# JBC

## INSTRUCTION MANUAL



# Compact Soldering Station

## Ref. CD-BQE

# Packing List

The following items are included:
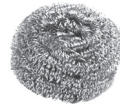


**CD Control Unit** ...........................................1 unit
Ref. CD-1E (120V)
     CD-2E (230V)
     CD-9E (100V)

**General Purpose Handle** ...................... 1 unit
Ref. T245-A



**Power Cord** ................................................. 1 unit
Ref. 0023714 (100V)
     0023715 (230V)
     0024092 (100V)

**Brass Wool** .................................................. 1 unit
Ref. CL6210



**Sponge** ........................................................... 1 unit
Ref. S0354
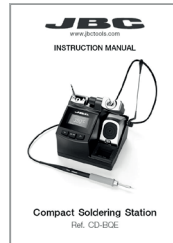
**Manual** ........................................................... 1 unit
Ref. 0022909

www.jbctools.com

# Features

Adjustable Stand:
Intelligent Heat Management

Cable collector

Quick Tip Changer

Process
Screen

350°C

Tip Cleaner brass wool
with antisplash
membrane

General Purpose
Handle
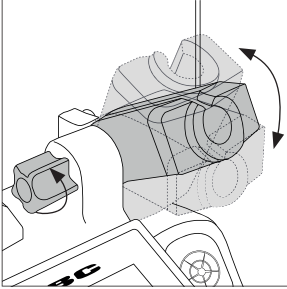Ref. T245-A

Main switch
Fuse
Power Socket

USB-B connector
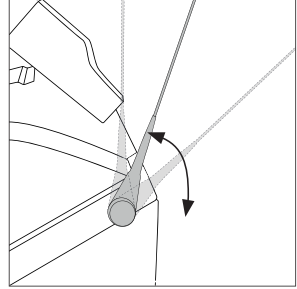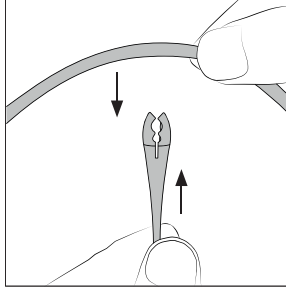
Equipotential connection
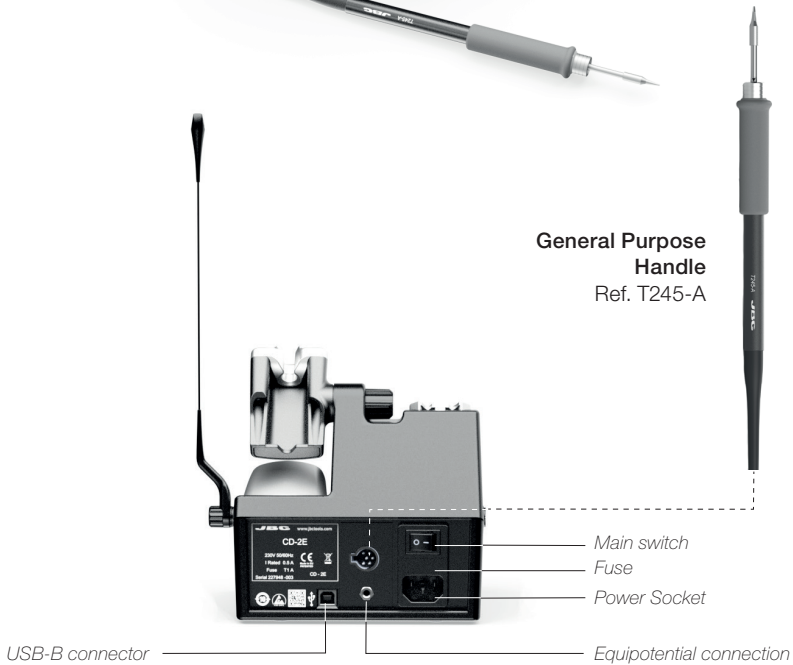
## Adjustable stand

Adjust the tool stand to suit your work position.

## Cable collector (Ref. CC1001)

Fix the cable on the collector so that the working area is free of cable.

## Tip Cleaner

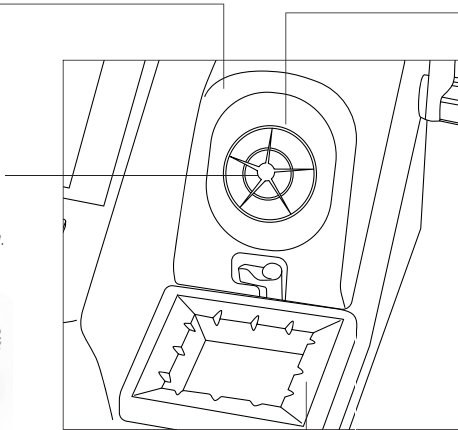Select the option to suit your needs and improve the thermal transfer of the tip.

**Splashguard**
Ref. 0017576
*When using the brass wool, it prevents splashing of solder particles.*

**Antisplash Membrane**
Ref. 0017574
*Prevents splashing and keeps the work area clean.*

**Brass Wool**
Ref. CL6210
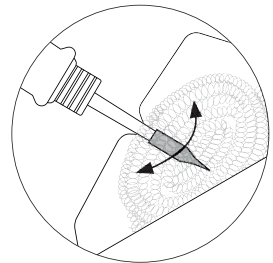*Very effective cleaning method. Leaves a small layer of solder on the tip preventing oxidation between cleaning and rewetting.*

If the tip is very dirty, JBC recommends first cleaning it with the wiper to remove excess solder.
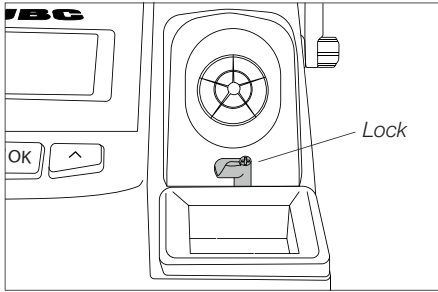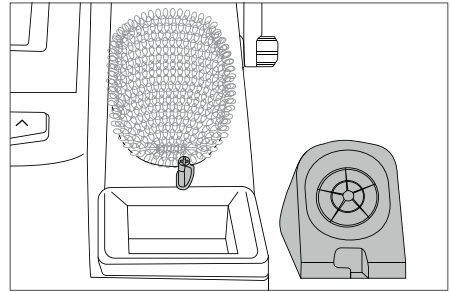
**Wiper**
Ref. CL0160
*A temperature resistant receptacle for removing excess solder by gently tapping or wiping.*
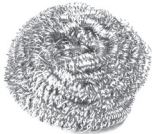
## Removing the Splashguard

**1.** Unlock the splashguard.



*Lock*

**2.** Lift off.



More cleaning options (not supplied):



**Inox Wool**
Ref. CL6205
Provides a superior
cleaning of the tip.



**Metal Brush**
Ref. CL6220
When used carefully,
it provides a more
thorough cleaning.

**Wiper**
Ref. CL0160
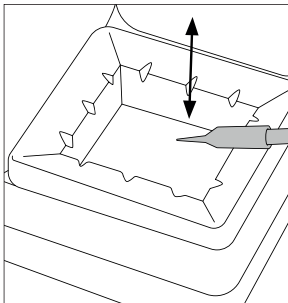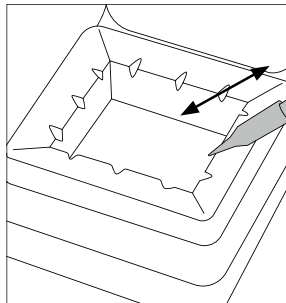




**Sponge**
Ref. S0354



**Tapping:**
Tap gently to remove excess
solder.

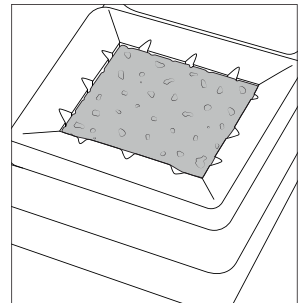**Wiping:**
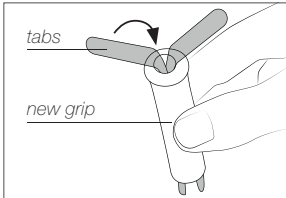Use the slots to remove
remaining particles.

The least harmful cleaning
method. Keep the sponge
damp with distilled water
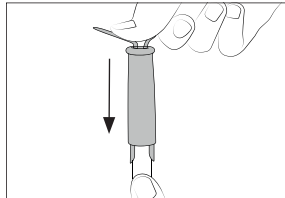when working to avoid tip
wear.

# Changing the Grips

Easily replace the **Grips for T245-A and T245-C** using the slip-on tabs (Ref. 0016057)
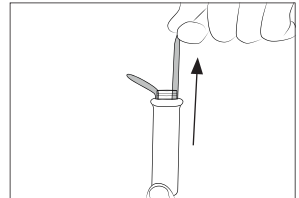
### 1. Inserting tabs

tabs

new grip

Put the slide-on tabs into the new grip.

### 2. Inserting handle

Push the grip with the tabs onto the handle.

### 3. Removing tabs

To remove the tabs, hold the grip and pull. Use a pliers if necessary.

# Sealing Plug Replacement

The Sealing Plug is meant to prevent undesirable flux vapors or particles from entering inside the tool. Its usage is highly recommended for intensive applications when soldering in exposed to FOD environments or for applications where the soldering iron works close to vertical position.

⚠ Before replacing the sealing plug, unplug the power supply and make sure the device is not hot.

### 1. Removing the Sealing Plug
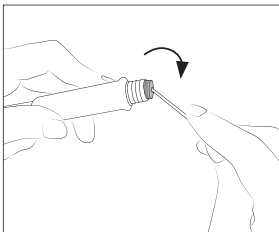
Enter a small shaft or screw-driver in order to gently lift and pull the Sealin Plug.
Do not insert the tool more than 8 mm deep.
Never use a cartridge to do this operation.

### 2. Mounting position

Sealing Plug
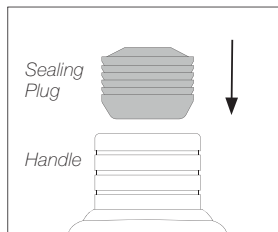
Handle

Note the Sealing Plug mounting position. The chamfered side has to be positioned towards the Handle.

### 3. Inserting the Sealing Plug
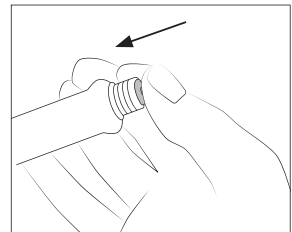
Gently push the Sealing Plug inside the handle until it is completely into the Handle. Handle and Sealing Plug edges have to be aligned.

# Quick Tip Changer

Save time and change cartridges safely without switching the station off.

### 1. Removing
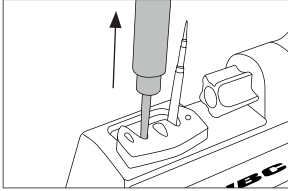
Place the handpiece in the extractor and pull to remove the cartridge.

### 2. Inserting
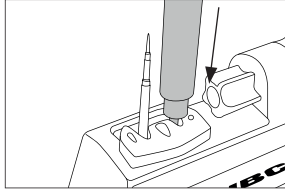
Place the handpiece on top of the new cartridge and press down slightly.

### 3. Fixing
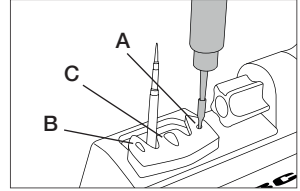
Use the holes for fixing the cartridge* as follows:
**A.** For straight C210.
**B.** For curved C210.
**C.** For C245.

### Compatible cartridges

The CD-B stations work with C245 cartridges.
Find the model that best suits your soldering needs in www.jbctools.com

Conical          Chisel          Conical-bent          Bevel          Special models
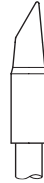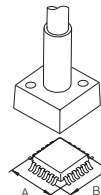
**\*Important:** It is essential to insert the cartridges as far as the mark for a proper connection.

Mark

# USB Connector

Download the latest software from our website to improve your soldering station.

## JBC Updater

www.jbctools.com/software.html
Update the station software via USB connection:



*Cable USB AB*

*JBC Updater*

## JBC Manager

www.jbctools.com/manager.html
Manage and monitor as many stations as your PC can handle by using the JBC Manager.
You can export data to another PC.



*any JBC station*

*Cable USB AB*

*USB Hub*

*JBC Manager*

**Manager Settings**
Change settings for a group of JBC stations at the same time.

**Register Settings**
Create graphs of the soldering process in real time with power and temperature data.
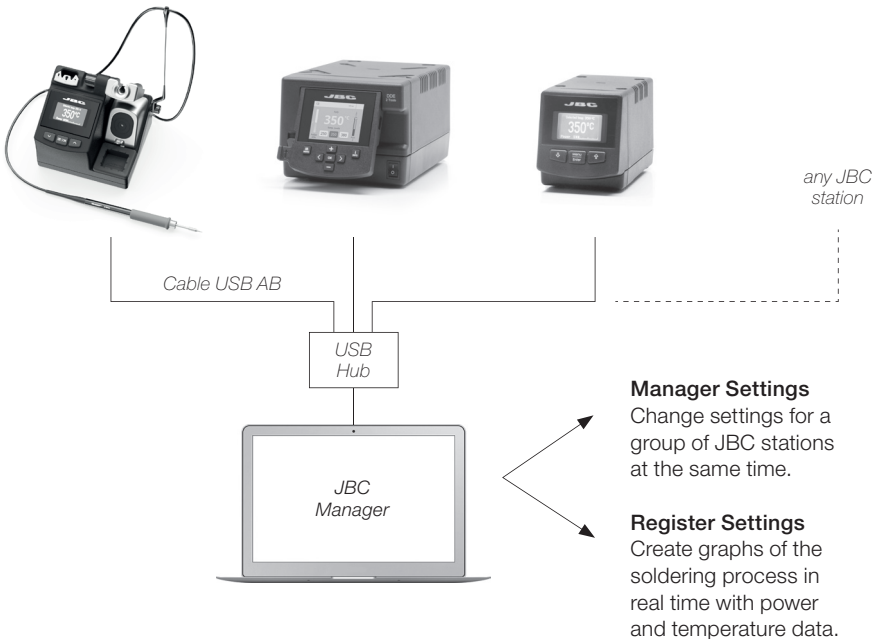
# Operation

## The JBC Most Efficient Soldering System

This revolutionary technology is able to recover tip temperature extremely quickly.
This allows the user to work at a lower temperature.
As a result, tip life increases by 5.

**1. Work**
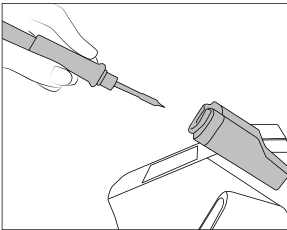


When the tool is lifted from the stand the tip will heat up to the selected temperature.

**2. Sleep**
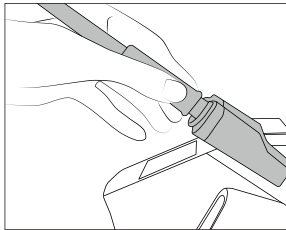


When the tool is in the stand, the temperature falls to the preset sleep temperature.

**3. Hibernation**



*Long time in the stand*
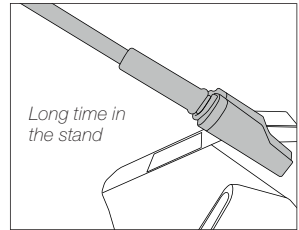
After longer periods of inactivity, the power is cut off and the tool cools down to room temperature.



Selected temp **350 ºC**

$350^0$C

Power 5%



**Sleep**

$350^0$C

Sleep temp 150ºC



**Hibernation**

$350^0$C

Tool in the stand, no heat
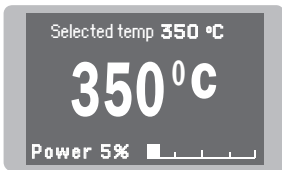
· *Change temperature*
  *(from 90 to 450ºC)*
· *Select temperature levels*
· *Fix one temperature*
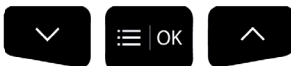
· *Change Sleep temperature*
· *Set Sleep delay*
  *(from 0 to 9 min or no Sleep)*

· *Change Hibernation delay*
  *(from 0 to 35 min)*

# Control Process

## Work Screen

Fixed temp. **350** °C — *Displays a specific fixed temp.*

Levels °C **270** 350 **400** — *Shown when you have selected temp. levels. The values must be adjusted for the task.*

*The work screen provides useful information of tool status in real time.*

Selected temp. **350** °C

**350** **0**C

-10

Power 5%

∨  ≡ | OK  ∧

*"Temp. Adjust" parameter. It provides a more precise adjustment between the selected temp and the actual one.*

## Menu Screen

Default PIN: 0105

**Main menu**
Exit
1  Reset settings
2  Station settings
3  Tool settings

4  Counters
5  Program version

**Station settings**
1  Temp unit          Celsius
2  Maximum temp    400°C
3  Minimum temp     200°C
4  Metronome          ----

5  Help text              OFF
6  Beep                      ON
7  Change PIN
**Back**

**Tool settings**
1  Fix one temp          -----
2  Temp levels set      OFF
3  Sleep delay         0  min
                           Tool **210**

4  Sleep temp          150°C
5  Hibernation delay  10 min
6  Temp adjust        + 0  °C
**Back**  Tool **210**

**Counters**
1  Plugged hours          0
2  Working hours          0
3  Sleep hours             0

4  Hibernation hours     0
5  No tool hours           0
6  Sleep cycles            0
**Back**

## Troubleshooting

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

# Parameters

Be careful when using these parameters as they may reduce the tip life if not used properly. Please follow the recommended guidelines:

## Station Settings

| Parameter description | Recommendations | Warnings |
|---|---|---|
| **Temperature unit**<br>Celsius (ºC) or Fahrenheit (ºF) | N/a | |
| **Maximum temperature**<br>Set the maximum temperature to work with. Max. temp by default is 400°C (750°F). This is considered high enough to work with most lead-free applications.<br><br>**Minimum temperature**<br>Set the minimum temperature to work with. Min. temp. by default is 200ºC (392ºF). This is considered to be a proper starting point for leaded applications. | The station temperature range is 90-450ºC (190-840ºF). Change the temperature limits when working with less common applications such as low / high melting point soldering (HMP) or plastics (e. g. riveting). | ⚠ In most cases, working with temperatures over 400°C (750°F) can damage the PCB and its components. Even in short time periods of tip contact with the soldering joint, the flux may not work properly and could seriously reduce tip life. If the solder joint requires more power (e.g. multilayered or high dissipation boards), JBC strongly recommends using other aids like preheaters. |
| **Metronome**<br>This activates a beep sound. Frequencies vary from 1 to 50 seconds. | Useful for setting a work rate in repetitive jobs. The beep lets you know the length of time the tip must be in contact with the soldering joint. | N/a |
| **Help text**<br>Activate this parameter to receive info from the system. | N/a | N/a |
| **Beep**<br>Enable/disable the beep sound of the keypad. | N/a | N/a |
| **Change pin**<br>Change the default security PIN number (0105). | The PIN must be entered every time a parameter is changed. | N/a |

## Tool Settings

| Parameter description | Recommendations | Warnings |
|---|---|---|
| **Fix one temperature**<br>Fix a value within the temperature range of the station (90-450°C/190-840°F). | Ideal for soldering more than one component at a specific temperature. The station will reject any attempt to change the temperature. | N/a |
| **Temperature levels set**<br>Similar to "Fix one temp" parameter. In this case, the user can set up to 3 values for different power requirements. | This allows a quick change between 3 different tempe-ratures. Set them according to the allowed values for your soldering applications. | N/a |
| **Sleep delay**<br>Set the time that the tool will remain at the selected temperature when in the stand before entering sleep mode. The tip temperature will then drop to the Sleep temperature. | Because our tools reach the working temperature from the deafult Sleep mode in only a few seconds, this parameter is preset to 0 min. Once the tool is returned to the stand the temperature will automatically drop to the sleep temperature, extending tip life and avoiding oxidation. Retinning the tip before placing the tool in the stand will protect the tip and extend its life. | ⚠ Setting these parameters to higher values will unnecessarily accelerate oxidation and shorten tip life especially when working with temperatures up to 450°C (840°F). |
| **Sleep temperature**<br>This is the set temperature the tip reaches when returned to the stand. | The sleep temperatures are set to achieve a balance between preventing oxidation and reaching the working temperature in a few seconds. | |

## Tool Settings

| Parameter description | Recommendations | Warnings |
|---|---|---|
| **Hibernation Delay** Set the time the tool will remain at Sleep temperature before entering the Hibernation mode. At this time, the power supply is cut off and the tip remains at room temperature. | This function completely protects the tip from oxidation during long periods of inactivity while the tool is in the stand. Retinning the tip before placing the tool in the stand also helps prevent oxidation and extends the life of the tip. | ⚠ Increasing the default value will accelerate oxidation and shorten the tip life. |
| **Temp Adjustment** It provides a more precise adjustment between the selected temperature and the actual one. | Set values within ±50°C (± 90°F) to achieve zero error. JBC strongly recommends the use of TID-A or TIA-A Thermometers to obtain precise readings. | ⚠ When the user changes the cartridge type, the parameter should be reset to 0°C/F or to the value needed for this cartridge. E.g. If a correction of +20°C (+36°F) is set for the C245966 (thick type) and then the user changes the cartridge for a C245030 (which is thinner) without resetting, they would be working at a temperature of +20°C (+36°F) lower for the C245030 which does not need any temperature adjustment. |

# 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 status.

- Maintain tip surface clean and tinned prior to storage in order to avoid tip oxidation. Rusty and dirty surfaces reduce heat transfer to the solder joint.

- Periodically check all cables and tubes.

- Replace a blown fuse as follows:

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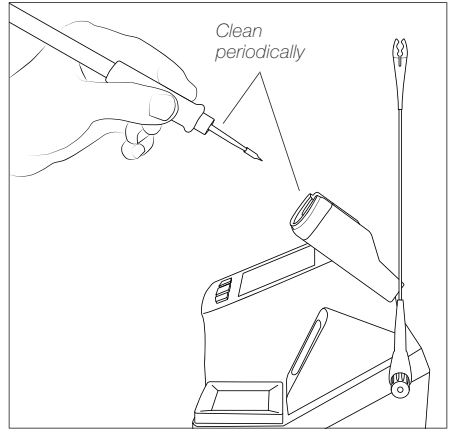
**1.** Pull off the fuse holder and remove the fuse. If necessary use a tool to lever it off.

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

*Fuse holder*
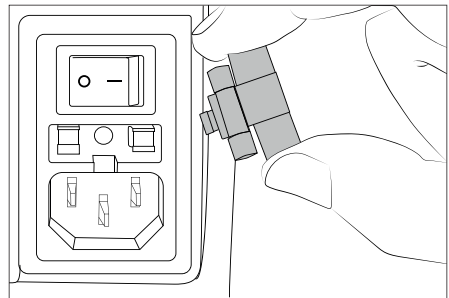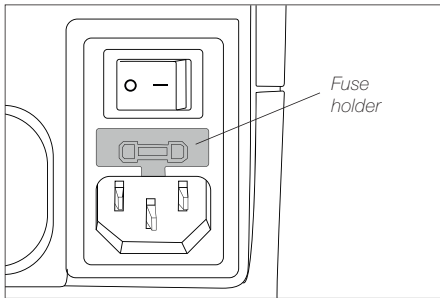
- Replace any defective or damaged pieces. Only use original JBC spare parts.

- 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 fire.

- The power 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 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, the metal part of the tool and the stand may still be hot after 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 inflamable 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 as well as persons with reduced physical, sensory or mental capabilities or lacking experience provided that they have been given adequate supervision or instruction concerning 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.

# 有害物质含量表

产品中有害物质的名称及含量

| 部件名称 | 有害物质 | | | | | |
|---|---|---|---|---|---|---|
| | 铅(Pb) | 汞(Hg) | 镉(Cd) | 六价铬<br>(Cr(VI)) | 多溴联苯<br>(PBB) | 多溴二苯醚<br>(PBDE) |
| 烙铁头 | O | O | O | O | O | O |
| 手柄 | O | O | O | O | O | O |
| 电源线 | O | O | O | O | O | O |
| 主机 | O | O | O | O | O | O |
| 电源插座 | O | O | O | O | O | O |
| 保险丝 | O | O | O | O | O | O |
| 主开关 | O | O | O | O | O | O |
| 电位连接 | X | O | O | O | O | O |
| 变压器 | O | O | O | O | O | O |
| 线路板 | X | O | O | O | O | O |

O 表示该有害物质在该部件所有均质材料中的含量均在GB/T 26572 规定的限量要求以下。
X 表示该有害物质至少在该部件的某一均质材料中的含量超出GB/T 26572 规定的限量要求。

## Notes

# Notes

# Specifications

**CD-1BQE** 120V 50/60Hz. Input fuse: 2A. Output: 23,5V. Control Unit model: **CD-1E**
**CD-2BQE** 230V 50/60Hz. Input fuse: 1A. Output: 23,5V. Control Unit model: **CD-2E**
**CD-9BQE** 100V 50/60Hz. Input fuse: 2A. Output: 23,5V. Control Unit model: **CD-9E**

- Output Peak Power CD-BE:       130W
- Temperature Range:       90 - 450 °C (190 - 840 °F)
- Idle Temp. Stability (still air):       ±1.5°C (±3°F) / Meets and exceed IPC J-STD-001
- Temp accuracy:       ±3%  (using reference cartridge)
- Temp adjustment:       ±50°C (±90°F) Through station menu setting
- Tip to ground voltage/resistance:       Meets and exceed
        ANSI/ESD S20.20-2014     IPC J-STD-001F
- USB connector station-PC
- Ambient operating temp:       10 - 50 °C (50 - 122 °F)
- Control Unit Weight:       2,67Kg (5.88 lb)
- Control Unit Dimensions:       150 x 175 x 145 mm (5.9 x 6.9 x 5.7 in)

- Total Package:       234 x 234 x 258 mm / 3.10 kg
        9.2 x 9.2 x 10.2 in / 6.82 lb

Complies with CE standards
ESD protected housing "skin effect"

**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.

CE ⟲10 EAC

**www.jbctools.com**