Manuals+

☰

Contents [hide]

JBC

JBC NAE 2-Tool Nano Control Unit

Packing List

The following items are included:

The following items are included:

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

Cable Collector and Tool Holder .... 2 units
Ref. CC2002

Brass Wool .... 1 unit
Ref. CL6210

Metal Brush .... 1 unit
Ref. CL2466

Allen Key & Studs .... 1 set

Includes:
- **Allen Key** 1.5 mm
  Ref. 0009848 .... 1 unit
- **Stud Bolts** M3x3
  DIN 913 .... 2 units

Power Cable .... 1 unit
Ref. 0024092 (100 V)
    0023715 (120 V)
    0023714 (230 V)

Manual .... 1 unit
Ref. 0028953

Features and Connections

Cable Collector

Tool Holder

Display

AN115
Adjustable
Nano Tweezers*

Metal brush

Accessory:

Tool extension cord (1m)*
Ref. A1205

NT115
Nano Handle*

Cartridge Extractor

Tip Aligner

Brass wool

NAE
2-Tool Nano Control Unit

USB-A
Connector

USB-B
Connector

RJ12
Connector

Equipotential
Connector

Nano Tool
Connectors

220-240V 50/60Hz
Power 35W
Fuse T0.2 A
Serial 123456-002

NAE

NAE-2C

PORT
2

PORT
1

AUX

PEDAL
2

PEDAL
1

Power Socket

Main Switch

Pedal Connectors
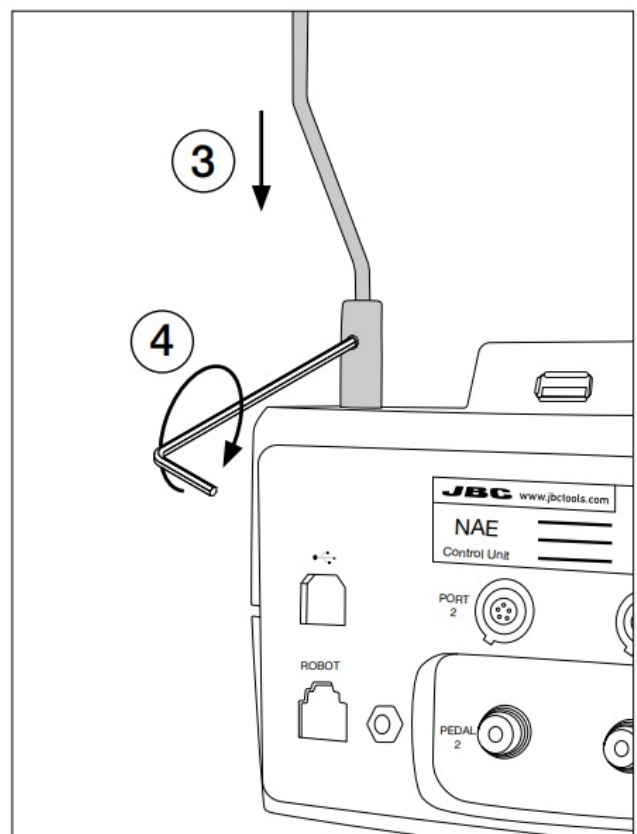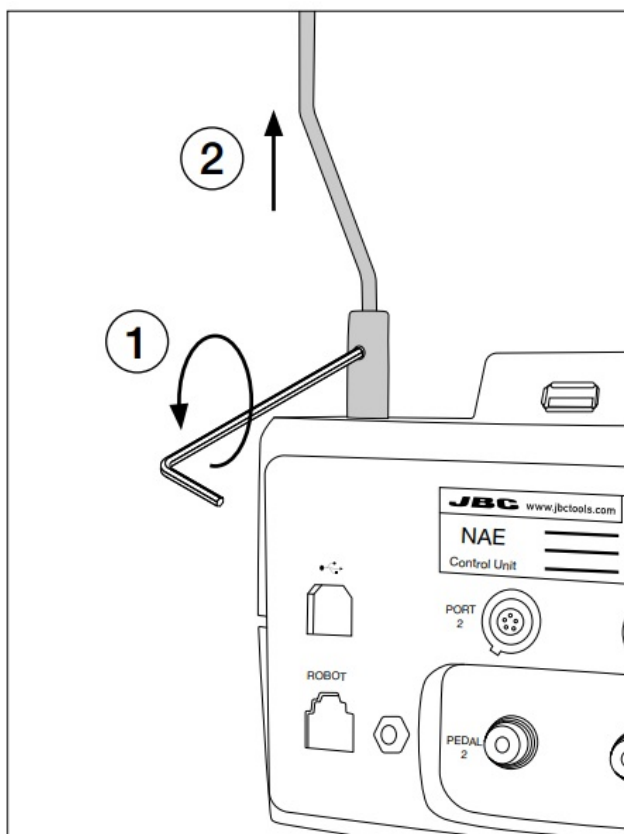
Nano Tool
Connectors

* not included, sold separately

Tool Holder Assembly
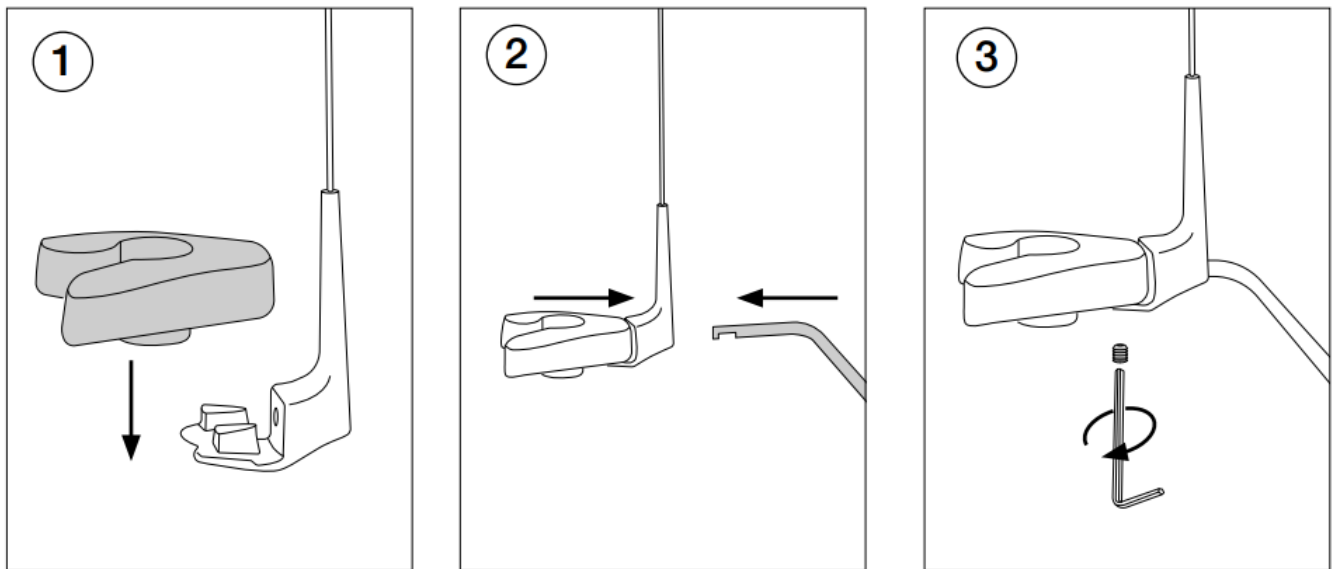
Tool Holder Replacement

- Loosen the screw (1) and remove the tool holder (2).
- Insert the new tool holder (3) and tighten the screw (4).
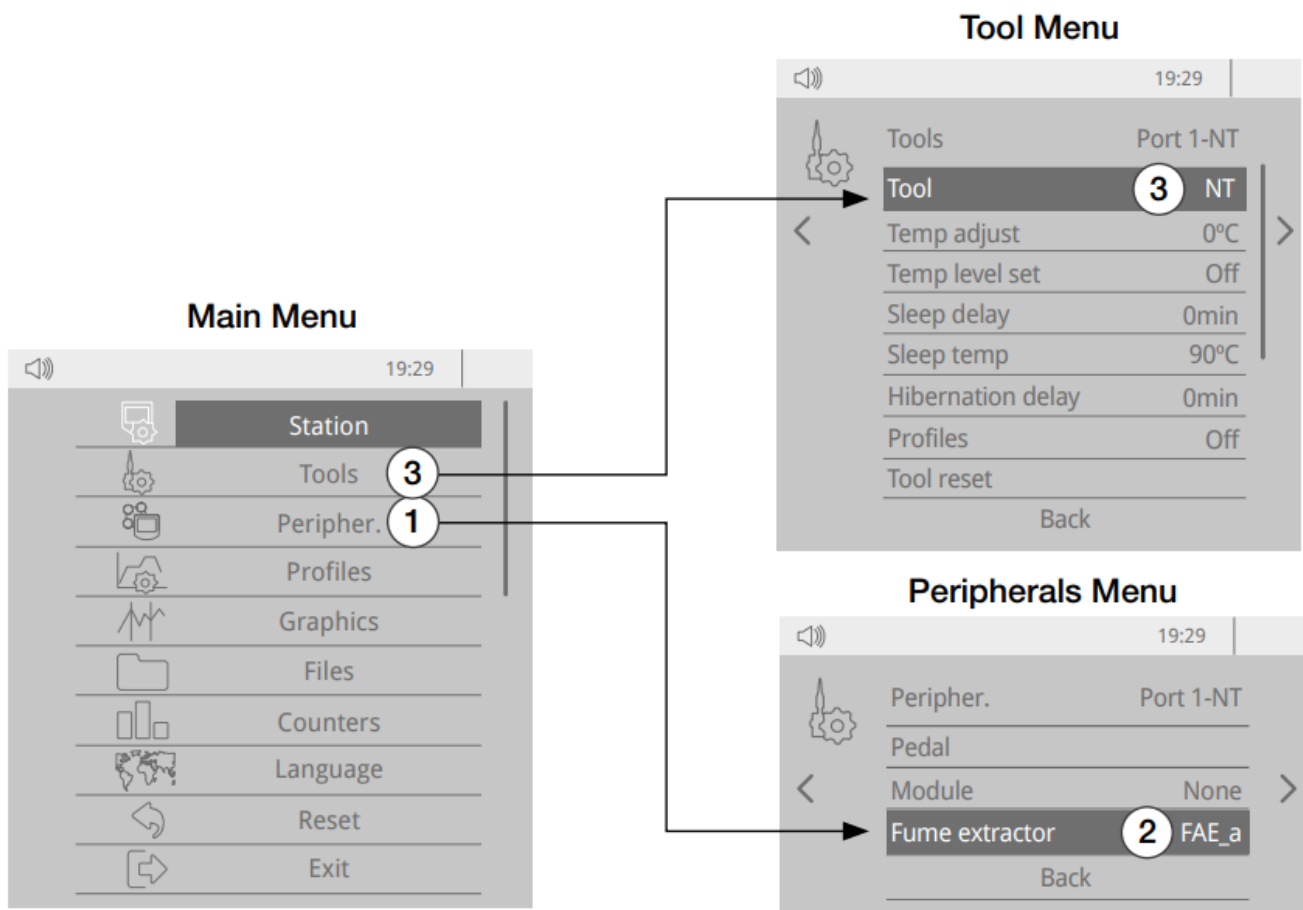

Connection: NAE Control Unit with FAE

JBC´s NAE control unit feature a connector that allows connecting it to the fume extractor using an RJ12 cable. This way, the fume extractor automatically starts extraction when the soldering tool is in use.

The minimum required software version for NEA control units is 8886160. To ensure correct operation, always update the control units with the latest available software Version, which can be downloaded from www.jbctools.com/software.html.

NAE Control Unit

Fume Extractor FAE1*

RJ12 Connection Cable

From version 8886784 on, the connected fume extractor can be configured and controlled through the peripherals menu (1) of the control unit NAE.
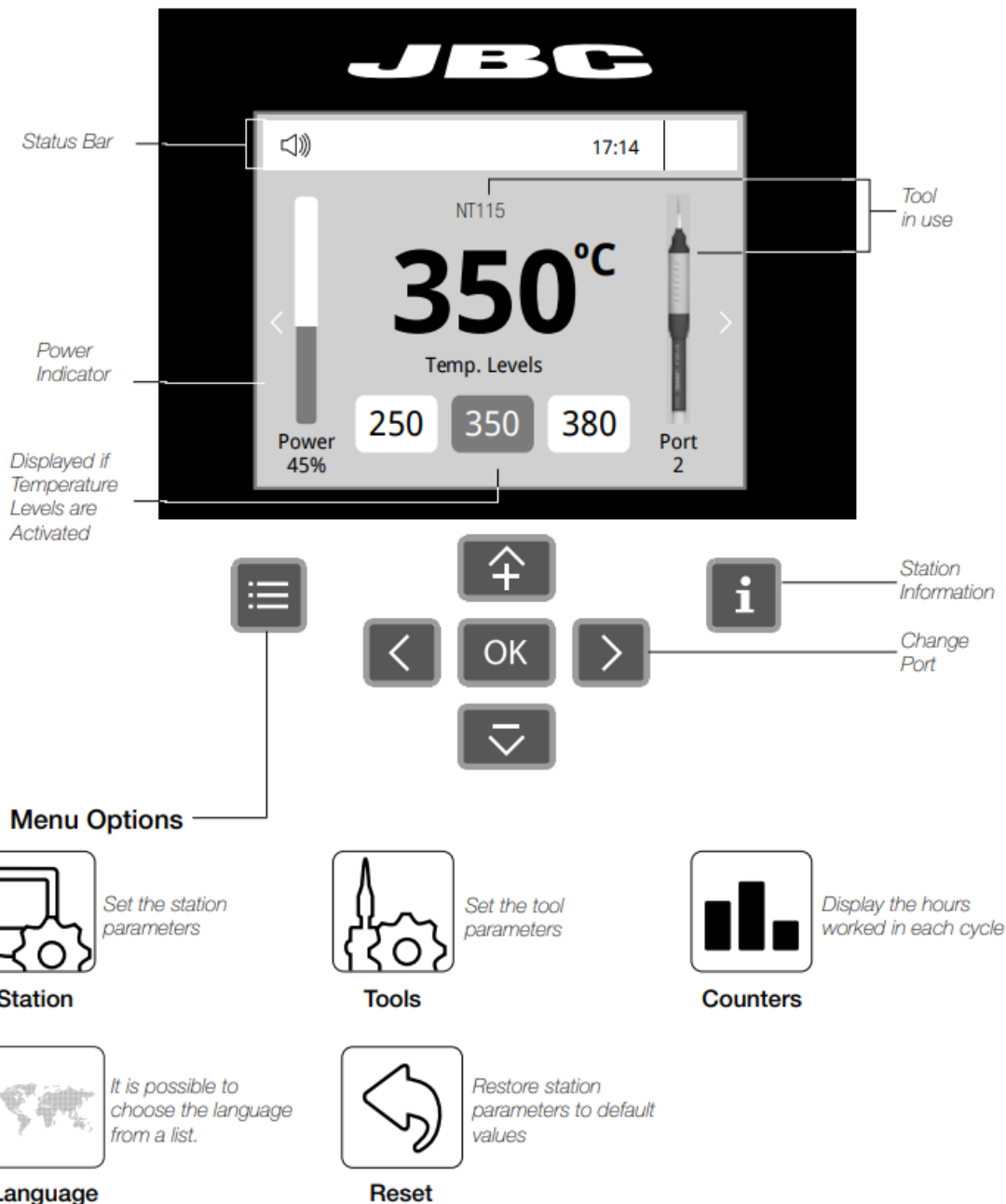
Each control unit detects the fume extractor as "FAE_a" (2). The tool that should activate the fume extraction needs to be configured on the control unit main menu through the tool menu option (3).

Tool Menu

Tools		Port 1-NT
Tool	③	NT
Temp adjust		0ºC
Temp level set		Off
Sleep delay		0min
Sleep temp		90ºC
Hibernation delay		0min
Profiles		Off
Tool reset		
Back		

Main Menu

Station	
Tools	③
Peripher.	①
Profiles	
Graphics	
Files	
Counters	
Language	
Reset	
Exit	

Peripherals Menu

Peripher.		Port 1-NT
Pedal		
Module		None
Fume extractor	②	FAE_a
Back		

*For FAE1 and FAE2: Up to 4 control units can be connected to the connectors marked with STATION 1, STATION 2, etc. Each tool connected to these control units can start and stop the fume extractor.

Work Screen

The work screen 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

NT115

350°C

Temp. Levels

250   350   380

Power 45%

Port 2

Tool in use

Menu Options

Station Information

Change Port

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

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.
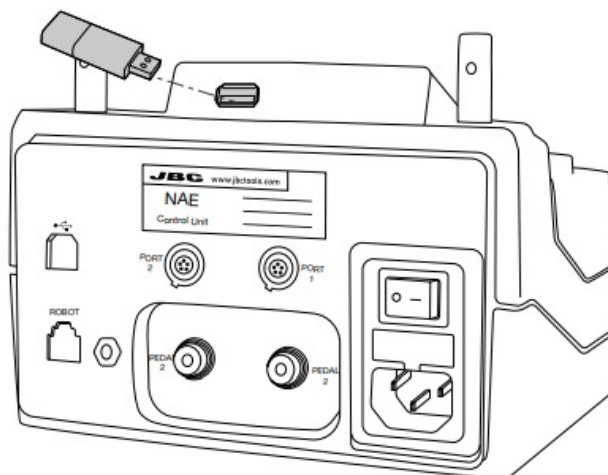
 Files **Export graphics**

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.

Operation

JBC's Exclusive Heating System

This revolutionary technology is able to recover tip temperature extremely quickly.
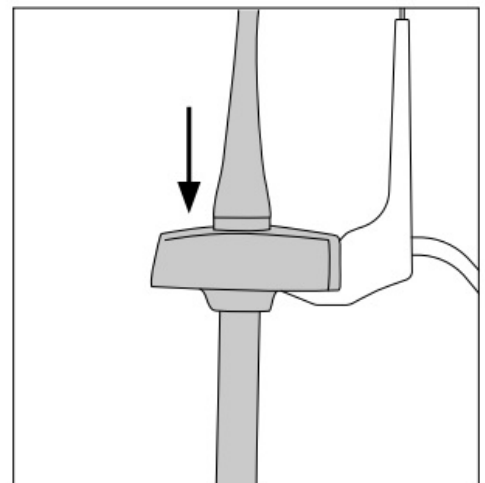
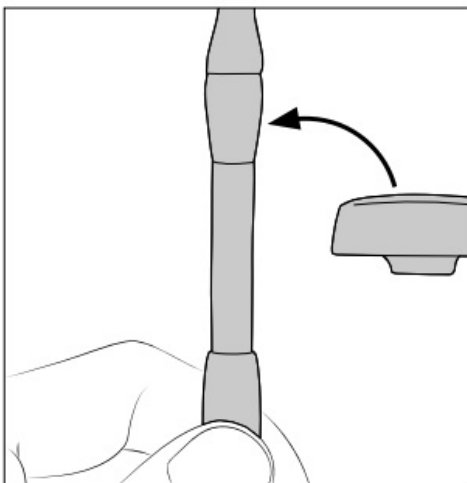This allows the user to work at a lower temperature.

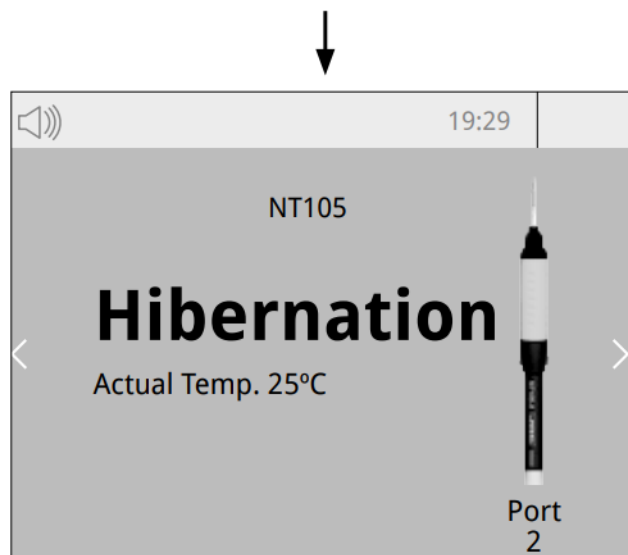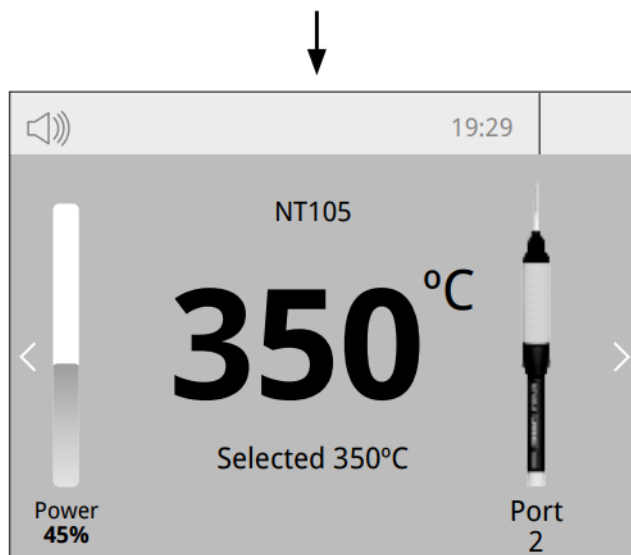As a result, tip life increases by 5.

1. Work

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

2. Hibernation

   When the tool is in the holder, the power is cut off and the tool cools down to room temperature.

- **Tool Settings:**

  Operating Temp. and Temp. Levels

  Press ☰ , select Tool Settings and activate the Temp. Levels option.

  Change Work temperature and Temp.

  Levels from 90 to 450 °C.

  ⬆ or ⬇ steps of ±5 °C / °F

- **Tool Settings:**

  Hibernation

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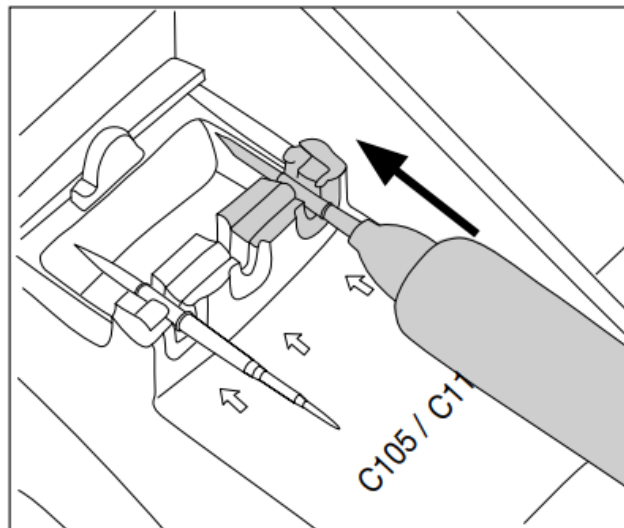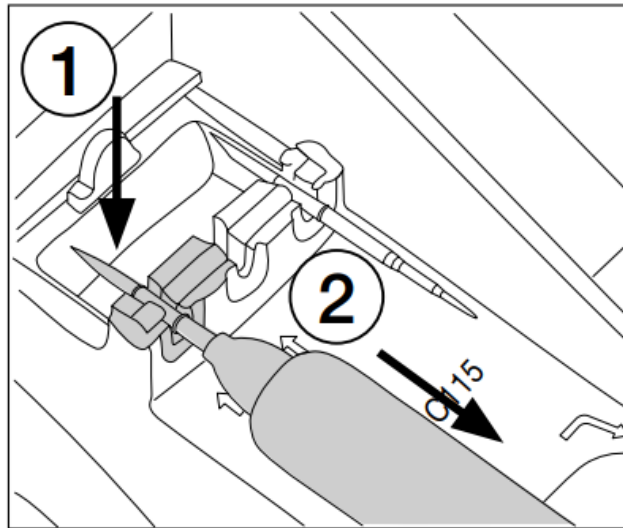
Changing Cartridges

Save time and change cartridges safely without having to switch the station off.

Removing

Place the cartridge into the extractor slot (1) and pull the handle to remove the cartridge (2).
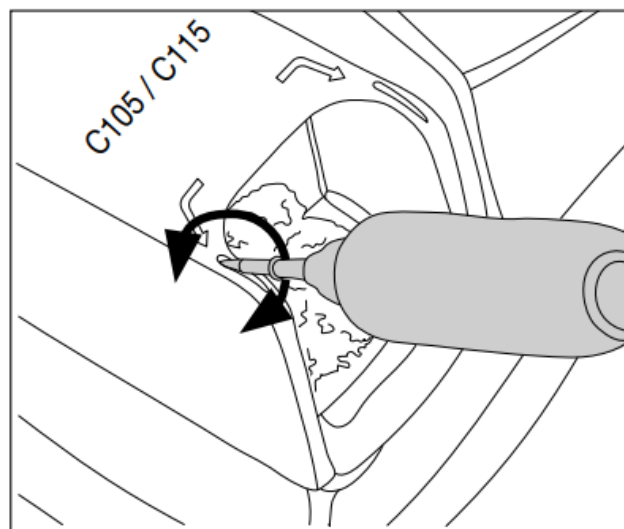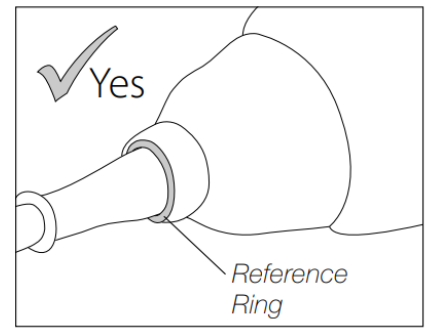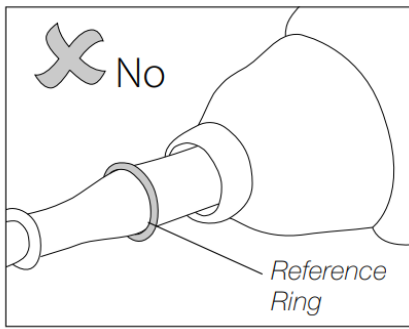
Inserting

Push the new cartridge into the handle up to the reference ring

Aligning

Use the holes to rotate the cartridges for proper alignment.

Reference Ring (No)

Reference Ring (Yes)

Example:

Chip Component Rework Process using Tweezers and Pedal

The pedal is frequently used to rework components with tweezers.

AN115, JBC's Adjustable Nano Tweezers, is the most effective tool for desoldering chip components.

It also facilitates rapid placement and soldering of the components by using P405 Pedal with JBC´s

NAE Control Unit.

1

Connect to the same port number

Tweezers

Nano Control Unit
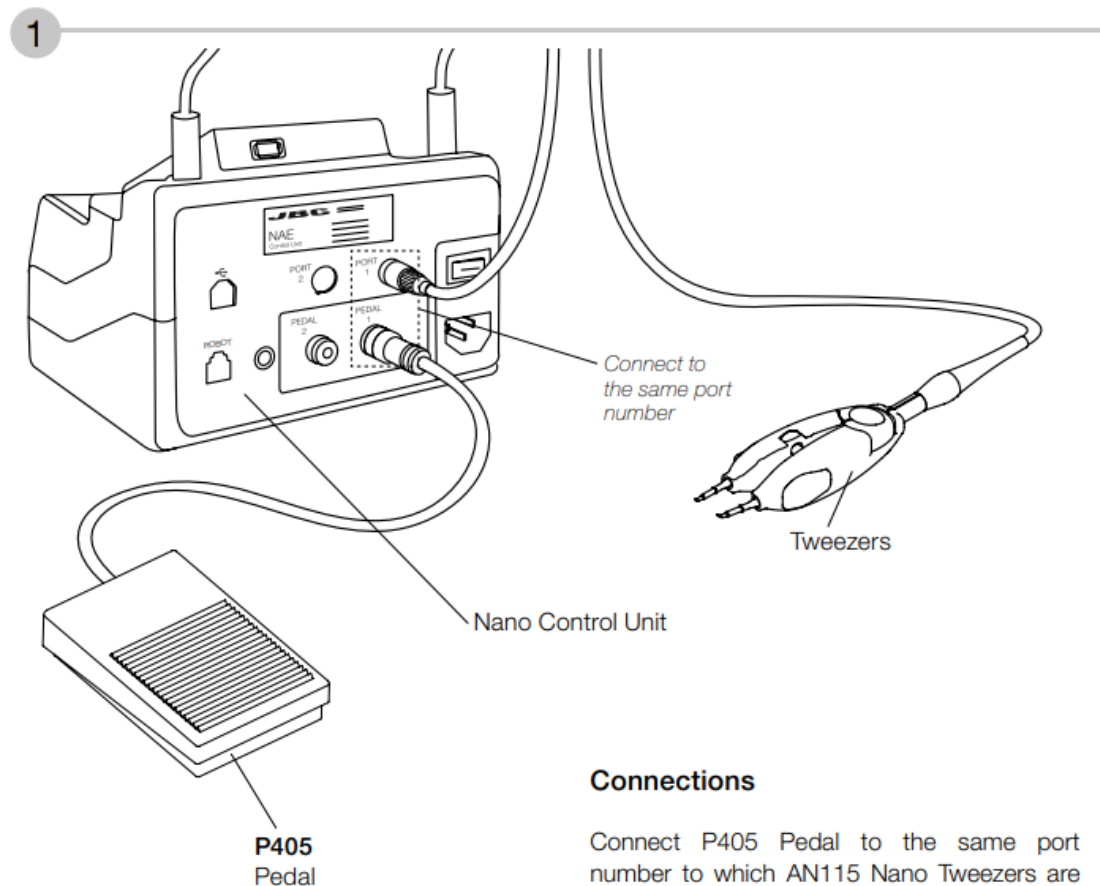
P405 Pedal

Connections

Connect P405 Pedal to the same port number to which AN115 Nano Tweezers are connected.

In the Peripherals menu, for "Pedal Activation Mode" choose between "pressed" and "released".

* **"Press** Mode" previously selected
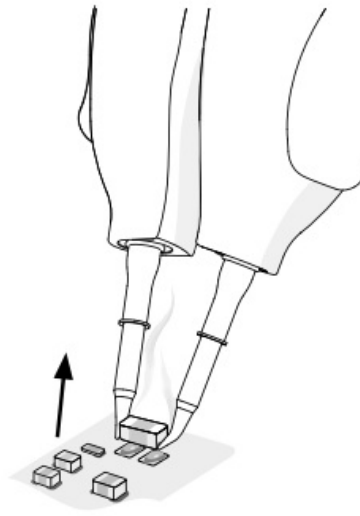
Desoldering*

Lift the tweezers from the holder, press and hold the pedal to activate the tweezers and desolder the component.

Once the pedal is released, the tweezers enter in hibernation mode and cool down.

Pad Cleaning

Clean the pads with JBC´s desoldering tool DS360.

For this operation, JBC´s desoldering station CS is needed.

3

DS360
Micro
Desoldering Iron
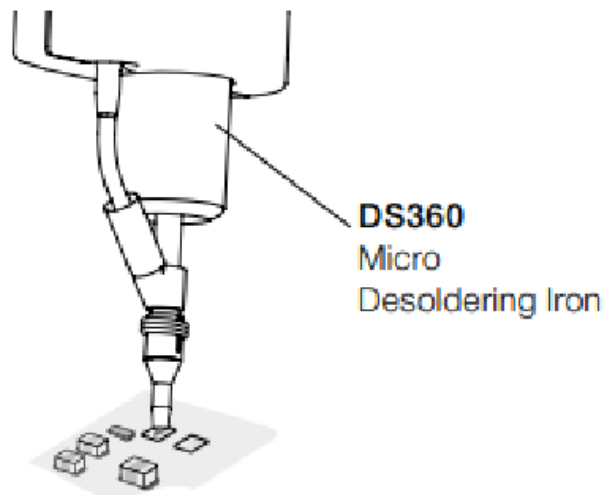
Solder Paste Dispensing

Apply the needed amount of solder paste to solder the new chip component.

It is recommended to use JBC´s DPM Solder Paste Dispenser.

4

DPM
Manual
Solder Paste
Dispenser
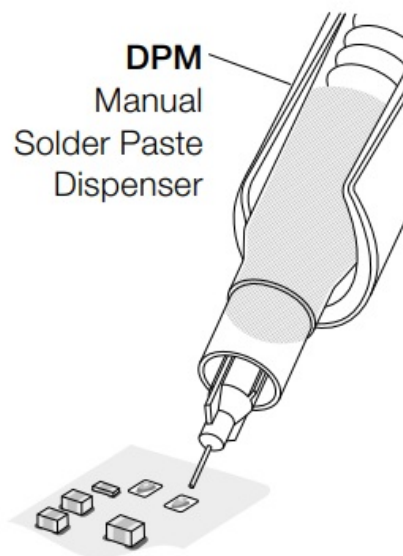
Placing

Do not press the pedal.

Use the tweezers to position the component on the previously tinned pad.

Note:

The inactive tweezers prevent the component from heating up prematurely.

Soldering

Once in position, press and hold the pedal to activate the tweezers and perform the soldering.

Menu Options

Main Menu
(Original PIN: 0105)

◁»		19:29	
🖥	**Station**	
🔧	Tools	
🎛	Peripher.	
📉	Profiles	
〰	Graphics	
📁	Files	
📊	Counters	
🗺	Language	
↩	Reset	
⇨	Exit	

See next page

Station

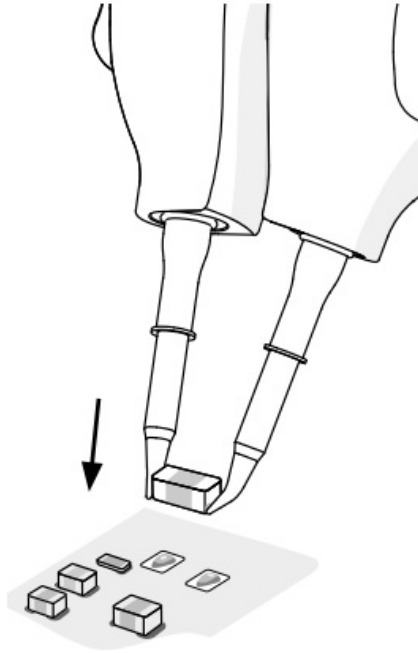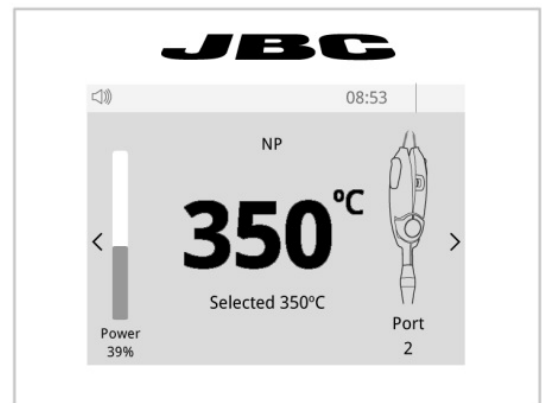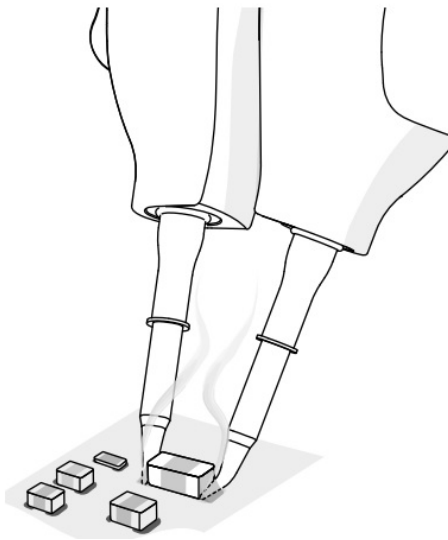| ◁»		19:29	
	Station	NAE
🖥	**Name**	
	Temp units	ºC
	Maximum temp	400ºC
	Minimum temp	200ºC
	Sound	On
	QST	On
	Robot	Off
	PIN	Off
	Station reset	
	Info	
	Back	

Graphics

◁»		19:29	
〰	Graphics	Port 1-NT
	View	
‹	Scale	Manual	›
	Maximum temp	400ºC
	Minimum temp	0ºC
	Max Power	100%
	Min Power	0%
	Grid	Power
	Back	

Tool

◁»		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	

Profiles

◁»		19:29	
📉	Profiles	
	Max rate	4.0ºC/s
	Edit	
	New	
	Copy	
	Delete	
	Cleaning	On
	Back	

Peripherals

◁»		19:29	
🔧	Peripher.	Port 1-NT
	Pedal	
‹	Module	None	›
	Fume extractor	None
	Back	

Main Menu
(Original PIN: 0105)

🔊	19:29
	Station
	Tools
	Peripher.
	Profiles
	Graphics
	Files
	Counters
	Language
	Reset
	Exit

Files

🔊	19:29
Files	
	Graphics
	Profiles
	Back

Counters

🔊		19:29
Counters		Port 1-NT
	Part	Tot
Plug hrs	5545	5545
Working hrs	86	86
Sleep hrs	0	0
Hiber hrs	5257	5257
No tools hrs	202	202
Sleep cyc	2577	2577
Partial reset		
	Back	

Reset

🔊	19:29
	Profiles
Do you want to reset all options?	
Yes	No
	Language

Language

🔊	19:29
	Language
	English
	Deutsch

Station

Setting	Description
Name	Allows to modify the station identifier.
Temp. Units	Allows to change the unit of temperature measurement: Celsius degrees or Fahrenheit degrees.
Maximum Temp. Minimum Temp.	Select the maximum/minimum temperature that can be set for the Work Mode.
Sound	Disable or enable the key sound.
QST	Enable or disable communication via USB connector for QST (Quality Soldering Traceability) libraries, available on JBC's website.
Robot	Disable or enable remote control with robot.
PIN	Allows to lock the parameters of the station using a four-digit code. The default code is 0105, but a new code can be set by simply entering some other four digits of choice when locking the parameters.
Station Reset	Restore the station settings to default.
Info.	Check specifications and information about the station.

Tool

Setting	Description
Tool	Set the current settings (temperature adjust., sleep delay, sleep temp., etc.) for a tool when connected to a specific port.
Temp. Adjust.	Applies a positive/negative offset to the temperature.
Temp. Level Set	Enable or disable temperature levels.
Sleep Delay	Set Sleep delay from 0 to 9 min.
Sleep Temp.	Set Sleep temperature from 90 to 450 °C / 190 to 840 °F
Hibernation Delay	Set Hibernation delay from 0 to 60 min.
Profiles	Allows to create soldering profiles.
Tool Reset	Restore the tool settings to default.

Peripherals

Setting	Description
Pedal	Configure the settings of connected pedals (for each port).
Module	Unused feature.
Fume Extractor	Disable or enable a fume extractor for each port.

Profiles

Setting	Description
Max. Rate	Select the max. rate (temperature/second) that can be set in profiles mode.
Edit	Edit an already existing profile.
New	Create a new profile.
Copy	Duplicate a profile.
Delete	Delete a profile.
Cleaning	Disable or enable cleaning time when working with a soldering profile.

Graphics

Setting	Description
Scale	Set automatically or manually the scale of the graphics temperature.
Maximum Temp. Minimum Temp.	Select max./min. temperature of the graphics scale (manual mode).
Max. Power Min. Power	Select max./min. power supplied to the tool in %.
Grid	Choose between temperature or power to display in the grafics grid.

Files

Setting	Description
Graphics	Export or delete temperature graphics.
Profiles	Export/Import or delete soldering profiles.

Counters

Setting	Description
Plug Hrs.	Check how many hours the station has been on.
Working Hrs.	Check how many hours the station has been running in Work Mode.
Sleep Hrs.	Check how many hours the station has been in Sleep Mode.
Hiber. Hrs.	Check how many hours the station has been in Hibernation Mode.
No Tool Hrs.	Check how many hours the station has been with no tools connected.
Sleep Cycles	Check the number of sleep cycles the station has gone through.
Partial Reset	Resets all partial counters on the Part column.

Language

Setting Description

Language Allows to change the software language between English, Spanish, German, Italian, French, Chinese, Korean, Portuguese, Russian or Japanese.

Reset

- **Setting   Description**

  Reset   Reset every parameter and setting to default.

Changing Soft Foam Grips

Soft foam grips for NT115 Nano Handles ensure better manual control of the handle and greater com-fort when working.

Soft foam grips are available in 3 different colors:

N8662 green

Ref. 0018662 (incl. 4x grips)

N3308 blue

Ref. 0023308 (incl. 4x grips)

N3309 black

Ref. 0023309 (incl. 4x grips)

Replace the grips easily using the included fitters as shown in the following pictures.
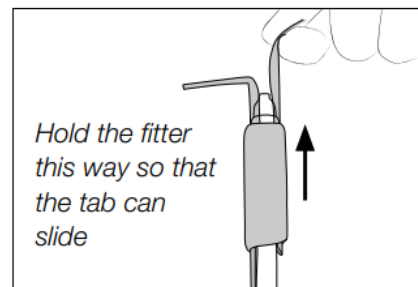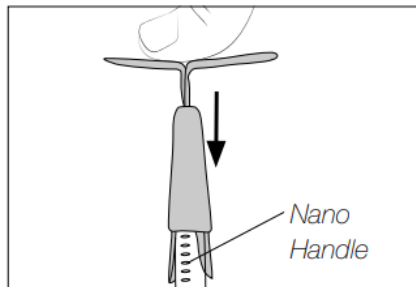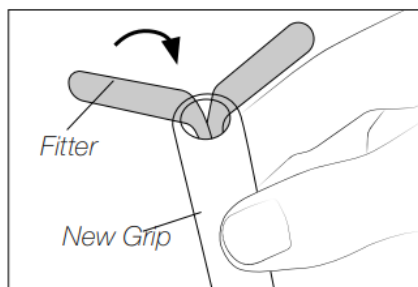
- **Inserting Fitters**

  Insert the fitters into the newgrip.

- **Assembling Grip**

  Push the grip with the fitters onto the nano handle.

- **Removing Fitters**

  To remove the fitters, hold the grip and pull the fitters out. Use pliers if necessar

Fitter

New Grip

Nano Handle

Hold the fitter this way so that the tab can slide

Changing the Tip Cleaning System

- Pull back the tab (1) to remove the cleaning system (2).
- Remove the splashguard from the drawer and a new one.
- Reattach the cleaning system to the station.

Replace the tip cleaning system:
- Brass wool
- Metal brush
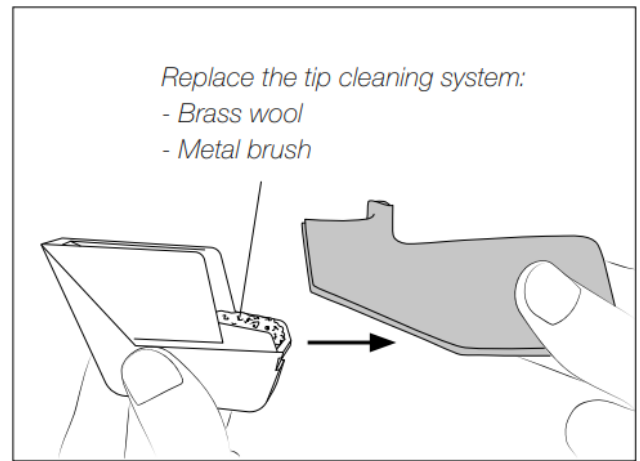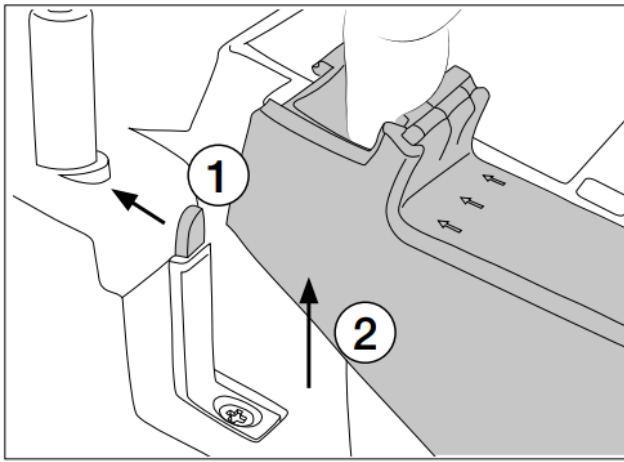
Maintenance

Before carrying out maintenance, always switch the device off and disconnect it from the mains. Allow the equipment to cool down.

– 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 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 any defective or damaged pieces. Use original JBC spare parts only.-

– 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 an

Fuse holder

Fuse holder

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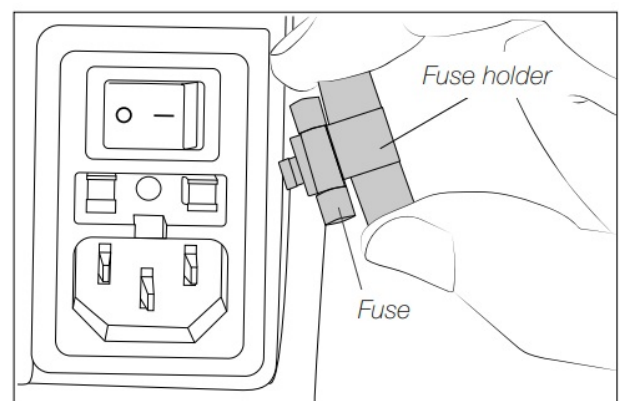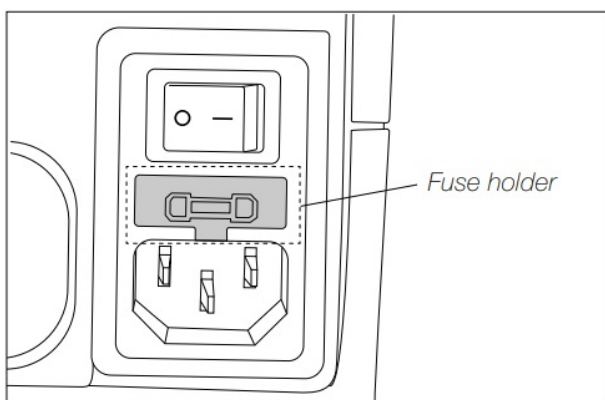
Repairs should only be performed by a JBC authorized technical service.

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

- NAE
- 2-Tool Nano Control Unit
- Ref. NAE-9C 100 V 50/60 Hz. Input fuse: 0.5 A. Output: 8.5 V.
- Ref. NAE-1C 120 V 50/60 Hz. Input fuse: 0.5 A. Output: 8.5 V.
- Ref. NAE-2C 230 V 50/60 Hz. Input fuse: 0.2 A. Output: 8.5 V.
  - Peak Power (Tool): 14 W per tool
  - Selectable Temperature: 90 – 450 °C / 190 – 840 ºF
  - Idle Temp. Stability (still air): ±1.5 ºC / ±3 ºF (meets and exceeds IPC J-STD-001)
  - Temp Accuracy: ±3 % (using reference cartridge)

- ○ Temp Adjustment: ±50 ºC / ±90 ºF (through station menu setting)
- ○ Tip to Ground Voltage/Resistance: Meets ANSI / ESD S20.20
- ○ Connections: USB-A / USB-B / pedal connectors / RJ12 connector
- ○ Ambient Operating Temp: 10 – 50 ºC / 50 – 122 ºF
- ○ Control Unit Dimensions: 140 x 170 x 125 mm (L x W x H) 5.51 x 6.69 x 4.92 in
- ○ Total Net Weight: 2.12 kg / 4.67 lb
- ○ Total Package Dimensions/Weight: 280 x 280 x 164 mm / 3.31 kg (L x W x H) 11.02 x 11.02 x 6.46 in / 7.30 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

FAQ

How do I replace the tool holder?

To replace the tool holder, loosen the screw to remove the existing holder and insert the new one securely, then tighten the screw to ensure proper attachment.

How many control units can be connected to the fume extractor?

Up to 4 control units can be connected to the fume extractor. Each connected tool can start and stop the fume extractor independently.

Documents / Resources

	[JBC NAE 2-Tool Nano Control Unit](#) [[pdf](#)] Instruction Manual 0028953_ID-222659_EN, NAE 2-Tool Nano Control Unit, NAE, Nano Control Unit, Control Unit

References

- [User Manual](#)

🏷 0028953_ID-222659_EN, Control Unit, JBC, NAE, NAE 2-Tool Nano Control Unit, Nano Control
📁 JBC   Unit

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Email

Website

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e.g. whirlpool wrf535swhz

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