

HAKKO 931

SOLDERING STATION

Soldering Station

Instruction Manual

Thank you for purchasing the HAKKO931 Soldering Iron. This Manual describes the use and maintenance of the HAKKO931. Please read it before using the unit. After reading the manual, keep it in a safe place for future reference.

Table of Contents

Packing List.....	1
Specifications.....	1
Precautions For Use.....	2
Part Names.....	3
Use.....	4
When An Error Occurs.....	5
Maintenance.....	6
Parts Replacement.....	7
Calibrating the Temperature...	8
Replacement Parts.....	8
Parts List.....	9-10

Packing List

Station (1)	Spring Iron Holder (1)
Soldering Iron (1)	Cap Nut Wrench (1)
Cleaning Sponge (1)	Instruction Manual (1)
Iron Holder Base (1)	

Specifications

Name	HAKKO931
Power Consumption	100W

■ Station

Name	Station
Output Voltage	AC24V
Temperature Range	200-450°C(392-842° F)
Temperature Accuracy	±10°C(±18° F) of temperature set on dial ±2°C(±3.6° F) of the preselected idling temperature
External Diameter	135(W)×95(H)×190(D)mm w/o cord and stand <5.3×3.7×7.5in>
Weight	Approx. 2.7Kg(6.0 lb)

■ Soldering Iron

Name	HAKKO902
Power Consumption	AC24V-90W
Tip To Ground Resistance	Under 2.0Ω
Leak Voltage	Under 0.6mV
Heating Element	Integrated Heater
Connecting Plug	5-pin screw-in plug
Total Length	180mm<7.0in>(w/o cord)
Weight	45g<0.09 lb>(w/o cord)

■ Iron Holder

No.	631-01
Name	HAKKO631
Specifications	one soldering iron(ForM/L)
Base Dimensions	80(W)×137(D)mm<3.1×5.4in>
Soldering Iron Holder Inner Diameter	30mm<1.2in>

★Conditions for Measurement

- Ground Resistance...At normal temperature, measured by an ohmmeter between the ground pin of power plug and soldering iron tip.
- Leak Voltage...With temperature set to 400°C(752° F), measured by ACmV meter between the ground pin of the power plug and the soldering iron tip.
- ※When measuring, make sure the ground pin is connected to ground.
- Tip temperature...Temperature listed above are those measured with the HAKKO191 tip thermometer.
- ※When the sensor on the tip thermometer is worn out, the displayed temperature may be 10-40°C(18-72° F) lower than the actual temperature.

★Specifications and appearance are subject to change without notice.

Precautions For Use

High Temperature

The tip of the Soldering Iron and the Spring Iron Holder on the Iron Holder are very hot. Do not touch them while the Soldering Iron is on or in use.

Stopping work

If the soldering iron will not be used for an extended period of time, turn the ON/OFF switch to OFF and unplug the power cord from the outlet.

When Finished

- Thoroughly clean the soldering iron tip and coat it with fresh solder. This will protect the tip from oxidation.
- Dampen the cleaning sponge with clean water and wipe the soldering iron tip. Never wipe a soldering iron tip on a dry sponge as it will permanently damage the Tip.

Cap Nut

Fasten the cap nut on the soldering iron securely. Using the iron with the Cap Nut loose may damage the Heating Element.

Handle with Care

Do not strike the iron against the workbench or cool it rapidly to remove solder scraps. Never drop it or allow it to bump hard against other objects.

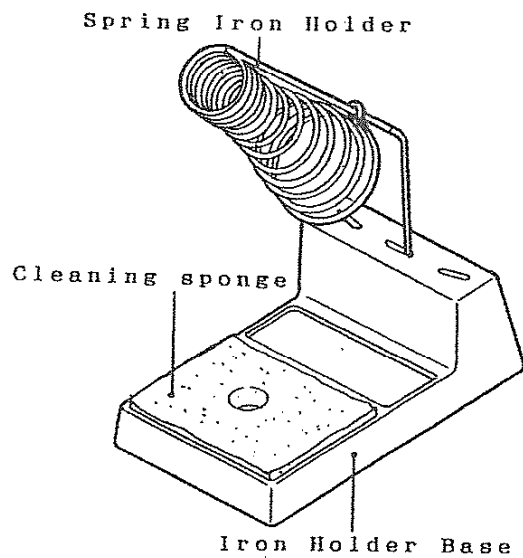
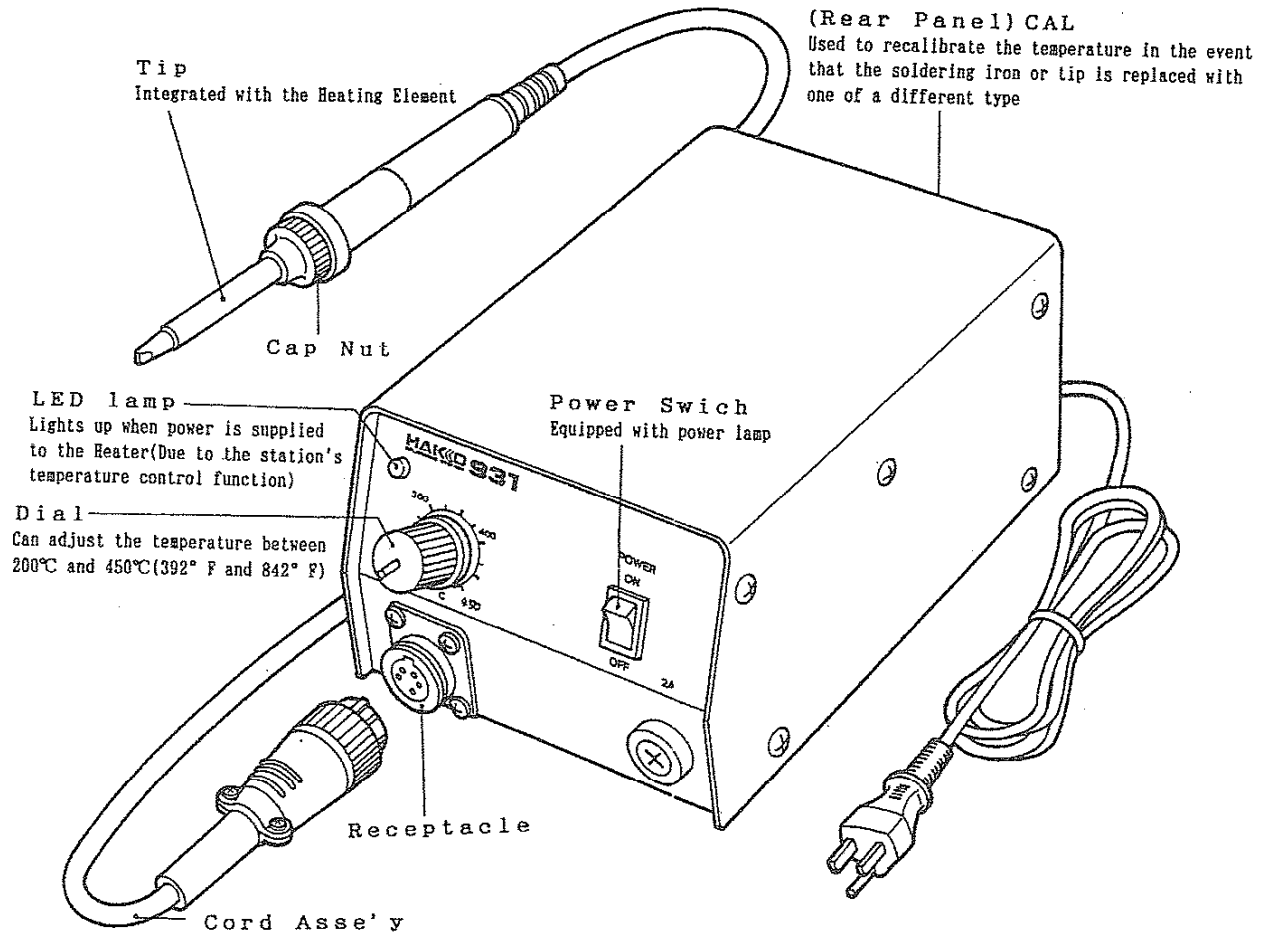
Cord Asse'y

Be sure to turn the power off before connecting/disconnecting the Cord Asse'y to/from the receptacle on the station. Failure to do so may damage the element inside the station.

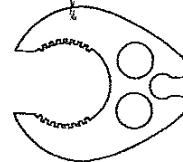
Soldering Iron Tip

- Soldering should be performed at as low a tip temperature as possible. As the tip temperature is restored very quickly, soldering is possible even if the set temperature is slightly lower than is considered "normal".
- Never file down or machine the tip. The tip protected by a iron plating; do not remove this plating.

Part Names



Cap Nut Wrench

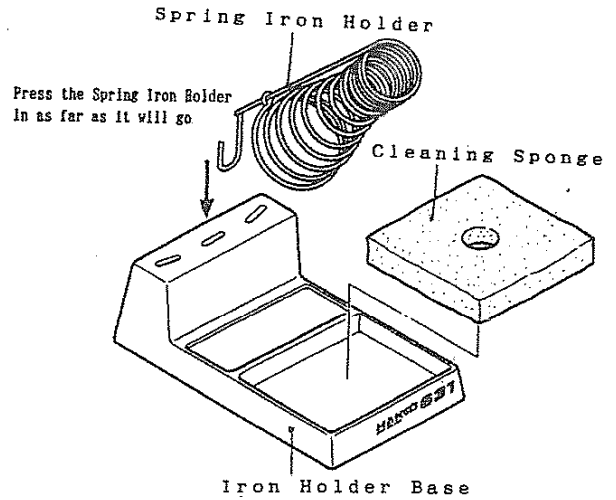


Use

1. Assemble the Iron Holder

- Attach the Spring Iron Holder to the base.
- Dampen the Cleaning Sponge and set it in the base.

Squeeze excess water out of the sponge so that it is "dry" to the touch.



2. Insert the Soldering Iron into the spring holder on the base

3. Connect the Soldering Iron to the Station.

- Insert the plug on the Cord Assembly into the Receptacle on the Station and turn the ring on the plug clockwise to lock it in place.

Caution

Be sure to turn the power OFF before inserting or removing the plug.

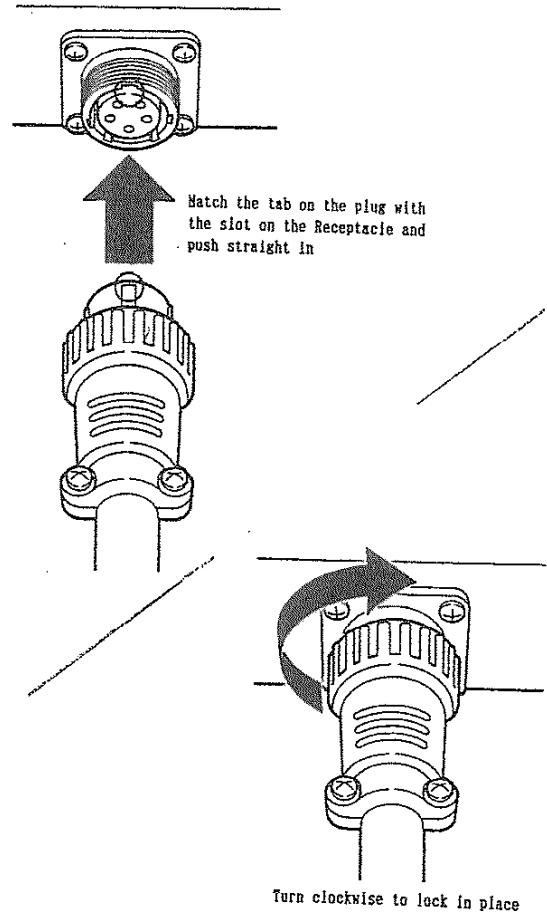
4. Set the temperature with the Temperature Adjustment Dial.

5. Turn on the power

- Insert the power plug into the outlet and turn the ON/OFF Switch to the ON position.

6. Begin soldering

- The temperature of the Tip will reach the set temperature approximately 30 seconds after the power has been turned on.



When An Error Occurs

When the unit is not functioning properly or an error has occurred, check the following items. It may be possible to fix the unit by replacing a worn-out part or by conducting simple repairs.

Problem		Cause
Tip does not become hot	Lamp on power switch is not lit	<ul style="list-style-type: none"> • Power plug is not inserted properly into outlet • Fuse burnout
	Lamp on power switch is lit but LED is unlit	<ul style="list-style-type: none"> • Heater burnout • Break in Cord Asse'y • Plug of Cord Asse'y is not properly inserted into receptacle
	Both LED and lamp on power switch are lit	<ul style="list-style-type: none"> • Heater burnout • Break in Cord Asse'y • Improper CAL adjustment • Plug of Cord Asse'y is not properly inserted into receptacle
Tip becomes too hot		<ul style="list-style-type: none"> • Improper CAL adjustment • Plug of Cord Asse'y is not properly inserted into receptacle
Tip sometimes becomed hot and sometimes does not become hot		<ul style="list-style-type: none"> • Cord is beginning to fray
Tip does not melt solder		<ul style="list-style-type: none"> • Temperature is set too high • Oxidation film or dirt on tip

Note:

When returning the unit for repair, please remove the Soldering Iron from the Station, pack both items in the box, and deliver the box to a HAKKO sales office or representative.

Parts Replacement

■ Replacing the Tip

The tip will eventually become worn out. When soldering becomes difficult, the tip should be replaced.

Before replacing the tip, be sure to turn the power off and wait until the integrated heater/tip on the soldering iron has cooled.

★ Tip



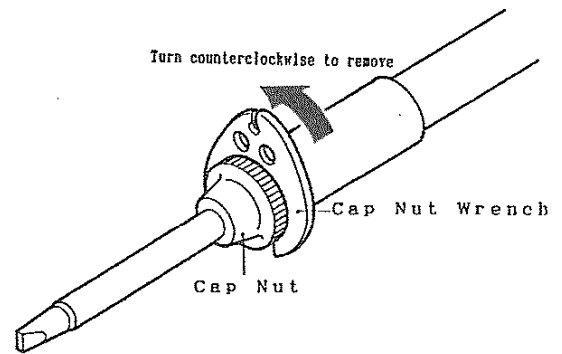
The Tip is integrated with the heater. Under NO circumstances should you attempt to separate the tip from the heater.

Caution

- Be sure to use only genuine HAKKO soldering iron tips of the specified type.
- Be sure to recalibrate the temperature after replacing the tip with one of a different type.

● Procedure ●

1. Turn the power off.
2. Remove the soldering iron from the Station.
3. Remove the Cap Nut.
 - Use the Cap Nut Wrench (included with the unit) and remove as shown in the figure at right.
4. Replace the Tip
Remove the old tip and insert the new tip.



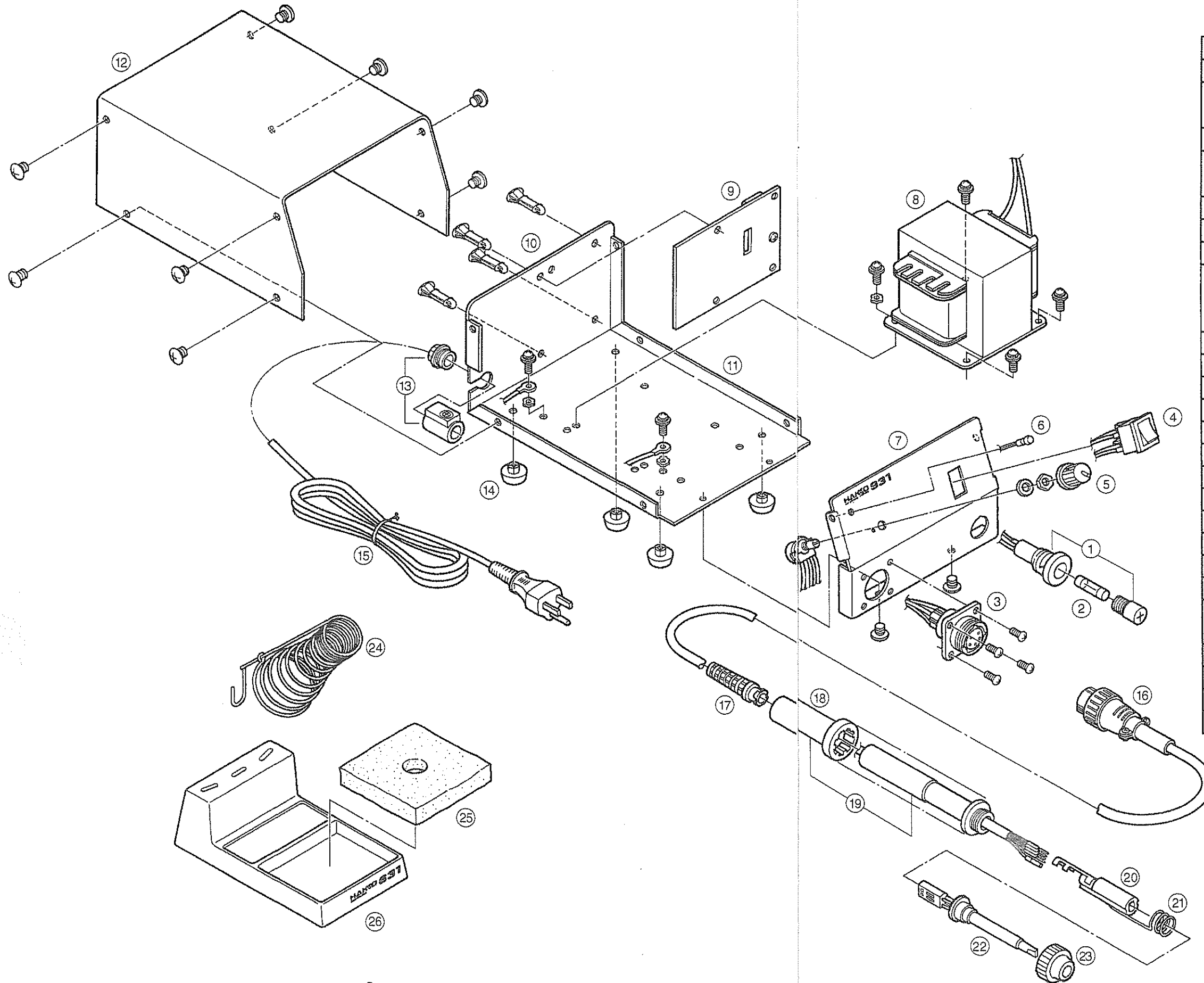
5. Replace the Cap Nut

Caution

Be Sure to fasten the Cap Nut securely. Using the iron with the Cap Nut loose may damage the heater.

6. Recalibrate the temperature
See page 8 for instructions on how to calibrate the temperature.

Parts List



Item No.	Part No.	Part Name	Specification
1	B1041	Fuse holder	
2	B1042	Fuse	2A-125V
	B1132	Fuse	2A-250V
3	B1485	Receptacle	
4	B1487	Power switch	100-120V
	B2604	Power switch	220-240V
5	B1486	Dial	
6	B 2138	L.E.D.Lamp	
7	B1488	Panel	
8	B1493	Transformer	100V
	B1592	Transformer	110V
	B1593	Transformer	220-240V
9	B1491	P.W.B.	
10	B1855	Locking spacer	
11	B1490	Chassis	
12	B1489	Cover	
13	B1208	Cord stopper	
14	B1204	Rubber	
15	B1327	Cord asse'y	
16	B1100	Cord bushing	
17	B1098	Handle cover	
18	B1321	Handle	
19	B1550	Terminal	
20	B1549	Grounding spring	
21	B1080	Soldering tip	Shape-2.4D
22	B1096	Cap nut	
23	B1468	Spring iron holder	
24	A1042	Cleaning sponge	
25	B1470	Iron base	

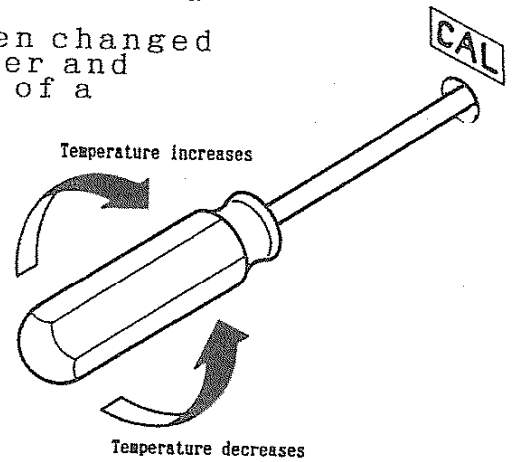
Calibrating the Temperature

The Temperature should be recalibrated in the following situations;

- ★When the soldering iron has been changed
- ★When the tip (combination Heater and Tip) has been replaced with one of a different type

◆Procedure◆

1. Turn on the power
2. Set the temperature of the Tip
3. Measure the temperature of the Tip
 - Wait 30 seconds after turning on the power for the temperature to stabilize.
4. Calibrate the temperature
 - Using a flat-head screwdriver, adjust the potentiometer on the rear panel of the station (labeled "CAL") until the tip temperature is 400°C (752° F).



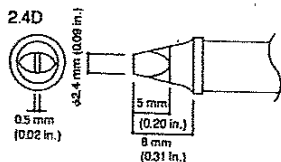
Turn the potentiometer clockwise to increase the temperature, and counter-clockwise to decrease the temperature.

Replacement Parts

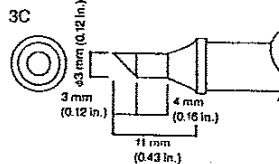
●Soldering Tip

No.	Name/Specification
A1080	Soldering Tip Shape-2.4D
A1160	Soldering Tip Shape-2C
A1161	Soldering Tip Shape-3C
A1162	Soldering Tip Shape-5C
A1163	Soldering Tip Shape-K
A1173	Soldering Tip Shape-B

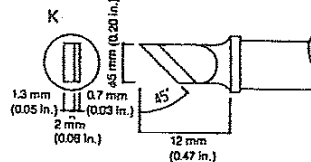
A1080



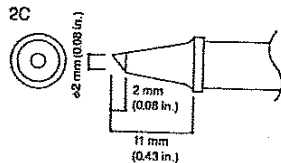
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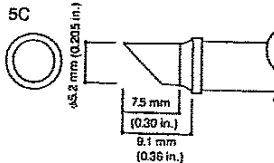
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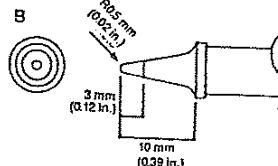
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A1162



A1173





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