

Instructions manual  
US Version

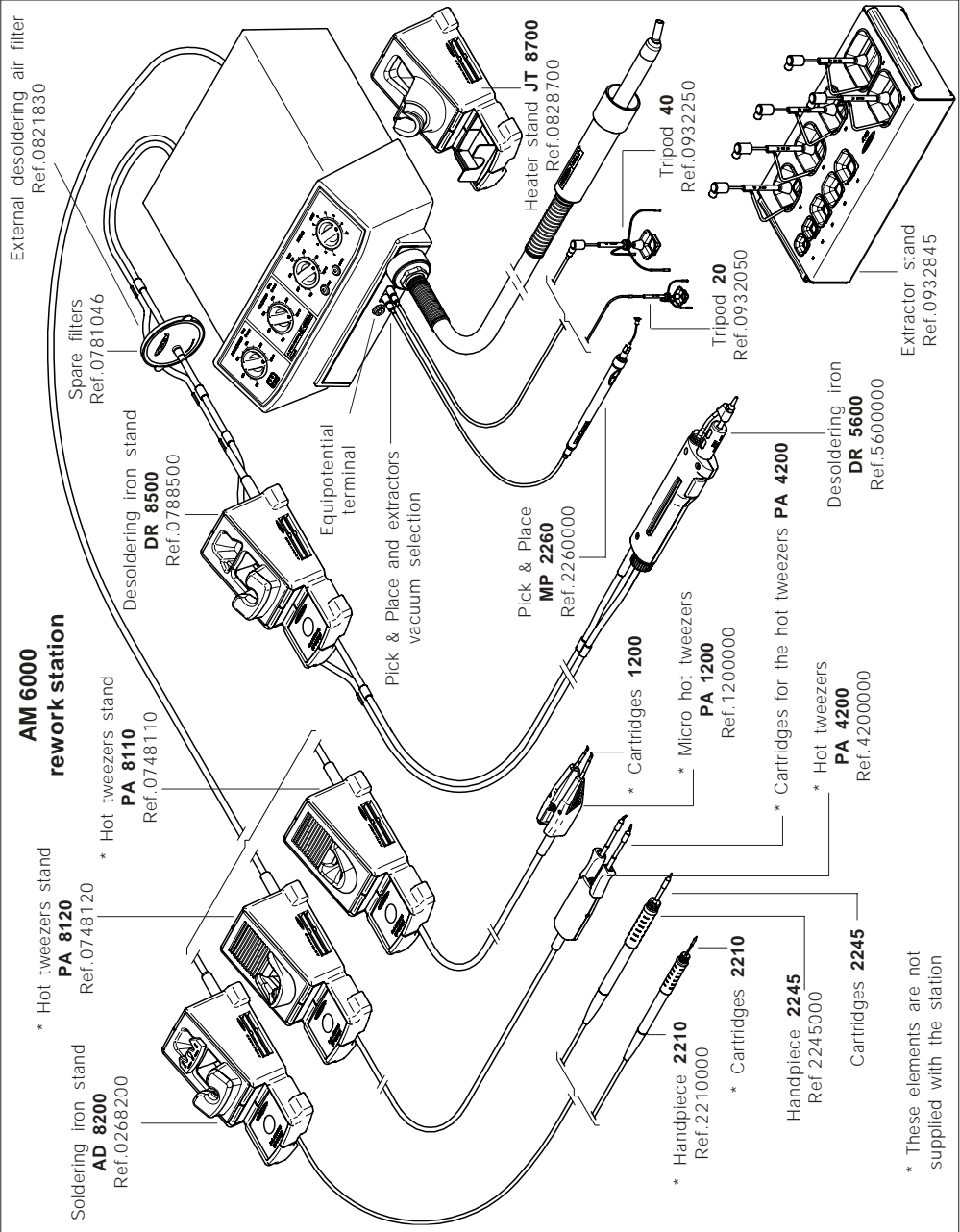
**ADVANCED**  
SERIES



REWORK STATION

AM 6000

We appreciate the confidence you have placed in JBC in purchasing this station. It is manufactured to the most stringent quality standards in order to give you the best possible service. Before turning on your station, we recommend you to read these instructions carefully.



# SPECIFICATIONS

The **AM 6000** is a rework station for through-hole and SMT boards.

- **AM 6000** 120V Ref. 6000100

It contains 4 modules which cover the main rework tasks:

- **Hot air** for desoldering any size of SMD components.  
The station uses the exclusive JBC system, based on protectors-extractors and hot-air flow, which makes desoldering clean and quick, concentrating the heat on the IC, and protecting the rest of the circuit at the same time.  
A medium-sized SMD can be desoldered in less than 20 seconds.
- **Desoldering** SMTs and cleaning of through-hole components and pads by using the desoldering iron **DR 5600**, which contains a self-contained vacuum pump.
- **Pick & Place MP 2260** pencil by suction to aid components positioning.
- **Soldering** of all types of components, with the swift response, power and temperature recovery of the Advanced series. You can connect the Advanced **2210** or **2245** handpieces and the hot tweezers **PA 1200** or **PA 4200**.

## The station's components

- Control Unit with **900 W** heater
- Handpiece **2245** Ref. 2245000  
with the cartridge **2245-003** Ref. 2245003
- Desoldering iron **DR 5600** Ref. 5600000  
with the tip **5600-003** Ref. 5600003
- Pick & Place **MP 2260** Ref. 2260000  
Accessories for the heater:
  - Heater stand **JT 8700** Ref. 0828700
  - Extractor stand Ref. 0932845
  - Set of 5 protectors (Fig. 1, page 32)
  - Set of 5 extractors (Fig. 2, page 32)
  - 2 tripods for the protectors (Fig. 1, page 32)
  - Set of 4 suction cups Ref. 0930110
  - 3 nozzles  
In order to make the nozzles removal easier, the stand has a special bushing. (Fig. 3, page 32).
- Suction tube with connectors Ref. 0932330
- Pedal with cable and connector Ref. 0964551  
Accessories for the handpiece:
  - Soldering iron stand **AD 8200** Ref. 0268200
- Accessories for the desoldering iron:
  - Desoldering iron stand **DR 8500** Ref. 0788500
  - External desoldering air filter Ref. 0821830
  - Spare filters Ref. 0781046
  - Set of accessories Ref. 0780593
- Accessories for the Pick & Place:
  - Set of suction cups Pick & Place Ref. 0940163
  - Set of straight needles Ref. 0901546
  - Set of bent needles Ref. 0861660
  - Instruction manual Ref. 0780541

The **AM 6000** station has the following complementary products:

- Handpiece **2210** Ref. 2210000
- Micro hot tweezers **PA 1200** Ref. 1200000
- Hot tweezers **PA 4200** Ref. 4200000

**Control Unit technical specifications**

- Maximum power soldering iron 50W
- Maximum power desoldering iron 75W
- Power heating unit 900W
- Temperature selection of the soldering part : 200 to 700°F (±5%)
- Temperature selection of the desoldering part: 200 to 700°F (±5%)
- Temperature selection hot air: 300 to 850°F (±5%)
- Air flow regulation: 6-45 l/min
- Self-contained vacuum pump for holding ICs
- Station's maximum power: 1150W
- ESD protected housing.  
Typical surface resistance: 10<sup>5</sup>-10<sup>11</sup>Ohms/square
- Equipotential connector is earth connected to the plug feed of the station.
- Weight of complete unit: 44 lbs
- In the SOLD. connector you can only connect handpieces 2210 and 2245 and the hot tweezers PA 1200 and PA 4200.
- In the DESOLD. connector you can only connect the desoldering iron DR 5600.

**Safety measures**

- Incorrect use of this tool may cause fire.
- Be cautious when using the tool in places where inflammable products are stored.
- Heat can fire up inflammable products even when they are not at sight.
- Do not use when the atmosphere is explosive.
- Place the tool back on its stand in order to let it cool down before you store it.

**OPERATION**

**Description of controls**

- **PEDAL:**  
Hot air is produced when it is held down. Releasing it the heater is disconnected, though the turbine continues to operate until the air temperature falls below 212°F.

- **BUTTONS:**

**HEAT**



Activates or desactivates the hot-air flow. After a function-time of two minutes the hot-air flow switches automatically off.  
The red light indicates, that the heating element is functioning. A malfunction is indicated by the pulsing of the red led.

**VACUUM**



On/off switch for the self-contained suction pump. The yellow light of the switch indicates that the self-contained vacuum pump is activated.

- **CONTROLS:**

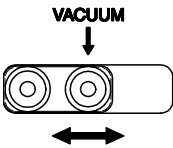
**TEMPERATURE**

Allows fixing the temperature of the heater between 300 and 850°F. The selected temperatures are reference values which may change depending on the distance between the heating element and the nozzle.  
Allows fixing the temperature of the soldering and desoldering iron between 200 and 700°F.

**AIR FLOW**

This enables the air flow to be set on a scale from 1 (corresponding to the lowest setting of 6 l/min) to 10 (corresponding to the highest of 45 l/min).

- **VACUUM SELECTOR:**



Two vacuum inlets available, being active the one that coincides with the arrow.

## DESOLDERING PROCEDURE WITH THE HEATER

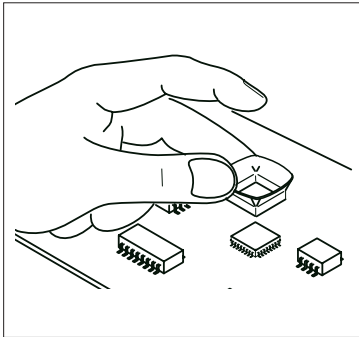
We would also recommend the use of the nozzles of larger diameter, reserving the smallest one (diam. 4 mm) for desoldering small components such as resistors, condensers and the like, bearing in mind that with this small nozzle the concentration of heat is greater and care must be taken to avoid burning the printed circuit; we recommend keeping below a temperature of 662 °F and air flow of 6.

Depending on the size of the integrated circuit to be desoldered, you will have to use:

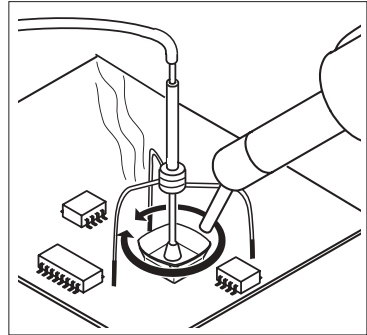
- A) Protector + tripod.
- B) Extractor.
- C) Tripod.

### A) Protector + tripod:

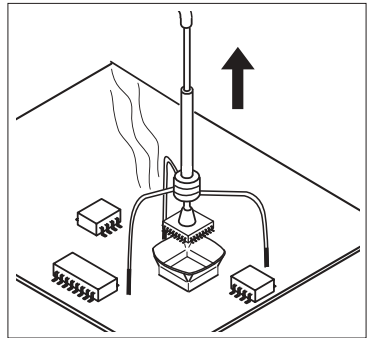
- Select protector and tripod size in function of the IC to be desoldered and place it over the component.



- Use the pedal or the **HEAT** button to start the self-contained hot-air pump, directing it with a circular movement at the component terminals and taking care to distribute the heat evenly.

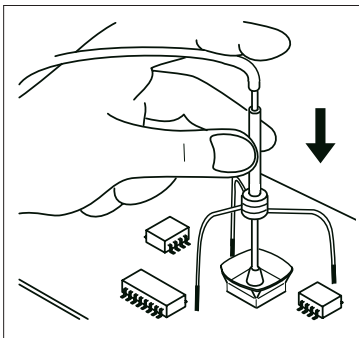


- When the soldering flux turns liquid the extractor will automatically lift the component.

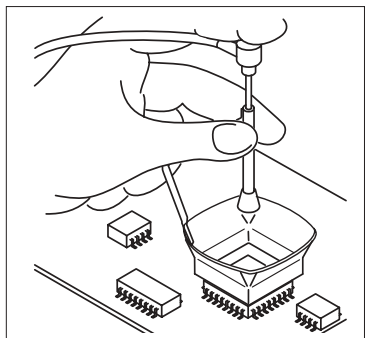


### B) Extractor:

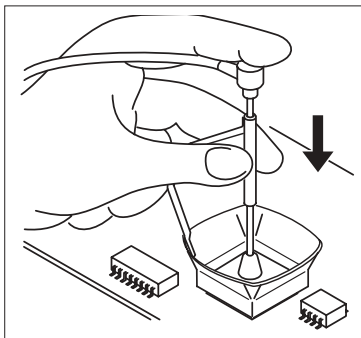
- Use the **VACUUM** button to start the pump and then fit the tripod. Press the sucker down until it sticks onto the component.



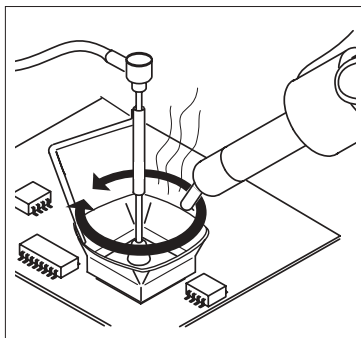
- Select extractor size in function of the IC to be desoldered. Use the **VACUUM** button to start the pump.



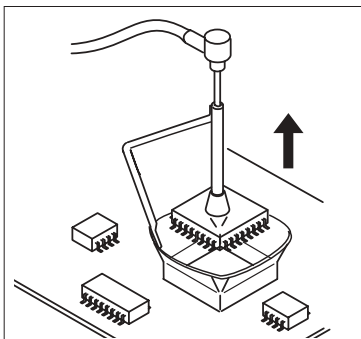
- Fit the extractor and press the sucker down until it sticks onto the component.



- Use the pedal or the **HEAT** button to start the self-contained hot-air pump, directing it with a circular movement at the component terminals and taking care to distribute the heat evenly.



- When the soldering flux turns liquid the extractor will automatically lift the component.



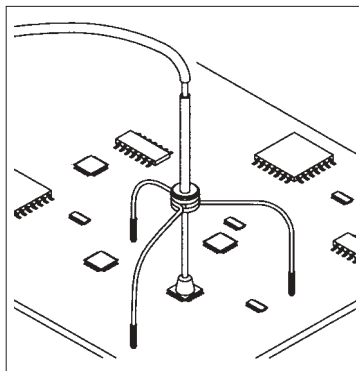
There are different models of protectors and extractors as accessories.

The measurements of all the extractors and protectors are given on page 32 of instructions manual.

### C) Tripod:

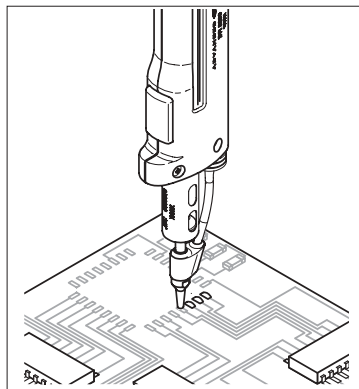
For small components for which an extractor cannot be used, we recommend use of tripod 20 Ref. 0932050, as shown in the figure.

Use the tripod 40 Ref. 0932250 for larger integrated circuits.

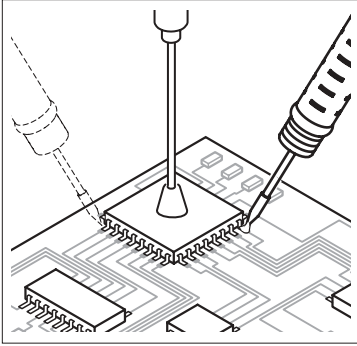


## SOLDERING PROCEDURE

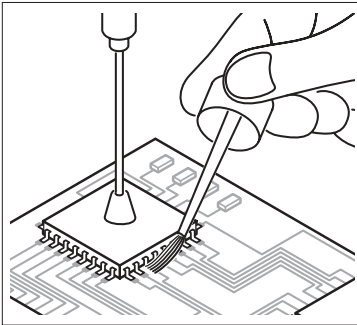
- 1 After desoldering the component, any solder left on the printed circuit should be removed with our desoldering iron **DR 5600** ref. 5600000.



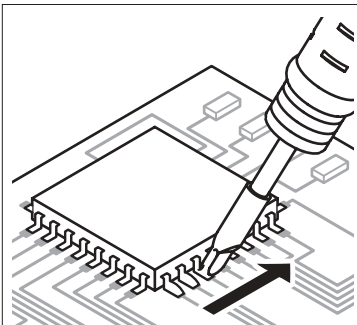
- 2 Place the component or printed circuit with the Pick & Place **MP 2260** ref. 2260000.
- 3 When the component is correctly placed, solder its pins. In the case of integrated circuits of the Flat Pack type, first solder one pin of every IC angle to fix it in place in the circuits.



- 4 Apply Flux **FL 9582** ref. 0046565 in pads and leads.



- 5 Solder the remaining pins. For this we recommend to use our soldering irons of the Advanced series, which are available in two different models:



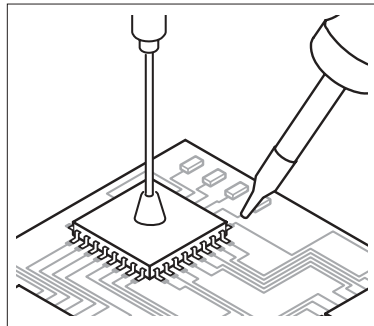
**Soldering Iron 2210** ref. 2210000 for great precision tasks, like SMD solders, etc.

**Soldering Iron 2245** ref. 2245000 for general soldering tasks in professional electronics.

These soldering irons have a wide range of cartridges with different models of tips. The cartridge 2245-009 and 2245-010 are specially designed for soldering SMD circuits of the QFP and PLCC types.

Solder wire with a diameter of between 0.5 and 0.7 mm should be used.

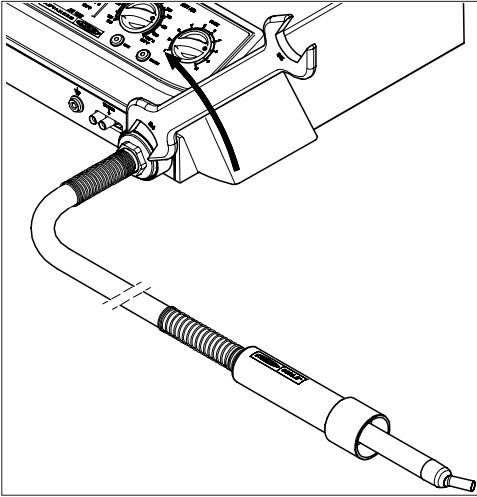
- 6 Depending on the nature of the component to be soldered, use soldering paste together with our hot air station **TE 5000**, which gives very accurate air-flow regulation, between 4 and 11 l/min.



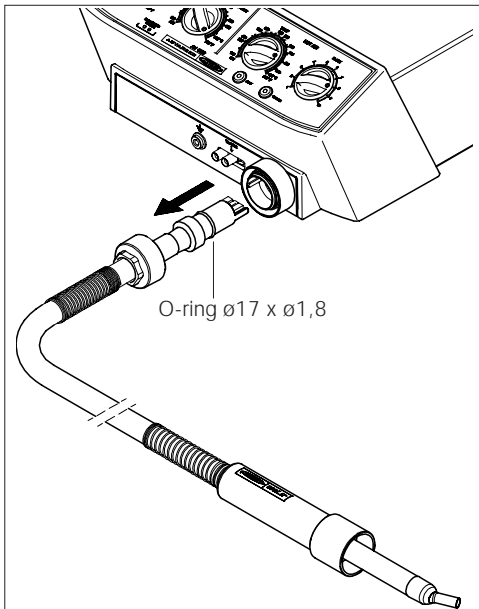
## MAINTENANCE

### Exchanging the heater.

Use a wrench to unscrew the cover.



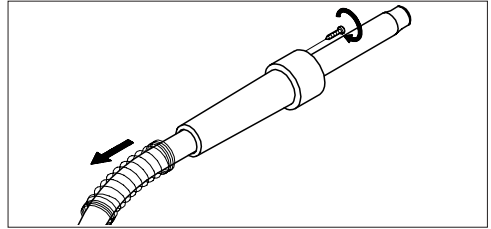
Move back the spring and the cover. Pull the connector from the socket to disconnect the heater from the station.



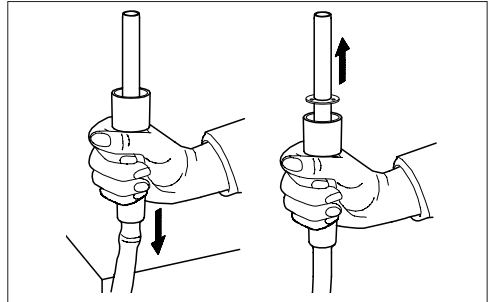
Follow this process inverted to re-connect the heater.

### Exchanging the resistor from the heater.

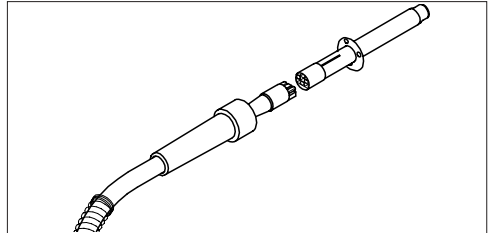
1. Move back the spring. Untighten the screws.



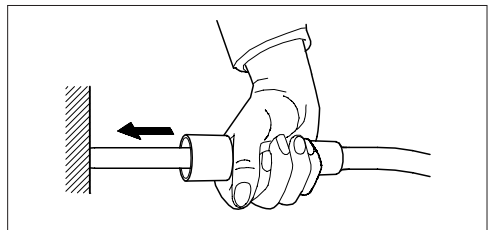
2. To take out the resistor, press down the lower part of the heater on a fixed surface.



3. Separate the resistor from the heater's cable.



4. Connect the new resistor, pushing it's extreme.



5. Fix the screws tightly to avoid air-loss which could reduce the resistor's lifetime. Finally put the spring back in it's place.

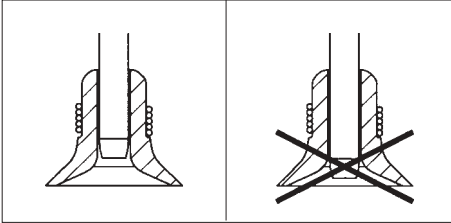


## OPERATING INCIDENTS

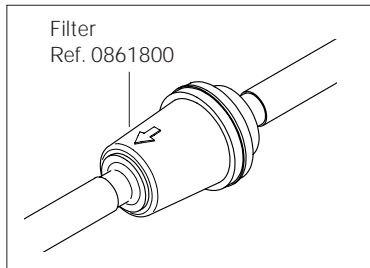
**The suction cup does not adhere to the component.**

**Deficient aspiration, Vacuum.**

- 1 Verify if the suction cup is well placed and in perfect condition.



- 2 Check the incoming air filter in the interior of the station and replace it if dirty or obstructed.



- Faulty reading of the rotationsmeter of the self-contained air pump.  
Possible causes: air pump damaged or faulty function of the optical sensor circuit.

**To recuperate any of these errors actuate the general switch at the back of the station, the pedal should not be pushed at this moment.**

### Possible errors

In the case of malfunction, the control unit interrupts the connection.

Following a list of the most common malfunctions:

- Power failure.  
Check for blown fuses.
- The temperature will not rise.  
Possible causes:
  - Heating element open.
  - In case of a long low-power period.
- No reading from the thermocouple.  
Possible cause: open thermocouple.
- Insufficient air flow which causes an excessive rise of the heating temperature.  
Before recuperating this type of error you must wait until the temperature goes down.  
Possible causes: leaking or blocked air conducts or faulty self-contained air pump.

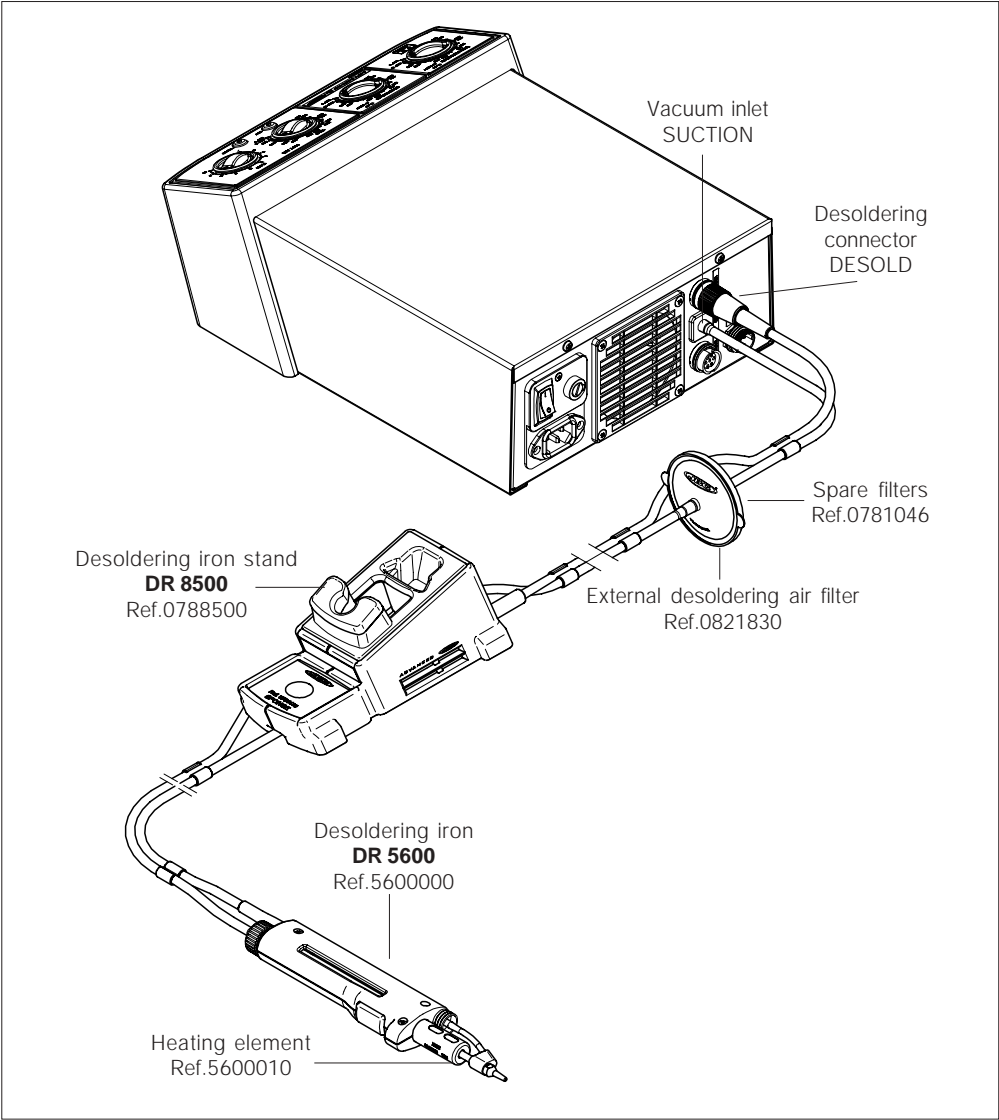
# DESOLDERING IRON DR 5600

The **AM 6000** station includes the following:

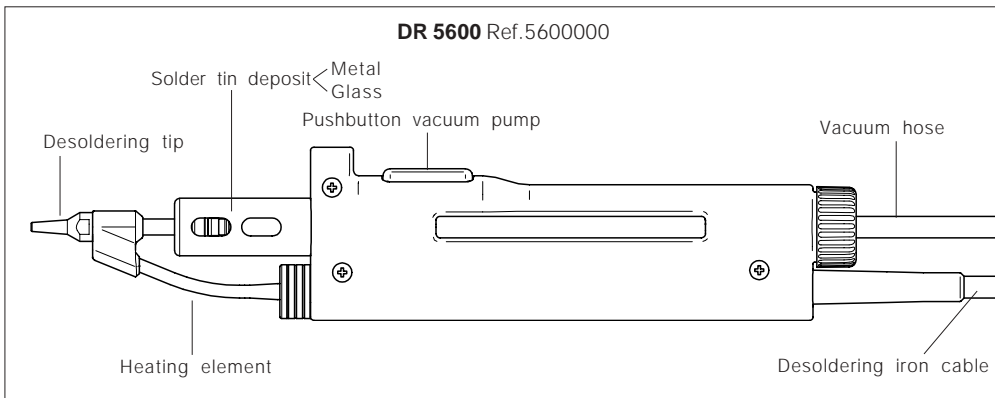
- Desoldering iron **DR 5600** ref. 5600000 with the tip **5600-003** ref.5600003.  
Power desoldering iron: 75W.
- Desoldering iron stand **DR 8500** ref. 0788500.
- External desoldering air filter ref. 0821830.
- Set of accessories ref. 0780593 with tips for the desoldering iron: **5600-003**, **5600-004** and **5600-005**.

The desoldering iron is connected to the station following the below procedure:

The cable connection of the desoldering iron is connected to the plug in the desoldering iron stand DR 8500 and the vacuum hose is connected to the external desoldering air filter, which is connected to the vacuum connection SUCTION of the station. The cable connection of the desoldering iron stand is plugged into the terminal DESOLD of the station. Very important, it is essential to connect the mentioned filter to prevent from damaging the vacuum pump.



## DR 5600 Ref.5600000



## OPERATION

### LED lights

**Red LED -ON-** when lit, it indicates that the station is plugged in the mains.

**Green LED -READY-** when lit, it indicates that the system is ready and correctly set for working.

The green led light is on after a few seconds, is the time needed to carry on the self-checking system. The green light is pulsing when the desoldering iron is in sleep mode.

If the green led is not lit, the reason why, will be one of the following:

1. The desoldering iron is not plugged in.
2. The maximum available power has been exceeded for too long - e.g. in a very thick desoldering at the high repetition rates.
3. The desoldering heating element has a short circuit or an open circuit.
4. Any other trouble preventing the system from working properly.

The handpiece will reset itself automatically should the cartridge short circuit or go open circuit.

Should the handpiece be subject to:

- An electrical surge or the cartridge has not been fitted correctly.

Please turn the unit off and switch on again to reset.

When pressing the button of the desoldering iron handle, one of the two leds in the area marked SUCTION will light up:

**Green light -SUCTION-** indicates the correct functioning of the desoldering iron.

**Red light -SUCTION-** indicates a blockade within the vacuum circuit.

This can be caused by the following:

- The tip of the desoldering iron is blocked.

- The solder tin deposit is full.
- The filter of the desoldering iron is dirty.
- The station's external desoldering air filter is dirty.

Only for users of AC 2600 console ref. 2600000.

If you lock the working temperature thanks to the console, the green LED -READY- will remain on while the dial is set at the locked temperature. If the dial is not set at the locked temperature, the green LED -READY- will be blinking. The farther the dial will be set from the locked temperature the slower the blinking pace will be.

### Sleep function

One of the Series Advanced features is that when the desoldering iron is placed in the holder, the temperature at the tip drops automatically to the sleep temperature. This function is only possible because of the quick response time which does not make the user realise the temperature rise to reach the selected temperature. Also by this, the oxidation of the tinning of the tip is considerably reduced and tip life is extended.

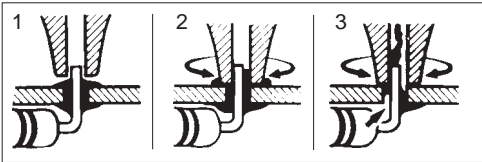
To indicate that the desoldering iron is in sleep-mode, the green led starts pulsing. These parameters can be modified using the **Console AC 2600** Ref. 2600000.

**In order to take advantage of the above mentioned feature and as a security measure, it is necessary to place the desoldering iron on stand when the iron is not being used.**

RECOMMENDATIONS FOR USE

For soldering and desoldering

- Clean the contacts and the printed circuit to be desoldered of dust or dirt.
- Preferably select a temperature below 662°F. Excess temperature may cause the printed circuit tracks to break loose.
- The tip must be well tinned for good heat conduction. If it has been inoperative for any length of time, it should be retinned.



After pressing the desoldering key there is a slight delay until the self-contained vacuum pump stops, this is to make sure that the vacuum circuit is completely empty. If any solder remains are left on any terminal after attempting to desolder it, resolder it with fresh solder and repeat the desoldering operation.

Desoldering process

Use the tip model with a larger diameter than the pad to be desoldered, so as to achieve maximum aspiration and thermal efficiency.

- 1 Apply the desoldering iron tip so that the component terminal penetrates within its orifice.
- 2 When the solder liquefies, start gently to rotate the desoldering tip so that the component's terminal can be eased away from the sides.
- 3 Press then, not before, the vacuum pump push-button just long enough to aspirate the solder.

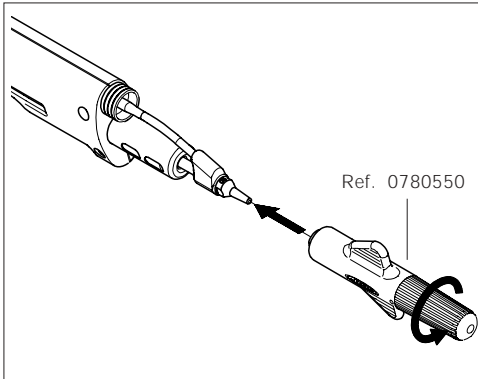
**DESOLDERING TIPS**

	5600-011	5600-012	5600-013	5600-001	5600-002	5600-003	5600-004	5600-005	5600-006	5600-007
<b>5600</b>	<b>001 / 011</b>	<b>002 / 012</b>	<b>003 / 013</b>	<b>004</b>	<b>005</b>	<b>006</b>	<b>007</b>			
<b>A ø (mm)</b>	1.4	1.8	2.7	3.2	3.4	4.2	4.8			
<b>B ø (mm)</b>	0.6	0.8	1	1.3	1.6	2	2.5			
<b>max. pin ø (mm)</b>	0.4	0.6	0.8	1.1	1.4	1.7	2.3			

## Change of desoldering tip

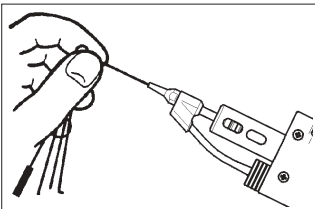
This operation should be done while the tip is hot, at a minimum temperature of 482°F, so that any tin left inside is in molten state.

- Unscrew the tip to be replaced, with the aid of the spanner supplied.
- Fit the new tip, and tighten up with the spanner to achieve a good air tightness.



## Tip care

- The largest rod that fits in the tip hole should periodically be passed through in order to clean the intake tube.



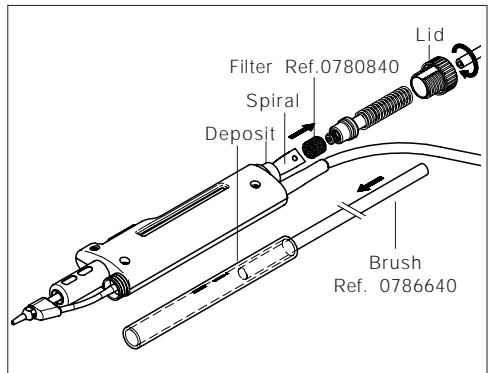
- To clean the tips, use the sponge included with the stand and check it is slightly moistened. Only deionised water (car battery water) should be used in order to wet the sponge. If normal water was to be used, it is very likely that the tip will become dirty due to the salts dissolved within the water.
- Do not file the tips or use abrasive tools which may damage the tip's protective surface coating and avoid knocking them about.
- If the tip has been a long time without being tinned, use a metal brush to remove any dirt and oxid.

**IMPORTANT:** DO NOT press the pushbutton vacuum pump while tinning the desoldering tip, as the fumes given off by the flux would quickly soil the ducts and filter of the air circuit.

## To empty the solder tin deposit and change the filter

For this, the lid needs to be unscrewed and first the tin deposit and then its spiral must be removed to clean the inner part of the deposit with a brush.

- The condition of the filter must be checked and replaced if dirty or damaged.
- The deposit needs to be inserted with spiral filter put into place. Then the whole must be closed by screwing the lid shut.



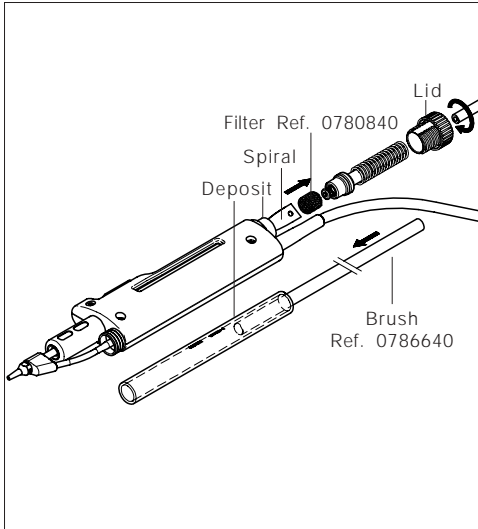
## Solder tin deposits

It can be chosen between two different deposit types:

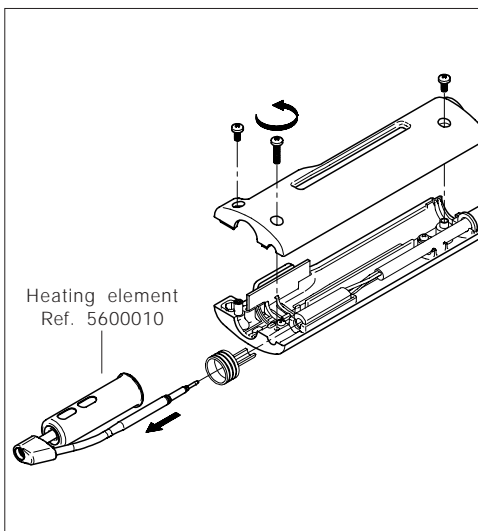
- Metal Ref. 0812630.
- Glass Ref. 0812620.

## Change of the heating element of the desoldering iron (Ref. 5600010)

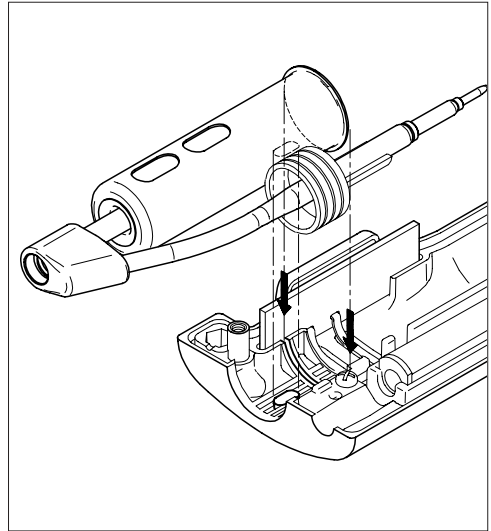
- To realize this operation, the lid needs to be unscrewed and first the tin deposit and then its spiral and filter must be removed to clean the inner part of the deposit with a brush.



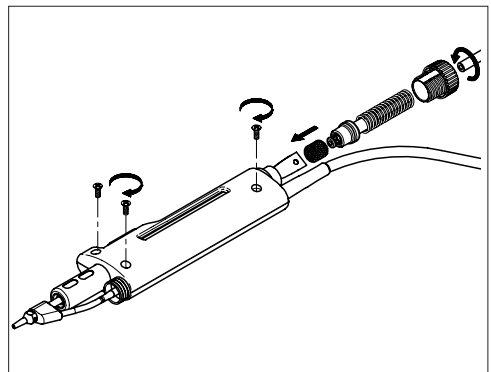
- Screw out the body of the desoldering iron. Open up the body and remove the heating element.



- Place the new heating element. Check that the right extremity of the upper part of the heating element is inserted in the slot located inside the body of the desoldering iron (see drawing hereunder).



- Screw in the body of the desoldering iron. Put the spiral and the filter back into the deposit. Place the deposit inside the body of the desoldering iron and screw in the shut lid.



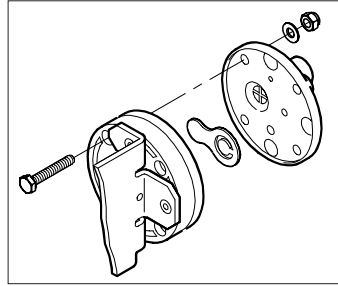
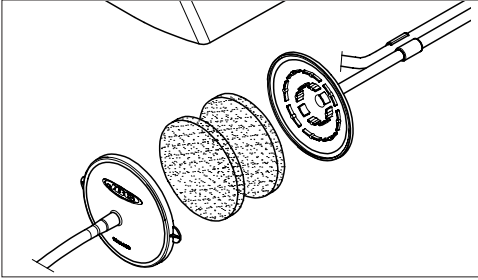
## Changing the pump inlet filter

Verify the filter at the entrance of the pump, and change it if dirty or obstructed, therefore:

Open the filter pulling the flap.

Take out the 2 cotton filters, throw away those which are soiled and replace them with new ones. Always use 2 filters.

Close the filter and check the airtightness.

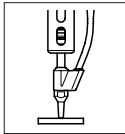


- Clean the valve with a cloth dampened in alcohol. If it is too soiled, replace it with new one. Ref. 0982970.

## Detecting air leaks in the circuit

To detect air leaks in the circuit:

- Obstruct the tip inlet orifice by pressing down on a silicone disc, or bend the tube connecting the desoldering iron to the filter.



- Press the pushbutton vacuum pump.

If the red led lights up, there is no loss of suction. Otherwise air gets into the system at some point. This can occur at the desoldering tip, or may be caused by the lid of the deposit, lids of filters or because the air pump does not function correctly due to dirty valves which occurs when the air filter has not been used correctly.

## Cleaning the vacuum pump valve

Open the control unit as follow:

- Disconnect the control unit.
- Turn it upside down, remove the fixing screws.
- Return the station to its normal position and lift up the lid.
- Undo the four screws fastening the pump cover.

PICK & PLACE PEN MP 2260

The pick & place pen **MP 2260** ref. 2260000 for the placing of SMD is also delivered with the **AM 6000**.

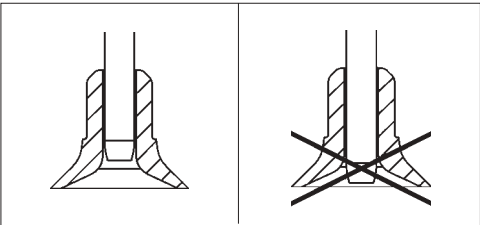
The pen is connected to the plug VACUUM of the station. Please find the connection plan on page 1. A set of straight and bent needles as well as a set of different sized suction needles cups is delivered with the station:

- Set of suction cups Ref. 0940163
- Set of straight needles Ref. 0901546
- Set of bent needles Ref. 0861660

The suction cups can be adjusted to the needles in order to make the placement of SMD of different sizes on boards easier.

These accessories allows the adjustment to weight and size of any type of component.

When you assemble the suction cup with the needle, you should avoid the needle to stick out of the lower part.

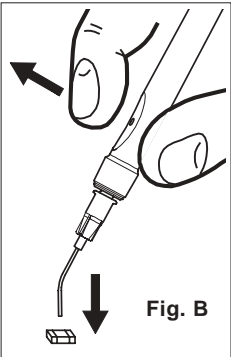
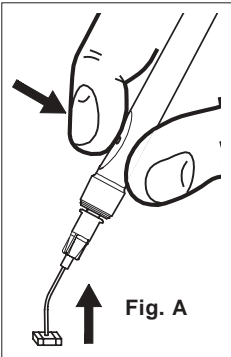


Component pick-up (Fig. A)

Place the needle tip on the component and block the control orifice with the first finger of the other hand so that the component may be held to the needle by suction.

Component placing (Fig. B)

Place the component in position on the printed circuit. Remove your finger from the orifice allowing air to enter whereby the component will be released in the desired position.

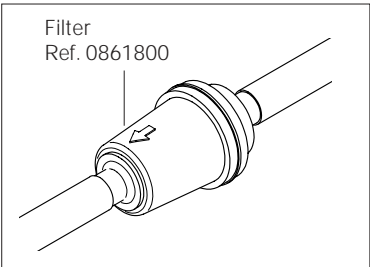


Faults and remedies

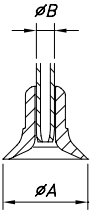
We list below the most frequent faults and the possible remedies which you yourself may be able to apply. In any case, the JBC technical assistance service will attend to you if required.

Insufficient suction

The tubes have to be checked for possible air escapes and the correct connection of the tubes to their terminals must be observed. Check the incoming air filter in the interior of the station and replace it if dirty or obstructed.



If in spite of this the suction is insufficient, the self-contained vacuum pump should be checked.

CUPS Ref.: 0940163		STRAIGHT NEEDLES Ref.: 0901546		BENT NEEDLES Ref.: 0861660	
	Ø A mm	COLOR	Ø B mm	COLOR	Ø B mm
	2 x 4,3	BLACK	2 x 0,7	GREEN	2 x 0,8
	2 x 7	YELLOW	2 x 0,9	YELLOW	2 x 0,9
	2 x 10	PINK	2 x 1,2	PINK	2 x 1,2



## HANDPIECES 2210 AND 2245

The station **AM 6000** includes the following products:

- Handpiece **2245** ref. 2245000 with the cartridge **2245-003** Ref. 2245003. Power: 50W. For general soldering work.
- Soldering iron stand **AD 8200** ref. 0268200.
- Set of accessories ref. 0780593 with cartridge **2245-007** Ref. 2245007. It can be chosen from a wide range of different cartridges **2245** to adapt perfectly to the needs of the job (pag. 30).

The following soldering handpiece can be connected to the **AM 6000** station:

- Handpiece **2210** ref. 2210000. Power: 20W. For high precision work, SMD etc. Available cartridges **2210**: see page 31.

One version of soldering iron handpiece covered with heat isolater is available:

- **2245** Thermo-isolated handpiece ref. 2245110.

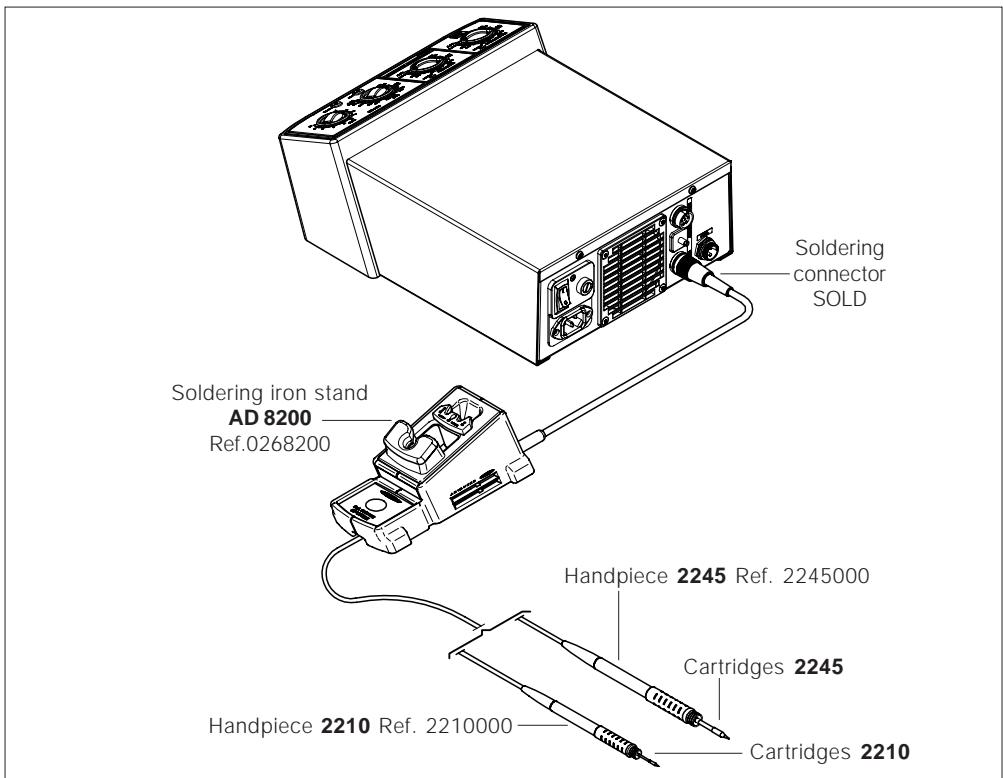
These articles are not delivered with the station.

The handpieces and cartridges **2210** and **2245** comply with the MIL-SPEC-2000 referring to the potential difference between the soldering tip and ground connection, must be less than 2 mV.

For a soldering handpiece to work properly, the following components are required: control unit, soldering iron stand, one handpiece and one cartridge.

The soldering iron is connected to the station in the following way:

The cable connection of the soldering iron is connected to the plug in the soldering iron stand AD 8200 and the cable connection of the soldering iron stand is plugged into the terminal SOLD of the station. Please find the connection plan on figure.



## OPERATION

### LED lights

**Red LED -ON-** when lit, it indicates that the station is plugged in the mains.

**Green LED -READY-** when lit, it indicates that the system is ready and correctly set for working.

The green led light is on after a few seconds, is the time needed to carry on the self-checking system.

The green light is pulsing when the soldering iron is in sleep mode.

If the green led is not lit, the reason why, will be one of the following:

1. The handpiece or the cartridge are not plugged in.
2. The maximum available power has been exceeded for too long - e.g. in a very thick soldering at the high repetition rates.
3. The handpiece or cartridge has a short circuit or an open circuit.
4. Any other trouble preventing the system from working properly.

The green led goes off when the cartridge tip touches the extractor and the station stops the power supply.

The handpiece will reset itself automatically should the cartridge short circuit or go open circuit.

Should the handpiece be subject to:

- An electrical surge or the cartridge has not been fitted correctly.

Please turn the unit off and switch on again to reset.

Only for users of AC 2600 console ref. 2600000.

If you lock the working temperature thanks to the console, the green LED -READY- will remain on while the dial is set at the locked temperature.

If the dial is not set at the locked temperature, the green LED -READY- will be blinking. The farther the dial will be set from the locked temperature the slower the blinking pace will be.

### Sleep function

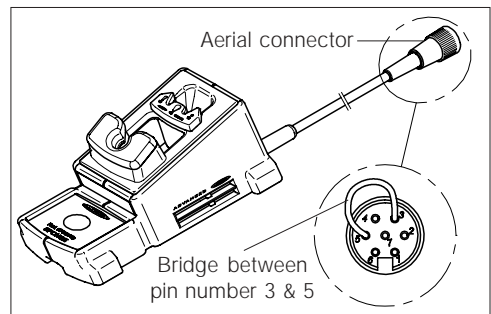
One of the Series Advanced features is that when the handpiece is placed in the holder, the temperature at the tip drops automatically to the sleep temperature. This function is only possible because of the quick response time which does not make the user realise the temperature rise to reach the selected temperature. Also by this, the oxidation of the tinning of the tip is considerably reduced and tip life is extended.

To indicate that the soldering iron is in sleep-mode, the green led starts pulsing. These parameters can be modified using the **Console AC 2600** Ref. 2600000.

**In order to take advantage of the above mentioned feature and as a security measure, it is necessary to place the handpiece on stand when the iron is not being used.**

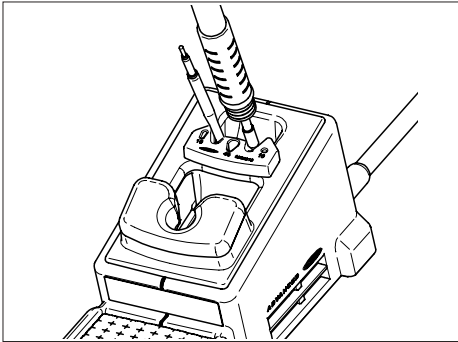
When connecting an old version solder stand, it may happen that the sleep function does not work.

To resolve this problem, you should make a bridge between pins number 3 and 5 from the aerial connector of the cable of the stand, that plugs in the station.

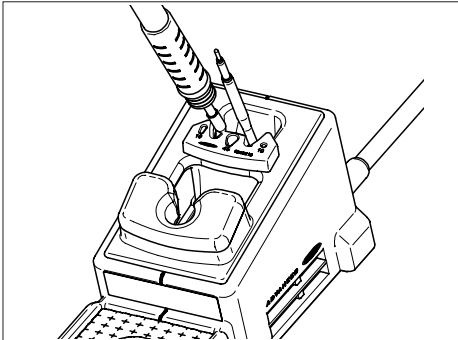


## Changing the handpiece's cartridge

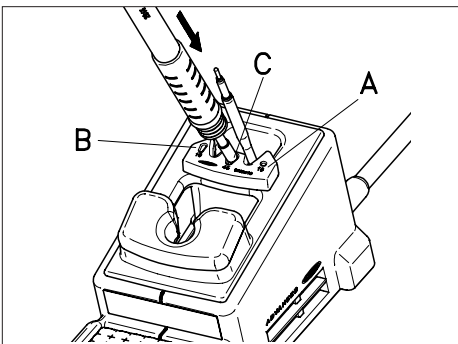
With the Advanced system, the cartridge can be changed quickly, without turning off the station, so you have two soldering irons in one. Here is what to do to change the cartridge:



**1** - Place the handpiece and remove the cartridge.

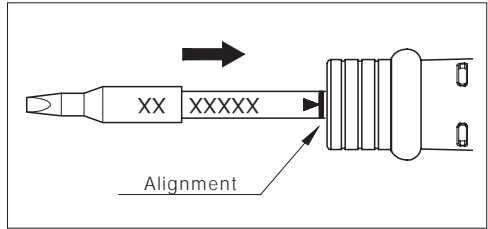


**2** - Place the handpiece on top of the new cartridge, press it slightly down and remove the handpiece.



**3** - Press the cartridge into the opening A, B or C:

- A. For straight cartridges 2210.
- B. For curved cartridges 2210.
- C. For cartridges 2245.



### Important.

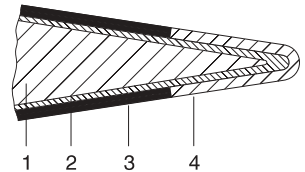
- It is essential to insert the cartridge till the end for a good connection. Take the mark ► as a reference.

### Advanced series cartridge

Cartridge is made of the heating element which has the heating system, temperature sensor and long life tip.

Long-life tip is basically made of:

- 1 Copper
- 2 Iron
- 3 Chromium
- 4 Tin plate



### Long-life tip care

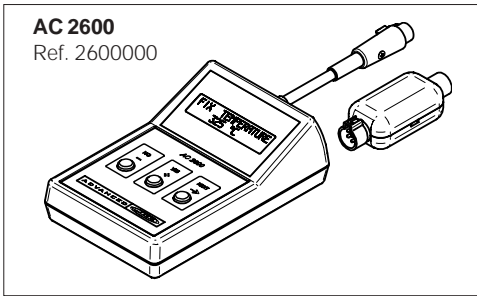
Except for the copper core, the rest of metals are placed galvanically on layers relatively thin, so it is necessary to avoid the reasons which can cause its destruction.

To clean the tips, use the sponge included with the stand and check it is slightly moisted.

Only deionised water (car battery water) should be used in order to wet the sponge. If normal water was to be used, it is very likely that the tip will become dirty due to the salts dissolved within the water.

To re-tin the soldering tips, we recommend using the tip tinner/cleaner TT 9400 ref. 9400000.

## Console AC 2600



The console **AC 2600** is designed for modifying the original regulation program parameters of the following Advanced control units:

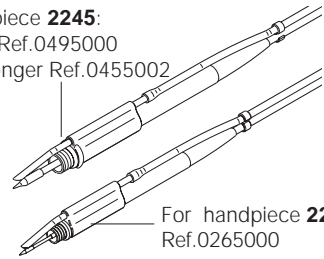
- **AD 2000** soldering station.
  - **AD 2200** soldering station.
  - **AD 4200** and **AD 4300** dual soldering stations.
  - **AR 5500, AR 5800 (\*)** and **DS 5300 (\*)** desoldering stations.
  - **AM 6000** and **AM 6500 (\*)** rework stations.
- (\*) These stations need a console whose program version is 4.0 or higher.

Changes available to perform:

- Fixing the the working temperature.
- Selection of temperature units in Celsius grades -°C- or Fahrenheit -°F-.
- Modification of sleep temperatures and standby times.
- Adjustment of temperature.
- Set the parameters back to the original parameters.
- Read-out data:
  - Working hours.
  - Sleep cycles and sleep hours.
  - Cartridge and iron changes.
  - Program version.

## Fume extractor accessories

For handpiece **2245**:  
Standard Ref.0495000  
+20mm longer Ref.0455002



Specially designed for the Advanced Series handpieces 2210 and 2245. Easily clips onto the handpiece and can be quickly removed for easy maintenance.

# HOT TWEEZERS

**AM 6000** station allows to connect two different models of tweezers, each one with its respective range of cartridges and stand:

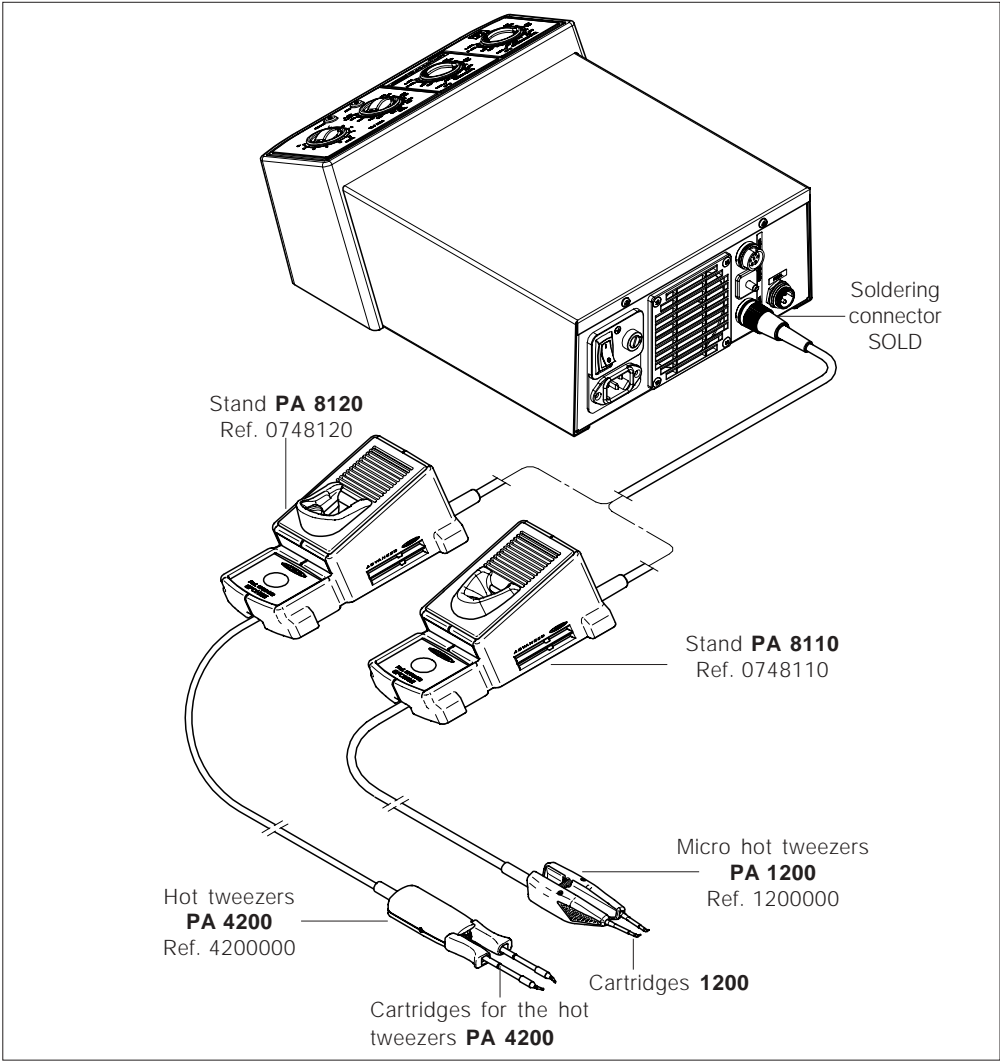
- Micro hot tweezers **PA 1200** ref. 1200000.
- Hot tweezers **PA 4200** ref. 4200000.

These articles are not delivered with the station.

For tweezers to work properly, the following components are required: control unit, hot tweezers, a stand and a set of cartridges corresponding to the chosen tweezer.

The tweezers are connected to the station in the following way:

The cable connector of the tweezers is plugged into the connector of the stand. The cable connector of the stand is connected to the terminal **SOLD** of the station. Please find the connection plan on figure.



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## OPERATION

### LED lights

**Red LED -ON-** when lit, it indicates that the station is plugged in the mains.

**Green LED -READY-** when lit, it indicates that the system is ready and correctly set for working.

The green led light is on after a few seconds, is the time needed to carry on the self-checking system.

The green light is pulsing when the hot tweezers are in sleep mode.

If the green led is not lit, the reason why, will be one of the following:

1. The hot tweezers or the cartridge are not plugged in.
2. The maximum available power has been exceeded for too long - e.g. in a very thick soldering at the high repetition rates.
3. The hot tweezers or cartridge has a short circuit or an open circuit.
4. Any other trouble preventing the system from working properly.

The hot tweezers will reset itself automatically should the cartridge short circuit or go open circuit.

Should the hot tweezers be subject to:

- An electrical surge or the cartridge has not been fitted correctly.

Please turn the unit off and switch on again to reset.

Only for users of AC 2600 console ref. 2600000.

If you lock the working temperature thanks to the console, the green LED -READY- will remain on while the dial is set at the locked temperature.

If the dial is not set at the locked temperature, the green LED -READY- will be blinking. The farther the dial will be set from the locked temperature the slower the blinking pace will be.

### Sleep function

One of the Series Advanced features is that when the hot tweezers are placed in the holder, the temperature at the tip drops automatically to the sleep temperature. This function is only possible because of the quick response time which does not make the user realise the temperature rise to reach the selected temperature. Also by this, the oxidation of the tinning of the tip is considerably reduced and tip life is extended.

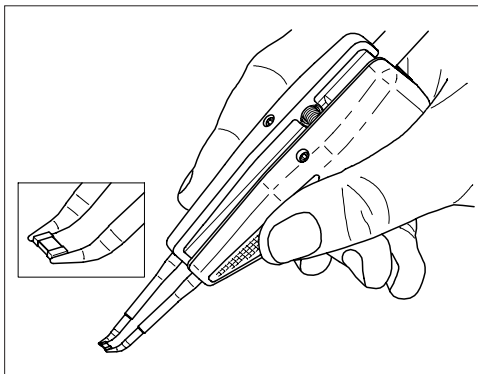
To indicate that the hot tweezers are in sleep-mode, the green led starts pulsing. These parameters can be modified using the **Console AC 2600** Ref. 2600000.

**In order to take advantage of the above mentioned feature and as a security measure, it is necessary to place the hot tweezers on stand when the iron is not being used.**

## MICRO HOT TWEEZERS PA 1200

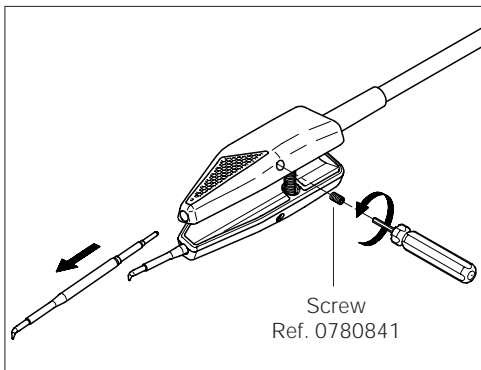
For micro hot tweezers to work properly, the following components are required:

- Control unit.
- Micro hot tweezers **PA 1200** ref. 1200000. For general precision desoldering with SMD components.  
Power: 40W.  
Effective power per cartridge fitted: 20W.
- Stand **PA 8110** ref. 0748110.
- A set of cartridges (see range).



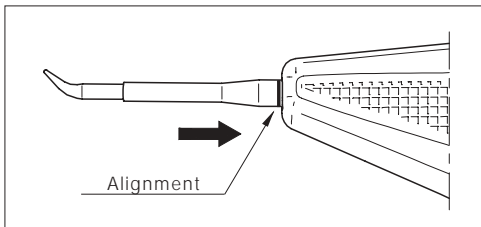
### Changing the cartridge

To extract the cartridge the screw needs to be unfastened and the cartridge pulled out. Insert the new cartridge and push it thoroughly. Then check that both tips of the tweezers coincide and screw it.



### Important.

- It is essential to insert the cartridge till the end for a good connection. Take the mark **I** as reference and check that both parts of the tweezer coincide.

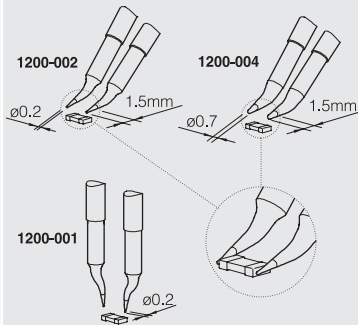


### RANGE OF CARTRIDGES

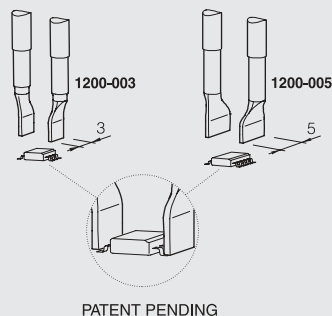
**PA 1200** has an individual temperature control for each cartridge so it is supplied individually.

#### 1200

##### CHIP COMPONENTS



##### IC COMPONENTS



PATENT PENDING

All the cartridges shown are actual size.

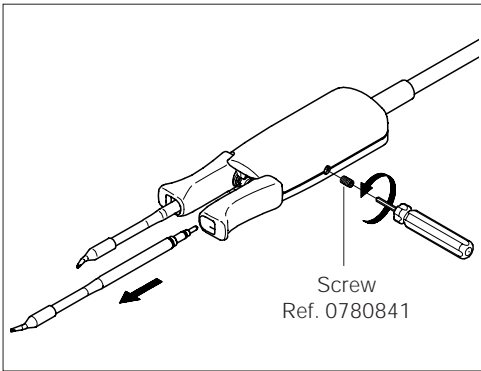
**HOT TWEEZERS PA 4200**

For hot tweezers to work properly, the following components are required:


- Control unit.
- Hot tweezers **PA 4200** ref. 4200000. For general desoldering and soldering work in professional electronics.  
Power: 100W.  
Effective power per cartridge fitted: 50W.
- Stand **PA 8120** ref. 0748120.
- A set of cartridges (see range).

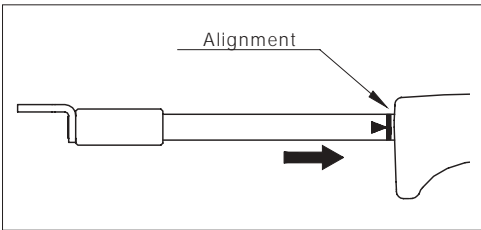
**Changing the cartridge**

To extract the cartridge the screw needs to be unfastened and the cartridge pulled out. Insert the new cartridge and push it thoroughly. Then check that both tips of the tweezers coincide and screw it.



**Important.**

- It is essential to insert the cartridge till the end for a good connection. Take the mark  as reference and check that both parts of the tweezer coincide.



**RANGE OF CARTRIDGES**

**PA 4200** has an individual temperature control for each cartridge so it is supplied individually.

**Chip components**

Ref.	A mm
2245-271	1,5
2245-272	2,5

Ref.	A mm
2245-273	4,0
2245-274	6,0
2245-275	8,0
2245-276	10,0
2245-277	15,0
2245-278	20,0

**QFP and PLCC**

Ref.	A mm
2245-279	8,0
2245-280	11,0

**Cable stripper**

Ref.	A mm
2245-281	3,5 max
2245-282	

PATENT PENDING

JBC reserves the right to make technical changes without prior notification.



# ADVANCED SERIES



## AD 2200

Soldering stations for specialized use with SMD components assemblies.



## AR 5500

Desoldering station which enable the rapid desoldering of all kinds of insertion components.



## JT 7000

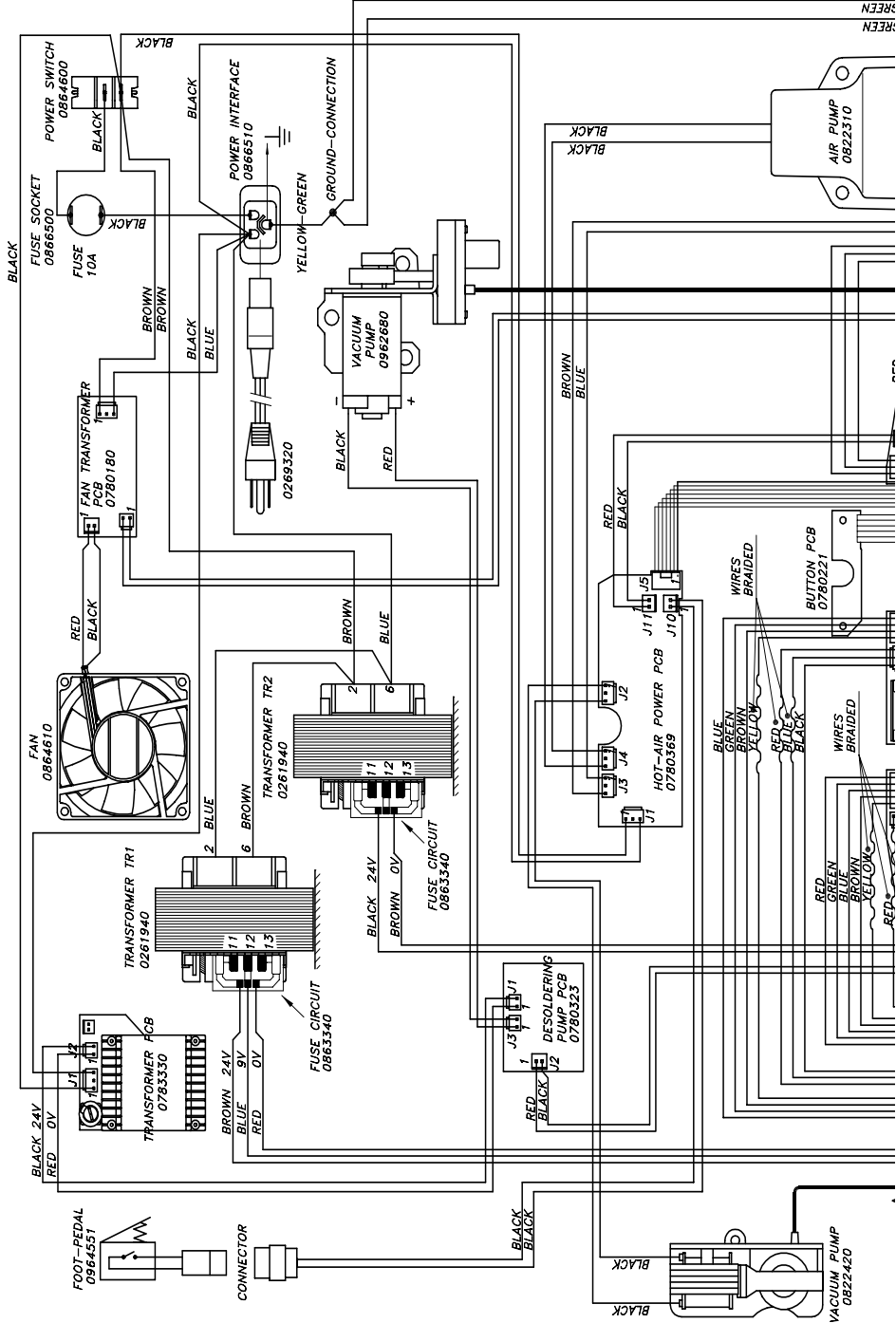
Hot-air flow repair station for desoldering all types of SMD's particularly QFPs and PLCCs of any size.

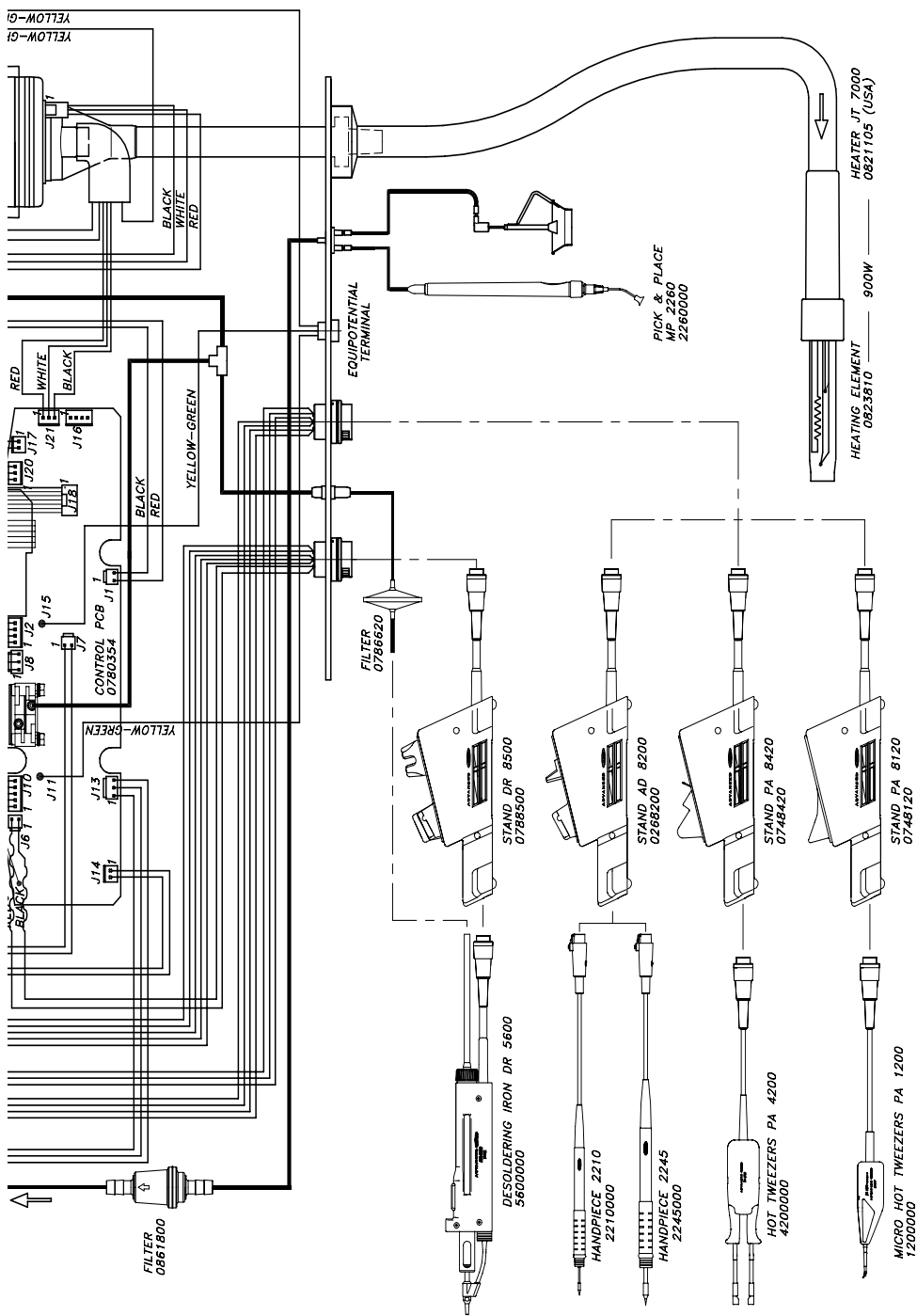


## TE 5000

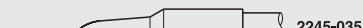
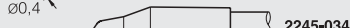
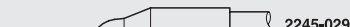
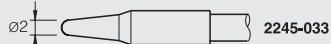
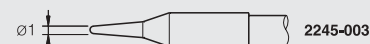
Hot-air flow repair station designed for soldering and desoldering small and medium-sized SMDs.

# ELECTRIC WIRING DIAGRAM





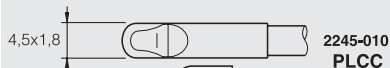




\* The total length of these cartridges is 20mm longer in order to reach areas of difficult access

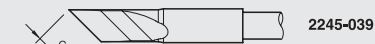


## TO SOLDER SMT IC

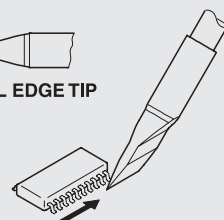


Ref.	ØA
2245-031	2,5
2245-038	3,5

## FINE PITCH

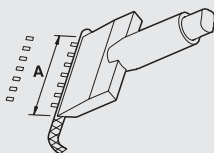


## BEVEL EDGE TIP



All the cartridges shown are actual size.

PATENT PENDING



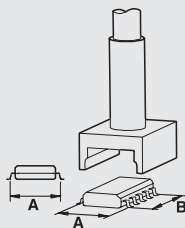
#### BLADE TYPE

Ref.	A
2245-014	10
2245-013	21



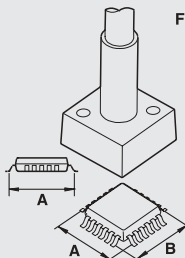
#### FOR CHIP COMPONENTS

Ref.	A
2245-016	1,9
2245-017	2,2
2245-018	3,4
2245-019	4,5



#### TUNNEL TYPE FOR DUAL IN LINE IC

Ref.	A	B
2245-020	5,9	6,0
2245-021	5,9	10,0
2245-022	7,5	12,0
2245-015	9,6	18,0
2245-026	14,6	28,4

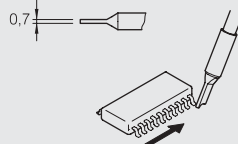
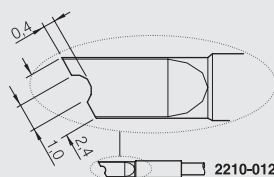
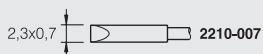
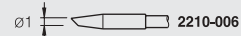
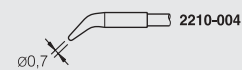
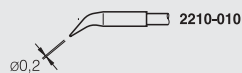
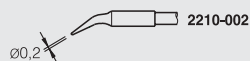
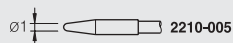
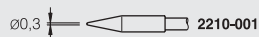
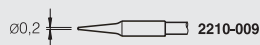


#### FOR IC'S: QFP AND PLCC

Ref.	A x B
2245-023	8,5 x 8,5
2245-024	12,0 x 12,0
2245-028	12,4 x 15,0
2245-027	17,5 x 17,5

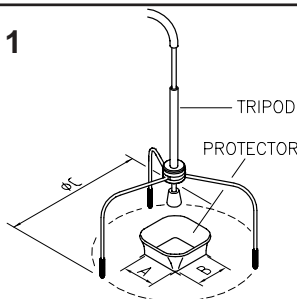
## 2210

Ref. 2210-001



## PROTECTOR

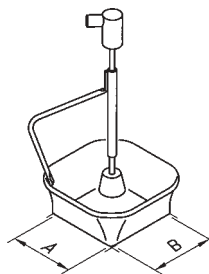
Fig. 1



PART N°	A mm (inches)	B mm (inches)
0934035	9 (0.354")	13 (0.511")
0934040	9.5 (0.374")	19 (0.748")
0934080	9.5 (0.374")	21 (0.826")
<b>*32</b> / 0932220	10 (0.393")	10 (0.393")
0934045	10.5 (0.413")	21 (0.826")
0934090	11 (0.433")	16 (0.629")
<b>*24</b> / 0932235	12 (0.472")	17 (0.669")
<b>*44</b> / 0934000	12.5 (0.492")	12.5 (0.492")
0934025	13.5 (0.531")	21.5 (0.846")
<b>*48</b> / 0932230	15 (0.590")	15 (0.590")
<b>*60</b> / 0934010	17 (0.669")	17 (0.669")
0934030	18.5 (0.728")	18.5 (0.728")
<b>TRIPOD</b>	ø C mm (inches) —	
<b>*20</b> / 0932050	39 (1.535")	
<b>*40</b> / 0932250	85 (3.346")	

## EXTRACTOR

Fig. 2



PART N°	A mm (inches)	B mm (inches)
<b>*52</b> / 0932052	20 (0.787")	20 (0.787")
<b>*64</b> / 0932064	20 (0.787")	26 (1.023")
<b>*80</b> / 0932184	24 (0.944")	24 (0.944")
<b>*68</b> / 0932068	27 (1.062")	27 (1.062")
0934020	28.5 (1.122")	28.5 (1.122")
0934015	31.5 (1.240")	31.5 (1.240")
<b>*84</b> / 0932084	33 (1.299")	33 (1.299")
<b>100</b> / 0932100	38 (1.496")	38 (1.496")
<b>124</b> / 0932124	45 (1.771")	45 (1.771")

### MANUAL EXTRACTOR

0932190    ø D = 7mm (0.275")

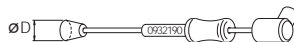
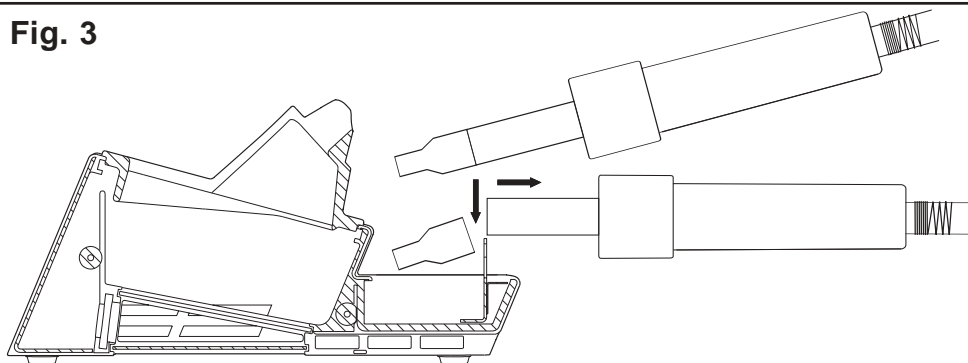


Fig. 3





## WARRANTY

## ENGLISH

The JBC 4 years warranty, guarantees this equipment against all manufacturing defects, covering the replacement of defective parts and all necessary labour.

Warranty does not cover product wear due to use or mis-use.

In order for the warranty to be valid, equipment must be returned, postage paid, to the dealer where it was purchased enclosing this, fully filled in, sheet.

SERIAL N°

STAMP OF DEALER

DATE OF PURCHASE



MANUFACTURED BY

**JBC Industrias, S.A.**

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