

JBC

www.jbctools.com

INSTRUCTION MANUAL



JTSE

Power Hot Air Control Unit

This manual corresponds to the following references:

JTSE-1UA (100V / 120V)

JTSE-2UA (230V)

Packing List

The following items are included:



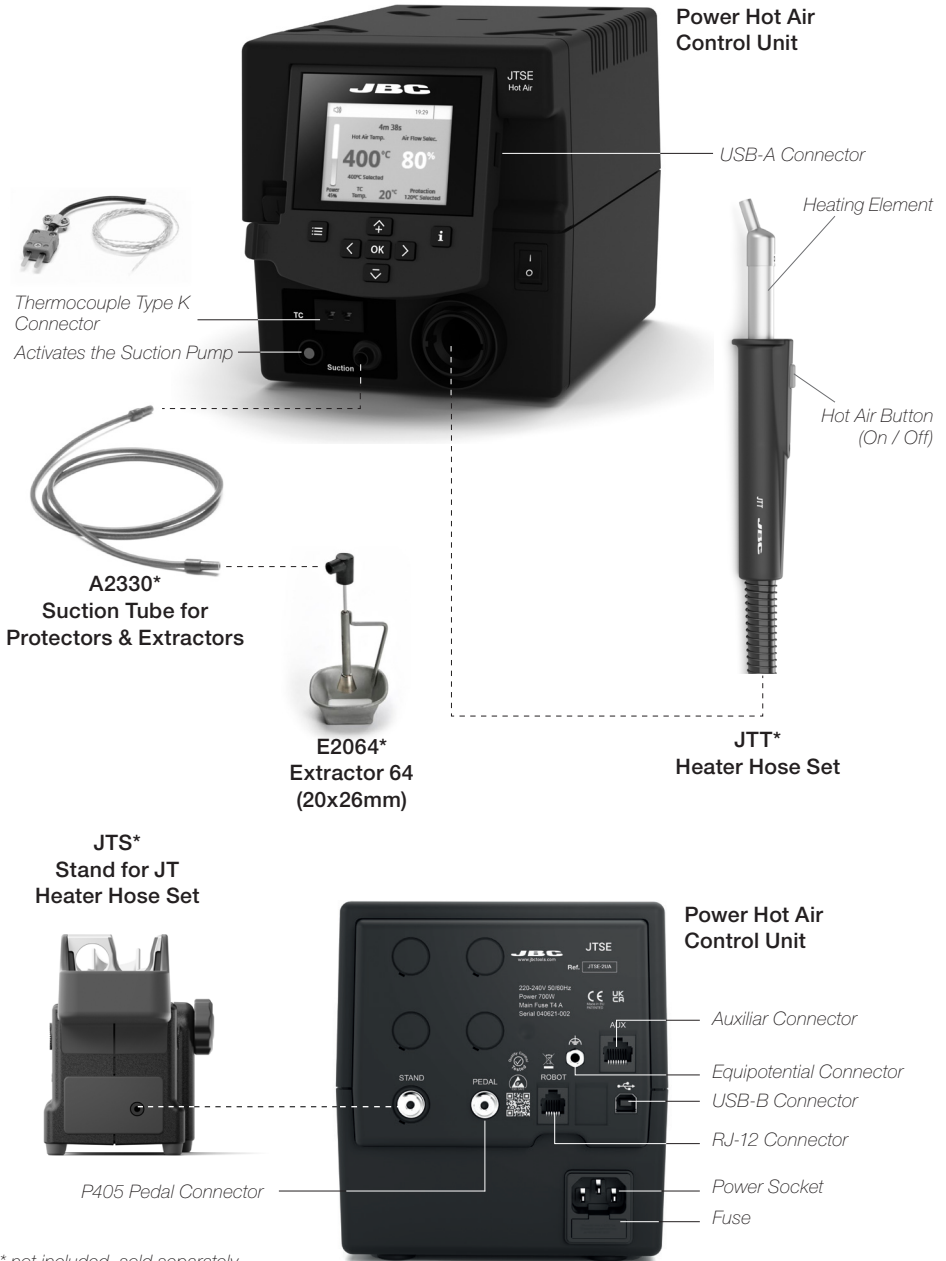
Power Hot Air Control Unit 1 unit

Power cable1 unit
Ref. 0023715 (100V / 120V)
0023714 (230V)



Manual1 unit
Ref. 0030011

Features and Connections



* not included, sold separately

Connecting to FAE

JTSE can be connected to FAE1 and FAE2 fume extractors. To do so, the JTSE control unit must be updated with program version 8886780 (or later versions), which can be downloaded from JBC's website at <https://www.jbctools.com/software.html>.

Once the station is updated, connect it to the fume extractor with the RJ12 cable, provided with FAE1 and FAE2. Use the "Robot" connector on the control unit and any "Station" connector on the fume extractors.

The setting of the fume extractor must be done from the FAE's own interface.



Power Hot Air Control Unit

RJ12 Cable
Ref. 0019751
Supplied with FAE1/FAE2

either



FAE1 Connectors



FAE2 Connectors

JTSE / TESE Work Screen

The work screen offers an **intuitive user interface** which provides **quick access** to station parameters. **Default PIN: 0105**

The screenshot shows the JBC work screen with the following data points:

- Status Bar:** Speaker icon, 19:29
- Time to Stop:** 4m 38s
- Instant Power Supplied to Heater:** Represented by a vertical bar graph.
- Current Air Temp.:** 400°C
- Selected Air Temp.:** 400°C Selected
- Current External TC Temp.:** 20°C
- Selected External TC Temp.:** 120°C Selected
- Air Flow:** 80%
- Protection:** 120°C Selected
- Power:** 45%
- TC Temp.:** 20°C

Below the screen is a control panel with the following buttons:

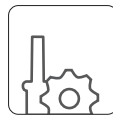
- Menu (three horizontal lines)
- Up arrow
- Down arrow
- Left arrow
- Right arrow
- OK
- Information (i)

Menu Options



Set the station parameters

Station



Set the tool parameters

Tools



Allows you to carry out an overall station reset restoring all the parameters to their default values.

Reset



Display the hours worked in each cycle

Counters

Troubleshooting

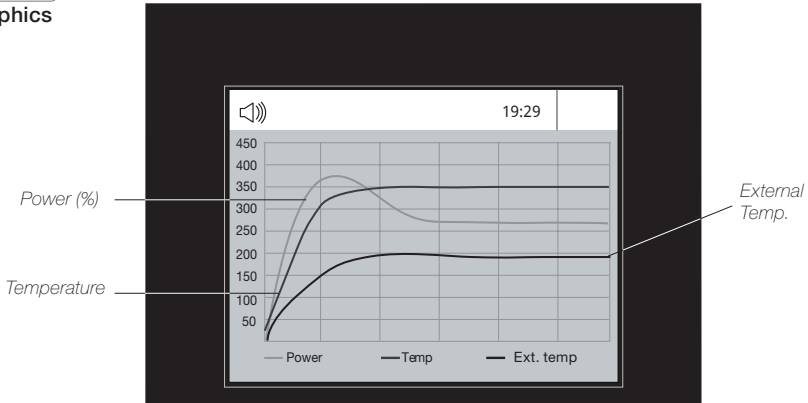
Station troubleshooting available on the product page at www.jbctools.com

Advanced Functionalities



Graphics

By pressing **Graphics** in the main MENU, temperature and power figures in real time are displayed. This helps you decide which nozzle to use to obtain the best quality solder joints.



JBC Net

The first system to optimize traceability in soldering

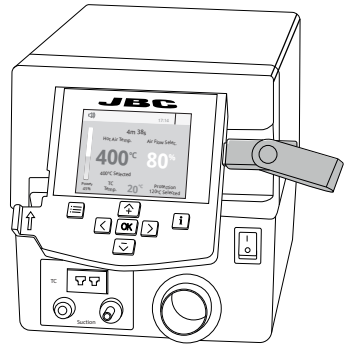
- Get greater quality and control in your production.
- Manage your whole soldering process remotely in real time.



Update

Station Update

Download the JBC Update File from www.jbctools.com/software.html. Insert the USB flash drive with the file downloaded to the station.



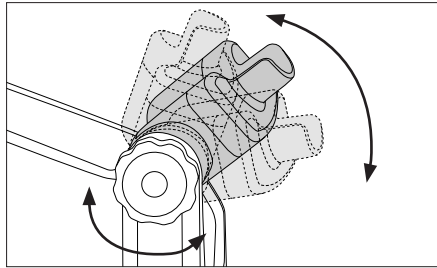
System Notifications

The following icons will be displayed on the screen's status bar.

- USB flash drive is connected.
- Station software update. Press INFO to start the process.
- Station is controlled by a PC.
- Warning. Press INFO for failure description.
- Station is controlled by a robot.
- Error. Press INFO for failure description, the type of error and how to proceed.

Adjustable Tool Holder

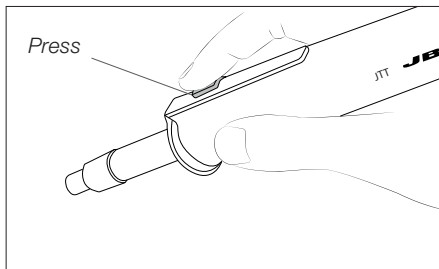
Adjust the tool holder angle to suit your work position.



Operation Modes

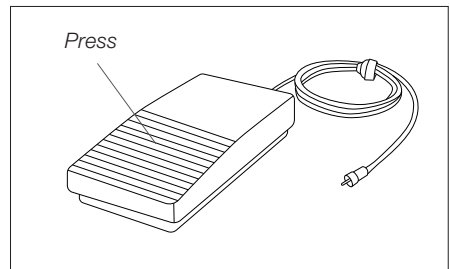
1. From the Tool Settings Menu, select the mode to activate the tool depending on the task.

Tool button



Press the start/stop button to blow hot air.

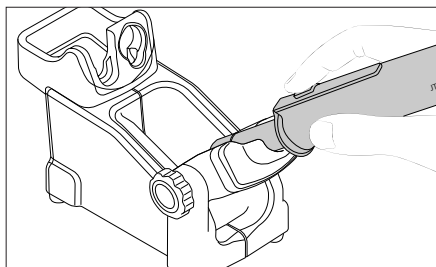
Pedal (not included)



Press the Pedal P405 to blow hot air and release to stop.

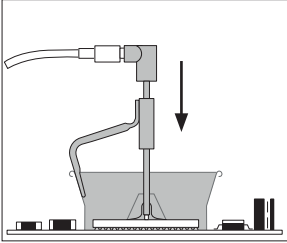
2. The tool stops blowing when pressing the start/stop button.

If the stand is connected to the station and for safety reasons, it will also stop when returned to the tool holder.



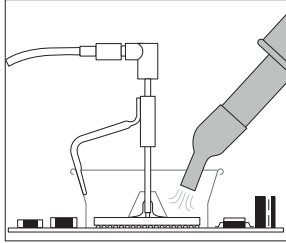
Operation

1. Placing



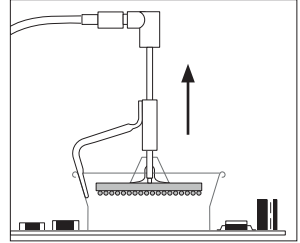
Position the extractor with the appropriate suction cup and press the suction button.

2. Heating



Heat the component.

3. Extracting



The component lifts off automatically when the solder melts.

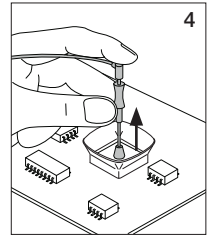
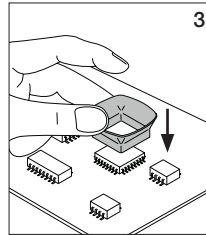
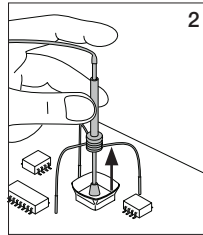
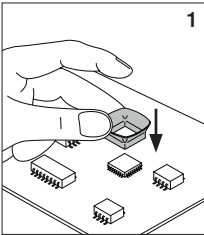
Protectors & Extractors

For small components (fig. 1 and 2).

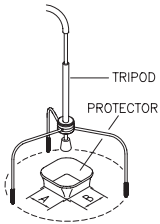
We recommend using the protector + tripod.

For large components (fig. 3 and 4).

We recommend using the manual extractors.

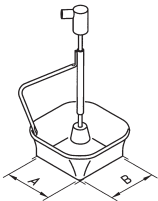


Accessories *(not included)*



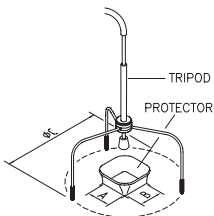
Protectors

No.*	Ref.	AxB (mm)	AxB (in)	No.*	Ref.	AxB (mm)	AxB (in)
	P3353	4,3 x 3	0.16 x 0.12		P1249	12 x 23	0.47 x 0.9
	P3786	5,2 x 5,2	0.20 x 0.20	44	P4000	12,5 x 12,5	0.49 x 0.49
	P3352	5,2 x 7,5	0.20 x 0.29		P3354	13,2 x 13,2	0.52 x 0.52
	P3355	5,2 x 9,5	0.20 x 0.37		P4025	13,5 x 21,5	0.53 x 0.85
	P3356	6,2 x 4,2	0.24 x 0.16	48	P2230	15 x 15	0.59 x 0.59
	P3785	7,2 x 7,2	0.28 x 0.28	60	P4010	17 x 17	0.67 x 0.67
	P3784	8,2 x 8,2	0.32 x 0.32		P4005	18 x 29	0.71 x 1.14
	P4035	9 x 13	0.35 x 0.51		P4030	18,5 x 18,5	0.73 x 0.73
	P4040	9,5 x 19	0.7 x 0.74		P1068	18,5 x 24	0.73 x 0.94
	P4080	9,5 x 21	9.5 x 0.83		P2685	28,5 x 28,5	1.12 x 1.12
32	P2220	10 x 10	0.39 x 0.39		P4085	31,5 x 31,5	1.24 x 1.24
	P4045	10,5 x 21	0.14 x 0.82		P2672	33 x 46	1.30 x 1.18
	P4090	11 x 16	0.43 x 0.63		P4002	50 x 50	1.97 x 1.97
24	P2235	12 x 17	0.47 x 0.67		P3357	52,5 x 14	2.06 x 0.55



Extractors

No.*	Ref.	AxB (mm)	AxB (in)	No.*	Ref.	AxB (mm)	AxB (in)
52	E2052	20 X 20	0.79 x 0.79		E4015	31,5 X 31,5	1.24 x 1.24
64	E2064	20 X 26	0.79 x 1.02		E2084	33 X 33	1.30 x 1.30
80	E2184	24 X 24	0.94 x 0.94		E2100	38 X 38	1.50 x 1.50
	E2068	27 X 27	1.06 x 1.06		E2124	45 X 45	1.77 x 1.77
	E4020	28,5 X 28,5	1.12 x 1.12				



Tripods

Ref.	øC (mm)	øC (in)
T2050	39	1.53
T2250	85	3.35



Manual extractor

Ref.	øD (mm)	øD (in)
E2190	7	0.27

* Position in Extractor Stand

Using the Thermocouple Type K

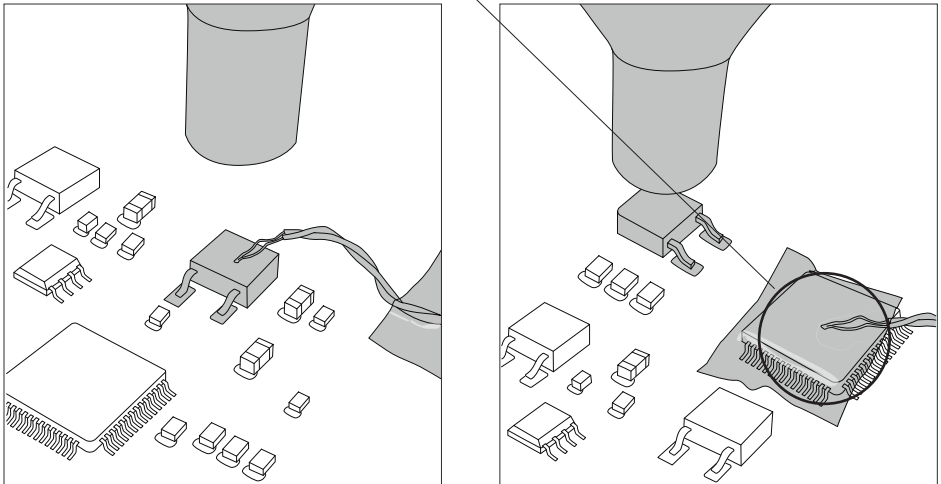
Connect a TC type K (PH218) to the station and use it as a protection or regulation sensor. You can define its use mode by means of the “Ext TC mode” option in the “Tool” menu.

You can choose from **two work modes**:

Regulation: the station regulates the air temperature automatically to maintain the External Thermocouple (TC) temperature.

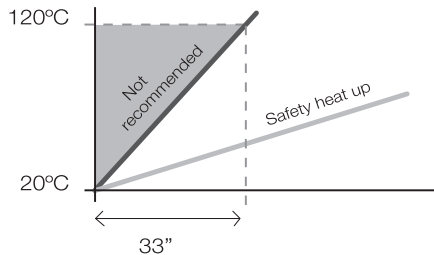
Protection: the station cuts the air supply off when the External Thermocouple (TC) temperature is reached.

Fix the TC with Kapton Tape (Ref. PH217) as near as possible to the component being worked on. If Kapton tape is not ESD you must use an ionizer.



IPC* does not recommend exceeding ramp-up rates over 3-4 °C / sec. (5-7 °F / sec) so as to reduce the risk of thermal stress on the PCB.

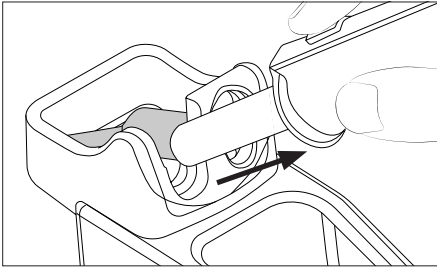
* IPC was founded in the U.S. in 1957 as the Institute for Printed Circuits.



Nozzle Exchanger

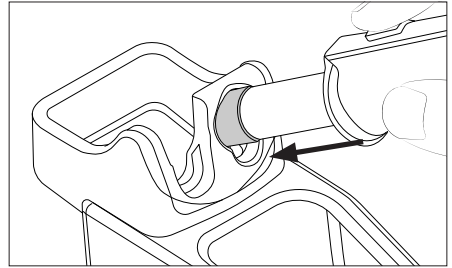
⚠ Turn the tool off and handle it with care. The heating element and the nozzle are still hot.

1. Removing Nozzle



Place the heating element with its nozzle in the nozzle exchanger and pull the tool to remove it. The nozzle comes to rest in the nozzle storage.

2. Attaching Nozzle



Attach the nozzle and press the nozzle onto the heating element with the help of the opening in the nozzle exchanger.

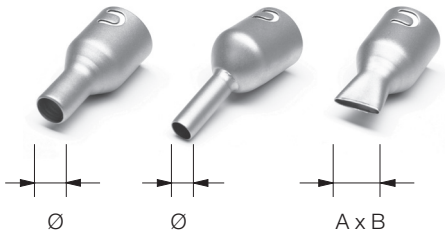
Compatible Nozzles

JTT works with JT nozzles. Find the model that best suits your soldering needs at www.jbctools.com

Straight

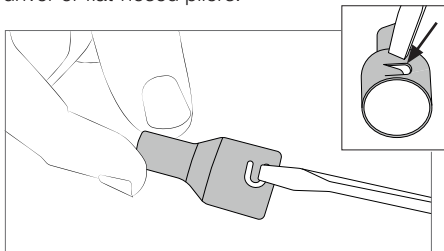
Bent

Flat

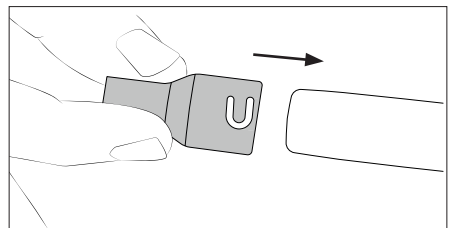


In case of a loosely fitting nozzle:

1. Push the nozzle tab inwards with a screwdriver or flat-nosed pliers.



2. Assemble the nozzle onto JTT again.



*	Ref.	Shape	Size (mm)	Size (in)
*	JN2020	Straight	Ø 8	Ø 0.31
	JN8417	Straight	Ø 10	Ø 0.4
*	JN2015	Bent	Ø 4	Ø 0.16
*	JN2012	Bent	Ø 6	Ø 0.24
	JN6633	Bent	Ø 8	Ø 0.31
	JN7637	Flat	10 x 2	0.39 x 0.08
	JN7638	Flat	20 x 2	0.79 x 0.08
	JN7639	Flat	30 x 2	1.18 x 0.08

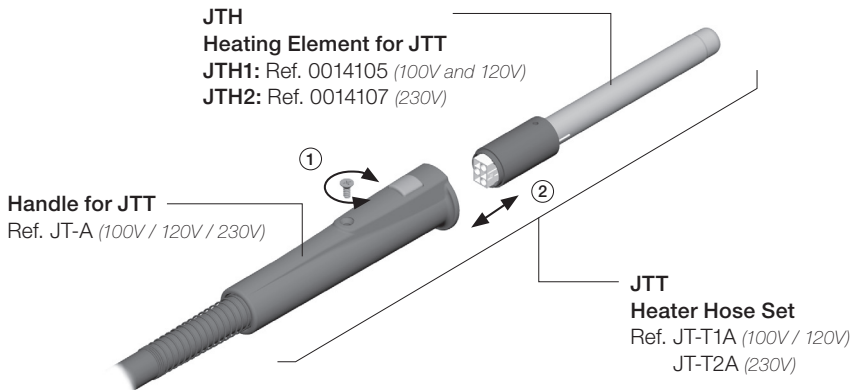
* Supplied with JT

Replacing the Heating Element

Note: Only perform this operation when the element is cold and the unit is disconnected from the mains.

Loosen the screw (1) and pull the worn heating element out of the handle (2).

Insert the new heating element, make sure its pushed all the way in (2) and tighten the screw (1).

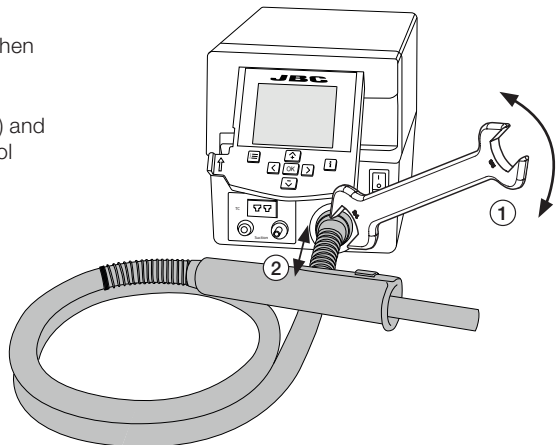


Changing the JTT Heater Hose Set

Note: Only perform this operation when the station is turned off.

Use a spanner to unscrew the nut (1) and remove the tool hose from the control unit (2).

Insert the new hose, make sure it is pushed all the way into the connector (2), and tighten the nut (1).



Maintenance

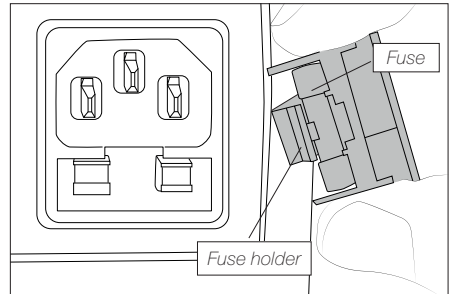
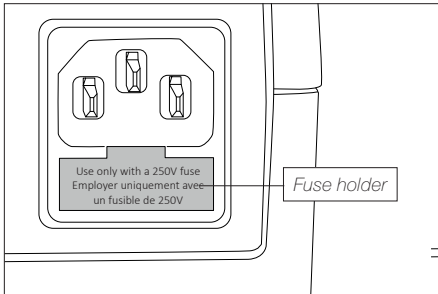
Before carrying out maintenance, always allow the equipment to cool.

- Clean the station screen with a glass cleaner or a damp cloth.
- Use a damp cloth to clean the casing and the tool. Alcohol can only be used to clean the metal parts.
- Periodically check that the metal parts of the tool and stand are clean so that the station can detect the tool's status.
- Periodically check all cables and tubes.
- Replace a blown fuse as follows:



1. Pull off the fuse holder and remove the fuse. If necessary use a tool to lever it off.

2. Insert the new fuse into the fuse holder and return it to the station.



- Replace any defective or damaged pieces. Use original JBC spare parts only.
- Repairs should only be performed 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 units for any purpose other than soldering or rework. Incorrect use may cause a fire.
- The power cord must be plugged into approved bases. Be sure that it is properly grounded before use. When unplugging it, hold the plug, not the wire.
- Do not work on electrically live parts.
- The tool should be placed in the stand when not in use in order to activate the sleep mode. The soldering tip or nozzle, the metal part of the tool and the stand may still be hot even when the station is turned off. Handle with care, including when adjusting the stand position.
- Do not leave the appliance unattended when it is on.
- Do not cover the ventilation grills. Heat can cause inflammable products to ignite.
- 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.
- This appliance can be used by children over the age of eight and also people with reduced physical, sensory or mental capabilities or lack of experience provided that they have been given adequate supervision or instruction concerning the use of the appliance and understand the hazards involved. Children must not play with the appliance.
- Maintenance must not be carried out by children unless supervised.

Specifications

JTSE

Power Hot Air Control Unit

Ref.: **JTSE-1UA** 100V - 120V 50/60Hz. Input fuse: 8A. Rated current: 7A

Ref.: **JTSE-2UA** 230V 50/60Hz. Input fuse: 4A. Rated current: 3A

- Temperature selection: Room temp. 150 - 450 °C / 300 - 840 °F
- Nominal power: 700W
- Cool mode: T off. Used to blow air to room temperatur
- Ambient operating temp.: 10 - 50 °C / 50 - 122 °F
- Air flow regulation: 5 - 50 SLPM
- Vacuum: 30% / 228 mmHg / 9 inHg
- Connectors: USB-B
RJ-12
P-005 Pedal
- Control Unit Dimension/Weight: 1.90 kg / 4.2 lb
(L x W x H) 230 x 148 x 160 mm / 5.83 x 7.24 x 5.51 in
- Total Net Weight:
- Total Package Dimension/Weight: 258 x 328 x 208 mm / 2.56 kg
(L x W x H) 10.15 x 12.9 x 8.2 in / 5.64 lb

Complies with CE standards.
ESD safe.

JBC

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.



www.jbctools.com

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