

HAKKO 703B

REWORK SYSTEM

Rework System

Instruction Manual

Thank you for purchasing the HAKKO 703B Rework System. This manual describes the use and maintenance of the HAKKO 703B. Please read it before using the unit. Keep this manual readily accessible for reference.



CAUTION

Before Plugging In!

REMOVE the pump securing screw (M4 × 25, red) from the bottom of the 703B station before using it. Leaving the screw in place will cause serious problems. Be sure to SAVE THIS SCREW!

REPLACE the pump securing screw (M4 × 25, red) into the bottom of the 703B station before transporting it. Leaving the screw out will cause serious problems.

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PACKING LIST

Please check to make sure that all items listed below are included in the Hakko 703B package.

703B-1 and 703B-2

- Station 1
- Soldering iron (Hakko 907)..... 2
- Spring filter 3
- Ceramic paper filter (S) 2
- Ceramic paper filter (L)..... 4
- Cleaning pin for $\phi 1.0$ mm (0.04 in.) nozzle 1

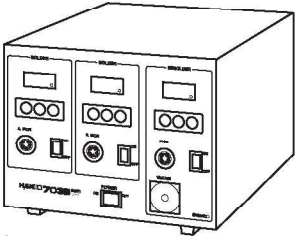
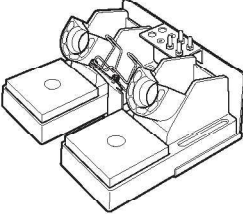
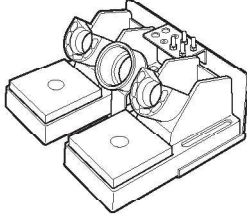
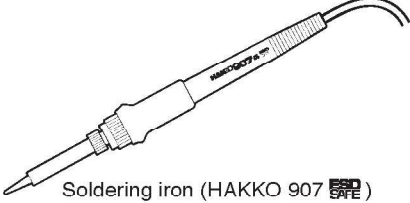

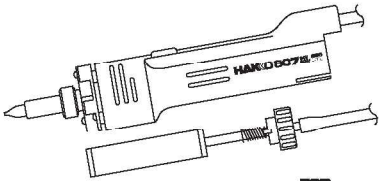

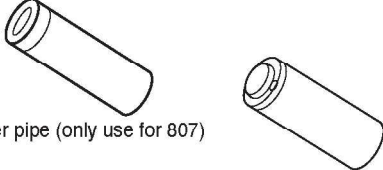
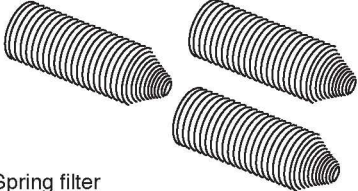
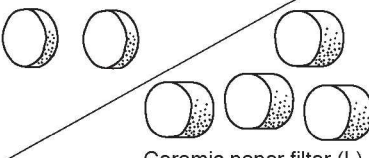
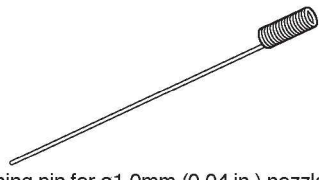
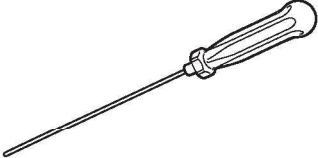
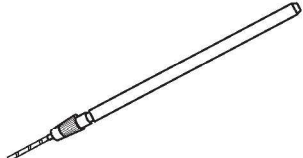
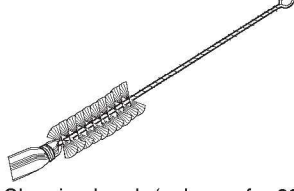
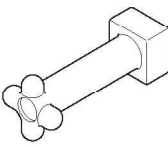


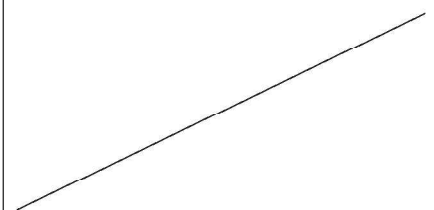
- Cleaning pin for heating element..... 1
- Cleaning drill for $\phi 1.0$ mm (0.04 in.) nozzle. 1
- Spanner (for desoldering iron/gun)..... 1
- Instruction manual 1

703B-1

- Desoldering iron (Hakko 807)..... 1
- Filter pipe with filter holder, spring filter & ceramic paper filter (L) 1
- Cleaning brush for Hakko 807 1
- Iron holder for Hakko 807 1

703B-2

- Desoldering gun (Hakko 817)..... 1
- Filter pipe with front holder, spring filter & ceramic paper filter (L) 1
- Iron holder for Hakko 817 1

 <p>Station</p>	 <p>Iron holder (only use for 703B-2)</p>	 <p>Iron holder (only use for 703B-1)</p>
 <p>Soldering iron (HAKKO 907 )</p>	 <p>Desoldering iron (HAKKO 807 )</p>	 <p>Filter pipe (only use for 807)</p> <p>Filter pipe (only use for 817)</p>
 <p>Spring filter</p>	 <p>Ceramic paper filter (S)</p> <p>Ceramic paper filter (L)</p>	 <p>Cleaning pin for $\phi 1.0$mm (0.04 in.) nozzle</p>
 <p>Cleaning pin for heating element</p>	 <p>Cleaning drill for $\phi 1.0$mm (0.04 in.) Nozzle</p>	 <p>Cleaning brush (only use for 807)</p>
 <p>Spanner (for 807/817)</p>	 <p>Desoldering gun (for 817 )</p>	

SPECIFICATIONS

Name	HAKKO 703B	
Power Consumption	220W	
Station		
Soldering	Output Voltage	24VAC
	Temperature	200 - 480°C (400 - 899°F)
Desoldering	Output Voltage	24VAC
	Vacuum Generator	Vacuum pump, double cylinder type
	Vacuum Pressure	80kpa (600mm. Hg) (24 in. Hg)
	Suction Flow	15 l/min.
	Temperature	350 - 450°C (662 - 842°F)
Dimensions	215(W) × 257(D) × 170(H) mm (8.5 × 10.1 × 6.7 in.)	
Weight (w/o cord)	6.0kg (13.2 lbs.)	

Soldering Iron

Name	HAKKO 907 髣
Power consumption	24VAC, 50W
Tip to ground resistance	Under 2 Ω
Tip to ground potential	Under 2 mV
Heating element	Ceramic heater
Standard tip	900M-T-1.6D
Cord length	1.2 m (4 ft.)
Total length (w/o cord)	190 mm (7.5 in.)
Weight (w/o cord)	44g (0.09 lbs.)

Desoldering Iron

Name	HAKKO 807 髣
Power consumption	24VAC, 60W
Nozzle to ground resistance	Under 2 Ω
Nozzle to ground potential	Under 2 mV
Heating element	Ceramic heater
Standard nozzle	A1003 (1.0 mm / 0.04 in.)
Cord length	1.2 m (4 ft.)
Total length (w/o cord)	205 mm (8.07 in.)
Weight (w/o cord)	160 g (0.35 lbs.)

Desoldering Gun

Name	HAKKO 817 髣
Power consumption	24VAC, 60W
Nozzle to ground resistance	Under 2 Ω
Nozzle to ground potential	Under 2 mV
Heating element	Ceramic heater
Standard nozzle	A1003 (1.0 mm / 0.04 in.)
Cord length	1.2 m (4 ft.)
Total length (w/o cord or hose)	205 mm (8.07 in.)
Weight (w/o cord or hose)	160 g (0.35 lbs.)

* This product is protected against an electrostatic discharge.

* This product meets China RoHS requirements.

* Specifications and design are subject to change without notice.

SAFETY INSTRUCTIONS

Warnings, cautions and notes are placed at critical points in this manual to direct the operator's attention to significant items. They are defined as follows:

- ⚠ WARNING :** Misuse may potentially cause death of, or serious injury to the user.
- ⚠ CAUTION :** Misuse may potentially cause injury to the user or physical damage to the objects involved. For your own safety, be sure to comply with these precautions.
- NOTE:** A NOTE indicates a procedure or point that is important to the process being described.
- EXAMPLE:** An EXAMPLE is given to demonstrate a particular procedure, point or process.

Before Plugging In!

⚠ CAUTION

Be sure to remove the pump securing screw (M4 × 25, marked red) from the bottom of the station. Failure to do so may result in serious problems.

High Temperature

The tip or nozzle temperature can reach as high as 400°C (750°F) when power is on. Mishandling may lead to burns or fire. Be sure to comply with the following precautions:

- Do not touch metallic parts near the tip/nozzle.
- Do not use the product near flammable items.
- Advise other people in the work area that the unit can reach a very high temperature and should be considered potentially dangerous.
- Turn the power off when no longer using the Hakko 703B or leaving it unattended.
- Before replacing parts or storing the unit, turn the power off and allow the unit to cool to room temperature.

Be sure to comply with the following precautions:

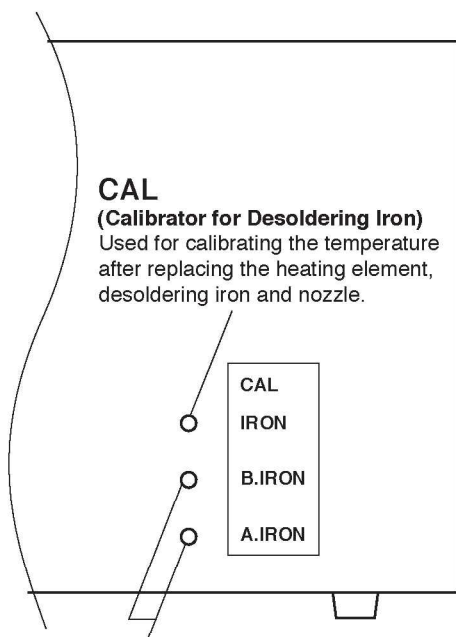
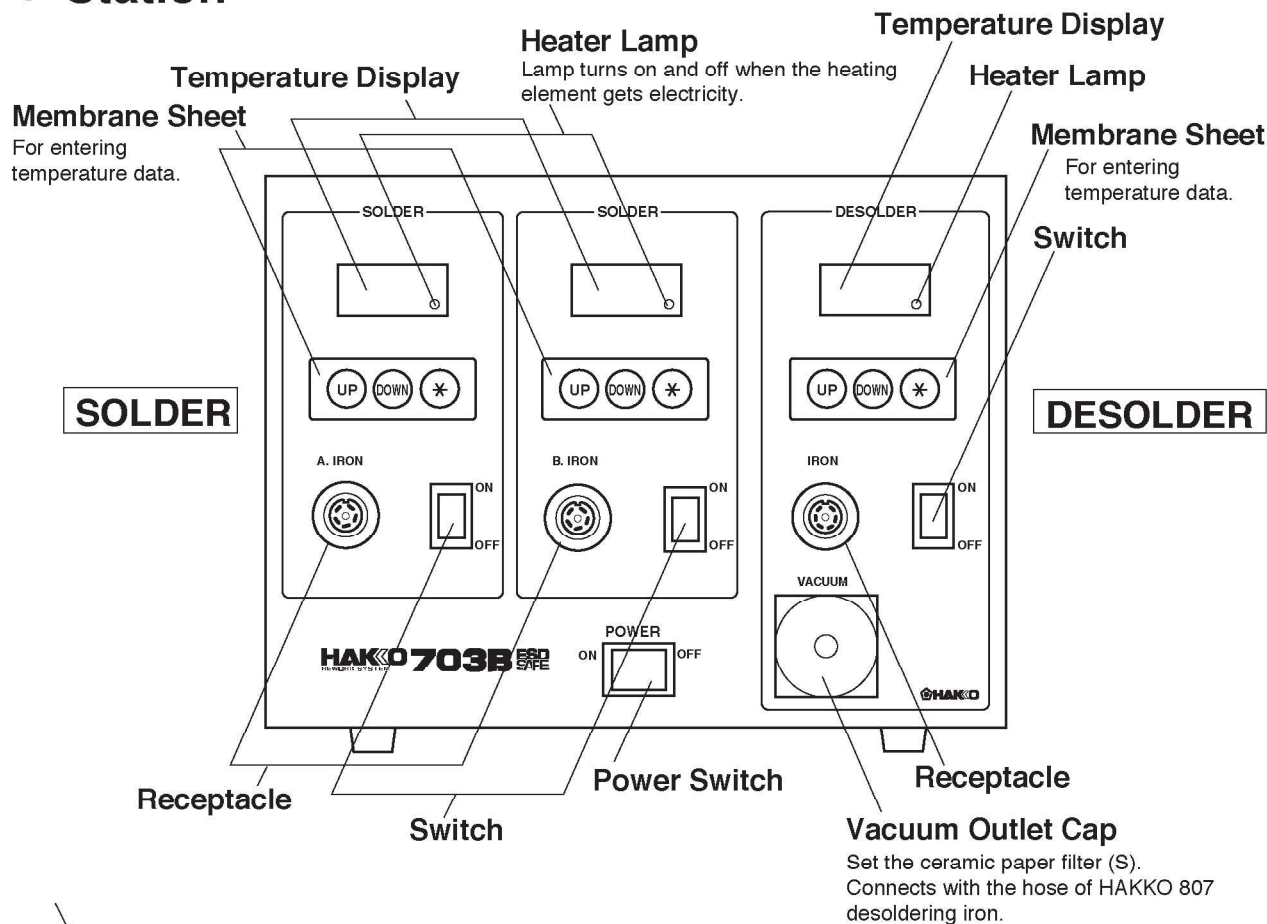
- Do not use the unit for applications other than soldering or desoldering.

- Do not rap the iron against the work bench to shake off residual solder, or otherwise subject the iron to severe shocks.
- Do not modify the unit.
- Use only genuine HAKKO replacement parts.
- Turn the switch off before connecting or disconnecting the soldering/desoldering iron connecting cord from the cord receptacle on the station.
- Do not wet the unit or use the unit with wet hands.
- Use the ceramic paper filter (S) for the filter retainer (station), and the ceramic paper filter (L) for the filter pipe (iron/gun).
- Maintain the station, the soldering irons, and desoldering gun.

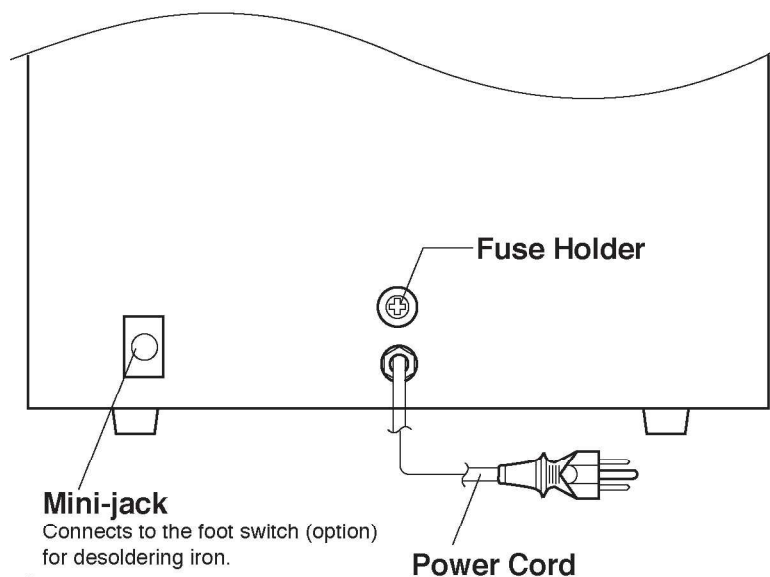
While using the unit, don't do anything that could cause bodily harm or physical damage.

PART NAMES

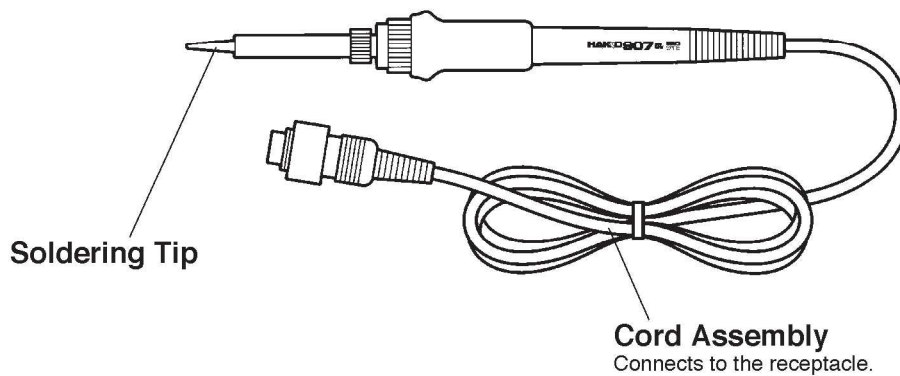
● Station



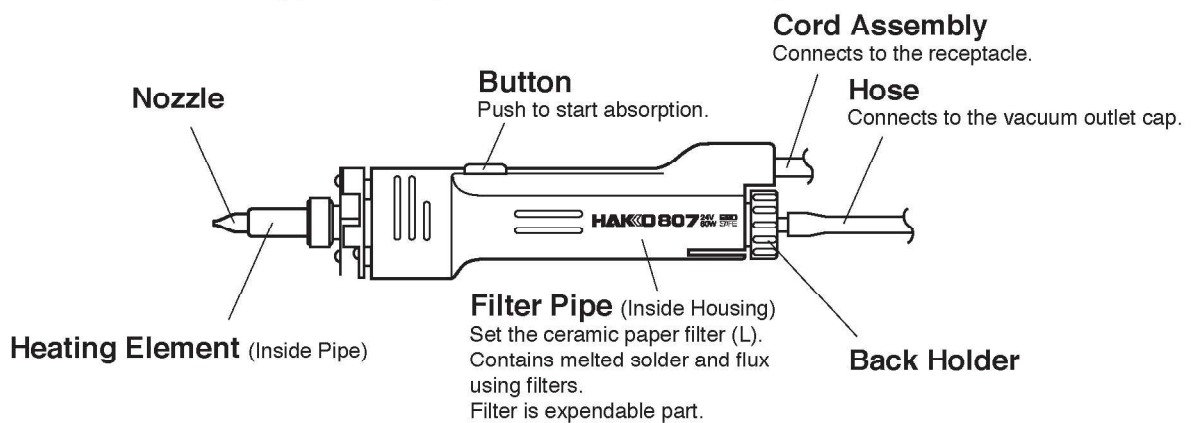
CAL (Calibrator for Soldering Iron A and B)
Used for calibrating the temperature after replacing the heating element, soldering iron and tip.



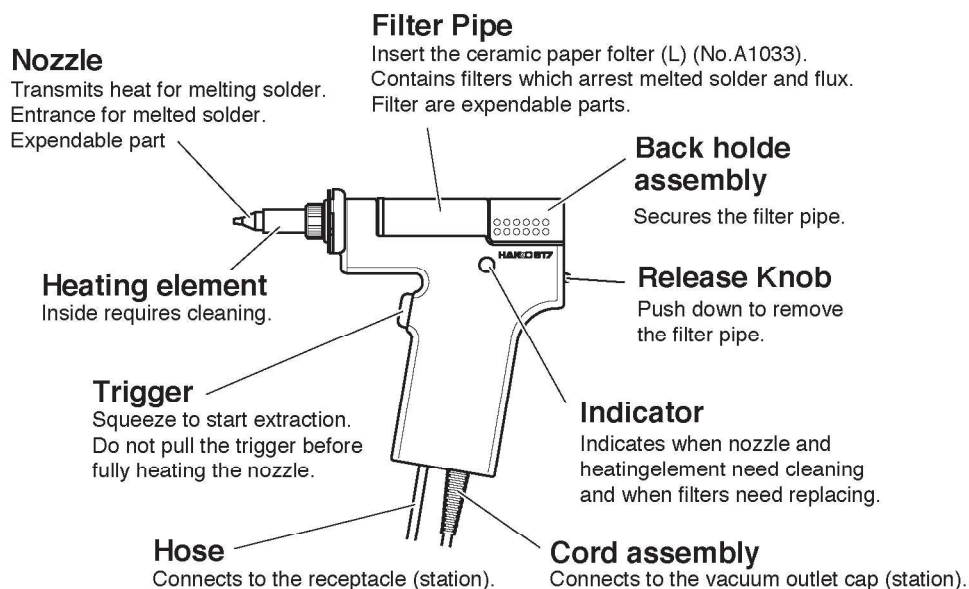
● Soldering iron (HAKKO 907 **ESD SAFE**)



● Desoldering iron (HAKKO 807 **ESD SAFE**)



● Desoldering gun (HAKKO 817 **ESD SAFE**)



SETTING UP

Iron holders

⚠ CAUTION:

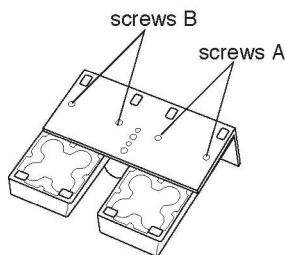
The sponge is compressed. It will swell when moistened with water. Before using the unit, dampen the sponge with water and squeeze it dry. Using a dry sponge may damage the soldering tip.

1. Dampen the small cleaning sponge with water and squeeze it dry. Place it in one of the four openings in the iron holder base.
2. Add water to approximately the level shown at the right. The small sponge will absorb water to keep the larger sponge above it wet at all times.

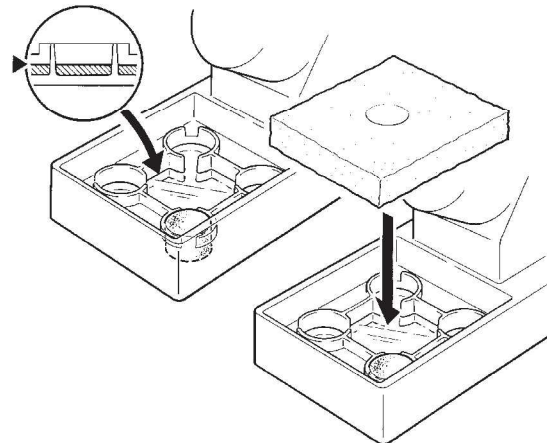
Note: The large sponge may be used by itself. In this case, it is not necessary to insert the small sponge or add water.

3. Dampen the large cleaning sponge and place it on the iron holder base.

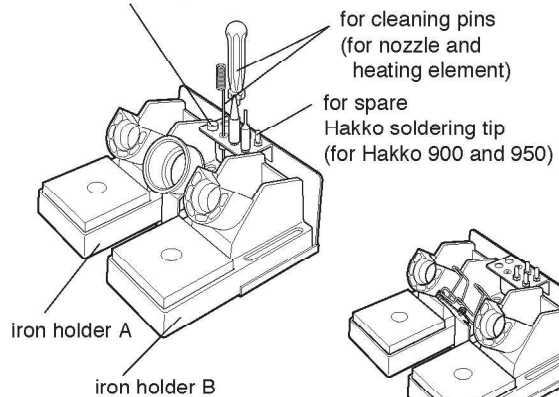
The iron holder for HAKKO 950 can be set in place of the iron holder A or B. Remove two (2) screws A or B on the bottom of the iron holder.



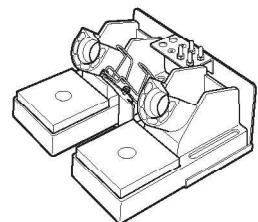
The difference between iron holder No.C1317 and No.C1472 is only the iron receptacle. The iron receptacle is changeable to become either for 703B-1 or 703B-2.



for spare
Hakko desoldering nozzle



No.C1317 for 703B-1



No.C1472 for 703B-2

Note: Holders for extra soldering tips, desoldering nozzles and cleaning pins are provided as above.

⚠ WARNING:

Use appropriate iron holders. Failure to do so can result in bodily injury or damage to the equipment.

Connection

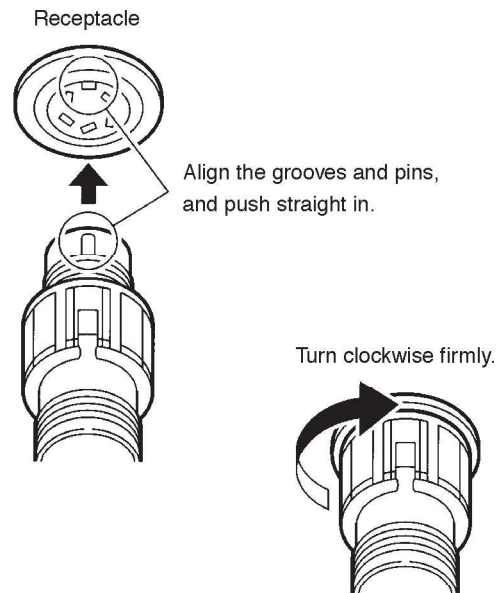
⚠ CAUTION:

Be sure to turn off the power switch before connecting or disconnecting the soldering iron. Failure to do so may result in damage to the station.

1. Connect the connecting plug to the receptacle on the front panel of the station. Connect the A. IRON to the A.IRON receptacle and the B.IRON to the B.IRON receptacle.











Note: "A.IRON" and "B.IRON" are indicated on the handles of the respective soldering irons.

2. Place the soldering iron and desoldering iron/gun in the iron receptacle on the iron holder.
3. Plug the power cord into a power supply. Be sure to ground the unit.
4. Turn the power switch to ON.



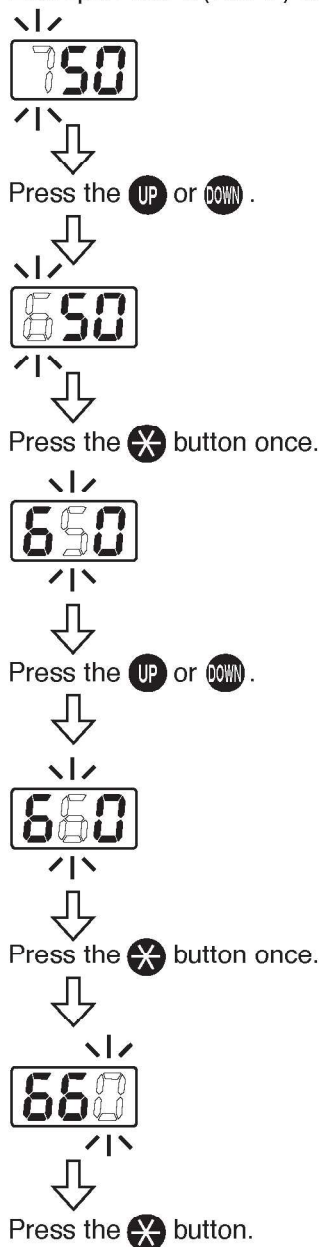
OPERATION (Soldering iron)

Setting or changing the temperature.

1. Turn the switch for the selected tool - soldering iron (A.IRON or B.IRON) or desoldering tool - to ON.
2. Set the temperature as follows (the temperature can be adjusted between 200°C (400°F) and 480°C (899°F)):
3. Push the  button and hold it down for at least one second. The present temperature setting will be displayed, and then the HUNDREDS digit will begin to flash. This flashing indicates that the station is in the temperature setting mode and data can be entered.
4. Enter the HUNDREDS digit.
 - Use the  or  button to select the desired value for the HUNDREDS digit. For setting in degrees Celsius, either 2, 3 or 4 can be selected. For setting in degrees Fahrenheit, values between 4 and 8 can be selected. When the desired value is displayed, press the  button.
5. Enter the TENS digit.
 - Press the  or  button to select the desired value for the TENS digit. Any value from 0 to 9 can be selected. When the desired value is displayed, press the  button. The UNITS digit begins to flash.
6. Enter the UNITS digit.
 - Use the  or  button to select the desired value for the UNITS digit. Any value from 0 to 9 can be selected. When the desired value is displayed, press the  button. This will store the temperature setting in memory and display the temperature setting. Heater control begins. Remove the card to lock the data. The temperature setting may not exceed 480 °C (899°F). If a temperature above this limit is entered, the HUNDREDS digit begins to flash again after entering the last digit. Follow step 2 - 4 again with a temperature setting below 480°C (899°F).

Note: The temperature is present at 400°C (750°F) at the factory.

Example: 400°C(750°F) to 349°C(660°F)



OPERATION (Desoldering iron/gun)

Preparation

Hakko 807 desoldering iron

1. Insert the filter pipe (with a filter holder, spring filter and ceramic paper filter (L)) into the housing. Push and turn the back holder clockwise.

Hakko 817 desoldering gun

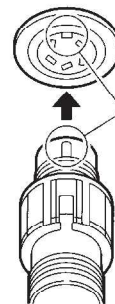
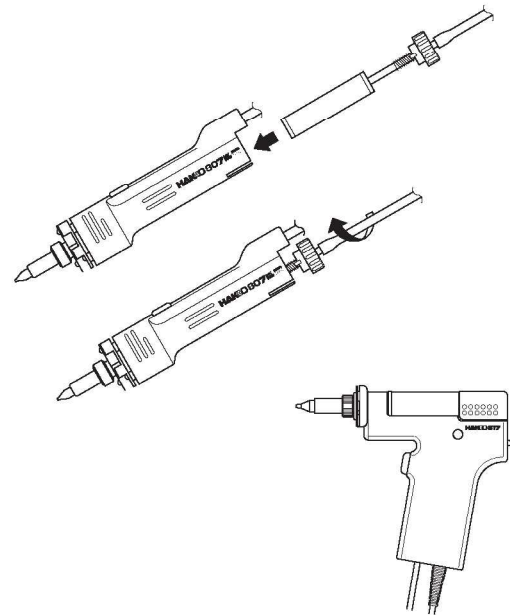
*The Hakko 817 desoldering gun comes with the filter pipe installed. The filter pipe includes the spring filter and ceramic paper filter. No assembly is required.

2. Connect the cord assembly of the HAKKO 807 or 817 to the desolder receptacle (marked "DESOLDER").
3. Connect the hose to the vacuum outlet cap (marked "VACUUM").
4. Plug the power cord into the power supply and turn the power switch to ON.
5. Turn the switch for desoldering to ON.

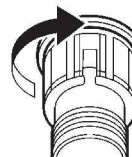
Desoldering

1. Set the temperature.
(Refer to Setting or changing the temperature.)

Note: Always set the temperature as low as possible for the work being done. The temperature can be adjusted between 350 - 450°C (662 - 842°F).

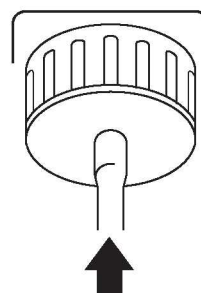


Insert the cord assembly by keying the plug to the key on the receptacle.



Secure the plug by turning it clockwise.

VACUUM



Attach the hose securely over the vacuum outlet cap.

OPERATION (Desoldering iron/gun)

2. Clean the tip of the nozzle.

Keep the solder-plated section of the nozzle a shiny white by coating it with a small amount of solder. If the tip of the nozzle is coated with oxide, the nozzle's heat conductivity will be lowered. Coating the tip with a small amount of fresh solder ensures maximum heat conductivity.

If the tip of the nozzle is coated with oxide, the nozzle's heat conductivity will be lowered. Coating the tip with a small amount of fresh solder ensures maximum heat conductivity.

3. Melt the solder.

- Apply the nozzle to the soldered part and melt the solder.

Note: Never allow the nozzle to touch the board itself.

- Confirm that the solder is melted.

Note: To confirm that all the solder is melted, observe the inside of the hole and the back side of the P.W.B. If this is difficult to do, try slowly moving the lead with the nozzle if the lead moves, the solder is melted.

Never move the lead by force.
If the lead does not move easily, the solder has not fully melted.

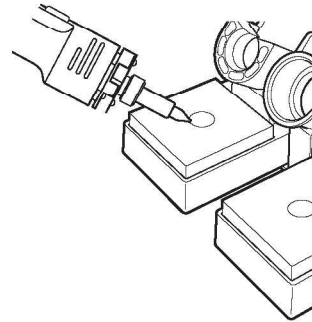
4. Extract the solder.

After confirming that the solder is completely melted, extract the solder by pushing the button on the top of the 807 iron, pressing the trigger switch on the 817 gun, or stepping on the foot switch (option).

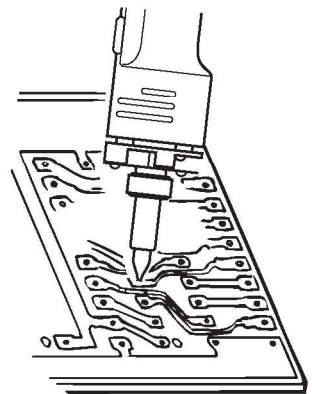
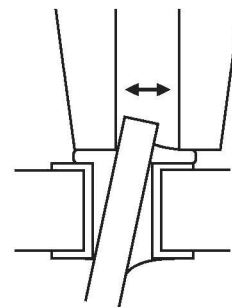
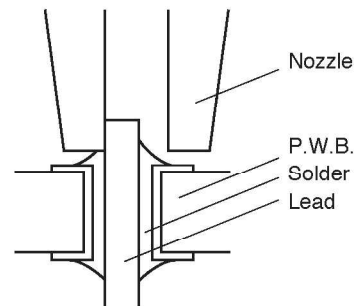
Note: Never leave any solder remaining inside the hole in the P.W.B.

5. Problems during desoldering.

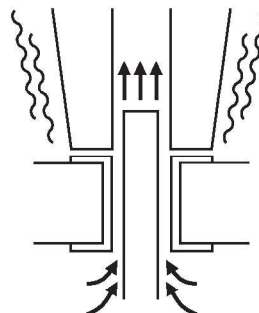
If solder remains, resolder the component and repeat the desoldering process.



Wipe away any oxide or old solder from the nozzle using the hole in the center of the sponge.



Slowly move the lead with the nozzle.



Absorb the solder by slowly moving the lead back and forth with the tip of the nozzle while holding the button or trigger.

MAINTENANCE (Soldering iron)

Tip care and use

Inspect and clean the tip

1. Set the temperature to 250°C (482°F).
2. When the temperature stabilizes, clean the tip with the cleaning sponge and check the condition of the tip.
3. If there is black oxide on the solder plated portion of the tip, apply new solder containing flux and wipe the tip on the cleaning sponge. Repeat until the oxide is completely removed. Coat with new solder.

NOTE:

NEVER file the tip to remove oxide.

4. If the tip is deformed or heavily corroded, replace it with a new one.

- **Tip temperature**
High soldering temperatures can degrade the tip. Use the lowest possible soldering temperature.
The excellent thermal recovery characteristics ensure efficient and effective soldering even at low temperature. This also protects the soldered items from thermal damage.
- **Cleaning**
Clean the tip regularly with a clean sponge, as oxides and carbides from the solder and flux can form impurities on the tip. These impurities can result in defective joints or reduce the tip's heat conductivity.
- **Not in use**
Never leave the soldering iron sitting at high temperature for long periods of time as the tip's solder plating will become covered with oxide, which can greatly reduce the tip's heat conductivity.
- **After use**
Wipe the tip clean and coat the tip with fresh solder. This helps prevent tip oxidation.

MAINTENANCE (Desoldering iron/gun)

Efficient desoldering depends upon the temperature, and the quality and quantity of the solder and flux. Perform the following service procedures as dictated by the conditions of use.

During maintenance, please wear gloves and work carefully.

⚠ WARNING:

Since the desoldering iron/gun can reach a very high temperature, please work carefully. Except when cleaning the nozzle and heating element, always turn the power switch OFF and disconnect the power plug before performing any maintenance procedure.

Servicing the desoldering tool

1. Inspect and clean the nozzle.

- Plug in the power cord, turn the power switch "ON" and let the nozzle heat up.
- Clean out the hole of the nozzle with the nozzle cleaning pin.

If the nozzle cleaning pin does not pass through the nozzle, use the cleaning drill.

Note: The cleaning pin will not pass through the nozzle until the solder inside the nozzle is completely melted.

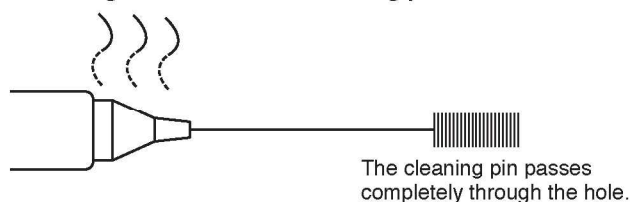
Verify that the correct cleaning pin is used for the nozzle. The inside diameter of the nozzle is stamped on the side of the nozzle.

- Check the condition of the solder plating, surface and inside hole of the nozzle. If it is slightly worn, recoat the tip with fresh solder.
- If it is worn or corroded, or the inside diameter seems unusually wide, replace the nozzle.

Note: The inside hole and the surface of the nozzle is plated with a special alloy. Should this alloy become corroded by high temperature solder, the nozzle will not be able to maintain the proper temperature.

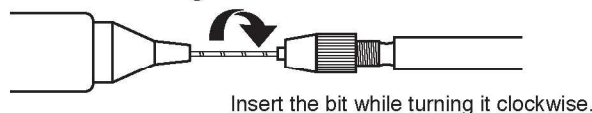
- If the cleaning pin and cleaning drill do not pass through the hole in the nozzle, replace the nozzle.

Cleaning with the nozzle cleaning pin.

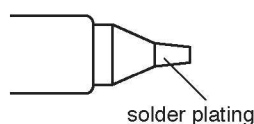
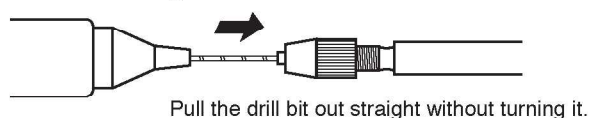


Cleaning with the cleaning drill.

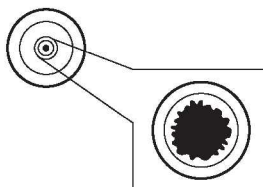
• Before cleaning



• After cleaning



⚠ CAUTION
If the cleaning drill is forced into the nozzle, the drill bit could break or be damaged.



⚠ CAUTION
Please use the proper sized cleaning pin or cleaning drill for the nozzle diameter.

Diameter of hole is widened through erosion.

Note
Unfortunately, it is often difficult to observe this condition, therefore, if desoldering efficiency goes down and all other parts appear to be OK, the nozzle is probably eroded and should be replaced.

2. Remove the element cover, nut and nozzle.

⚠ CAUTION:

The heating element is very hot during operation.

3. Clean out the hole in the heating element.

Be sure the solder in the hole in the heating element is completely melted, then clean the hole with the cleaning pin provided.

If the cleaning pin cannot pass through the hole, replace the heating element.

4. Replace the filters.

⚠ CAUTION:

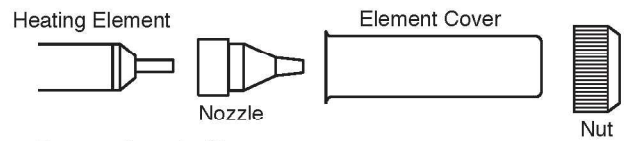
The filter pipe is very hot.

For Hakko 807

1. Turn the power switch off.
2. Turn the back holder knob counter-clockwise and pull out the filter pipe.
3. If there is solder in two-thirds of the spring filter, replace the filter.
4. If the ceramic paper filter is stiff with flux and solder, replace the filter.
5. Insert the spring filter into the filter pipe.
6. Insert the ceramic paper filter and put the back holder into the filter pipe.
7. Insert the filter pipe into the main body and secure it by turning the back holder knob clockwise.

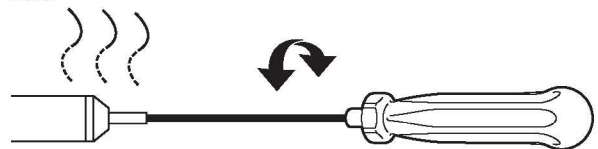
For Hakko 817

1. Turn the power switch OFF.
2. When the filter pipe is cool to touch, push down the release knob at the back of the gun and remove the filter pipe.
3. If the ceramic paper filter is stiff with flux and solder, replace the filter.
4. Insert the ceramic paper filter and attach the spring filter to the front holder.
5. Insert the front holder into the filter pipe.
6. Insert the filter pipe into the main body.

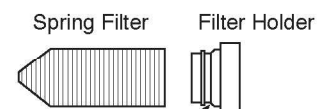
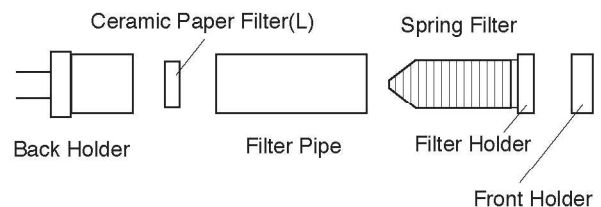


Remove the nut with the attached spanner.

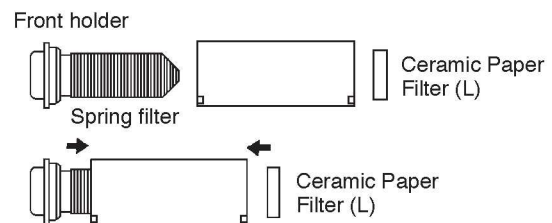
Scrape away all oxidation from the hole in the heating element until the cleaning pin passes cleanly through the hole.



The cleaning pin passes cleanly through the hole.

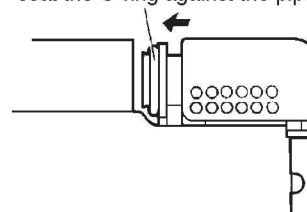


⚠ CAUTION : Securely insert the spring filter to the end of the filter holder.



Attach the front holder to the filter pipe so that it does not leak air.

Firmly press the back holder assembly into the filter pipe in order to properly seat the O-ring against the pipe.



MAINTENANCE (Station)

Cleaning the inside of the filter case

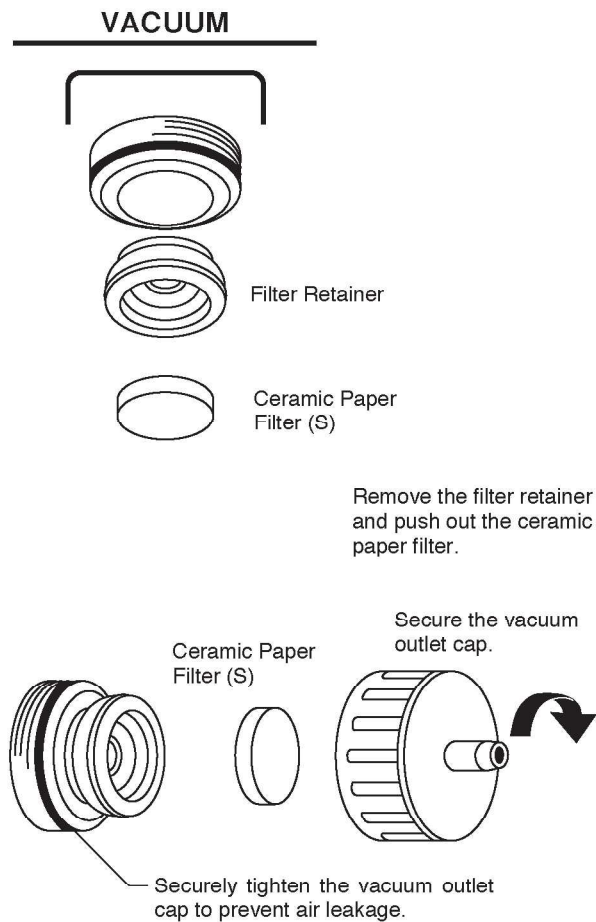
1. Replace the ceramic paper filter (S).

Remove the ceramic paper filter (S) and inspect it. If it is stiff with flux, replace it.

2. Reassemble the filter case.

⚠ CAUTION:

Set the ceramic paper filter (S) in the filter retainer (station). Using the ceramic paper filter (L) in the filter retainer may cause to break or the power to drop.



Cleaning the pump

1. Disassemble the pump heads.

- Remove the cover screws. (right/left)
- Remove the cover
- Remove the pump head from each side of the pump.

2. Clean the pump head.

- Remove the valve plate and fixing plate.
- Remove any flux adhering to the plates.
- If the valve plate is bent or stiff, replace it.
- If the exhaust filter is dirty, replace it.

⚠ CAUTION:

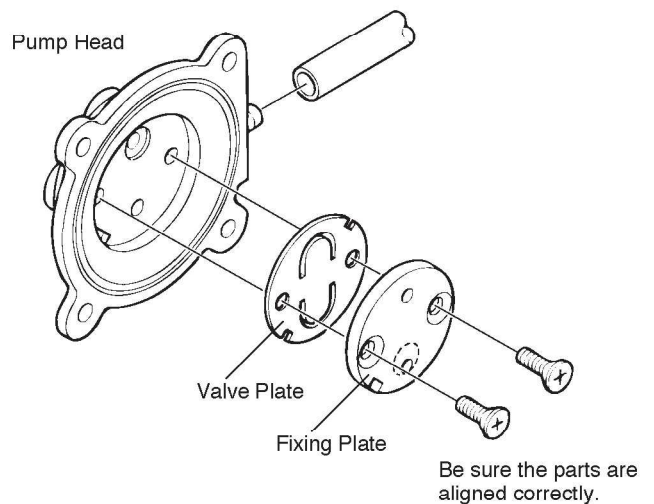
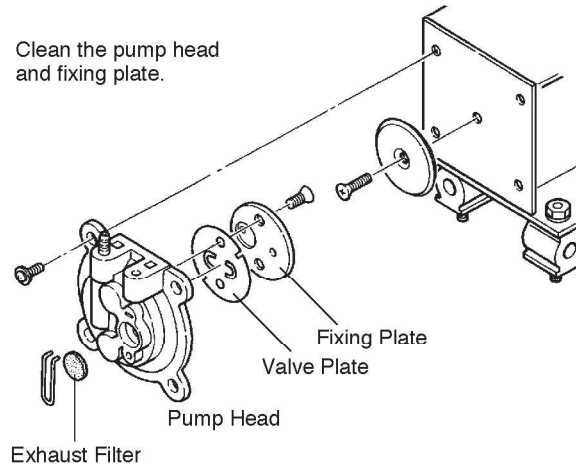
- If the fixing plate is difficult to remove, apply hot air to it to warm it up. Never use excessive force to remove the plate as it is easy to bend, and a bent plate will allow air to leak out and reduce solder vacuuming efficiency.
- Clean the plates only with alcohol or thinner.

3. Reassemble the pump heads.

Reassemble the valve plate and fixing plate.

⚠ CAUTION:

When assembling the pump, be sure to check for air leaks.



PARAMETERS

The HAKKO 703B has the following parameters. Parameter settings can be adjusted.

1. °C or °F temperature display selection.
2. Heater-error temperature-tolerance.
3. Display of room temperature compensation value (test mode)

Once parameter-input mode has been entered, set the parameters in order shown below. After all the parameters have been set, normal operation will be resumed.

Parameter input mode.

1. Centigrade or Fahrenheit temperature display.

2. Heater error temperature-tolerance.

3. Room temperature compensation value. (Test Mode)

1. Turn off the power switch. Press and hold the **UP** and **DOWN** buttons simultaneously, then turn on the power switch.
2. Continue holding down the **UP** and **DOWN** buttons until the display shows C (for Centigrade) or F (for Fahrenheit).
3. When the display shows C or F, the station is in parameter-input mode.

Enter parameter-input mode. Pressing the **UP** and **DOWN** buttons will cause C and F to be displayed alternately.

Press **✖** to select either C or F.

After selecting C or F for the temperature display, the heater error temperature will be displayed with the 100's digit flashing.

Refer to P.18, "Heater Error". Set the heater-error temperature-tolerance in the same manner as described in P.8 step 3. Be sure to use a value in the allowable range.

Range of allowable heater-error temperatures

For C: 30 - 150°C For F: 60 - 300°F

If a temperature value outside of this range is selected, the display will return to flashing the 100's place. If this happens, reenter a correct temperature value.

After setting the heater-error temperature-tolerance, the display will show the room temperature compensation value (test mode).

The display will not blink and the heater will not receive power.

The room temperature compensation value is the measured temperature of the soldering iron tip. This function will be used later to calibrate the tip temperature. (See "Calibration of Iron Temperature" on P.16)

No inputs are made here. Press **✖** to complete parameter input. The soldering temperature setting will be displayed for 2 seconds, after which power will be supplied to the heater and normal temperature control will begin.

CALIBRATION OF IRON TEMPERATURE

Soldering irons should be recalibrated after changing the iron, replacing the heating element or replacing the tip. There are two methods for recalibrating the iron temperature:

A: Calibrating with a tip thermometer.

B: Calibrating with a room thermometer.

Note: HAKKO recommends method 1 for greater accuracy.

The desoldering iron/gun should be recalibrated after changing the iron, the heating element or the nozzle. (Refer to method A.)

⚠ CAUTION:

Never set the nozzle temperature above the maximum temperature. It will cause problems.

A. Calibrating with a tip thermometer.

1. Turn the 703B ON, select the iron desired, and set the temperature to 400°C (750°F).
2. Wait until the temperature stabilizes.
3. When the temperature stabilizes, use a regular or small cross point screwdriver to adjust the screw (marked CAL for A.IRON or B.IRON on the side of the station) until the tip thermometer indicates a temperature of 400°C (750 °F). Turn the screw clockwise to increase the temperature and counterclockwise to reduce the temperature.
* We recommend the HAKKO 191/192 thermometer for measuring the tip temperature.

B. Calibrating with a room thermometer. (Test Mode)

1. Allow the HAKKO 703B to cool to room temperature for one hour.
2. Press and hold down the **UP** and **DOWN** buttons simultaneously and turn the power switch on. (Refer to P.15)

⚠ CAUTION:

Should you make a mistake during steps 2 and 3, the station will start up normally and the heating element will begin warming up. Should this happen, turn the station off and wait until it has returned to room temperature.

3. Press the **✖** button twice. The display will show the room temperature compensation value (test mode). This value is the measured temperature of the soldering tip.
4. Use a regular or small cross point screwdriver to adjust the screw (marked CAL for A.IRON or B.IRON on the side of the station) until the display indicates the room temperature plus or minus the value.

Example: To calibrate the 900M-T-LB at the room temperature of 22°C (70°F), adjust the CAL potentiometer until the digital display reads 20 (66).

$$\begin{array}{rcccc} 22 & (70) & - & 2 & (4) & = & 20 & (66) \\ \text{Room temp.} & & & \text{Compensation value} & & & \text{Digital display} \end{array}$$


5. Press the **✖** button to complete the calibration. After the **✖** button is pressed, power will be supplied to the heater and normal temperature control will begin.

ERROR MESSAGES


Various error messages will be displayed when there is a problem with the HAKKO 703B unit. If the following message is displayed, refer to "TROUBLE SHOOTING GUIDE".

System Error

After the power has been turned on, the system checks the memory and the programs.

If an abnormality is found,  will be displayed, and all operations will be stopped.

Sensor Error

If there is a possibility of a failure in the sensor or anywhere in the sensor circuit,  will be displayed and power to the soldering iron will be cut off.

Heater Error

(Flashing of the temperature display)

If power is being sent to a soldering iron and the tip temperature goes below the heater-error temperature-tolerance setting, the temperature display will flash. This indicates the possibility of a heater malfunction.

For example, assume the temperature setting is 400°C (750°F) and the heater-error temperature-tolerance is 50°C (100°F). If, even though the heater is receiving power, the temperature of the soldering iron goes below 350°C (650°F) the display will begin to flash indicating a possible heater malfunction.

EXAMPLE:

$400 - 50^{\circ}\text{C} = 350^{\circ}\text{C}$ ($750 - 100^{\circ}\text{F} = 650^{\circ}\text{F}$)
→ The display will begin to flash.

NOTE:

If the temperature begins to rise again, the display will stop flashing, even if the displayed temperature is below 350°C (650°F).

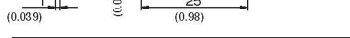
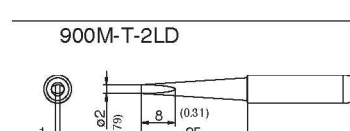
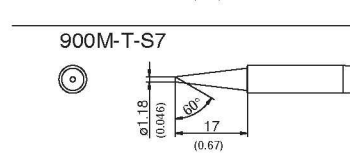
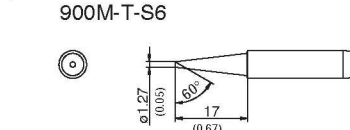
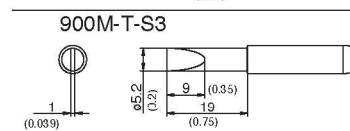
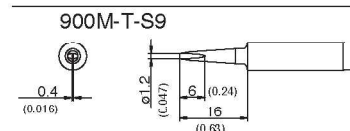
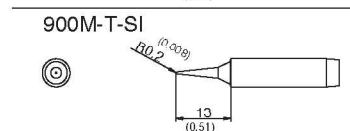
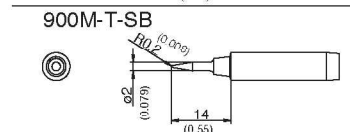
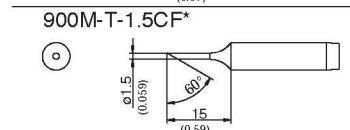
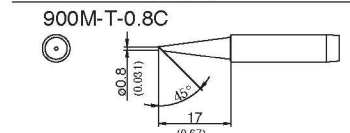
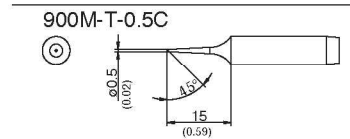
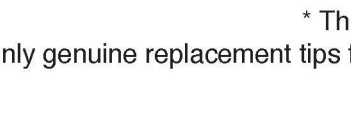
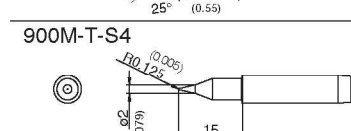
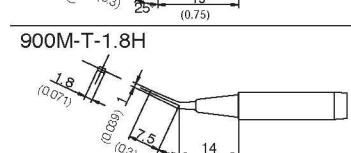
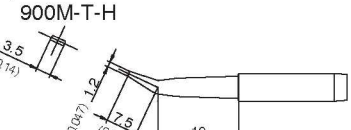
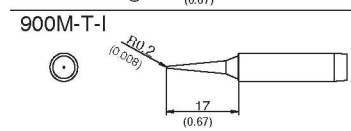
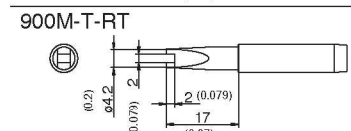
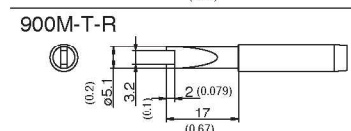
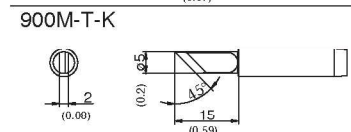
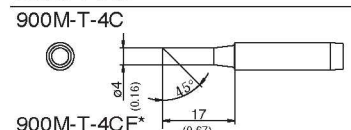
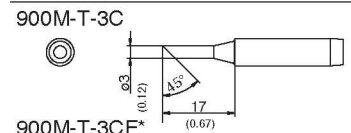
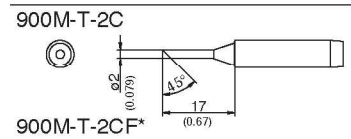
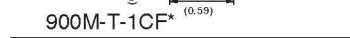
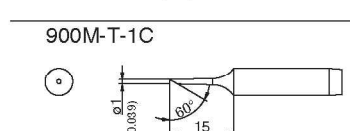
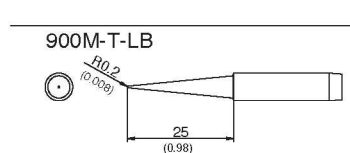
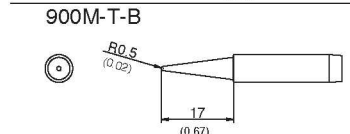
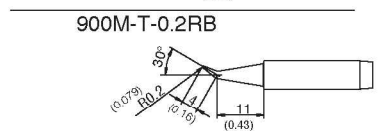
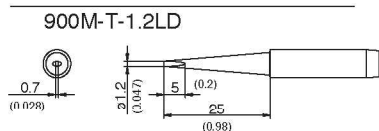
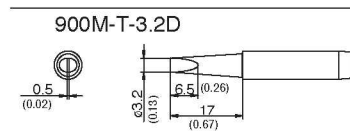
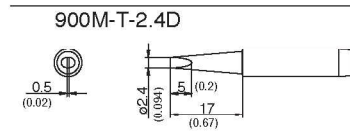
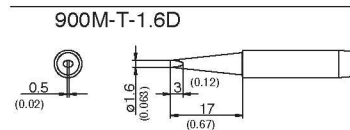
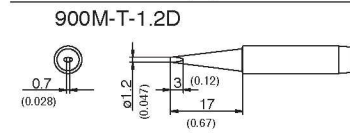
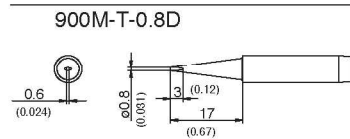
BEFORE SERVICING

 **WARNING:**

- Disconnect the power plug before servicing. Failure to do so may result in electric shock.
- If the power cord is damaged, it must be replaced by the manufacturer or its service agent or similarly qualified person in order to avoid hazard.

REPLACEMENT PARTS (Soldering iron)

907 **ESD SAFE**

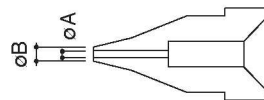


* These tips are tinned on the soldering.

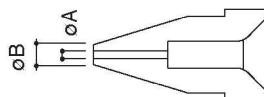
CAUTION: Use only genuine replacement tips for HAKKO 907 **ESD**.

REPLACEMENT/OPTIONAL PARTS (Desoldering iron)

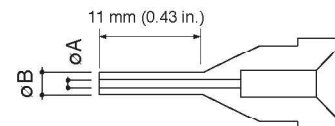
Replacement and optional parts for Hakko 807/817



Part No.	øA	øB
A1002B	0.8 mm (0.03 in.)	2.3 mm (0.09 in.)
A1003B	1.0 mm (0.04 in.)	2.0 mm (0.08 in.)
A1393B	1.0 mm (0.04 in.)	1.6 mm (0.06 in.)
A1395B	1.3 mm (0.05 in.)	2.3 mm (0.09 in.)
A1487B	0.6 mm (0.02 in.)	1.5 mm (0.06 in.)



Part No.	øA	øB
A1004B	0.8 mm (0.03 in.)	2.3 mm (0.09 in.)
A1005B	1.0 mm (0.04 in.)	2.5 mm (0.1 in.)
A1006B	1.3 mm (0.05 in.)	3.0 mm (0.12 in.)
A1007B	1.6 mm (0.06 in.)	3.0 mm (0.12 in.)
A1396B	2.3 mm (0.09 in.)	4.0 mm (0.16 in.)



Part No.	øA	øB
A1394B	1.0 mm (0.04 in.)	2.3 mm (0.09 in.)

• Cleaning Pin/Drill

Part No.	Part name/Specifications
B1215	Cleaning pin for heating element
B1086	Cleaning pin for ø0.8 mm (0.03 in.) nozzle
B1087	Cleaning pin for ø1.0 mm (0.04 in.) nozzle
B1088	Cleaning pin for ø1.3 mm (0.05 in.) nozzle
B1089	Cleaning pin for ø1.6 mm (0.06 in.) nozzle
B1302	Cleaning drill for ø0.8 mm (0.03 in.) nozzle
B1303	Cleaning drill for ø1.0 mm (0.04 in.) nozzle
B1304	Cleaning drill for ø1.3 mm (0.05 in.) nozzle
B1305	Cleaning drill for ø1.6 mm (0.06 in.) nozzle

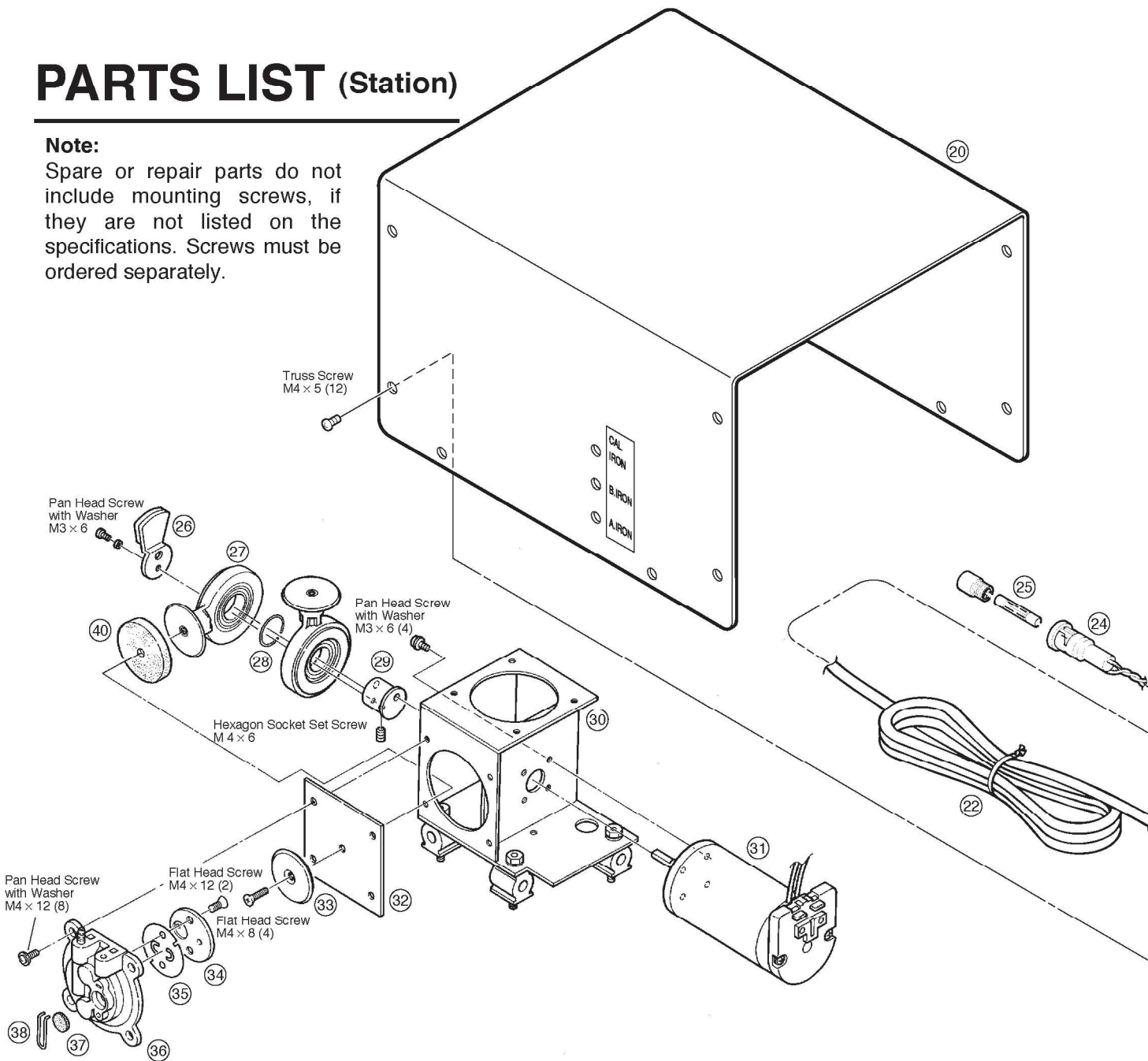
Spanner, cleaning brush, silicone grease, foot switch

Part No.	Part name/Specifications
B2100	Spanner (for 807/817)
B1670	Cleaning brush (for 807)
B1649	Foot switch
A1319	Packing for 817

PARTS LIST (Station)

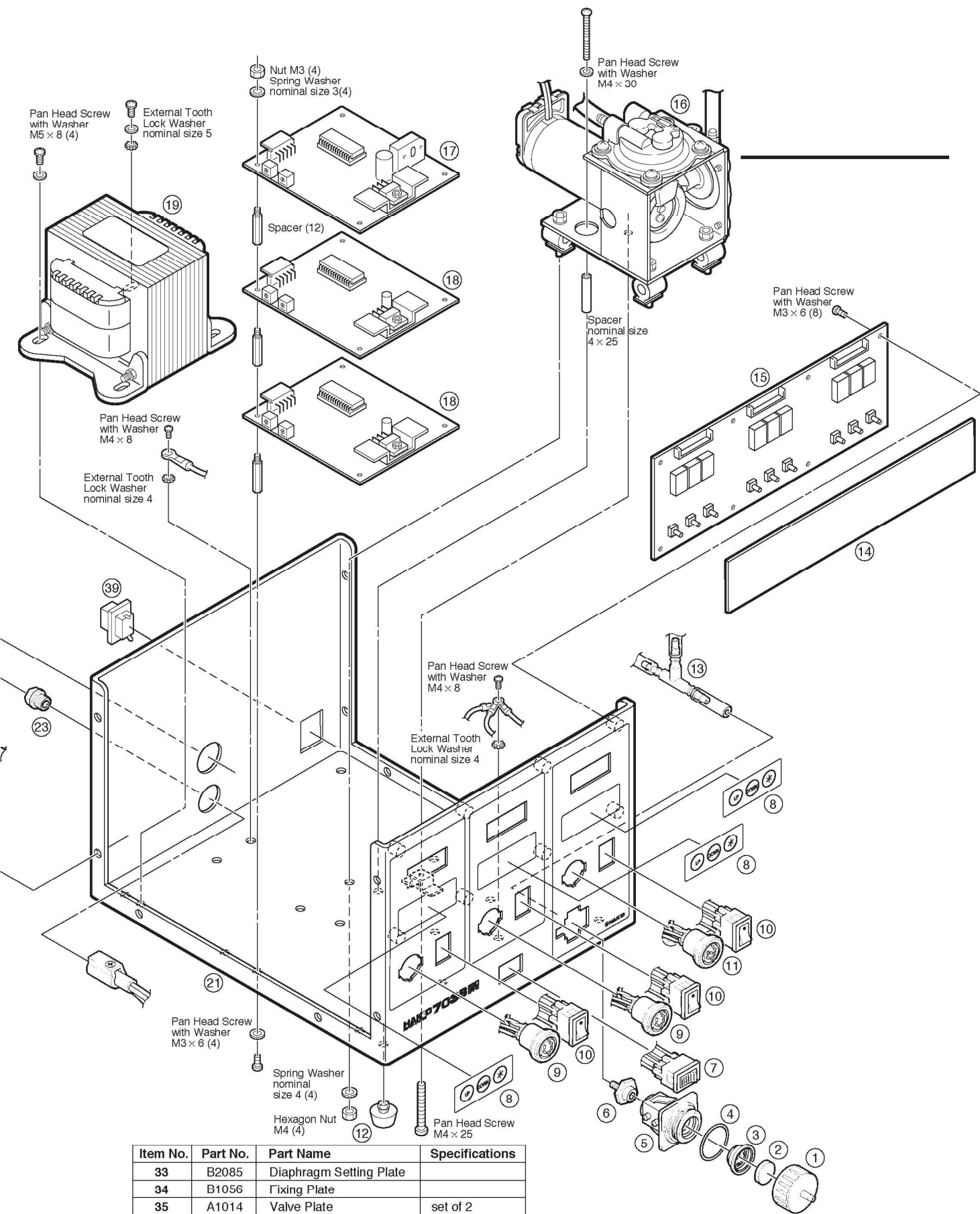
Note:

Spare or repair parts do not include mounting screws, if they are not listed on the specifications. Screws must be ordered separately.



Item No.	Part No.	Part Name	Specifications
1	B1029	Vacuum Outlet Cap	
2	A1009	Ceramic Paper Filter (S)	set of 10
3	B1063	Filter Retainer	
4	B1034	O-ring (S-20)	
5	B1031	Vacuum Outlet Retainer	
6	B1064	Filter Case Joint	
7	B1487	Power Switch	
8	B2047	Membrane Sheet	
9	B2101	Receptacle	for Solder
10	B2310	Switch	
11	B1662	Receptacle	for Desolder
12	B1204	Rubber Stopper	set of 4
13	B2314	Inner Hose Assembly	
14	B2307	Display Protection Plate	
15	B2306	P.W.B./Display	
16	B2444	Pump Assembly	

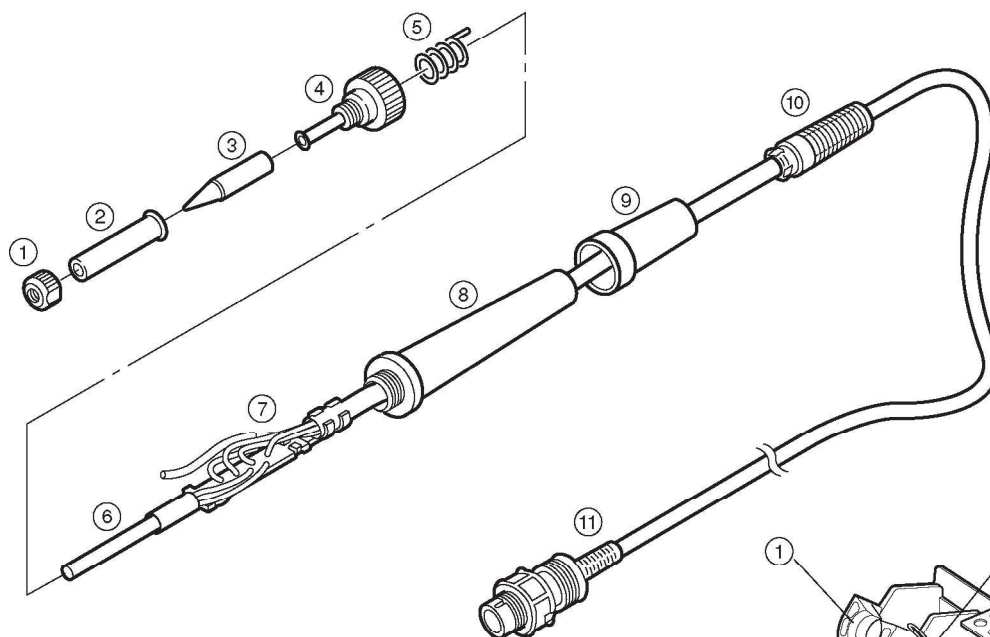
Item No.	Part No.	Part Name	Specifications
17	B2304	P.W.B./Desolder side	
18	B2305	P.W.B./Solder side	
19	B2333	Transformer	120-24V
20	B2308	Cover	
21	B2557	Chassis	
22	B2068	Power Cord	3 core & American plug
23	B1208	Cord Stopper	
24	B1041	Fuse Holder	
25	B2313	Fuse	250V-4A
26	B1053	Balance Weight	
27	B1312	Crank	w/Bearing
28	B1057	Ring for Bearing	
29	B2060	Crank Shaft	
30	B2059	Pump Frame	
31	B2058	Motor	
32	A1013	Diaphragm	set of 2



Item No.	Part No.	Part Name	Specifications
33	B2085	Diaphragm Setting Plate	
34	B1056	Fixing Plate	
35	A1014	Valve Plate	set of 2
36	B1050	Pump Head	w/Hose Connector
37	B1059	Exhaust Filter	set of 2
38	B1313	Filter Retainer Pin	
39	B1903	Mini-jack	
40	B2506	Damper	set of 2

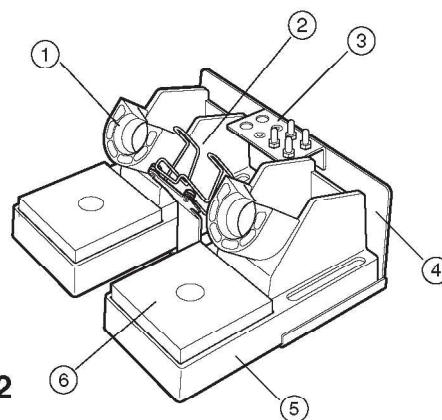
PARTS LIST (Hakko 907/Iron holder)

Note: Spare or repair parts do not include mounting screws, if they are not listed on the specifications.
Screws must be ordered separately.



907 部品

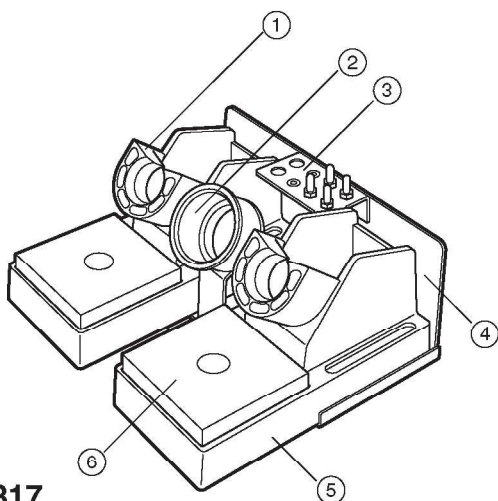
Item No.	Part No.	Part Name	Specifications
1	B1784	Nut	
2	B1786	Tip Enclosure	
3		Soldering Tip	See P.19
4	B2022	Nipple	
5	B2032	Grounding Spring	
6	A1321	Heating Element	
7	B2028	Terminal Board	w/Cord Stopper
8	B2024	Handle	w/Handle Cover, E.S.D.
9	B2027	Handle Cover	
10	B2031	Cord Bushing	
11	B2030	Cord Assembly	E.S.D.



No.C1472

Iron Holder (No.C1472)

Item No.	Part No.	Part Name	Specifications
1	B2021	Iron Receptacle	For 907
2	B2796	Iron Receptacle	For 817
3	B2323	Tip Tray	
4	B2324	Base Plate	
5	B2019	Iron Holder Base	
6	A1042	Cleaning Sponge	



No.C1317

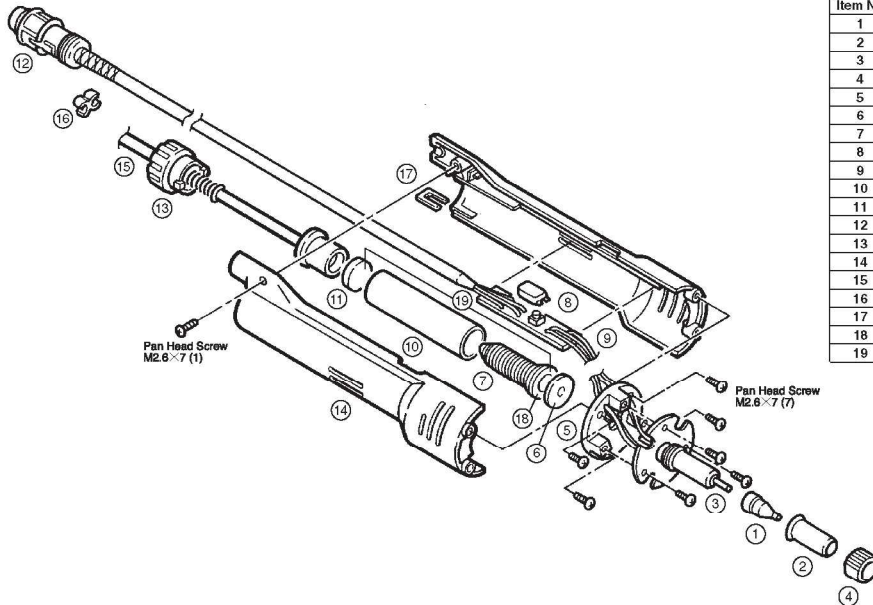
Iron Holder (No.C1317)

Item No.	Part No.	Part Name	Specifications
1	B2021	Iron Receptacle	For 907
2	B2325	Iron Receptacle	For 807
3	B2323	Tip Tray	
4	B2324	Base Plate	
5	B2019	Iron Holder Base	
6	A1042	Cleaning Sponge	

PARTS LIST (Hakko 807/817)

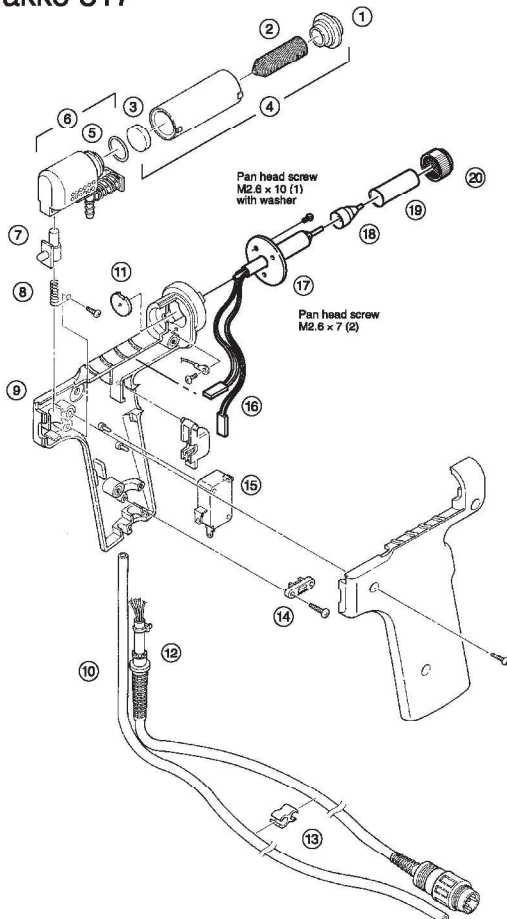
Note: Spare or repair parts do not include mounting screws, if they are not listed on the specifications.
Screws must be ordered separately.

Hakko 807



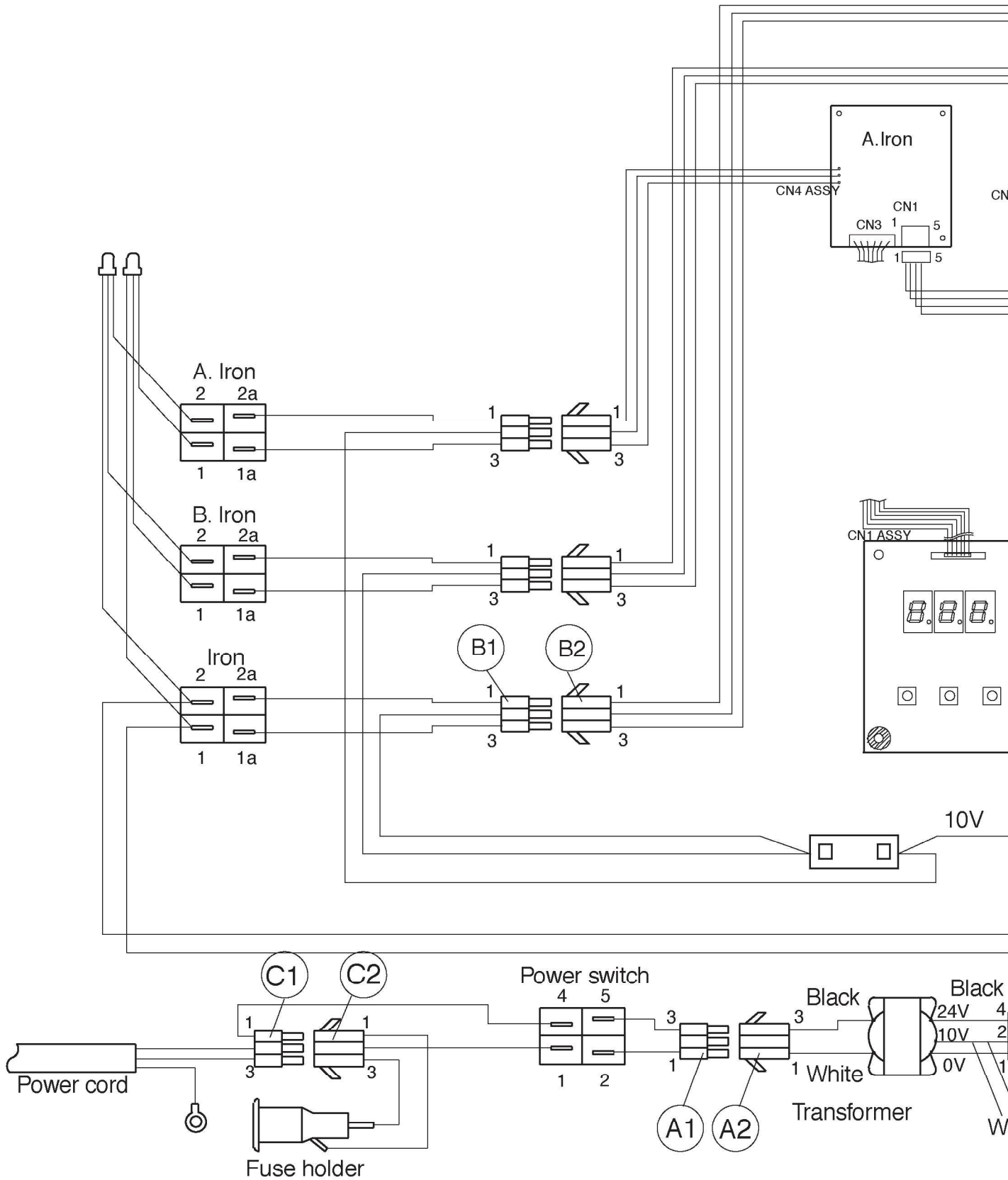
Item No.	Part No.	Part Name	Specifications
1		Nozzle	See P.20
2	B1653	Element Cover	
3	A1174	Heating Element	24V-60W
4	B1015	Nut	
5	B1654	Flange	
6	A1304	Front Holder	
7	A1030	Spring Filter	set of 10
8	B1655	Button	
9	B1656	Board	w/Switch
10	B1916	Filter Pipe	
11	A1033	Ceramic Paper Filter (L)	set of 10
12	B1657	Cord Assembly	
13	B1917	Back Holder Assembly	
14	B1659	Housing	a screw & fastener included
15	B1023	Hose	E.S.D.
16	B1024	Cord Holder	set of 4
17	B1660	Housing Fastener	
18	B1915	Filter Holder	
19	B2517	Filter Pipe Asse'y	with Front Holder & Filters

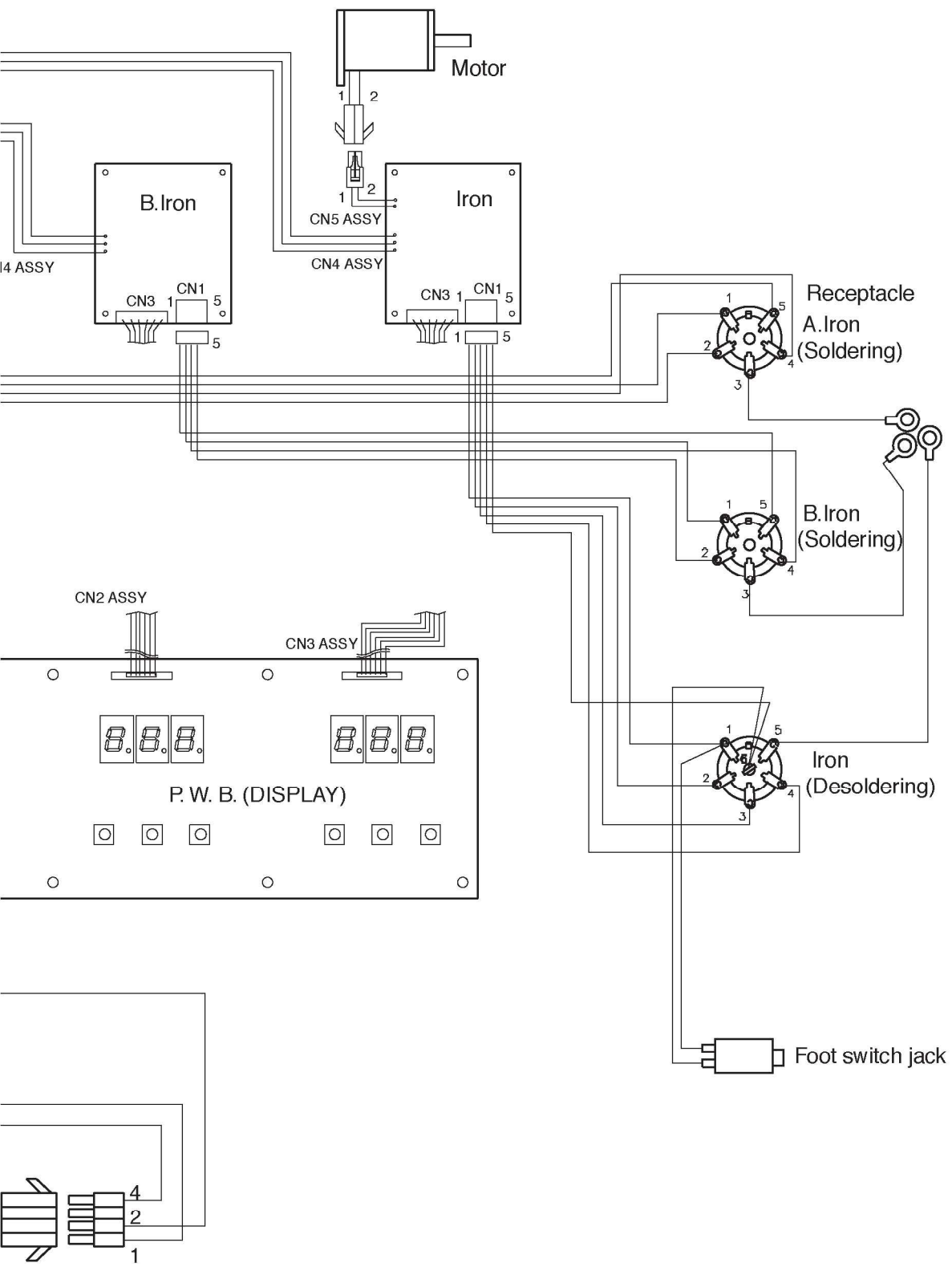
Hakko 817



Item No.	Part No.	Part Name	Specifications
1	A1314	Front holder	
2	A1030	Spring filter	10pcs.
3	A1033	Ceramic paper filter (L)	10pcs.
4	B2073	Filter pipe	With front holder & filters
5	A1012	O-ring	With O-ring
6	B1018	Back holder assembly	
7	B1019	Release knob	
8	B1020	Spring for release knob	
9	B2830	Housing	With screws
10	B1023	Hose	
11	A1319	Packing	
12	B2831	Cord assembly	With micro switch & plug
13	B1024	Cord holder	Set of 4
14	B1022	Cord stopper	
15	B1026	Micro switch	
16	B1021	Trigger	
17	A1507	Heating element	*24V, 60W*
18		Nozzle	See P.20
19	B1653	Element cover	
20	B1015	Nut	

WIRING DIAGRAM





Red
White

* This product is protected against an electrostatic discharge.

* This product meets China RoHS requirements.

⚠ CAUTION:

This product includes such features as electrically conductive plastic parts and grounding of the handpiece and station as measures to protect the device to be soldered from the effects of static electricity. Be sure to observe the following instructions:

1. The handle and other plastic parts are not insulators, they are conductors. When replacing parts or repairing, take sufficient care not to expose live electrical parts or damage insulation materials.
2. Be sure to ground the unit during use.

中國RoHS: 產品中有毒有害物質或元素的名稱及含量

部件名稱	有毒有害物質或元素					
	鉛(Pb)	汞(Hg)	鎘(Cd)	六價鉻 (Cr(VI))	多溴聯苯 (PBB)	多溴二苯醚 (PBDE)
泵組件	×	○	○	○	○	○
過濾管接合套	×	○	○	○	○	○
吸錫槍部分	×	○	○	○	○	○
插頭	×	○	○	○	○	○

○：表示該有毒有害物質在該部件所有均質材料中的含量均在SJ/T 11363-2006 標準規定的限量要求以下。
 ×：表示該有毒有害物質至少在該部件的某一均質材料中的含量超出 SJ/T 11363-2006 標準規定的限量要求。

注有「附帶BS插頭」之時，表示「插頭」為含有有害物質的部件。



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