground voltage: < 2mV RMS
- Ambient operating temp: 10 - 40 °C / 50 - 104 °F
- Connections: Communications: M8-5pins
                                       Tool: M16-8pins
- Unit Dimensions: 210 x 162 x 75 mm
  (L x W x H)   8.3 x 6.4 x 3.0 in

Complies with CE standards.
ESD safe.

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Warranty

JBC's 2 year warranty covers this equipment against all manufacturing defects, including the replacement of defective parts and labour.

Warranty does not cover product wear or misuse.

In order for the warranty to be valid, equipment must be returned, postage paid, to the dealer where it was purchased.

Get 1 extra year JBC warranty by registering here: https://www.jbctools.com/productregistration/ within 30 days of purchase.

This product should not be thrown in the garbage.
In accordance with the European directive 2012/19/EU, electronic equipment at the end of its life must be collected and returned to an authorized recycling facility.

CE EAC 10

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