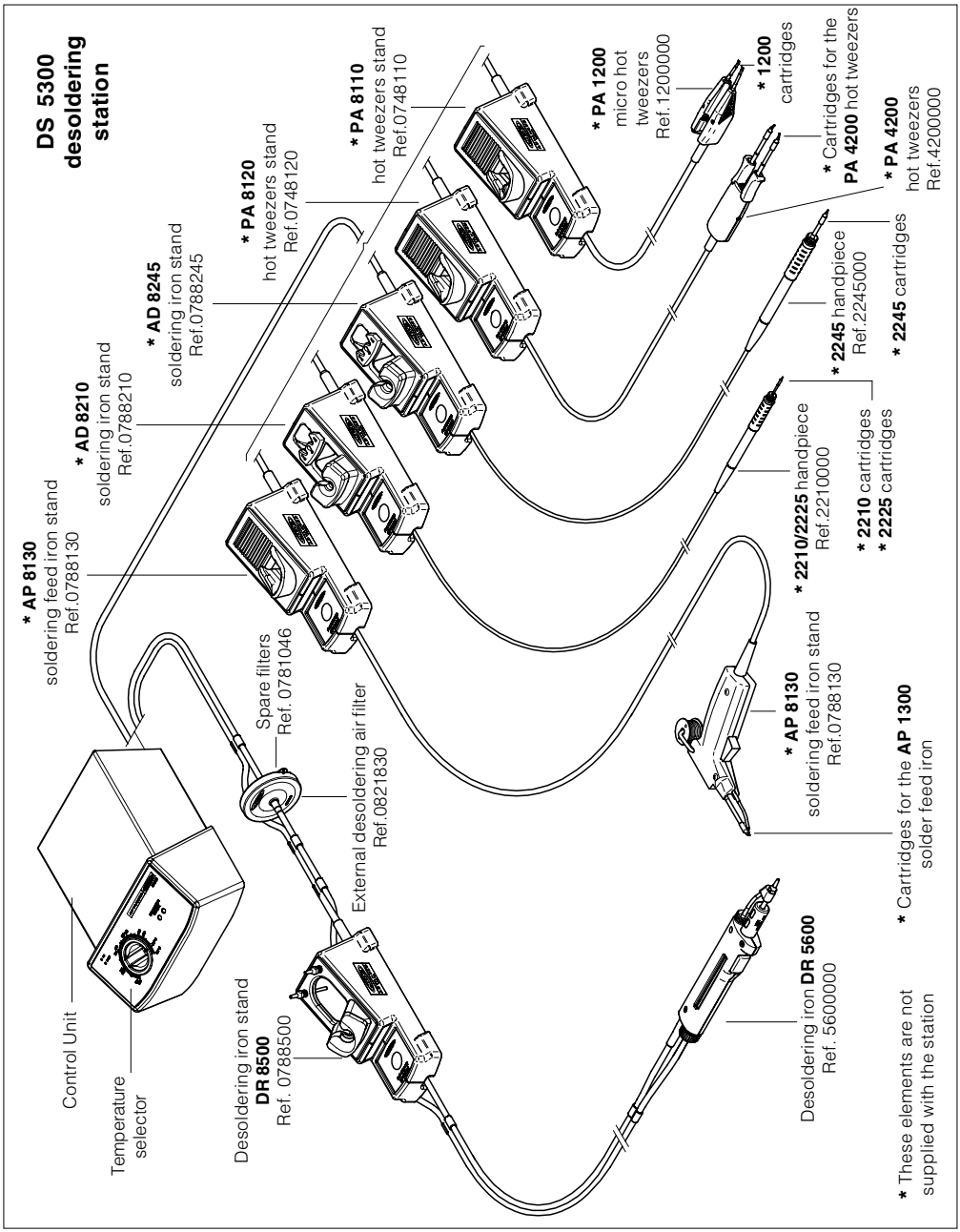
Instructions manual
US Version

DESOLDERING STATION

DS 5300

We appreciate the trust 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 read these instructions carefully.



SPECIFICATIONS

The **DS 5300** is a repair station for desoldering through-hole components by solder intake.

- **DS 5300** 120V Ref. 5300100

It is supplied with a **DR 5600** desoldering iron Advanced. Also all the Advanced soldering handpieces, the tweezers and the **AP 1300** solder feed iron can be connected to the station.

The station's components

- **DR 5600** desoldering iron Ref. 5600000
  with the **5600-003** tip Ref. 5600003
- **DR 8500** desoldering iron stand Ref. 0788500
- External desoldering air filter Ref. 0821830
- Spare filters Ref. 0781046
- Set of accessories Ref. 0780593
- Instruction manual Ref. 0780921

The **DS 5300** station has the following complementary products:

- **2210/2225** handpiece Ref. 2210000
- **2245** handpiece Ref. 2245000
- **PA 1200** micro hot tweezers Ref. 1200000
- **PA 4200** hot tweezers Ref. 4200000
- **AP 1300** solder feed iron Ref. 1300000

These articles are not delivered with the station.

Control Unit technical specifications

- Input voltage: 120V 60Hz.
- Station's maximum power: 100W.
- Maximum power desoldering iron 75W.
- Temperature selection: 200 to 700°F (±5%).
- ESD protected housing.
  Typical surface resistance: 10^{5}-10^{11}Ohms/square.
- Complies with CE standards on electrical safety, electromagnetic compatibility and antistatic protection.
- Equipotential connector and the tool tip are connected to station mains ground supply for ESD protection.
- Weight of complete unit: 17,5 lbs.

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.

Safety measures

- Incorrect use of this tool may cause fire.
- Be cautious when using the tool in places where inflamable products are stored.
- Heat can fire up inflamable 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

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 tool is in sleep mode.

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

1. The tool is not plugged in.
2. The maximum available power has been exceeded for too long - e.g. in a very thick soldering or desoldering at the high repetition rates.
3. The heating element has a short circuit or an open circuit.
4. When an AC 2600 console is connected to the station.
5. Any other trouble preventing the system from working properly.

If any of the above mentioned causes is corrected, the station will start working automatically, except if there is an excess in an energy supply. In this case, the station has to be switched off and restarted.

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

Tool in sleep mode

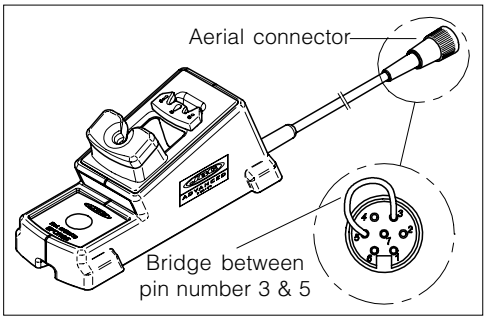
One of the Series Advanced features is that when the tool is placed in the holder, the temperature at the tip drops automatically to the sleep temperature (sleep). This function is only possible because of the quick response time which does not make the user realise the temperature rise to reach the selected temperature. Thanks to the sleep mode, oxidation levels at the tip are much lower and therefore tip life extended to 3 to 5 times under equal conditions of use.

To indicate that the tool is in sleep-mode, the green led starts pulsing.

These parameters can be modified using the **AC 2600 console** Ref. 2600000.

In order to take full advantage of the sleep function and as a security measure, it is necessary to place the tool in the stand when it 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.



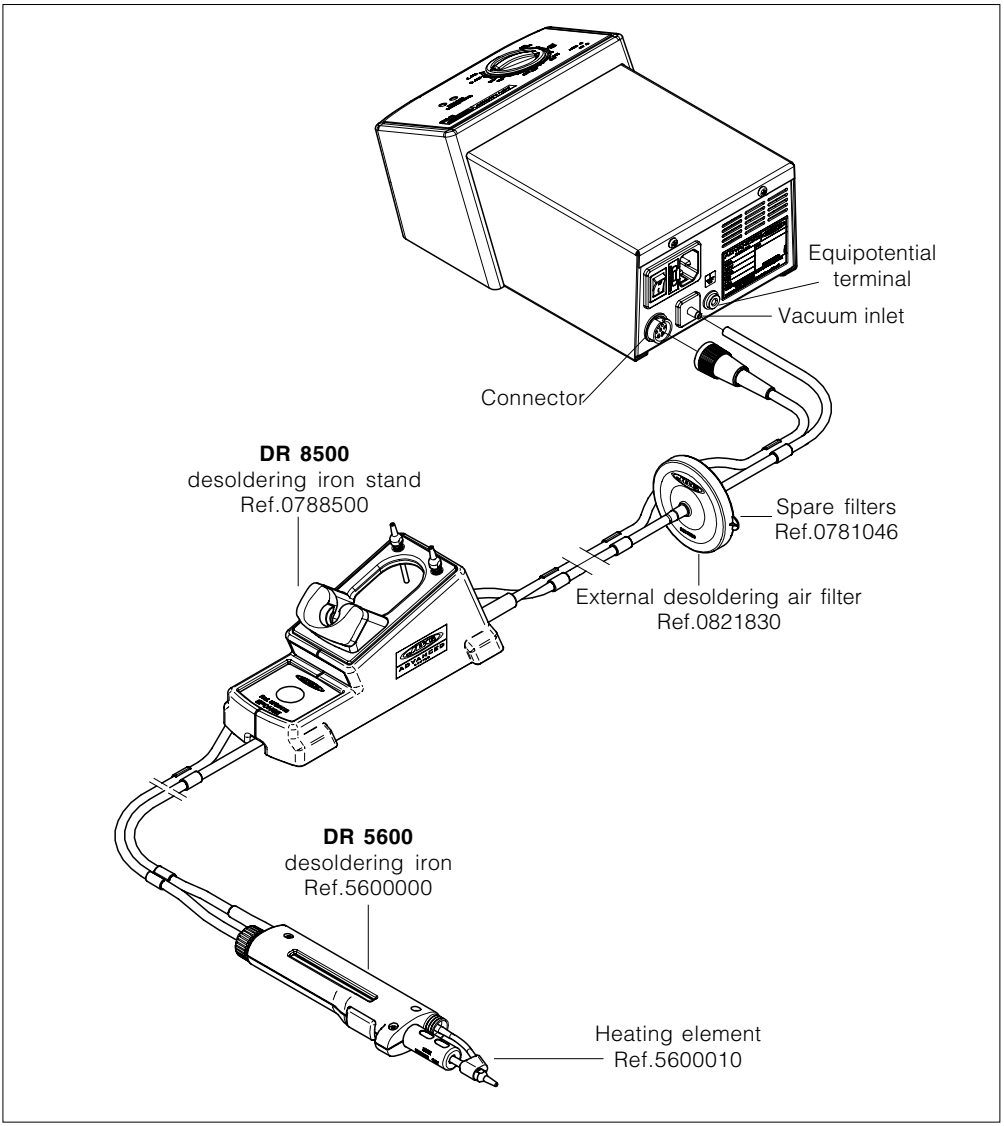
DR 5600 DESOLDERING IRON

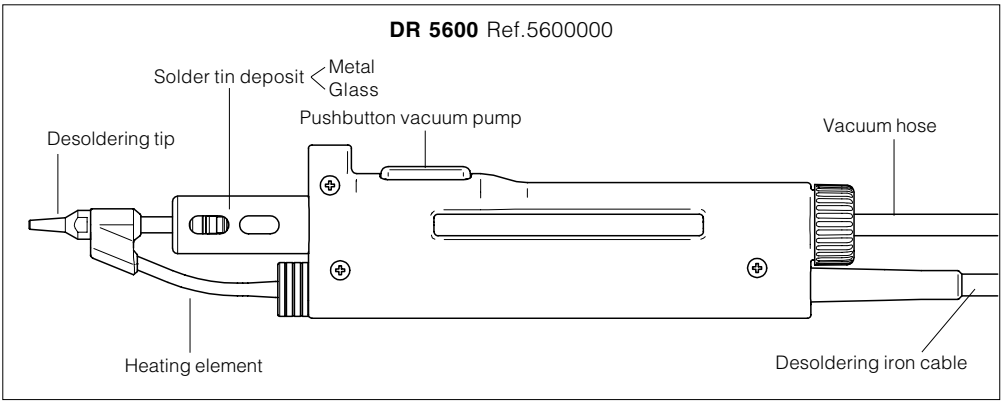
The **DS 5300** station includes the following:

- **DR 5600** desoldering iron ref. 5600000 with the **5600-003** tip ref.5600003.
  Power desoldering iron: 75W.
- **DR 8500** desoldering iron stand ref. 0788500.
- External desoldering air filter ref. 0821830.
- Set of accessories ref. 0780593 with tips for the desoldering iron: **5600-013**, **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 DR 8500 desoldering iron stand and the vacuum hose is connected to the external desoldering air filter, which is connected to the vacuum connection of the station. The cable connection of the desoldering iron stand is plugged into the terminal of the station. Very important, it is essential to connect the mentioned filter to prevent from damaging the vacuum pump.





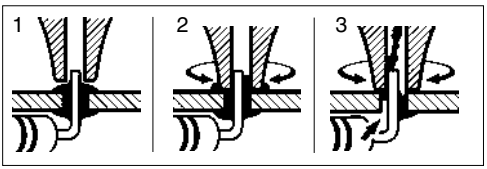
Desoldering process

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.

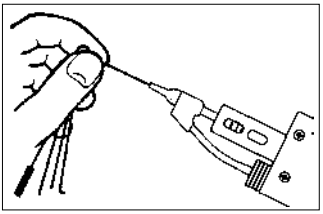


After pressing the desoldering key there is a slight delay until the self-contained vacuum pump stops, this is to make sure that the vacuum circuit is completely empty.

If any solder remains are left on any terminal after attempting to desolder it, resolder it with fresh solder and repeat the desoldering operation.

Tip care

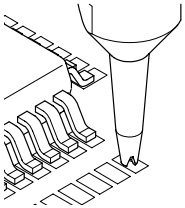
- The largest rod that fits in the tip hole should periodically be passed through in order to clean the intake tube.



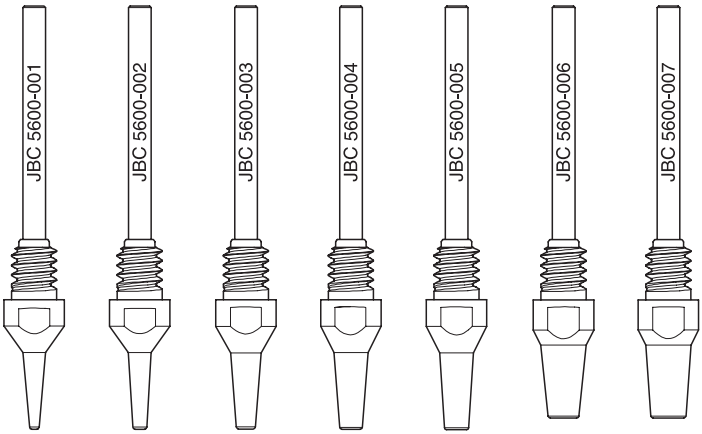
- To clean the tips, use the sponge included with the stand and check it is slightly moisted.
  Only deionised water (car battery water) should be used in order to wet the sponge.
  If normal water was to be used, it is very likely that the tip will become dirty due to the salts dissolved within the water.
- 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.

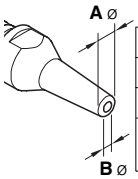
DESOLDERING TIPS



These tips are specially designed to clean the pads.



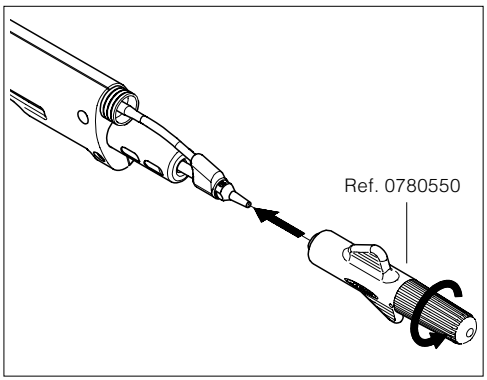
	5600-011	5600-012	5600-013				
Ref.	**5600-001**	**5600-002**	**5600-003**	**5600-004**	**5600-005**	**5600-006**	**5600-007**
5600	**001 / 011**	**002 / 012**	**003 / 013**	**004**	**005**	**006**	**007**
A ø (mm)	1.4	1.8	2.7	3.2	3.4	4.2	4.8
B ø (mm)	0.6	0.8	1	1.3	1.6	2	2.5
max. pin ø (mm)	0.4	0.6	0.8	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 250°C, so that any tin left inside is in molten state.

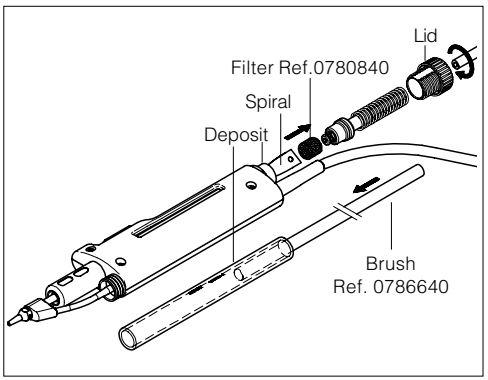
- Unscrew the tip to be replaced, with the aid of the spanner supplied.
- Fit the new tip, and tighten up with the spanner to achieve a good air tightness.



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.



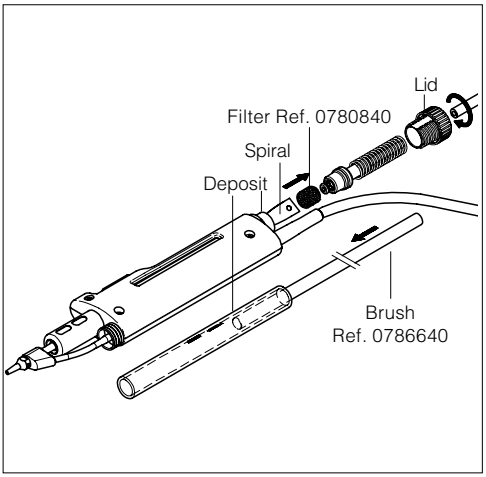
Solder tin deposits

It can be chosen between two different deposit types:

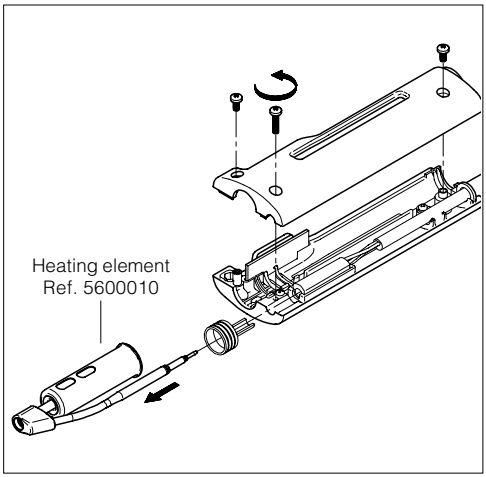
- Metal Ref. 0812630.
- Glass Ref. 0812620.

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

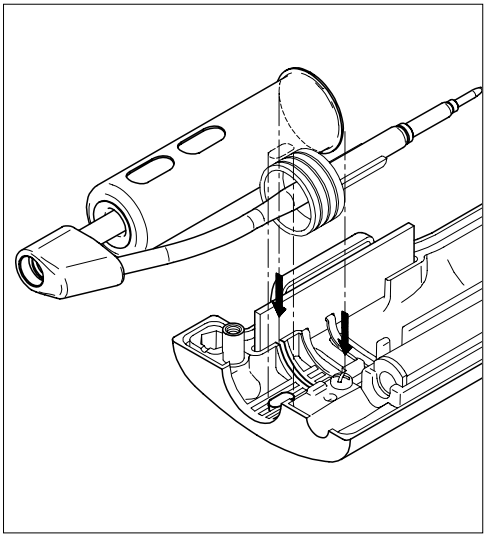
- To realize this operation, the lid needs to be unscrewed and first the tin deposit and then its spiral and filter must be removed to clean the inner part of the deposit with a brush.



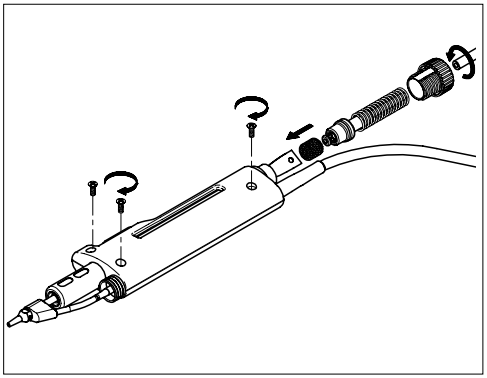
- Screw out the body of the desoldering iron. Open up the body and remove the heating element.



- 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.



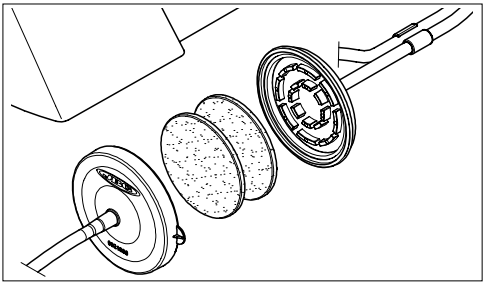
Changing the pump inlet filter

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

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.

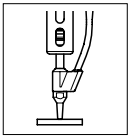
Close the filter and check the airtightness.



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.



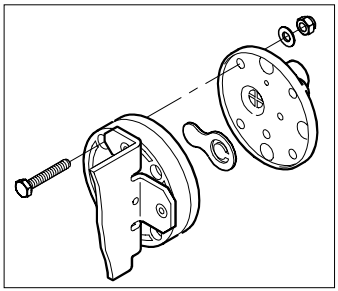
- Press the pushbutton vacuum pump.

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:

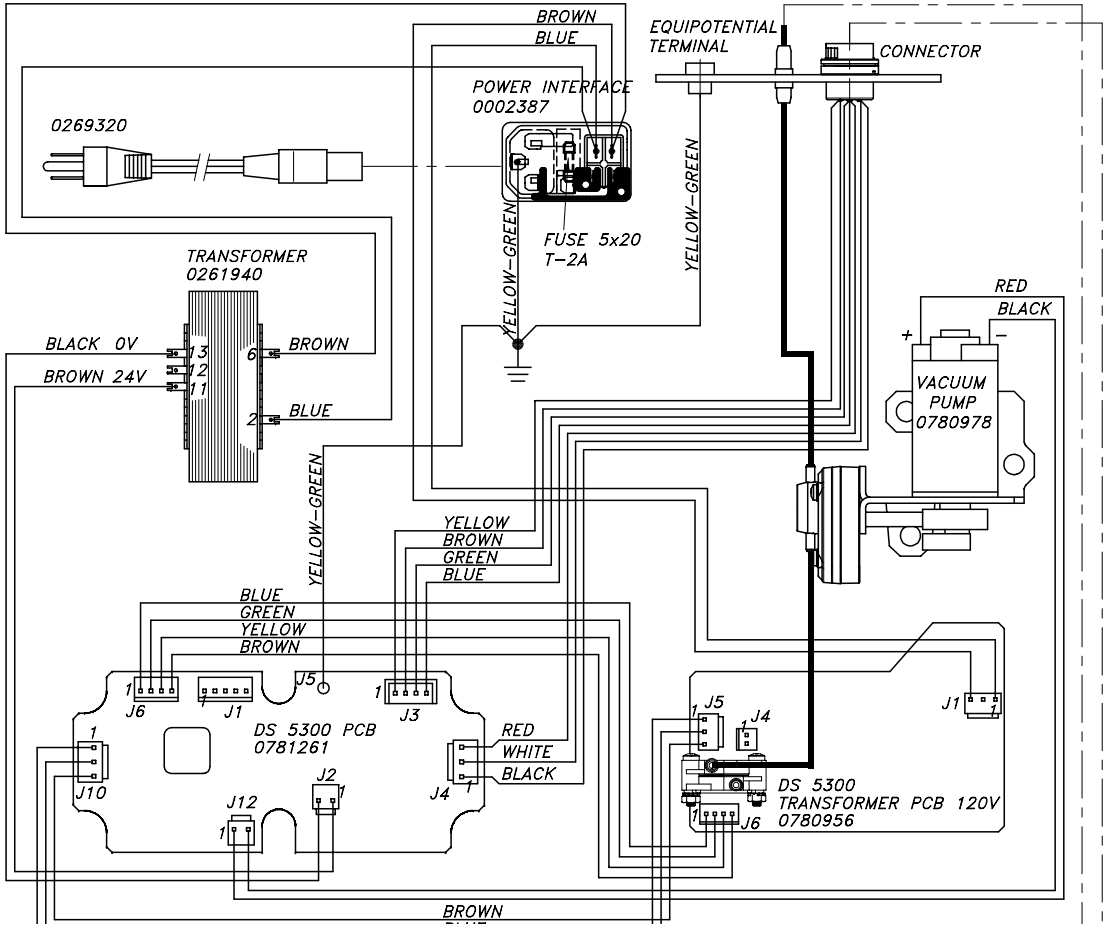
- Disconnect the control unit.
- Turn it upside down, remove the fixing screws.
- Return the station to its normal position and lift up the lid.
- Undo the four screws fastening the pump cover.

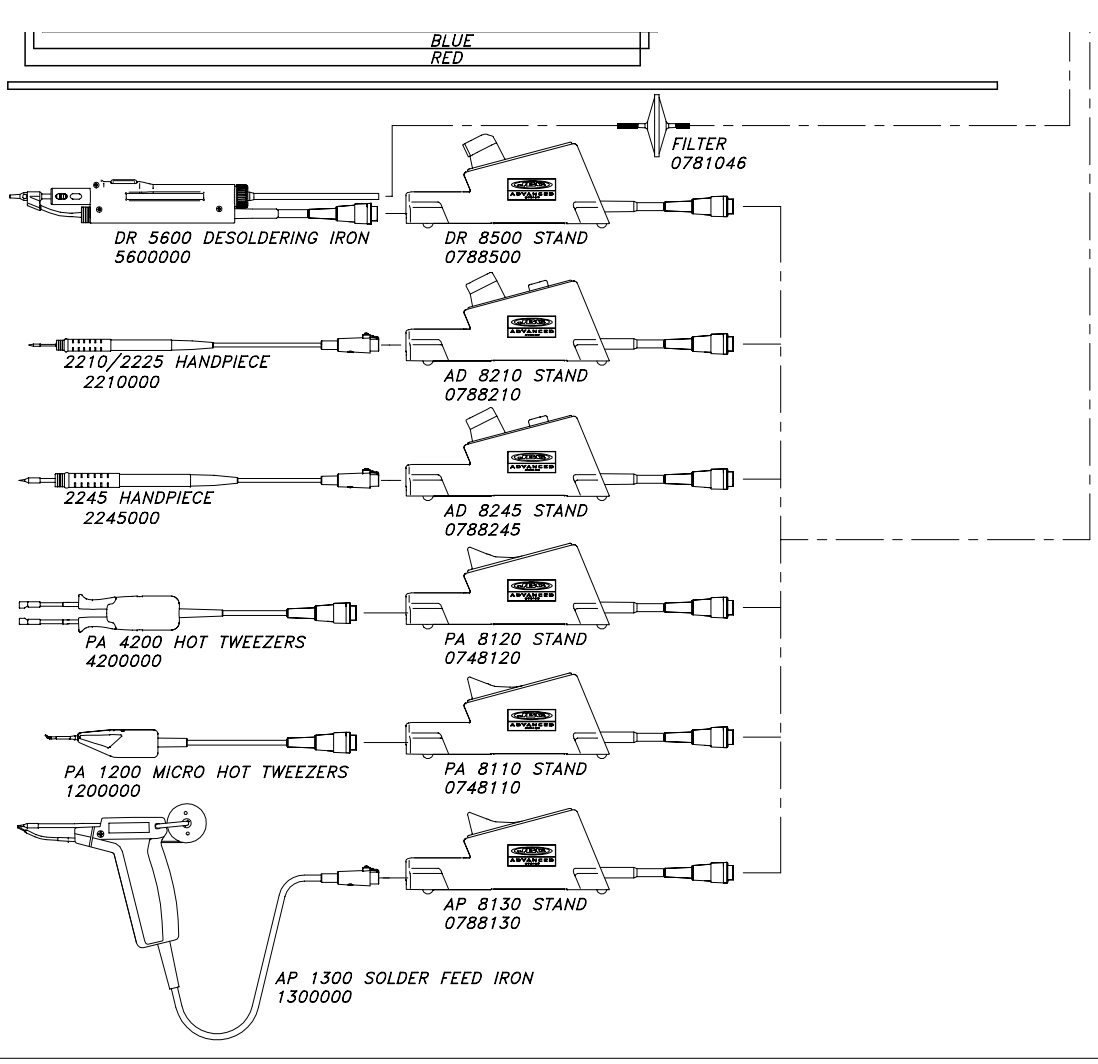


- Clean the valve with a cloth dampened in alcohol. If it is too soiled, replace it with new one. Ref. 0982970.

ELECTRIC WIRING DIAGRAM

Valid from serial n. 99763




BLUE
RED
FILTER
0781046
DR 5600 DESOLDERING IRON
5600000
DR 8500 STAND
0788500
2210/2225 HANDPIECE
2210000
AD 8210 STAND
0788210
2245 HANDPIECE
2245000
AD 8245 STAND
0788245
PA 4200 HOT TWEEZERS
4200000
PA 8120 STAND
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1200000
PA 8110 STAND
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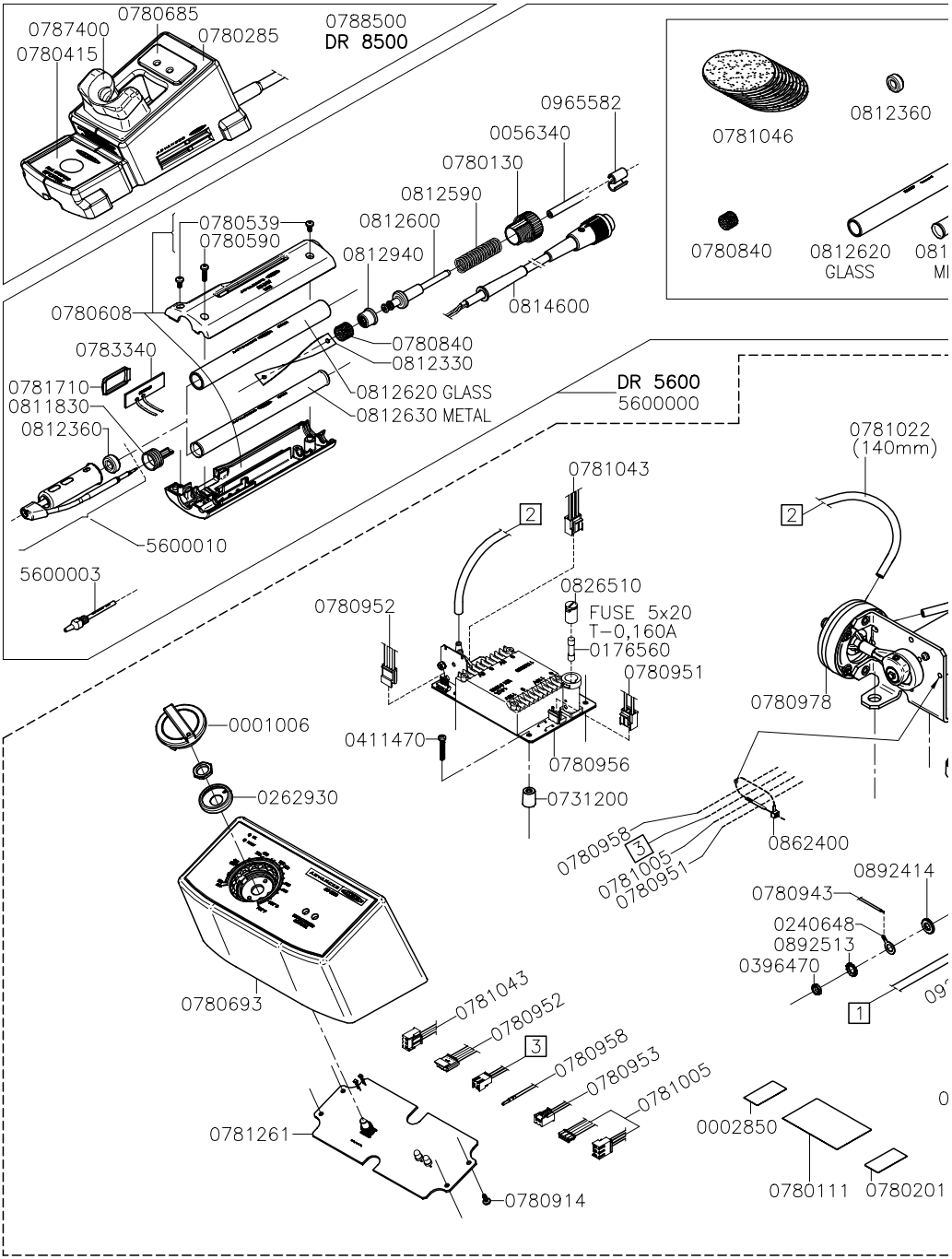
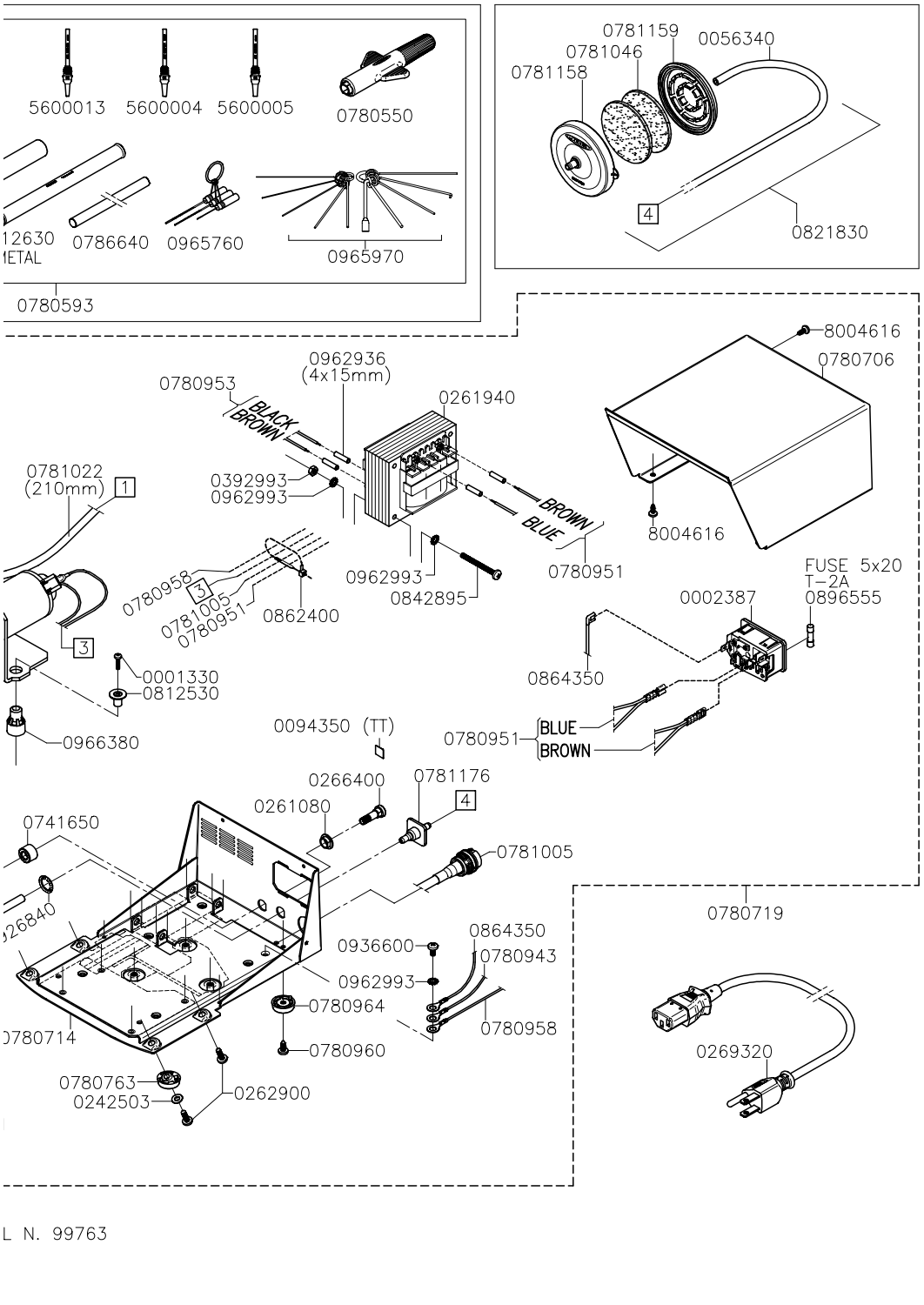
AP 8130 STAND
0788130
AP 1300 SOLDER FEED IRON
1300000



VALID FROM SERIAL


5600013
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0965760
0965970
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0056340
4
0821830
8004616
0780706
8004616
0962936
(4x15mm)
0780953
BLACK
BROWN
0261940
0781022
(210mm)
1
0392993
0962993
BROWN
BLUE
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0780958
3
0781005
0780951
0862400
0962993
0842895
FUSE 5x20
T-2A
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0002387
0864350
3
0001330
0812530
0966380
0094350 (TT)
0780951
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BROWN
0266400
0781176
4
0261080
0741650
0781005
0780719
0864350
0936600
0780943
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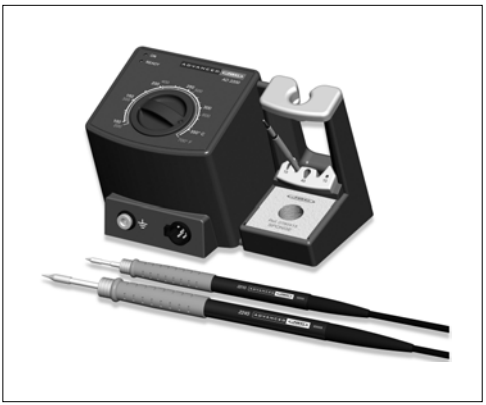
JBC ADVANCED series

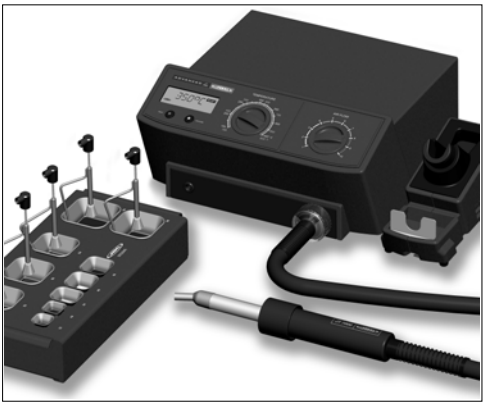


AD 2200

Soldering stations for specialized use with SMD components assemblies.

AM 6500

Station for rework and repair of through-hole and SMT boards.



JT 7000

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

TE 5000

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

JBC

WARRANTY

ENGLISH

The JBC 2 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 Nº
STAMP OF DEALER
DATE OF PURCHASE

MANUFACTURED BY
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