JBC

www.jbctools.com

INSTRUCTION MANUAL

DDE
2 Tools

JBC

T245

350°C

Temp. Levels

250 | 350 | 380

Power 45%

Port 2

19:29

DDE

2-Tool Control Unit

This manual corresponds to the following references:

DDE-9D (85-265 V) - *Power cord ref. 0024077 (100 V)*
DDE-1D (85-265 V) - *Power cord ref. 0023717 (120 V)*
DDE-2D (85-265 V) - *Power cord ref. 0024080 (230 V)*

Packing List

The following items are included:

**2-Tool
Control Unit** .... 1 unit

Power Cord .... 1 unit
Ref. 0024077 (100 V)
      0023717 (120 V)
      0024080 (230 V)

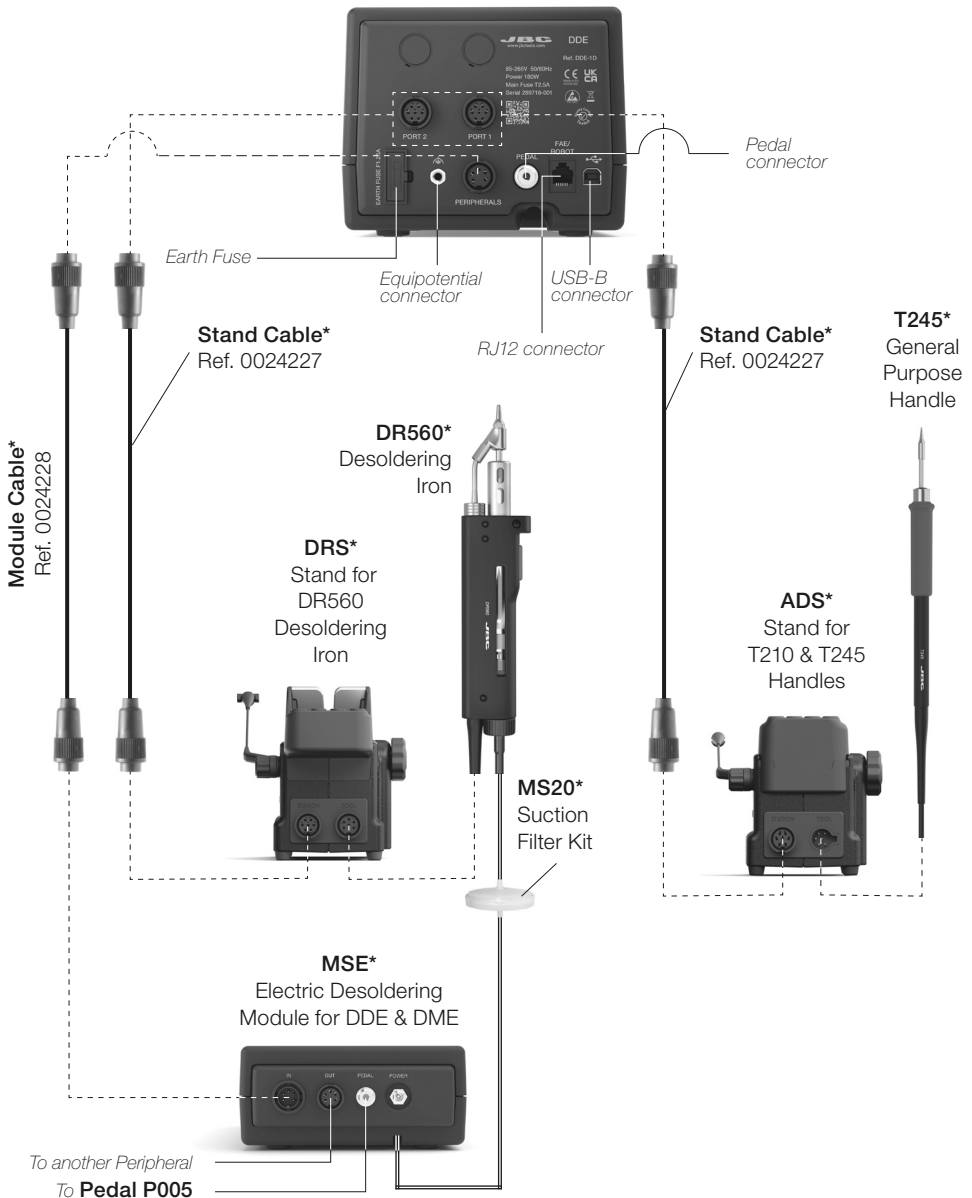**Manual** ....1 unit
Ref. 0035481

Features

DDE works simultaneously with **up to** 2 tools, 1 module and 1 pedal.

Note: A peripheral module is needed when working with a desoldering iron or a nitrogen handle. It is possible to connect an additional pedal to the peripheral module.

Display

Tilt the display
for easy reading

USB-A connector

Main Switch

Connection Example

JBC

www.jbctools.com

DDE
2-Tool Control Unit

Pedal connector

Earth Fuse

Equipotential connector

USB-B connector

RJ12 connector

Stand Cable*
/ Ref. 0024227

Stand Cable*
/ Ref. 0024227

T245*
General Purpose Handle

Module Cable*
Ref. 0024228

DR560*
Desoldering Iron

DRS*
Stand for DR560 Desoldering Iron

ADS*
Stand for T210 & T245 Handles

MS20*
Suction Filter Kit

MSE*
Electric Desoldering Module for DDE & DME

To another Peripheral

To **Pedal P005**

* Not included

Compatibility

Combine the equipment that best suits your soldering or desoldering needs.

Devices marked with an ○ mean that the pedal cannot be connected directly to this control unit. A module must be used, and the pedal must be connected to that module.
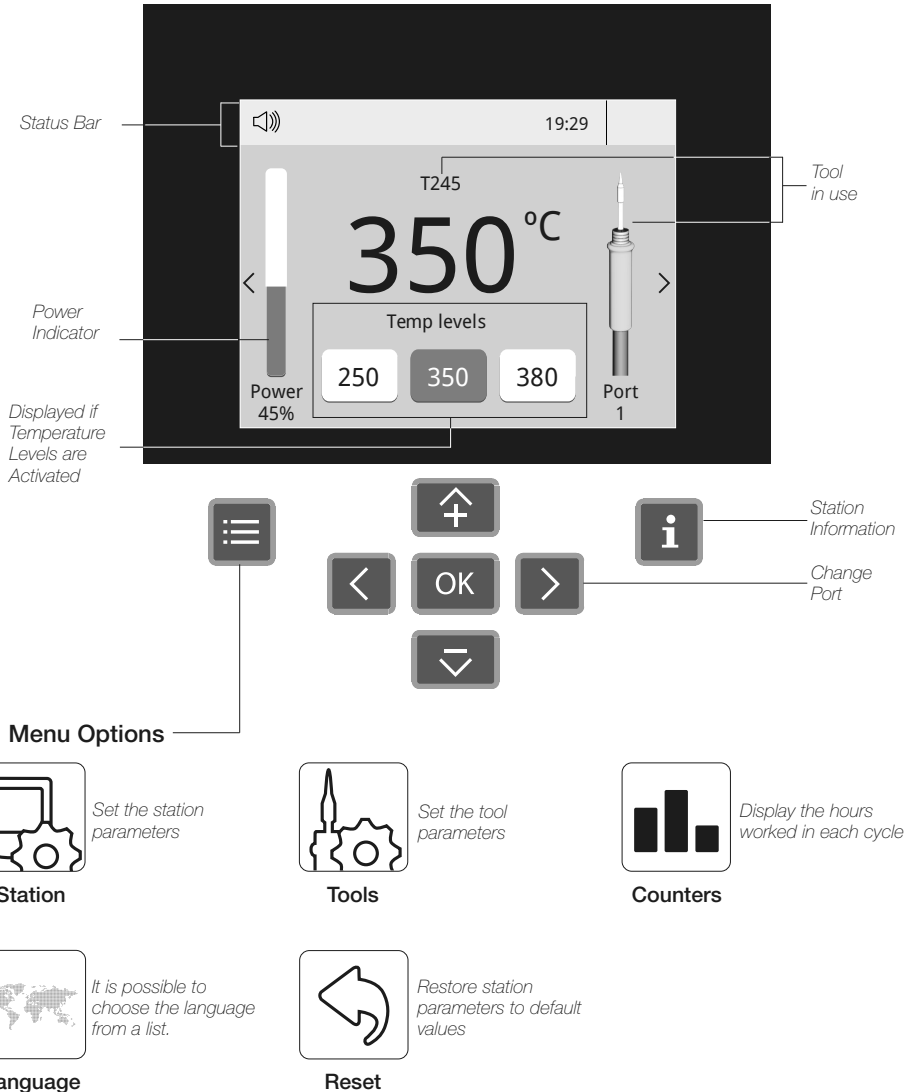
Modular System				Modules				Pedals		
Control Unit	Stand	Tool	Cartridge Range	MSE-A	MSE-B	MVE	MNE	P005	P305	P405
DDE	ADS	T210	C210						●	
	ADS	T245	C245						●	
	ADS	T470	C245						●	
	DNS	T210N	C210				●	○	●	○
	DNS	T245N	C245				●	○	●	○
	APS	AP250	C250						●	
	AMS	AM120	C120						●	
	AMS	PA120	C120						●	
	ATS	AT420	C420						●	
	HTS	HT420	C420						●	
	DSS	DS360	C360	●	●			○	●	○
	DRS	DR560	C560	●	●			○	●	○
	DTS	DT530	D530	●	●			○	●	○

Compatibility table valid for DDE-D version of the control unit onwards. For more information on compatibility with previous versions, contact JBC Technical Support at www.jbctools.com/contact-us.html.

www.jbctools.com

DDE Work Screen

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

- *Status Bar*
- *Power Indicator*
- *Displayed if Temperature Levels are Activated*
- *Tool in use*

T245 — 350 °C — Temp levels: 250 350 380 — Power 45% — Port 1 — 19:29

- *Station Information*
- *Change Port*

Menu Options

Station — *Set the station parameters*

Tools — *Set the tool parameters*

Counters — *Display the hours worked in each cycle*

Language — *It is possible to choose the language from a list.*

Reset — *Restore station parameters to default values*

Troubleshooting

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

5

Advanced Functionalities

Graphics

It provides detailed graphics of tip temperature and power delivery in real time during solder joint formation for analysis purposes. This helps you decide how to adjust your process or which tip to use to obtain the best quality soldering.

Profiles

Designed to avoid thermal shock when soldering Ceramic Chip components like MLCC, this new and unique feature allows controlling the heating rate to gradually increase the temperature of the component through all the phases of the soldering process. Up to 25 fully configurable soldering profiles can be stored.

Files

Export graphics
Insert a USB flash drive into the USB-A connector to save your soldering process in csv format.

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.
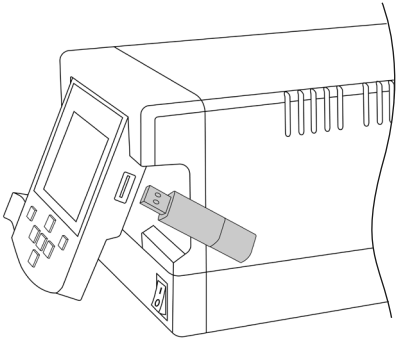
System Notifications

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

 USB flash drive is connected.

 Station is controlled by a PC.

 Station is controlled by a robot downloaded to the station.

 Station software update. Press INFO to start the process.
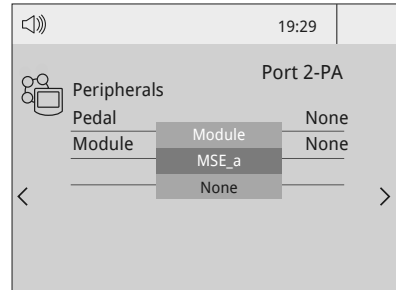
 Warning. Press INFO for failure description.

 Error. Press INFO for failure description, the type of error and how to proceed.
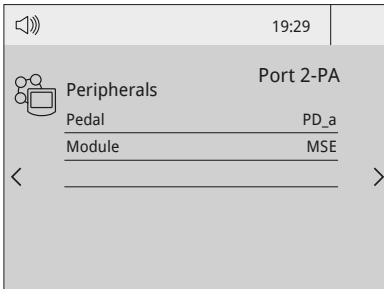
Peripherals Set Up

Module Set Up

1. After connecting the module, enter the Peripherals Menu and select the port which you want to join with the module.

2. Select the module from the list of peripheral connections. Remember your first connection is denoted as "a", the second being "b", etc. (e.g. MS_a, MS_b, etc.).
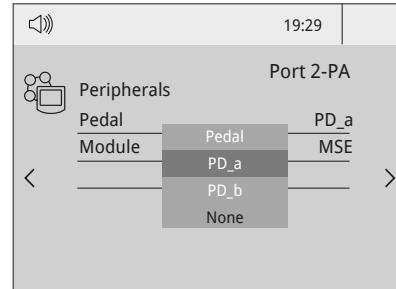
3. Press Menu or Back to save changes.

```
◁))                           19:29

              Port 2-PA
  Peripherals
  Pedal              None
  Module    Module   None
            MSE_a
  <         None          >
```

Pedal Set Up

1. Enter the **Peripherals** menu and **select the port** to which you want to link the pedal.

```
◁))                           19:29

              Port 2-PA
  Peripherals
  Pedal              PD_a
  Module              MSE
  <                        >
```

2. Select the pedal from the list (*Note that your first connection is denoted as "a", the second being "b", etc. (e.g. PD_a, PD_b, etc.).*

```
◁))                           19:29

              Port 2-PA
  Peripherals
  Pedal              PD_a
  Module  Pedal      MSE
          PD_a
  <       PD_b          >
          None
```

3. Set the pedal function according to your work needs:

*Select how the pedal acts: as **Sleep**, **Extractor** (hibernation) or as a **module** switch.*

*Select the activating mode of the pedal (**pressed**/**released**)*

Set the duration of the activation time when pressing the pedal once*. For continuous functioning keep the pedal pressed.

```
◁))                           19:29

              Port 2-PA
  Peripherals
  Pedal              PD_a
  Function       Extractor
  < Mode          released  >
  Minimum time      0 sec
            Back
```
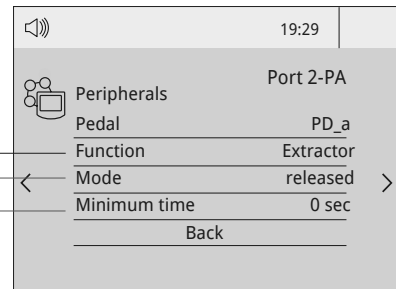
****Note**: The pedal function can be used in reverse. This means that holding the pedal down deactivates the function and releasing the pedal activates the function.*
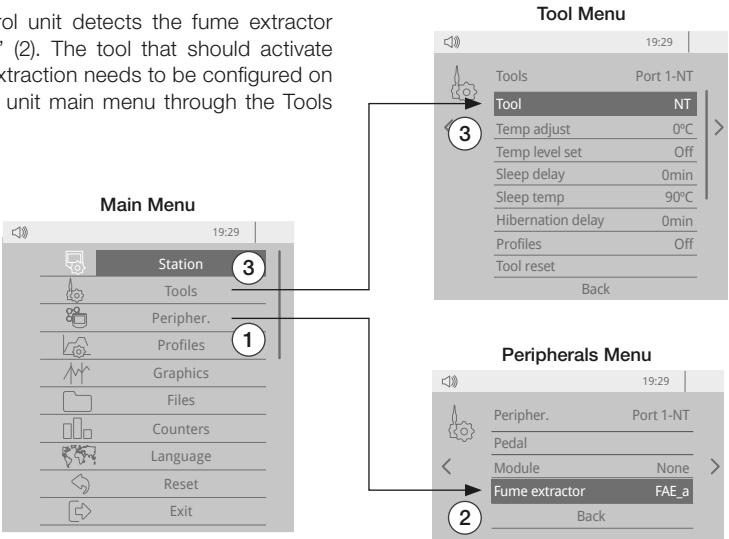
Peripherals Set Up - continuation

FAE Fume Extractor Set Up

JBC´s DDE/HDE control units can be connected to the fume extractor using an RJ12 cable. This way, the fume extractor automatically starts extraction when the soldering tool is in use. To function with FAE, the minimum required software version for DDE/HDE control units is 8886160. Download the latest software version from www.jbctools.com/software.html.

DDE/HDE Control Unit   **Fume Extractor**

RJ12 Connection Cable
(supplied with FAE)
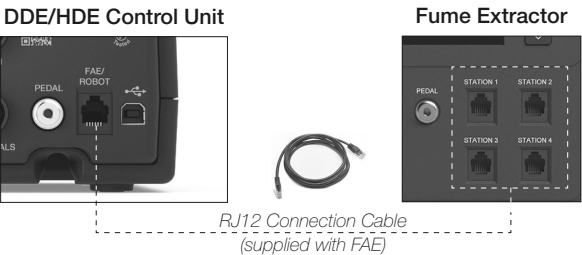
From DDE/HDE software version 8886887 onwards, the connected fume extractor can be configured and controlled through the Peripherals (1) menu on the control units.

Each control unit detects the fume extractor as "FAE_a" (2). The tool that should activate the fume extraction needs to be configured on the control unit main menu through the Tools menu (3).

Tool Menu

⊲⫲)		19:29
Tools		Port 1-NT
Tool		**NT**
Temp adjust		0ºC
Temp level set		Off
Sleep delay		0min
Sleep temp		90ºC
Hibernation delay		0min
Profiles		Off
Tool reset		
	Back	

Main Menu

⊲⫲)	19:29
🖥	**Station**
	Tools
	Peripher.
	Profiles
	Graphics
	Files
	Counters
	Language
	Reset
	Exit

Peripherals Menu

⊲⫲)		19:29
Peripher.		Port 1-NT
Pedal		
Module		None
Fume extractor		**FAE_a**
	Back	

Connect up to 4 control units (connector FAE/ROBOT) to the fume extractor connectors (STATION 1, STATION 2, ...). Each tool connected to these control units can start and stop the fume extractor.

Operation

JBC's Most Efficient Soldering System

Our revolutionary technology is able to recover tip temperature extremely quickly. It means the user can work at a lower temperature and improve the soldering quality. The tip temperature is further reduced thanks to the Sleep and Hibernation modes which increase up to 5 times the life of the tip.

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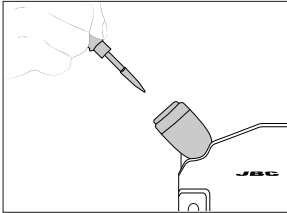
When the tool is lifted from the stand the tip will heat up to the selected Work temperature.

T245

350 °C

Temp levels

250 350 380

Power 45%

Port 1

19:29
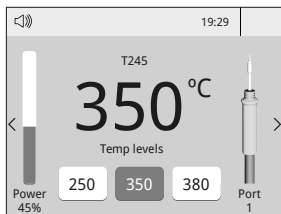
Tool Settings:
· Work Temp.

Change Work temperature from 90 to 450 ºC.
⬆ / ⬇ steps of ±5 ºC / ºF

Tool Settings:
· Temp. Levels

Press ▤ , select *Tool Settings* and activate the *Temp. Levels* option.
⬆ / ⬇ steps of ± 5 ºC / ºF.
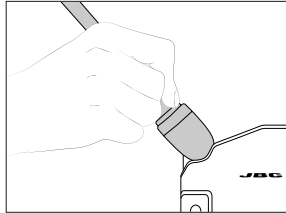
2. Sleep

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

T245

Sleep

Tool in the stand
Actual Temp. 180º
Delay to hibernation: 29:30

Port 1

19:29
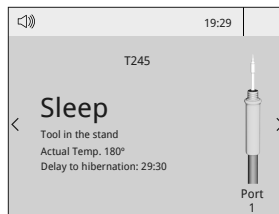
Tool Settings:
· Sleep

Change Sleep temperature and set Sleep delay from 0 to 9 min or no Sleep.

3. Hibernation

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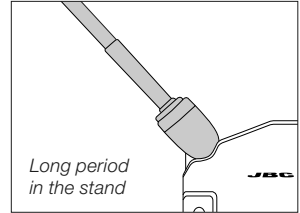
After longer periods of inactivity, the power is cut off and the tool cools down to room temperature.

T245

Hibernation

Actual Temp. 25ºC

Port 1

19:29
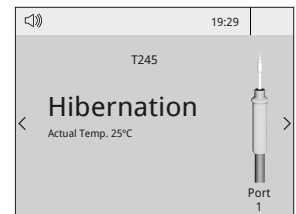
Tool Settings:
· Hibernation

Change Hibernation delay from 0 to 60 min or no Hibernation.

USB Connector and Firmware Update

Download: JBC Firmware Update File

Download the **JBC firmware update file** from **www.jbctools.com/software.html,** which contains the latest update package. Extract the .jpu file to the root folder of a USB-A pen drive (FAT32), preferably with no other files.

USB-A Pen Drive

JBC
Firmware Update File
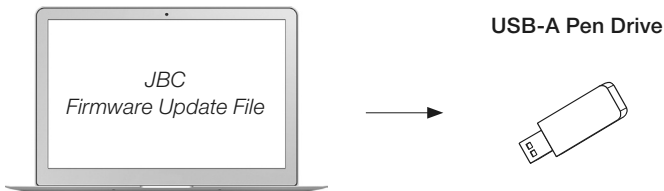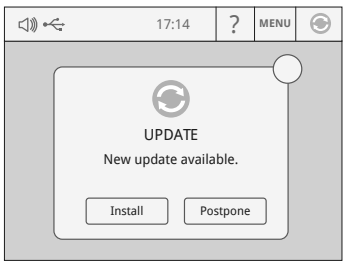
Connection: USB-A Pen Drive to Control Unit

Connect the USB-A pen drive with the latest update file.

The update symbol ⟳ is displayed automatically.

If the DME control unit does not detect the USB pen drive, format it with a partitioning software.

Installation: JBC Firmware Update File

| ⊲⟩) ⟋⟍ | 17:14 | ? | MENU | ⟳ |

UPDATE
New update available.

| Install | Postpone |

Press "Install" on the pop-up window. If ⟳ is not displayed, tap on the notification.

Updating Process

During the updating process, do not turn off the control unit, it may turn on and off automatically. The installation finishes when the updating bar is completed and the work screen is displayed.
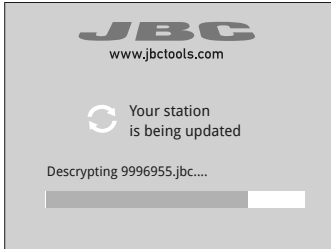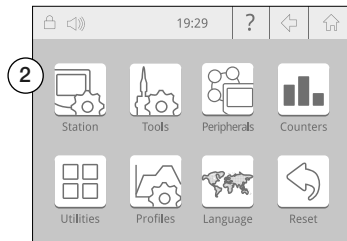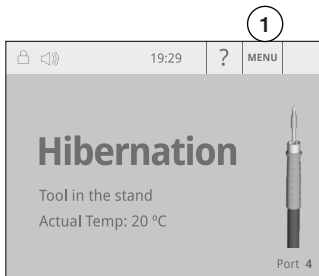

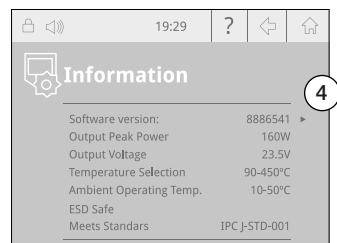The work screen is displayed after confirming the "Welcome" pop-up.
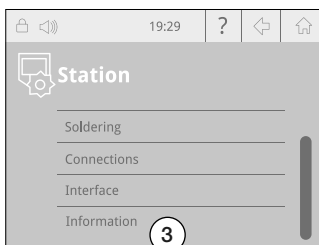
If the process stops for a long time (over 30 min), reset the station and wait until the installation is completed.

Checking Firmware Version

Check that the new firmware has been installed successfully:

First, tap "Menu" (1) and then the "Station" icon (2).

Select "Information" (3) and then tap ▶ (4) to check the firmware version.

Maintenance

Before carrying out maintenance or storage, 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.

- Maintain the tip surface clean and tinned before 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.
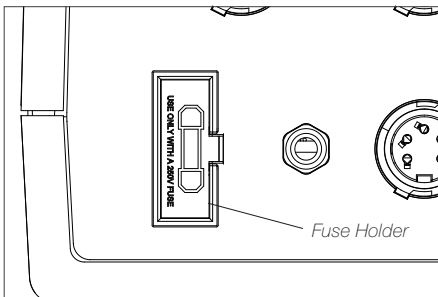
2. Press the new fuse into the fuse holder and replace it in the station.

Fuse Holder

Fuse

Fuse holder
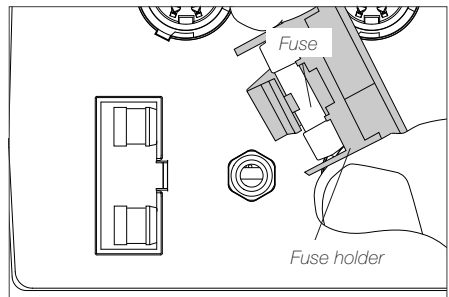
- Replace any defective or damaged pieces. Use original JBC spare parts only.

- 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.

Notes

Specifications

DDE
2-Tool Control Unit
  Ref.: **DDE-9D** 85 - 265 V 50/60 Hz. Input fuse: T-2.5 A. Output: 23.5 V.
  Ref.: **DDE-1D** 85 - 265 V 50/60 Hz. Input fuse: T-2.5 A. Output: 23.5 V.
  Ref.: **DDE-2D** 85 - 265 V 50/60 Hz. Input fuse: T2.5 A. Output: 23.5 V.

- Nominal Power	200 W
- Peak Power (Tool):	150 W per tool
- Selectable Temperature:	90 - 450 °C / 190 - 840 °F
- Idle Temp. Stability (still air):	±1.5 ºC / ±3 ºF / Meets and exceeds IPC J-STD-001F
- Temp Accuracy:	±3 % (using reference cartridge)
- Temp Adjustment:	±50 °C / ±90 ºF Through station menu setting
- Tip to Ground Voltage/Resistance:	Meets and exceeds ANSI/ESD S20.20 and IPC J-STD-001F
- Ambient Operating Temp:	10 - 40 ºC / 50 - 104 ºF
- Connections:	USB-A / USB-B / Peripheral connectors RJ12 connector
- Control Unit Dimensions: (L x W x H)	232 x 148 x 120 mm / 9.1 x 5.8 x 4.7 in
- Net Weight:	1.49 kg / 3.28 lb
- Total Package Dimensions / Weight: (L x W x H)	258 x 328 x 208 mm / 1.94 kg 10.16 x 12.91 x 8.19 in / 4.28 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 labor.

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.

If you register, you will receive e-mail notifications about new software updates for your registered product.

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 UK CA

www.jbctools.com