

# JBC

[www.jbctools.com](http://www.jbctools.com)

Product  
website



## INSTRUCTION MANUAL



### DME

4-Tool Control Unit

This manual corresponds to the following references:

**DME-9B** (85-265 V) - Power cord ref. 0024077 (100 V)

**DME-1B** (85-265 V) - Power cord ref. 0023717 (120 V)

**DME-2B** (85-265 V) - Power cord ref. 0024080 (230 V)

## Packing List

The following items are included:



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

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

**Manual** ..... 1 unit  
Ref. 0036024

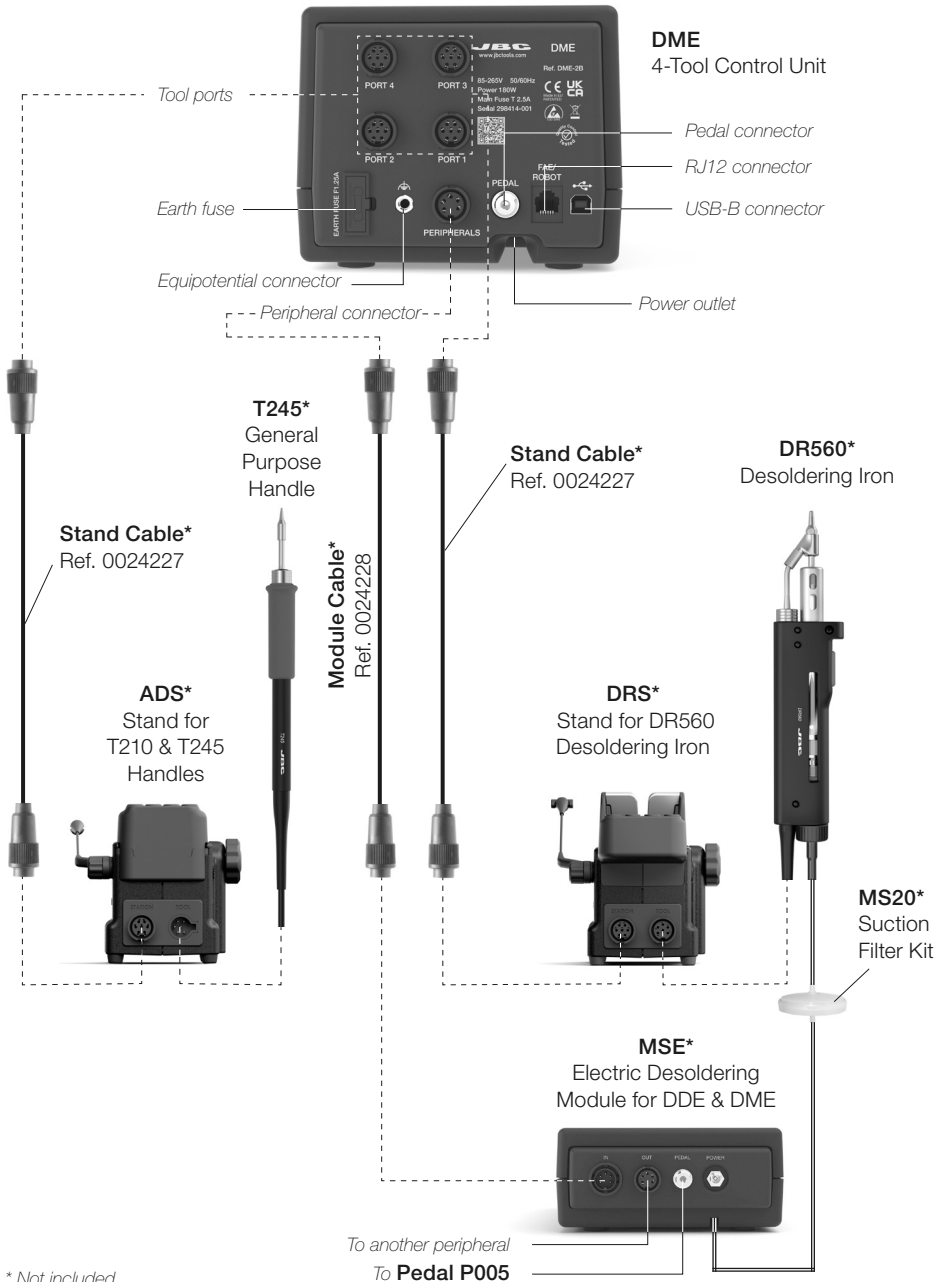
## Features

DME works simultaneously with **up to 4 tools**, 1 peripheral 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.



## Connection Example



# 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.

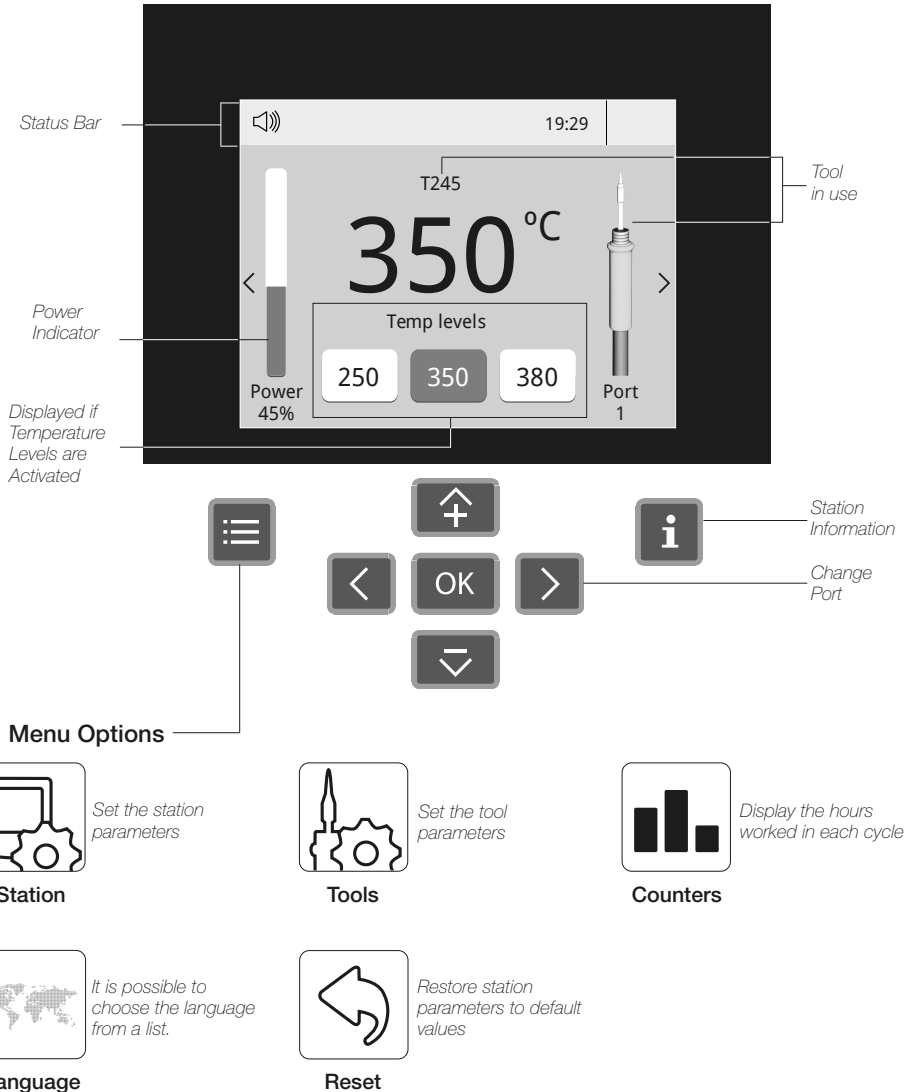
Modular System				Modules				Pedals		
Control Unit	Stand	Tool	Cartridge Range	MSE-A	MSE-B	MVE	MNE	P005	P305	P405
DME	ADS	T210	C210						●	
		T245	C245						●	
		T470							●	
	DNS	T210N	C210				●	○	●	○
		T245N	C245				●	○	●	○
	APS	AP250	C250						●	
	AMS	AM120	C120						●	
		PA120							●	
	ATS	AT420	C420						●	
	HTS	HT420							●	
	DSS	DS360	C360		●	●		○	●	○
	DRS	DR560	C560		●	●		○	●	○
	DTS	DT530	D530		●	●		○	●	○

Compatibility table valid for DME-B 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](http://www.jbctools.com/contact-us.html).

## DME Work Screen

DME offers an intuitive user interface which provides quick access to station parameters.

**Default PIN: 0105**



## Troubleshooting

Station troubleshooting available on the product page on [www.jbctools.com](http://www.jbctools.com)

# 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

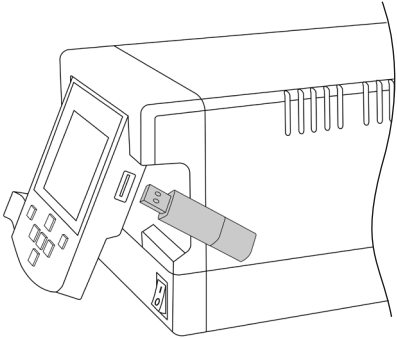
Insert a USB flash drive into the USB-A connector to save your soldering process in csv format.



Update

## Station update

Download the JBC Update File from [www.jbctools.com/software.html](http://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 down-loaded to the station.



Station software update. Press INFO to start the process.



Warning. Press INFO for failure description.

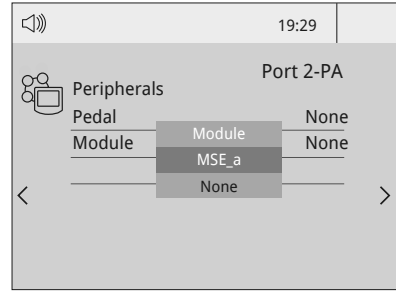


Error. Press INFO for failure description, the type of error and how to proceed.

## Peripherals Set Up

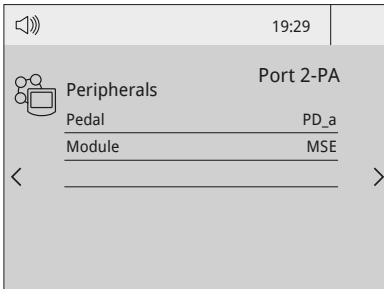
### Module Set Up

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.

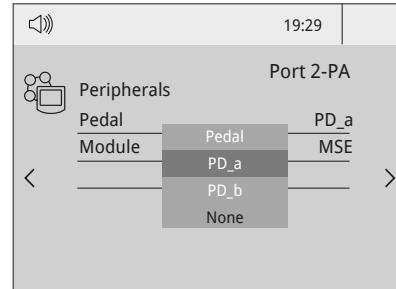


### Pedal Set Up

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



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.).*

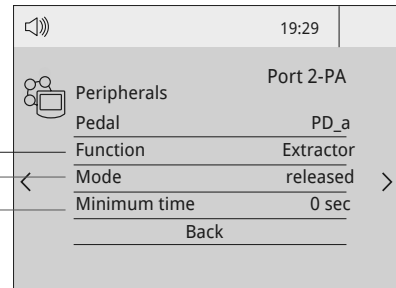


3. Set the pedal function according to your work needs:

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.

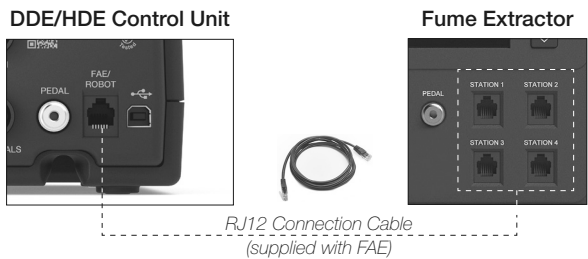


**\*Note:** The pedal function can be used in reverse. This means that holding the pedal down deactivates the function and releasing the pedal activates the function.

# Peripherals Set Up - continuation

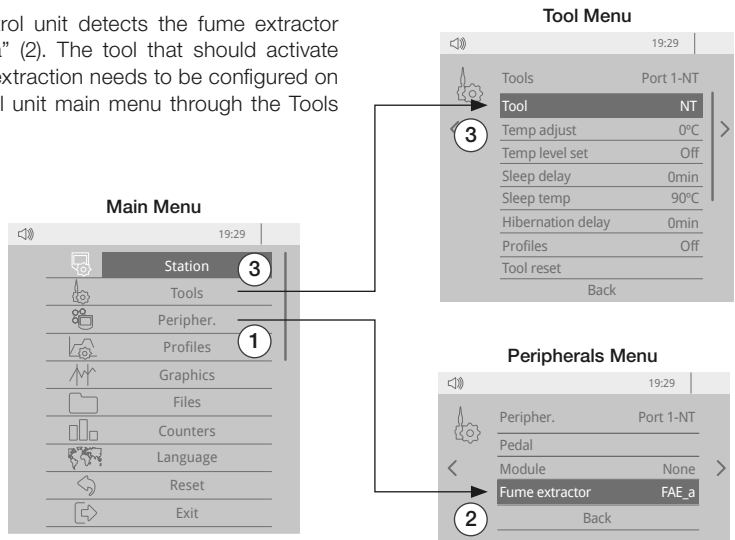
## FAE Fume Extractor Set Up

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](http://www.jbctools.com/software.html).



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).



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.

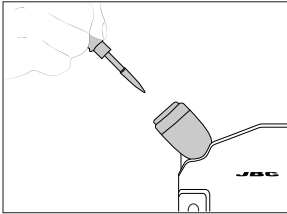


## Operation

### JBC's Most Efficient Soldering System

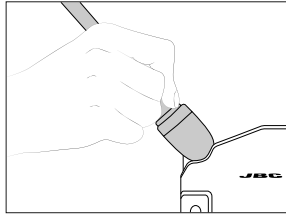
Our revolutionary technology is able to recover tip temperature extremely quickly. This means the user can work at a lower temperature and improve the soldering quality. The tip temperature is further reduced thanks to the Sleep and Hibernation modes which increase up to 5 times the life of the tip.

#### 1. Work



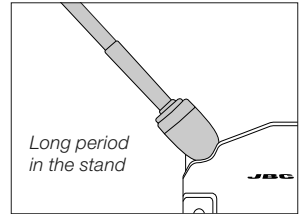
When the tool is lifted off the stand, the tip heats up to the selected temperature.

#### 2. Sleep

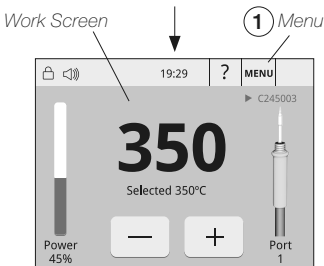


When the tool is in the stand, the temperature falls to the present sleep temperature.

#### 3. Hibernation



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

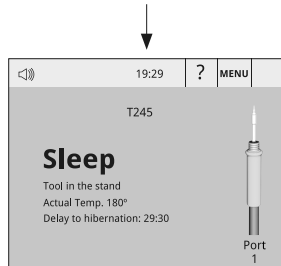


#### Work Temperature:

Change from 90 to 450 °C by tapping **+** or **-** on the screen.

#### Temperature Levels:

Go to **Menu > Tools > Temperature levels** and set them "On". The levels can be modified by going to **Menu > Tools > Set temperature levels**.

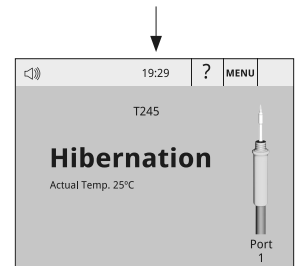


#### Sleep Delay:

Go to **Menu > Tools** and select **Sleep Delay** to set the delay between 0 and 60 min or **No Sleep**.

#### Sleep Temperature:

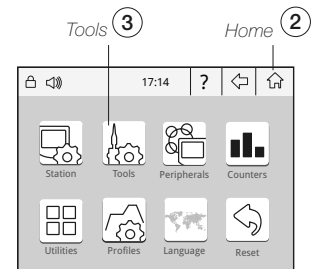
Go to **Menu > Tools** and select **Sleep Temperature** to modify its value.



#### Hibernation Delay:

Go to **Menu > Tools** and select **Hibernation Delay** to change from 0 to 60 min or **No Hibernation**.

- Tap "Menu" (1) on the work screen to access the main menu.
- Tap "Home" (2) to go back to the work screen.
- Tap "Tools" (3) to access tool settings.

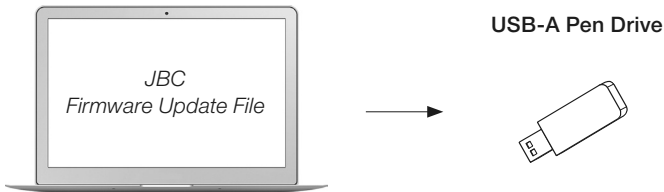


**Main Menu**

# USB Connector and Firmware Update

## Download: JBC Firmware Update File

Download the **JBC firmware update file** from [www.jbctools.com/software.html](http://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.



## Connection: USB-A Pen Drive to Control Unit

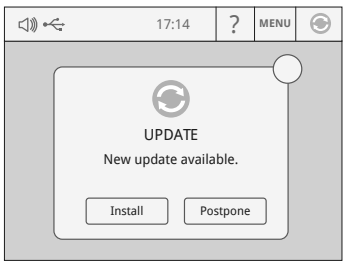
Connect the USB-A pen drive with the latest update file.


The update symbol  is displayed automatically.



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

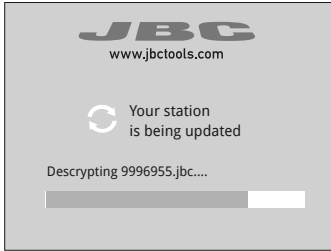
## Installation: JBC Firmware Update File



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.

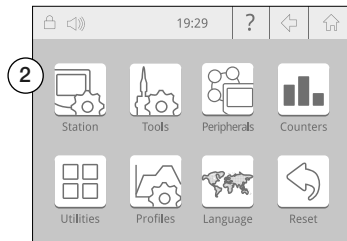
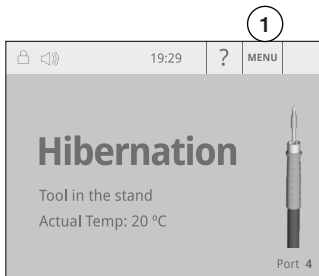


The work screen is displayed after confirming the “Welcome” pop-up.

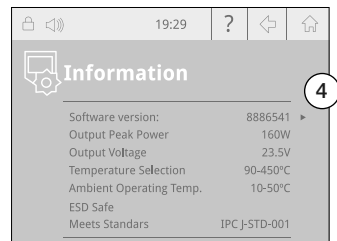
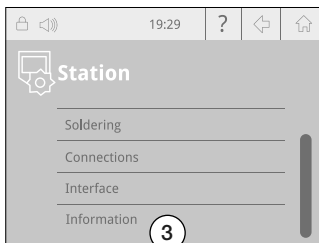
If the process stops for a long time (over 30 min), reset the station and wait until the installation is completed.

## Checking Firmware Version

Check that the new firmware has been installed successfully:



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



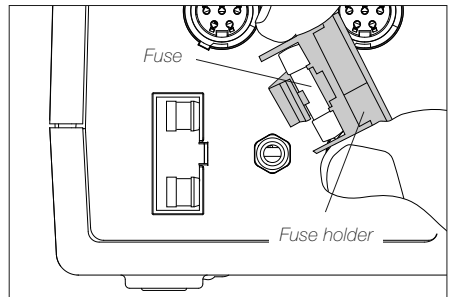
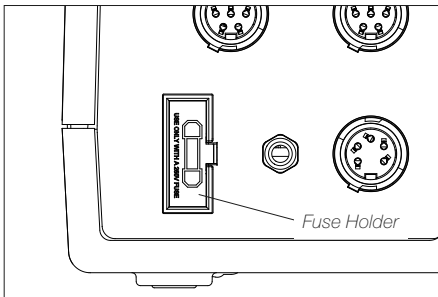
Select “Information” (3) and then tap ► (4) to check the firmware version.

# Maintenance

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

- Clean the station display 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 and establish its status.
- Maintain the 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 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.

## Notes

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

## Specifications

### DME

#### 4-Tool Control Unit

Ref. **DME-1B** 85 - 265 V 50/60 Hz. Input fuse: T-2.5 A. Output: 23.5 V.

Ref. **DME-2B** 85 - 265 V 50/60 Hz. Input fuse: T-2.5 A. Output: 23.5 V.

Ref. **DME-9B** 85 - 265 V 50/60 Hz. Input fuse: T-2.5 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):  $\pm 1.5$  °C /  $\pm 3$  °F meets and exceeds IPC J-STD-001F
- Temp. Accuracy:  $\pm 3$  % (using reference cartridge)
- Temp. Adjustment:  $\pm 50$  °C /  $\pm 90$  °F through station settings menu
- Tip to Ground Voltage/Resistance: Meets and exceeds  
ANSI/ESD S20.20 and IPC J-STD-001F
- Ambient Operating Temp.: 10 - 40 °C / 50 - 104 °F
- Connections:
  - USB-A: Firmware Update,  
Graphics and Profiles,  
Dino-Lite USB Microscope  
(models AM2011, AM2111)
  - USB-B: PC Communication
  - RJ12: Fume Extractor/Peripherals/Robot
- Control Unit Dimensions:  
(L x W x H) 232 x 148 x 120 mm / 9.13 x 5.83 x 4.72 in
- Net Weight: 1.30 kg / 2.85 lb
- Total Package Dimensions/Weight:  
(L x W x H) 258 x 328 x 208 mm / 2.49 kg  
10.16 x 12.91 x 8.19 in / 5.48 lb

Complies with CE standards.  
ESD safe.



#### 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.



[www.jbctools.com](http://www.jbctools.com)