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# **HAKKO F.P.D.**

**FP DESOLDERING**

## **INSTRUCTION MANUAL**

Please read this instruction manual thoroughly before operating the HAKKO F.P.D.

Developed from years of soldering experience, the HAKKO F.P.D. is a newly designed desoldering tool featuring the latest advances in soldering technology.

This instruction manual describes the correct methods of operation, inspection and repair for the HAKKO F.P.D. desoldering tool.

Note: The HAKKO F.P.D. is designed for desoldering flat-package IC's(QFP). Do not use the HAKKO F.P.D. for desoldering PLCC, LCC or bonded type packages.

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\* Specifications subject to changes without notice.

## 1. Specifications

### 1) No. 700-5

* Power Consumption	AC 24V/40W
* Heating Element	Ceramic Heater
* Cord	Burn-proof Silicon Cord (1.2m, 47in.)
* Hose	Silicon Hose (1.2m, 47in.)
* Connector	5 pin inter-lock system
* Weight	Approx. 250g, 0.4lb. (w/o Cord & Hose)

Note: No.700-5 for use with No.700B or No.700C of HAKKO 700.

### 2) HAKKO 483-3

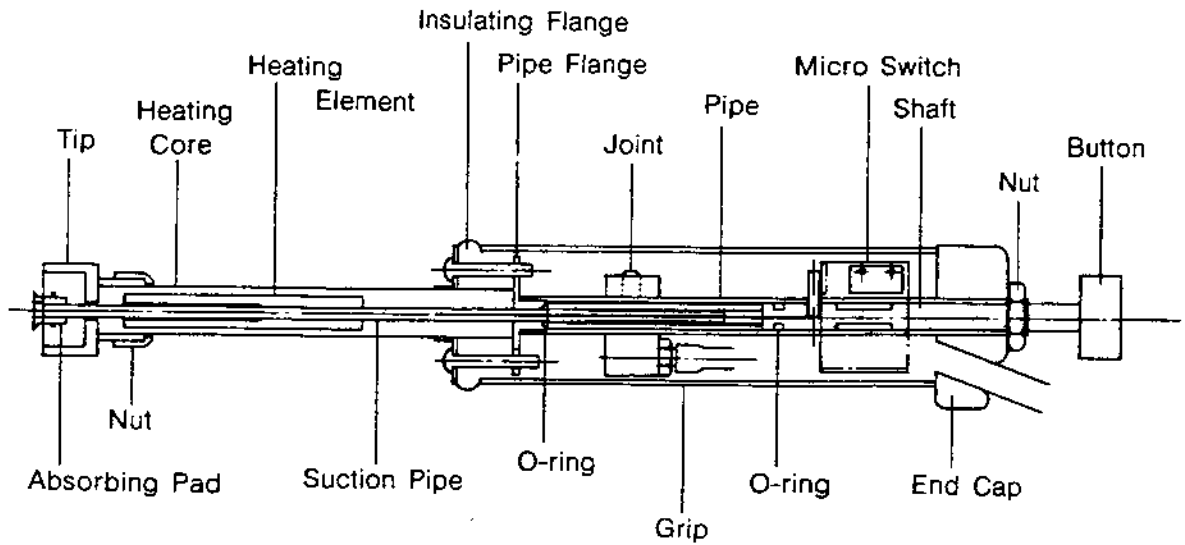
* Power Consumption	40W
* Heating Element	Ceramic Heater
* Cord	Burn-proof Silicon Cord (1.2m, 47in.)
* Hose	Silicon Hose (1.2m, 47in.)
* Connector	4 pin inter-lock system
* Weight	Approx. 250g, 0.4lb. (w/o Cord & Hose)

Note: HAKKO 483-3 for use with HAKKO 483.

### 3) Accessories

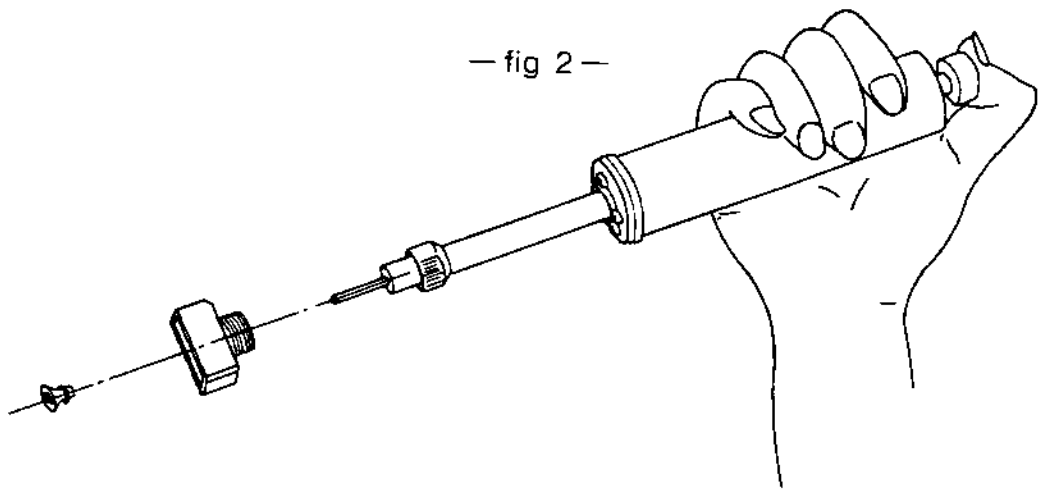
No. 481-026	Anti-seizure	1 pc.
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## 2. Names of Parts



— fig 1 —

## 3. Before Operation



- 1) Apply Anti-seizure to the threads of the Heating Core and secure the Tip to the Heating Core with Nut.
- 2) Press and hold the Button on the HAKKO 700-4(483-3) and insert the Absorbing Pad over the plunger at the Heating Core end of the Unit. (—fig 2—)

#### 4. Operating Procedures

1) Connect the Hose and Connector of the Desoldering Iron to the Station.

2) Plug the Power Cord into the Power Supply.

Caution: For your own safety, be sure to ground the HAKKO F.P.D.

3) Adjust the temperature using the Temperature Control Knob.

Notes: • The Tip temperature varies according to the size of the Tip. Refer to the following table to select the appropriate temperature dial reading for the Tip you are using.

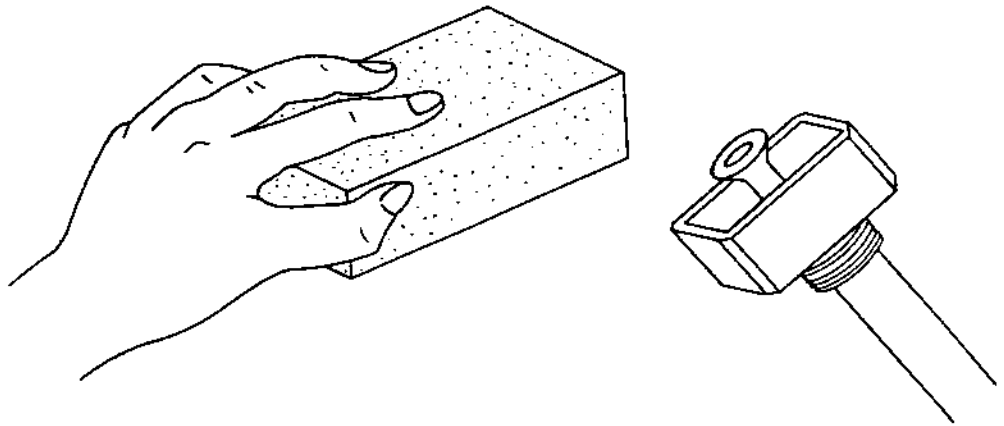
- No.700-5 should be measured with turning CAL to Max if operate with 700C.
- The ideal tip temperature is 300°C (572°F), which leaves an adequate margin of safety for the P.C.Board pattern and the thermal capacity of the Tip.

Tip Model No.	Tip Temp. at Lowest Point of Control Knob (approx.)
No.700-42	300°C (572°F)
No.700-43	290°C (554°F)
No.700-44	280°C (536°F)
No.700-45	280°C (536°F)
No.700-46	270°C (518°F)
No.700-47	270°C (518°F)

4) After turning on the power, wait approx. 10 minutes for the Tip to heat up.

5) When the Tip is sufficiently hot, remove any flux and oxide on the surface of the Tip with a damp cleaning sponge.

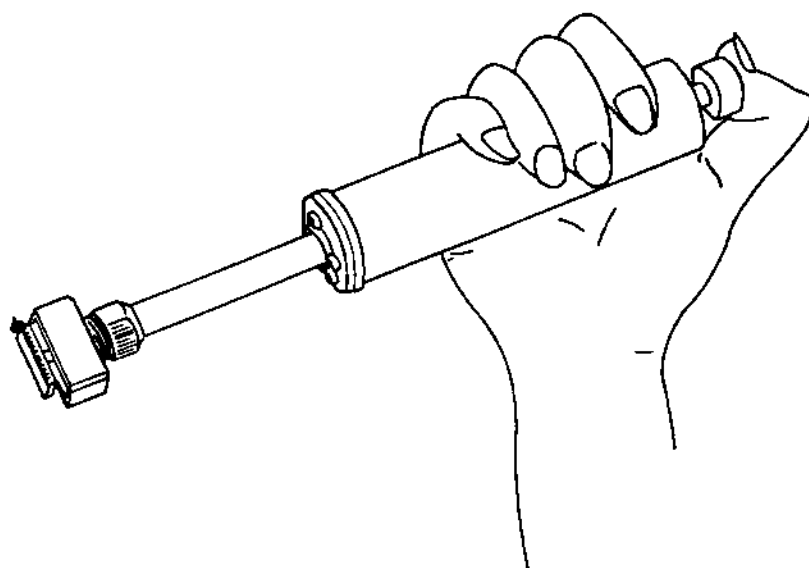
(-fig 3-)



— fig 3 —

Caution: During desoldering, be sure to remove excess solder from the Tip so that it does not drop onto the P.C. Board and damage the printed pattern. Do not remove the solder with excessive force as this may cause the solder plating on the surface of the Tip to peel off. Also be sure to keep the solder plating clean.

- 6) Place the heated tip over the Package leads. Be sure that the Tip is evenly touching all the leads.
- 7) Wait 3-5 seconds, then press the Button to lift the Package up. (—fig 4—)
- 8) Release the Button to remove the Package from the Tip
- 9) After use, "wet" the tip with solder and turn the Power Switch off.



— fig 4 —

## 5. Maintenance

### A. Replacement of the Absorbing Pad

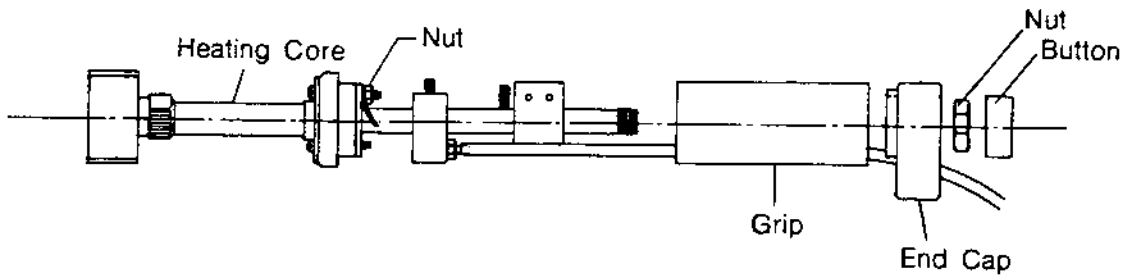
After some time, the rubber Absorbing Pad may deteriorate, causing air leakage which can affect the suction power of the Pad. Be sure to check the Pad regularly and replace it when necessary.

- 1) After making sure that the tip has completely cooled down, remove the old Absorbing Pad.
- 2) Press and hold the Button on the HAKKO 700-4(483-3) and insert a new Absorbing Pad. (— fig 2 —)

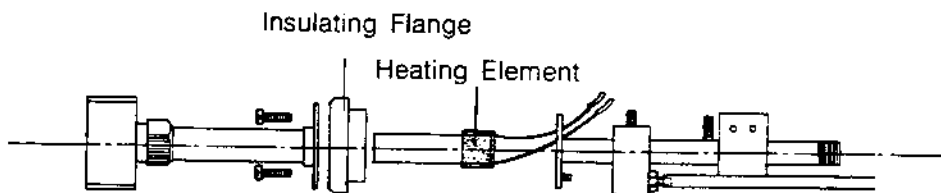
### B. Replacement of the Heating Element

- 1) Remove the Button and the Nut. (— fig 5 —)
- 2) Grasp the Grip and the End Cap and pull them up.
- 3) Remove the Nut securing the Grounding Wire.

- 4) Remove four screws securing the Heating Core and pull the Core in the direction of the Tip.



— fig 5 —



— fig 6 —

- 5) Pull the Insulating Flange in the direction of the Tip.
- 6) Replace the Heating Element.
- 7) Reassemble the Unit by following the above directions in reverse order.

### C. Troubleshooting Guide

Problem	Item to Check
○ Power Switch Lamp does not light up.	○ Is the fuse blown?
○ Vacuum Pump does not operate.	○ Is the Desoldering Iron properly connected?
○ Solder is not completely melted.	○ Is the Tip completely clean? ○ Is the Tip evenly touching all the leads? ○ Is the Desoldering Iron properly connected? ○ Is the Heating Element broken?
○ Doesn't pick up Flat-Packages.	○ Is Absorbing Pad cracked with age? ○ Is the Hose properly connected?

### 6. Replacement Parts

\* Tip

Model No.	A	B
No.700-42	12.5mm, 0.49in	12.5mm, 0.49in
No.700-43	15.5mm, 0.61in	15.5mm, 0.61in
No.700-44	16.3mm, 0.64in	16.3mm, 0.64in
No.700-45	17mm, 0.66in	17mm, 0.66in
No.700-46	23mm, 0.9in	17mm, 0.66in
No.700-47	20mm, 0.78in	20mm, 0.78in

\* Absorbing Pad      No.700-40      5 pcs.



\* Heating Element      for 700-5      No.700-5-H  
                                  for 483-3      No.483-3-H