

# JBC

www.jbctools.com

## INSTRUCTION MANUAL



## 2 Tools DDE Precision Station

Ref. DDPE-QB

# Packing List

The following items are included:

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



**Stand** ..... 1 unit  
 Ref. AD-SE



**Stand** ..... 1 unit  
 Ref. AM-SA



**General Purpose Handle** ..... 1 unit  
 Ref. T210-A



**Adjustable Micro Tweezer**..... 1 unit  
 Ref. AM120-A



**Cartridge holder** ..... 1 unit  
 Ref. 0021083



**ESD Tip Cleaner**..... 1 unit  
 Ref. CL8499



**Sponge** ..... 1 unit  
 Ref. S0354



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



**Stand Cable** ..... 2 units  
 Ref. 0011283



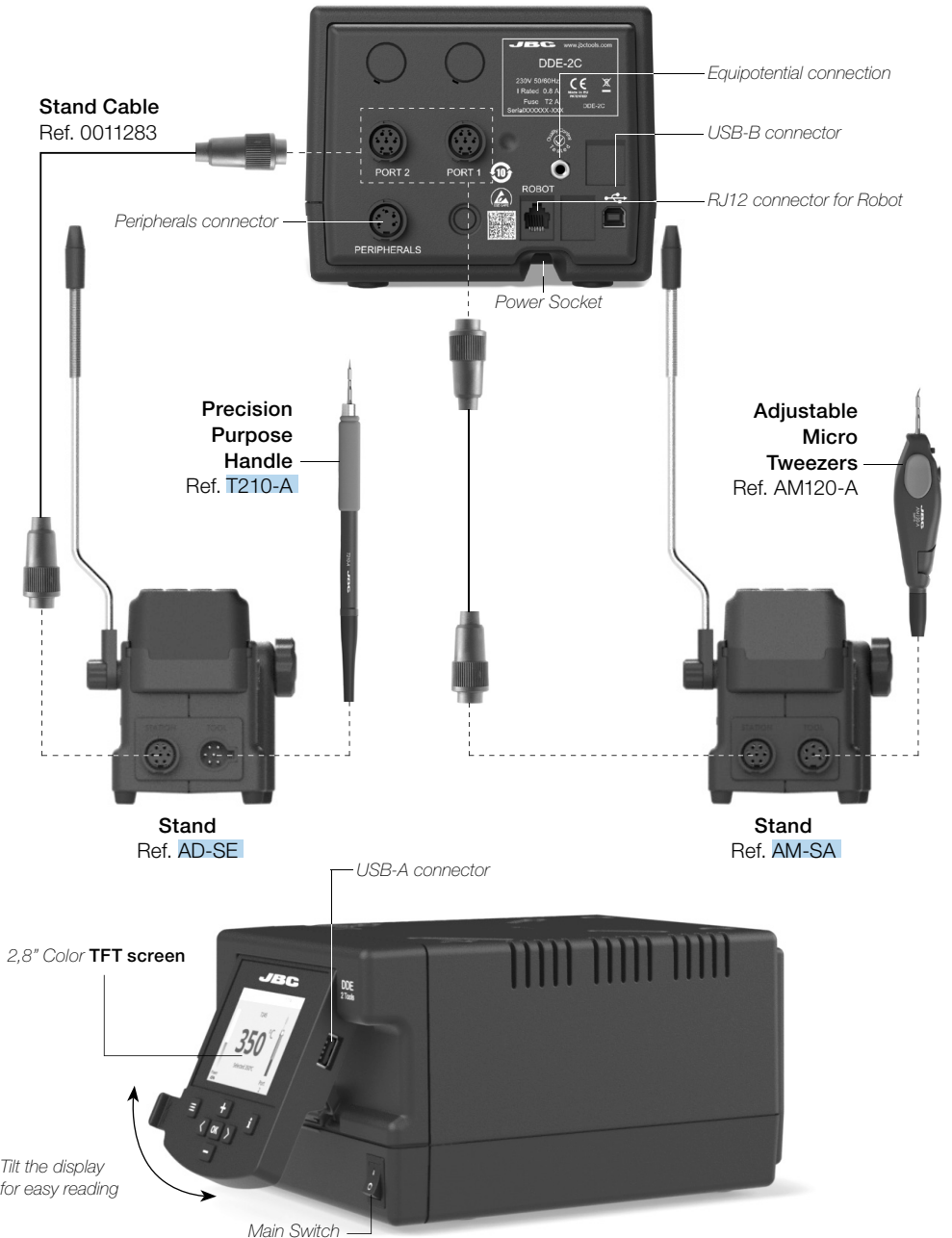
**Power cord** ..... 1 unit  
 Ref. 0010569 (230V)  
 0013671 (100/120V)



**Manual** .....1 unit  
 Ref. 0022878



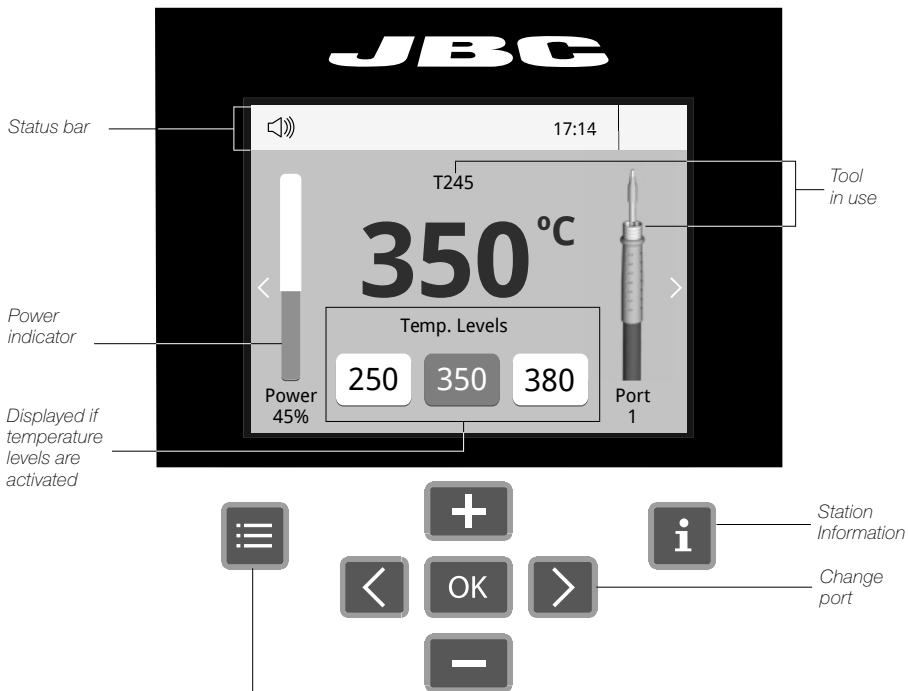
## Connections



# Work Screen

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

**Default PIN: 0105**

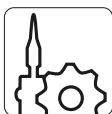


## Menu Options



Set the station parameters

### Station



Set the tool parameters

### Tools



Display the hours worked in each cycle

### Counters



Consult / modify the links of the peripherals connected to the station with the port they are connected to.

### Peripherals



It is possible to choose the language from a list.

### Language



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

### Reset

## 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 ramp up rate of the tool 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.

### 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



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 software update.  
Press INFO to start the process.



Station is controlled by a PC.



Warning.  
Press INFO for failure description.



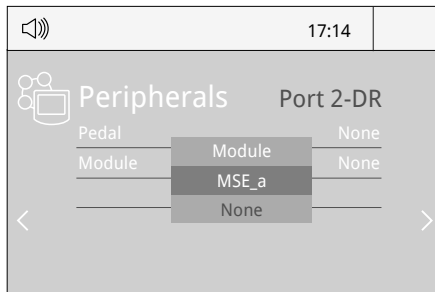
Station is controlled by a robot.



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

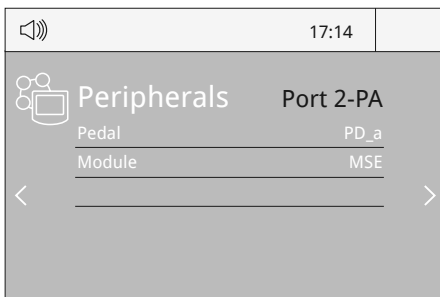
## MSE/MVE Initial Set up (Ref. MSE-A / Ref. MVE-A)\*

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,...).
3. Press Menu or Back to save changes.

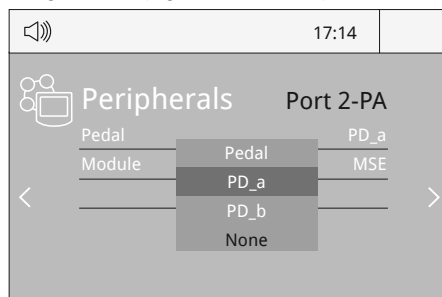


## Pedal Initial Set up (Ref. P-005)\*

1. Enter the **Peripherals** Menu and **select the port** which you want to join to the pedal.



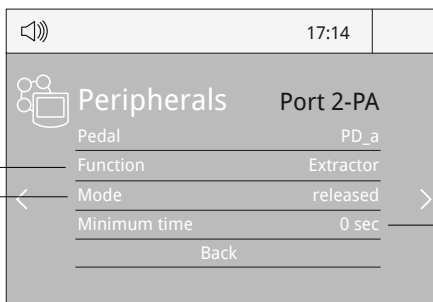
2. Select the pedal from the list (Note that your first connection is denoted as "a", the second being "b", etc. (e.g. PD\_a, PD\_b,...)).



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.

\* These references are not included

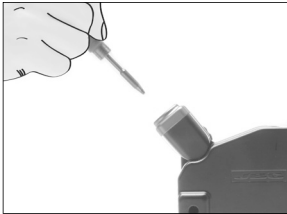
\*\*NB: The same can be applied inversely when continually pressing the pedal and releasing to activate.

# Operation

## The JBC Most Efficient Soldering System

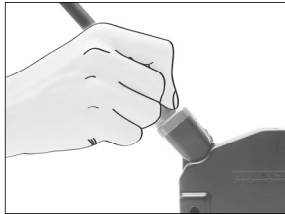
Our revolutionary technology is able to recover tip temperature extremely quickly. It means the user can work at a lower temperature and improve the quality of soldering. The tip temperature is further reduced thanks to the Sleep and Hibernation modes which increase up to 5 times the life of the tip.

### 1. Work



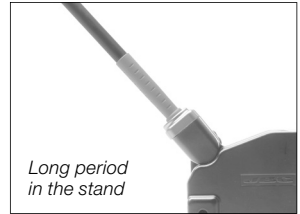
When the tool is lifted from the stand the tip will heat up to the selected temperature.

### 2. Sleep

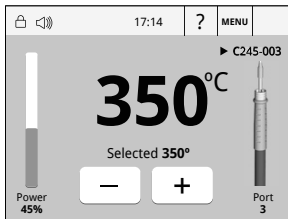


When the tool is in the stand, the temperature falls to the preset Sleep temperature.

### 3. Hibernation

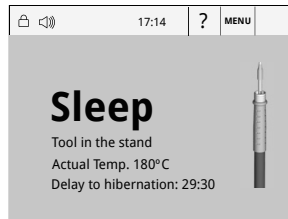


After longer periods of inactivity, the power is cut off and the tool cools down to room temperature.



*Tools Menu:*

- Adjust temperature limits and cartridge.
- Set temperature levels.



*Tools Menu:*

- Set Sleep temperature.
- Set Sleep delay. (from 0 to 9 min or no Sleep)



*Tools Menu:*

- Set Hibernation delay. (from 0 to 60 min or no hibernation)

# Quick Tip Changer

Save time and change cartridges safely without switching the station off. Be careful, the cartridges may be hot, when placing them in the storage rack.

## 1. Removing



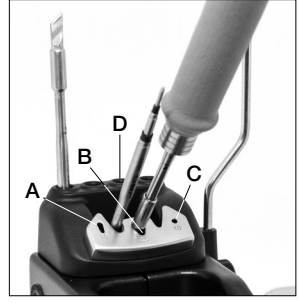
Place the cartridge in the extractor and pull the handle to remove it.

## 2. Inserting



Place the handle on top of the new cartridge and press down.

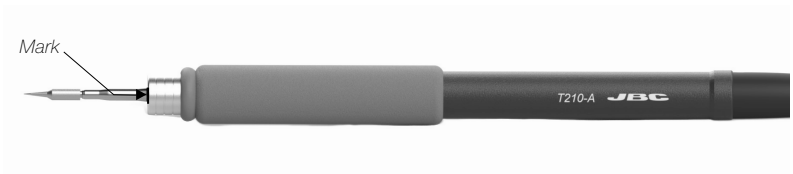
## 3. Fixing



Use the holes to fix the cartridge as follows:

- A.** For curved C210
- B.** For C245
- C.** For straight C210
- D.** cartridge Storage rack

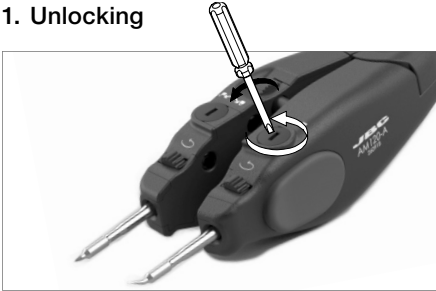
**Important:** It is essential to insert the cartridge as far as the mark for a proper connection.





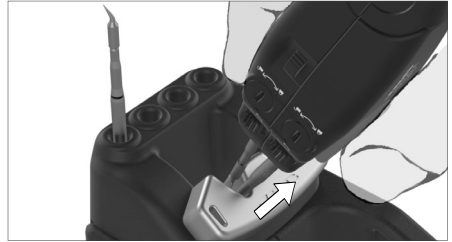
## AM120 Changing cartridges

### 1. Unlocking

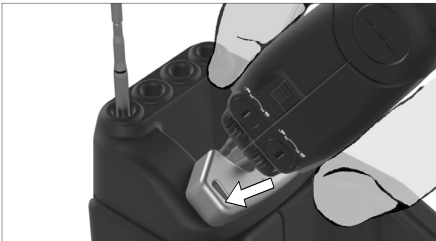


Unlock the fixing knobs.

### 2. Removing



Place the cartridges in the extractor and pull the tweezers to remove them.



Place the tweezers on top of the new cartridge and slightly press down.



Use the grooves to insert the cartridges as far as they stop.

### \*Important

It is essential to insert the cartridges as far as the mark for a proper connection.



### 3. Rotational and Vertical Cartridge alignment



Slightly turn the wheels to align the cartridges as required.



The tail wheel guarantees that the cartridges are equally aligned with vertical symmetry.

ⓘ Once the alignment has been made, do not forget to fix the cartridges by tightening the fixing knobs. A single turn of the knob is required to get them fixed.

Also make sure that the cartridges are in good condition so that the tweezers work properly.

# Tip Cleaner

Improve thermal transfer by cleaning the tip after each solder joint.

## Brass wool

Ref. CL6210

*Very effective cleaning method. It leaves a small layer of solder on the tip to prevent oxidation between cleaning and reflowing.*

## Splashguard

Ref. 0017576

*It prevents splashing of solder particles when using the brass wool.*

## Antisplash Membrane

Ref. 0017574

*Prevents splashing to maintain the work area clean.*

## ESD Tip Wiper

Ref. CL0240

*A temperature resistant receptacle lets the operator remove excess solder by gentle tapping or wiping.*

## Sponge

Ref. S0354

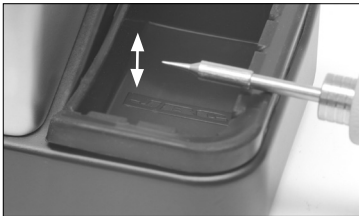
*The least harmful cleaning method. Keep the sponge damp with distilled water when working to avoid tip wear.*

## Non-slip base

*No need to hold the base while cleaning tips.*

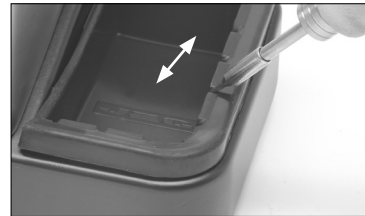


## Tapping:



*Tap to remove excess solder.*

## Wiping:



*Use the slots to remove remaining particles.*

## DDE-C Compatibility

Basic working system				Peripherals			
Control Unit	Stand	Tool	Cartridge Range	MSE-A / MVE-A	MNE-A	FSE-A	P-005
<b>DDE-C</b>	AD-SE	T210-A	C210			●	●
		T245-A	C245			●	●
	DN-SE	T210-NA*	C210		●		●
		T245-NA*	C245				
	AP-SE	AP250-A	C250				●
	PA-SE	PA120-A	C120				●
	HT-SE	HT420-A	C420			●	●
	DS-SE	DS360-A	C360	●		●	●
	DR-SE	DR560-A	C560	●		●	●

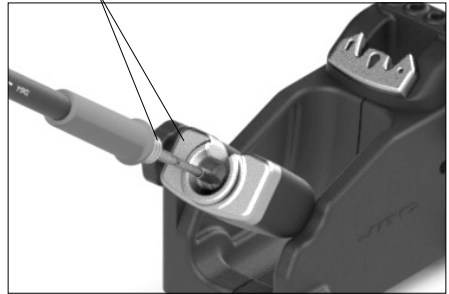
\* The **MNE Nitrogen Flow Regulator** is required.

# Maintenance

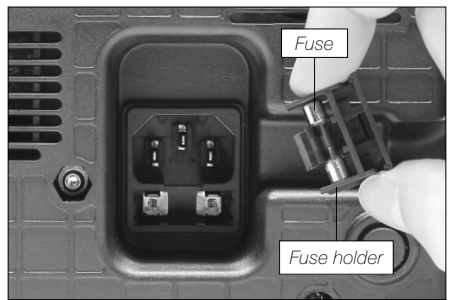
Before carrying out maintenance or storage, always allow the equipment to cool.

- 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 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.** Press the new fuse into the fuse holder and replace it in 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 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, 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 protective 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 persons with reduced physical, sensory or mental capabilities or lack of 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(Cr(VI))	多溴联苯(PBB)	多溴二苯醚(PBDE)
烙铁头	○	○	○	○	○	○
手柄	○	○	○	○	○	○
电源线	○	○	○	○	○	○
主机	○	○	○	○	○	○
电源插座	○	○	○	○	○	○
保险丝	○	○	○	○	○	○
主开关	○	○	○	○	○	○
电位连接	X	○	○	○	○	○
变压器	○	○	○	○	○	○
线路板	X	○	○	○	○	○

○ 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。

## Specifications

### 2 Tools DDE Precision Station DDPE-1QB / DDPE-2QB / DDPE-9QB

<b>DDE-1C</b> 120V 50/60Hz. Input fuse:	4A. Output: 23.5V
<b>DDE-2C</b> 230V 50/60Hz. Input fuse:	2A. Output: 23.5V
<b>DDE-9C</b> 100V 50/60Hz. Input fuse:	5A. Output: 23.5V
- Temperature Range:	90 - 450 °C (190 - 840 °F)
- Idle Temp. Stability (still air):	±1.5 °C (±3 °F)
- Output Peak Power:	150W per tool
- Tip to ground resistance:	<2 ohms
- Tip to ground voltage:	<2mV RMS
- Ambient Operating Temperature:	10 - 50 °C (50 - 122 °F)
- Communication connectors:	USB-A / USB-B / Peripherals connectors
- Robot connector:	RJ12 for RS-232 protocol
- Control Unit Weight:	3,815 kg (8.41 lb)
- Control Unit Dimensions:	148 x 120 x 232 mm (5.83 x 4.72 x 9.13 in)
- Total Package:	368 x 474 x 195 mm / 8.79 kg 14.5 x 18.7 x 7.7 in / 19.4 lb

Complies with CE standards.  
ESD protected.

# JBC

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## 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.

**Please register your product warranty within 30 days of purchase in:**  
**[www.jbctools.com/productregistration](http://www.jbctools.com/productregistration).**

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This product should not be thrown in the garbage.  
In accordance with the European directive 2002/96/EC, 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)**

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