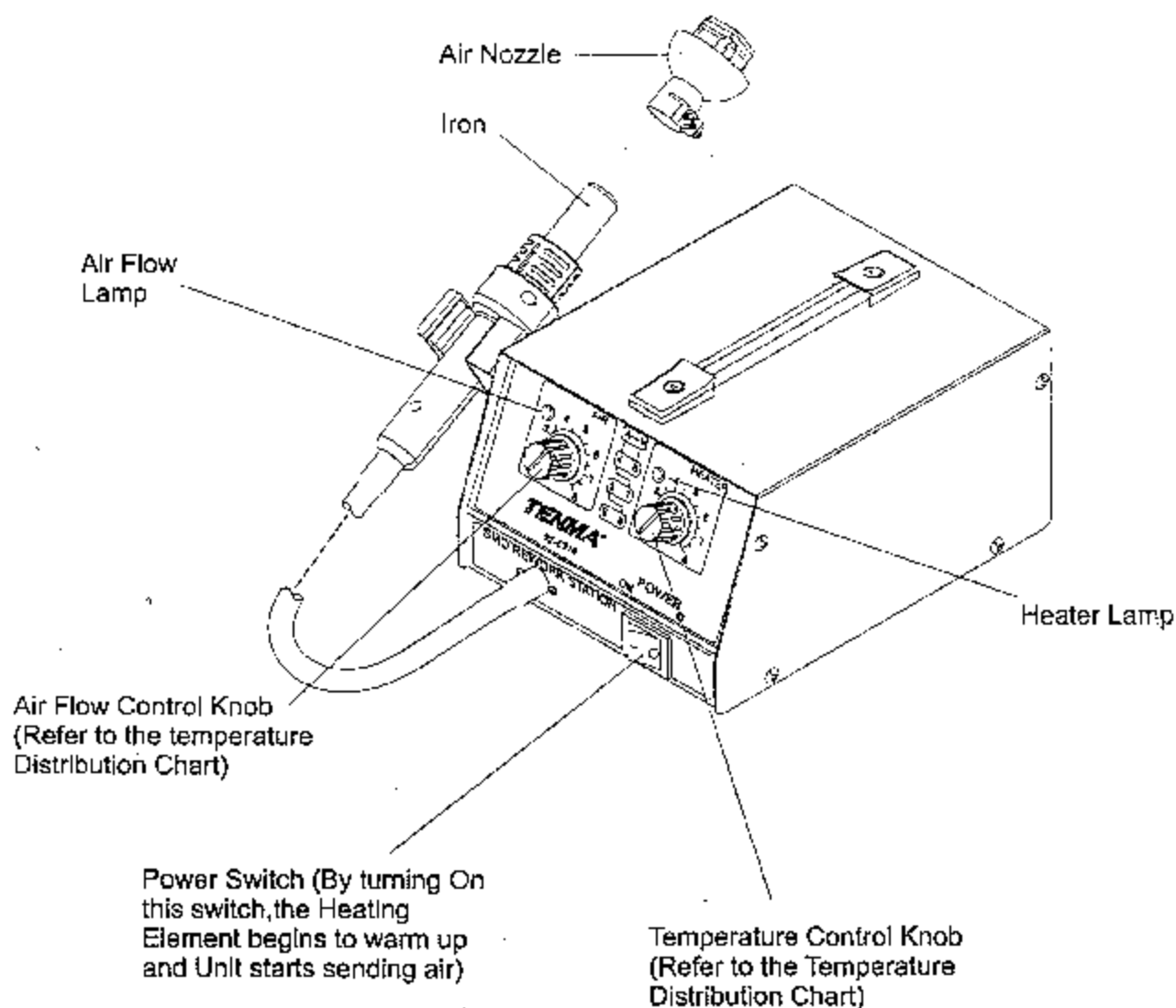


TENMA[®]

INSTRUCTION MANUAL SMD REWORK STATION

72-6710



Precautions

1. Thermal Protector

For safety, power is automatically shut off should the unit exceed a certain temperature. Once the temperature has dropped to a safety level, power is automatically turned on.

Turn off the switch and cool the iron. After that, to continue operation, reduce the temperature setting or increase the air flow. Should the Thermal Protector be tripped and you do not wish to continue the operation be sure to turn the power switch off.

2. Caution-High Temperature Operation

Do not use the SMD Rework Station near ignitable gases, paper, or other flammable materials.

Both the nozzle and the heated air are extremely hot and can cause painful burns. Never touch the heater pipe or allow the heated air to blow against your skin. Initially, the iron may emit white smoke, but this will soon disappear.

3. After use, be sure to cool the unit.

After turning off the power switch, the unit will automatically blow cool air through the pipe for a short period of time. Do not disconnect the plug during this cooling process.

4. Never drop or sharply jolt the unit.

The pipe contains quartz glass which can break if the unit is dropped or jolted sharply.

5. Don not disassemble the pump.

6. Disconnect the power cord when not using the unit for a long time.

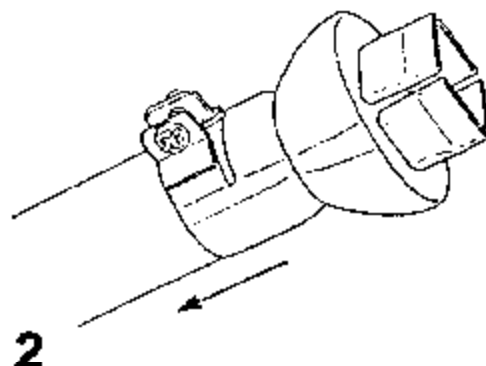
When the power cord is connected there is a small current draw, even if the power switch is in off position. So when you don't use the unit for a long time, disconnect the power cord.

Attaching the Nozzle.

1. Loosen the screw on the Nozzle.
2. Attach the Nozzle as shown in the drawing.

Note:

Do not force the Nozzle or pull on the edge of the Nozzle with pliers. Also do not retighten the screw too tightly.



Specifications


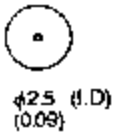
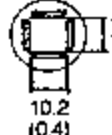

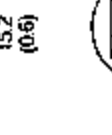
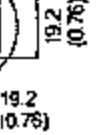

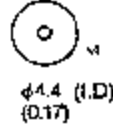
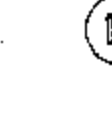
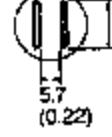



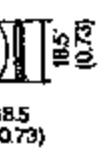
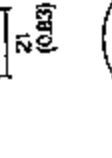

■ Station

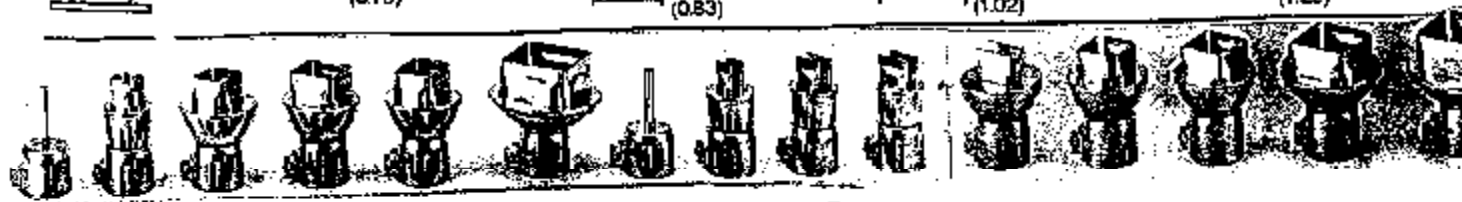
Power	20W (When the power switch is "OFF" 2W)
Consumption	
Pump	diaphragm pump
Capacity	23 / min (max)
Outer Dimensions	187(W)x135(H)x245(D)mm (7.36x5.31x9.64 in)
Weight	4kg (approx.) (8.81 lb)

■ Iron

Power	100.110.220-240V/250W
Consumption	120V/260W
Hot Air Temperature	100~420C (212-788F)
Length	196mm(7.71 in)
Weight	120g (0.26 lb)

■ Optional Nozzles mm(inch) Note: The size specification indicates the size of the IC package.

QFP	72-6724 Single	72-6711 QFP 10X10 (0.39X0.39)	72-6712 QFP 14X14 (0.55X0.55)	72-6713 QFP 17.5X17.5 (0.68X0.68)	72-6714 QFP 14X20 (0.55X0.78)	72-6715 QFP 28X28(11X11)
						
SOP	72-6725 Single	72-6716 SOP 4.4X10 (17X0.39)	72-6717 SOP 5.6X13 (0.22X0.51)	72-6718 SOP 7.5X15 (0.3X0.59)	72-6719 SOP 7.5X16 (0.3X0.7)	
						
PLCC	72-6720 PLCC 17.5X17.5 (0.68X0.68) (44 Pins)	72-6721 PLCC 20X20 (0.78X0.78) (52 Pins)	72-6722 PLCC 25X25 (0.96X0.98)(.98) (58 Pins)	72-6723 PLCC 30X30 (1.18X1.18) (84 Pins)		
						



Replacing the Heating Element

1. Remove the screws, slide the tube.

Remove the 3 screws (Fig. I-1,2,3) which secure the Handle and slide the cord tube.

2. Open the Handle.

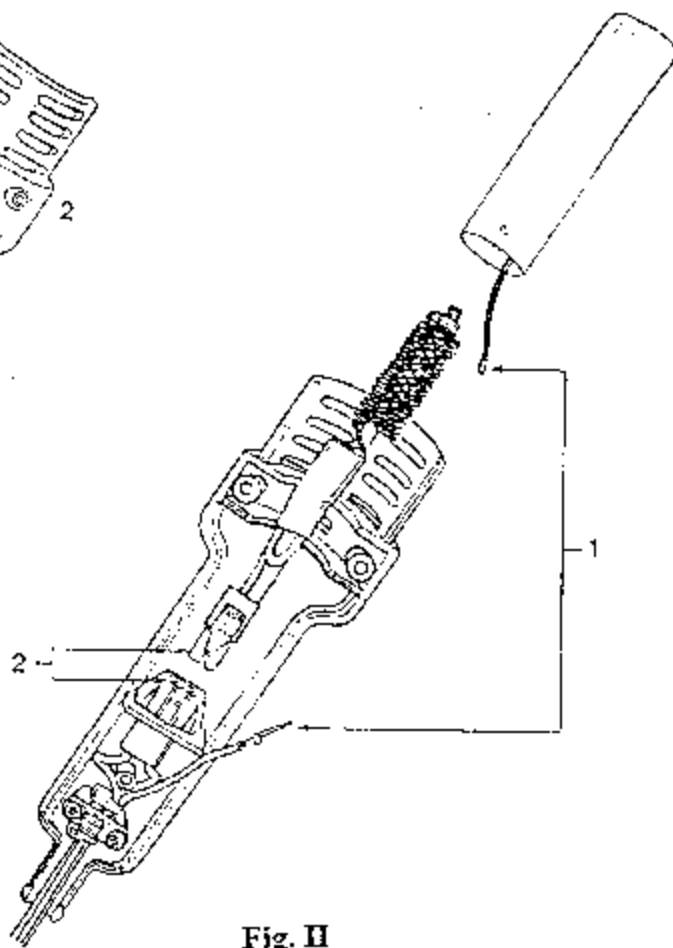
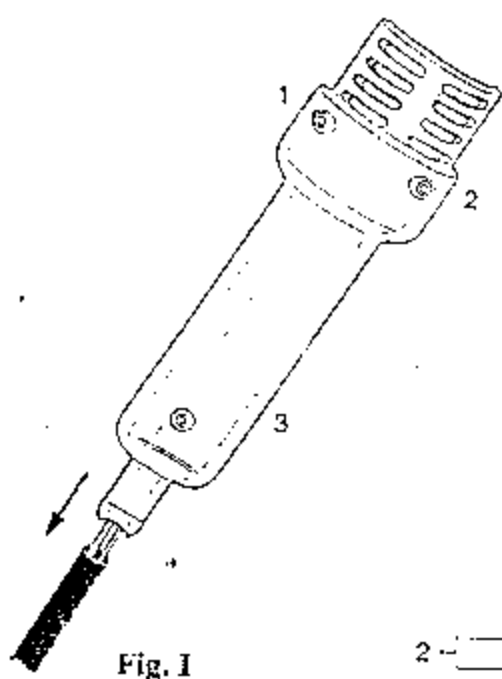
Disconnect the ground wire sleeve (Fig. II-1) and remove the pipe. In the pipe, the quartz glass and heat insulation is installed. Do not drop or miss it.

3. Remove the Heating Element.

Disconnect the terminal (Fig. II-2) and remove the Heating Element.

4. Insert a new Heating Element.

Handle it with care. Never rub the Heating Element wire. Insert a new Heating Element and reconnect the terminal. Reconnect the ground wire after replacing the element. Assemble the Handle in the reverse order of disassembly. Insert the Handle's projection into the hole in the pipe.



Operating Instructions

QFP Desoldering

1. Plug the power cord into the power supply.

After connection, the automatic blowing function will start sending air through the pipe, but the Heating Element remains cool.

2. Turn the Power switch on.

The Power Switch may be turned on at any time while the automatic blowing function is operating. Once the Power Switch is turned on, the Heating Element will begin to warm up.

3. Adjust the Air Flow and Temperature Control Knobs.

After adjusting the Air Flow and Temperature Control Knob, wait for the temperature to stabilize for a short period of time. Refer to the temperature distribution chart. For your reference, we recommend you to adjust the temperature around 300 to 350°C. As for Air Flow in case of single nozzle, set the knob 1-3, in another nozzle, set it from 4-6. When using a single nozzle, never set the Temperature Control Knob to higher than 6.

4. Place the FP Pick-up under the IC lead.

Slip the FP Pick-up Wire under the IC lead. If the width of the IC does not match the size of the FP Pick-up, adjust the width of the wire by supressing the wire.

5. Melt the solder.

Hold the iron so that the Nozzle is located directly over, but not touching the IC, and allow the hot air to melt the solder. Be careful not to touch the leads of the IC with the Nozzle.

6. Remove the IC.

Once the solder has melted, remove the IC by lifting the FP Pick-up.

7. Turn the Power Switch off.

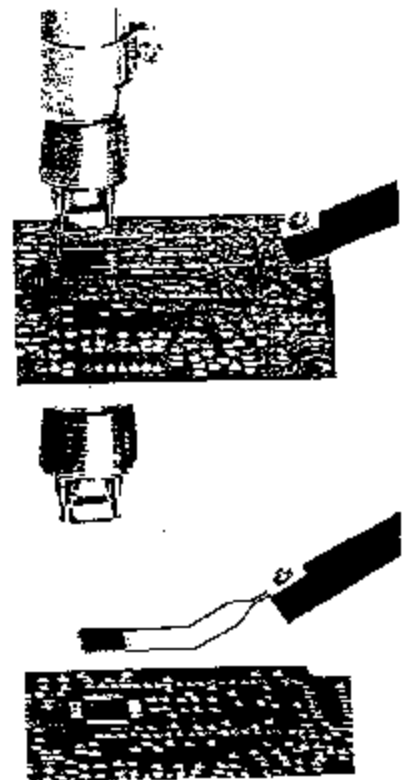
After the Power Switch is turned off, an automatic blowing function begins sending cool air through the pipe in order to cool both the heating element and the handle. So do not disconnect the plug during this cooling process.

In case you don't use the unit for a long time, disconnect the plug.

8. Remove any remaining solder.

After removing the IC, remove remaining solder with a wick or desoldering tool.

Note: In case of SOP, PLCC, desolder it by using tweezers, etc.



QFP Soldering

1. Apply the solder paste.

Apply the proper quantity of solder paste and install the SMD on the PC board.

2. Preheat SMD

Refer to the photo to preheat SMD. (Fig. 1)



3. Soldering

Heat the lead frame evenly. (Fig. II)



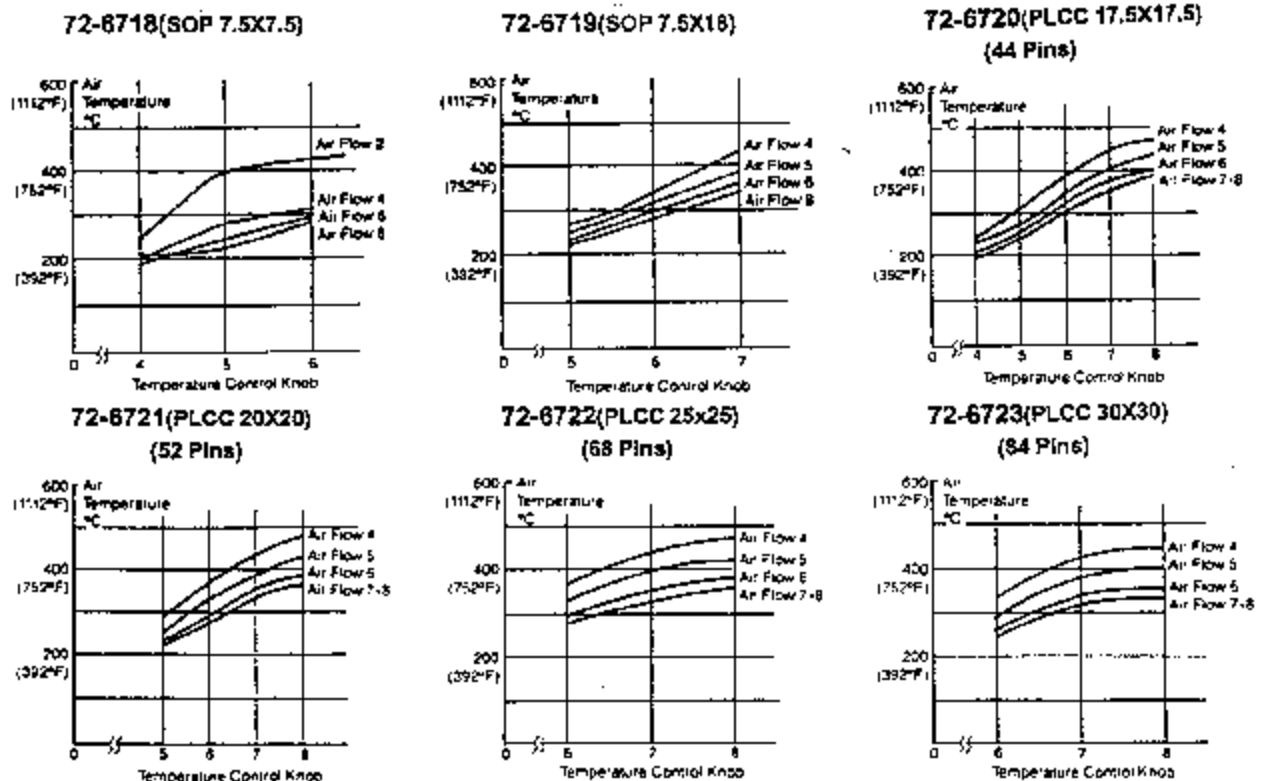
Fig. 1

4. Washing

When soldering is completed, wash away the flux. Fig. II

Note: while there is merits to soldering by Hot air, it is still possible to cause defects such as solder balls, solder bridges. We recommend you examine the condition of soldering sufficiently.

Temperature Distribution Chart

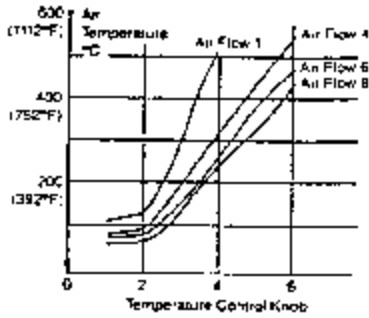


Temperature Distribution Chart

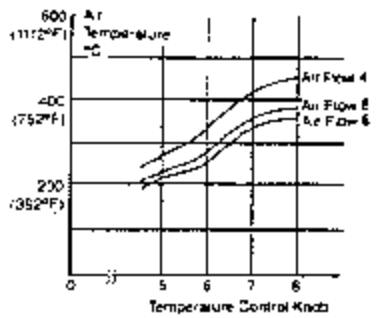
Test criteria:(72-6724 ~ 72-6715)Measured at point 3mm

From the Nozzle by recorder.Room Temperature 23°C (73.4°F)

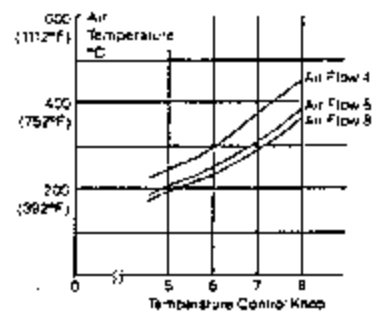
72-6724(Single 2.5(0.9 in))



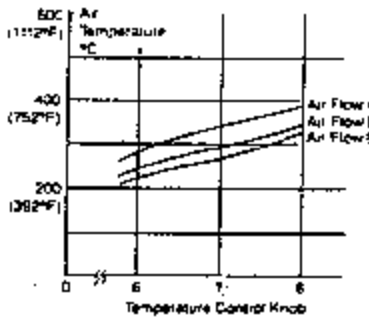
72-6711(QFP 10X10)



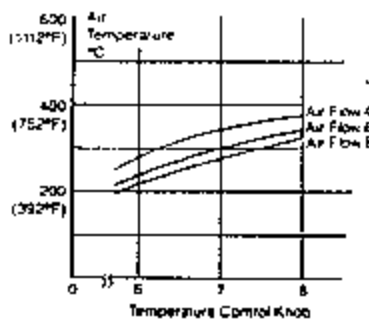
72-6712(QFP 14X14)



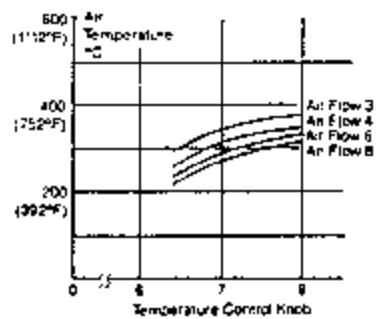
72-6713 (QFP 17.5X17.5)



72-6714 (QFP 14X20)

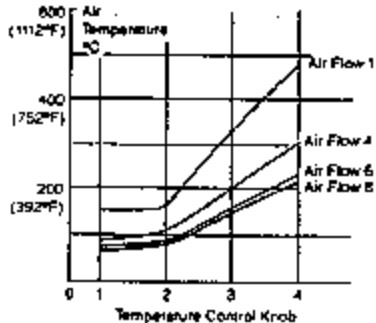


72-6715(QFP 28X28)

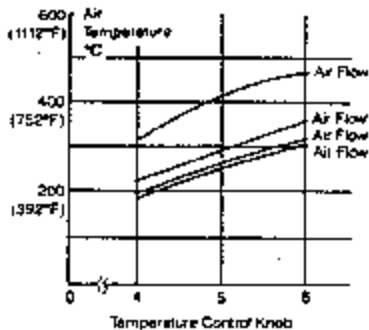


Test criteria: (A1130-A1142) Measured at the point 3mm
from the Nozzle by recorder. Room Temperature 21°C (67°F)

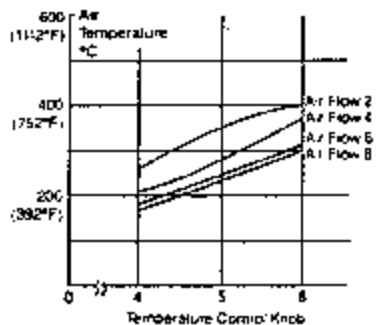
72-6725(Single 4.4(0.17 in))



72-6716(SOP 4.4X10)



72-6717(SOP 5.6X13)



ASSEMBLY

