Thank your for purchasing the HAKKO FX-301B soldering pot. Please read this manual before operating the HAKKO FX-301B.

Keep this manual readily accessible for reference

Instruction Manual

П	PACKING	LICT	VND	DADT	NAMES	- 1
١.	PACKING	LISI	ANU	PARI	NAMES	-

Please check to make sure that all items listed

lakkoFX-301B	
Hexagon wrench	Solder pot Spatula
	J-shaped waste collector
Power cord Display	Solder pot mounting screws (both sides)
Control buttons	Power switch Fuse

2. SPECIFICATIONS

	50 × 50 Square	75 × 75 Square		
Power consumption	100V - 200W, 110V - 260W, 120V - 290W, 220V - 240W, 230V - 260W, 240V - 280W			
Temperature range	200 - 450°C (400 ~ 840°F)	200 - 380°C (400 ~ 720°F)		
Solder pot dimensions	50 (W) × 50 (D) × 43.5 (H) mm (2.0 × 2.0 × 1.7 in.)	75 (W) × 75 (D) × 52.5 (H) mm (3.0 × 3.0 × 2.1 in.)		
Molten solder capacity	0.85 kg (1.87 lb.)	1.2 kg (2.64 lb.)		
Weight	1.7 kg (3.74 lb.)			
(w/o solder and cord)				
Outer dimensions	143 (W) × 100 (H) × 220 (D) mm (5.6 × 4.0 × 6.7 in.)			

- * Only a 50 × 50 square solder pot is included in this product.
- * The 75 × 75 square solder pot is an optinal part.
- * Specifications and design are subject to change without notice

產品中有毒有害物質或元素的名稱及含量

			有毒有害	害物質或元素		
部件名稱	鉛(Pb)	汞(Hg)	鎘(Cd)	六價鉻 (Cr(VI))	多溴聯苯 (PBB)	多溴二苯醚 (PBDE)
插頭	×	0	0	0	0	0

- 〇: 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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http://www.hakko.com

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3. SAFETY INSTRUCTIONS

⚠ WARNING

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:

MARNING: Failure to comply with a WARNING may result in serious injury or death

⚠ CAUTION : Failure to comply with a CAUTION may result in injury to the operator, or damage to the items involved. Two examples are given below.

♠ WARNING

When the power is ON, the temperature of the melted solder in the solder pot is approximately 450°C/842°F. Before changing the solder pot, be sure to unplug the power cord and let the solder and the unit cool to room temperature.

Observe the following precautions to ensure safety.

⚠ CAUTION

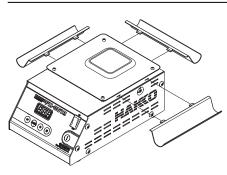
The molten solder in the solder pot is dangerous since it reaches about 450°C/842°F. The pot cover also becomes a high temperature when the power is ON. Wrong handling may cause burns or fire. Be sure to observe the following precautions.

- Use this product on highly stable metal workbench. Never use it near paper or other flammable materials.
- Inform others in the area that the product is hot and should not be touched.
- Never put water in the solder pot as this will cause solder to spatter out of the solder pot.
- Turn the power off when not in use, or left unattended.
- Before changing parts or storing the unit, be sure to turn the power off and allow the unit to cool to room

Observe the following precautions to prevent accidents or damage to the unit.

- Do not use the HAKKO FX-301B for applications other than soldering.
- Do not modify the HAKKO FX-301B.
- Use only genuine HAKKO replacement parts.
- Do not allow the HAKKO FX-301B to become wet, or use it with wet hands.
- Be sure the work area is well ventilated. Soldering produces smoke.
- Do not do anything else that might be dangerous.

4. INTIAL SETUP



- 1. Install the J-shaped waste collector to the unit. (Three-way installation is possible to meet your operating needs.)
- 2. Cut the solder sticks into small pieces and put them in the solder pot.
- 3. Plug the power cord into a grounded wall socket.

⚠ CAUTION

Make sure the power switch is off before plugging in the power plug.

5. OPERATION

Display and operation



Display

The front panel of the HAKKO FX-301B soldering pot has the following controls:

- Increases the value in the appropriate display
- decreases the value in the appropriate display window.
- Representation Holding down the button for one second or more will enter into the temperature setting mode. If the button is otherwise pressed for only less than one second, the current set temperature will remain displayed. In the input mode, establish the entered value and exist the data input mode.
- # Holding down the button for one second or more will enter into the offset input mode. If the button is otherwise pressed for only less than one second, the current offset value will remain displayed.

Operation

- 1. Turn the power switch ON.
- The temperature set at factory is displayed. *The temperature was set to 350°C at factory.
- 3. The temperature control is started, causing the temperature to increase.

NOTE:

The display blinks when the power is turned ON or when settings are changed. This blinking occurs because the temperature control is in progress. The current temperature will be displayed in a short time.

6. PARAMETER SETTINGS

Before changing the setting temperature

The HAKKO FX-301B comes from the factory with the following values preset:

°C or °F temperature display	1 C	°C
selection		
Setting a solder type	2 1	Sn-Pb (Tin an lead)
Setting the solder pot type	3 1	50 × 50 square
Setting the timer	4 0	OFF or disabled

Entering the parameters

1. °C or °F temperature display selection

2. Setting a solder type

Once a solder type close to the applicable one as shown in the right side, the temperature control will be performed for that solder type.

The HAKKO FX-301B has the following four parameters:

- 1) °C or °F temperature display selection
- 2) Setting a solder type
- 3) Setting the solder pot type
- 4) Setting the timer

Once you enter the parameter setting mode, the setting sequence will start in the following order. After all the parameters have been set, the displayed temperature setting starts blinking and the temperature of the solder pot starts rising.

- 1. Turn the power switch OFF.
- 2. Press and hold down the P and D buttons simultaneously, and then turn the power switch
- 3. When you enter the parameter setting mode, is displayed.
- 4. Press the por button to select / for °C or / F for °F. After checking the displayed selection, press the

button. After establishing the temperature unit to use,

enter the solder type selection mode.

Press the (IP) or (III) button to select the number corresponding to your solder type as follows:

Sn-Pb (Tin an lead)

Sn-Ag-Cu (Tin, silver, and copper)

Sn-Cu (Tin and copper)

After checking the displayed selection, press the button

The solder types are listed for only rough classification. Select the closest one to your solder type.

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6. PARAMETER SETTINGS

3. Setting the solder pot type

In the HAKKO FX-301B package, the size of the solder pot is 50×50 square. The 75×75 square solder pot is available to order for the requirement of your work.

4. Setting the timer

It will be able to check the present addition time by pressing the www button.

How to change and reset

Set the size of the solder pot that you will use

 $3 1 50 \times 50$ Square: Setting range of temperatures 200 - 450°C/400 - 840°F

3 2 75 × 75 Square: Setting range of temperatures 200 - 380°C /400 - 720°F

Press the or on to select the number corresponding to your solder pot size as shown above. After checking the displayed selection, press the *\text{ button.}

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for a value between 10 and 9990 hours Select the displayed 4 1 and then press the button. You will proceed to enter the time to set. Enter a desired time value.

Time can be set in units of 10 hours in a range between [][] and [][][] (10 and 9,990 hours). After entering the time value, press the A button.

NOTE:

After the set time has passed, $\boxed{\mathcal{L}}$ will be displayed, the alarm will start sounding, and then the heater for the solder pot will be turned OFF. To reset the alarm and others, turn OFF the power switch and then immediately turn it ON again. The timer will be reset to the above time setting. After the set time has passed, the heater for the solder pot will be turned OFF.

Changing the time Enter the value between 001 - 999.

Resetting the time In case of resetting the time (in the middle of setting the time.), please change to the different value once, and enter the desired value

7. CHANGING THE TEMPERATURE SETTING

Changing the temperature setting

The HAKKO FX-301B is preset at 350°C at the factory.

Example: 350°C to 400°C

1. Check that the displayed value is 350°C. Press the * button for one second or more. The

hundreds digit will start blinking, indicating the unit is in the temperature setting mode.

2. Entering the hundreds digit

Press the Press the Drum button to set the desired figure. When the desired figure is displayed, press the X button to enter. The tens digit will begin to

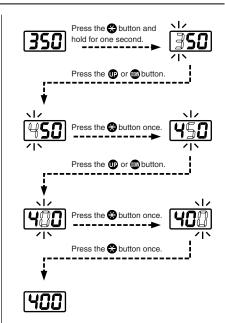
3. Entering the tens digit

Press the **P** or **D** button to set the desired figure. When the desired figure is displayed, press the button to enter. The unit's digit will begin to blink.

4. Entering the unit's digit

Press the p or button to set the desired figure. When the desired figure is displayed, press the button to enter. Now the setting has been

After the setting has been completed, the displayed temperature starts blinking and the temperature in the solder pot starts rising. The current temperature will be displayed in a short time.



For the 50×50 square pot, the setting range of temperatures is between 200 - 450°C/400 - 840°F. For the 75×75 square pot, the setting range of temperatures is between 200 - 380°C/400 - 720°F.

8. IN CASE THE DISPLAY AND THE ACTUAL TEMPERATURE IS DEFFERENT

Entering offset value

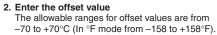
The offset value was set to 0°C at factory.

Example:

When the set temperature is 400°C and the actual solder temperature in the solder pot is 350°C; The difference between the two is +50°C. Therefore. enter 050 instead of the current offset value.

1. Press the button on the front panel.

- This will set the station to offset value entry mode





205 Westwood Ave Long Branch, NJ 07740 1-877-742-TEST (8378) Fax: (732) 222-7088 salesteam@Tequipment.NET

a. Entering the hundreds digit

Press the property or button to set the desired figure. In °C mode, 0 (plus) or - (minus) can be selected. (In °F mode, 0, 1 (plus) or -, -1 (minus) can be selected.)

When the desired figure is displayed, press the button to enter. The tens digit will begin to flash

b. Entering the tens digit

- Press the or button to set the desired figure. Any value from 0 to 7 (In °F mode, 0 to 9) can be selected. When the desired figure is displayed, press the * button to enter. The units digit will begin to flash.
- c. Entering the units digit

 Press the p or button to set the desired figure.
 Any value from 0 to 9 (In °F mode, same value can be selected.) When the desired figure is displayed, press the substant button to enter.

Once you can check the display and the measured temperature, all the settings are finished.

When the temperature of solder reaches the set value, the buzzer sounds. About 5 to 10 minutes later, measure the temperature of solder. If the measured value is different from the displayed temperature, match them with each other by entering an offset.

Press the button and hold for one second. Press the 🛠 button Press the 📭 or 📖 buttor Press the button Press the # button

NOTE:

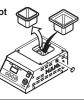
When measure the temperature of the solder, be sure to measure at the same position.

9. MAINTENANCE

⚠ WARNING

Unless otherwise directed, carry out these procedures after turning the power switch OFF, unplugging the power plug and waiting for both the unit and the solder to sufficiently cool down.

Changing the solder pot



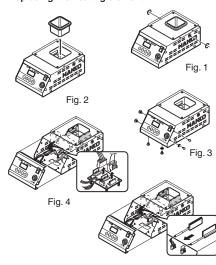
⚠ CAUTION

After changing the solder pot, measure the temperature again. If the measured value is different from the displayed temperature, enter an offset.

⚠ WARNING

When the power is ON, the temperature of the melted solder in the solder pot is approximately 450°C/842°F. Before changing the solder pot, be sure to unplug the power cord and let the solder and the unit cool to room temperature.

Replacing the heating element



1. Using the hexagon wrench (provided with the HAKKO FX-301B) to loosen the screws on both sides of the unit.

NOTE:

Removal is unnecessary.

2. Pull out the solder pot.

3. Insert a new solder pot and then tighten the screws on both sides.

⚠ CAUTION

Check that the solder pot has been locked now. Otherwise, the temperature may not increase properly

1. Loosen the screws on both sides of the unit. (Fig. 1)

NOTE:

Removal is unnecessary.

- 2. Pull out the solder pot. (Fig. 2)
- 3. Remove the setscrews (6 pieces) on the unit. (Fig. 3)
- 4. Slide the front panel frontward, disconnect the two connectors (Fig. 4) from the connector circuit board, and then pull out the units of the heating
- 5. Insert the right and left heating elements in the reverse procedure to removing the heating elements.

After finishing the maintenance, measure the temperature of solder. If the measured value is different from the display temperature, enter an offset.

⚠ CAUTION

The heating element is a discrete type. The right heating element is equipped with a sensor.

10. ERROR MESSAGES

Sensor Error



There is the possibility that a failure has occurred in the sensor circuit. The power is shut down with the buzzer sounding continuously.

11. TROUBLE SHOOTING GUIDE

⚠ WARNING

- Before checking the inside of the FX-301B or replacing parts, be sure to disconnect the power
- If the power cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified person in order to avoid personal injury or damage to the unit.
- The unit does not operate when the power switch is turned on

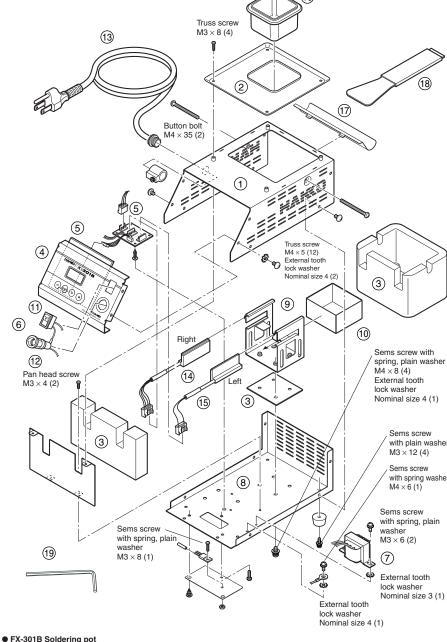


Is the power cord and/or the connection plug disconnected?

: Is the fuse blown?

Investigate why the fuse blew and then replace the fuse. If the cause can not be determined, replace the fuse. If the fuse blows again, send the unit in for repair.

12. PARTS LIST



Item No. Part No. Part Name

1		Cover	
3		Overflow tray	
3	B2916	Heat insulator	
<u>4</u>	B3377	Front panel	With membrane sheet
(5)	B3376	P.W.B.	For temperature control, connector
	B2705	Fuse/125V-5A	100 - 110V
6		Fuse/125V-5A	120V
	B2922	Fuse/250V-5A	220 - 240V
	B3045	Fuse/250V-5A	230V CE, KTL for SG. MY, ID, PH
7)		Transformer	100 - 120V
	B2925	Transformer	220 - 240V
8	B2926	Chassis	With rubber feet
9	B2927	Solder pot support	
10	B2928	Solder pot tray	
11	B1084	Power switch	
12	B1134	Fuse holder	
	B1795	Power cord, 3 wired cord	
		& American plug	
	B1796	Power cord, 3 wired cord	
		but no plug	
(13)	B2913	Power cord, 3 wired cord	230V India
-		& BS plug	
	B2914	Power cord, 3 wired cord	220V China
		& Chinese plug	
	B1797	Power cord, 3 wired cord	KTL, CE
		& European plug	
			•

Specifications

Part No.	Part Name	Specifications
B1798	Power cord, 3 wired cord	230V - 240V
	& Australian plug	
B3046	Power cord, 3 wired cord	230V UK
	& BS plug	
	B1798	B1798 Power cord, 3 wired cord & Australian plug B3046 Power cord, 3 wired cord

Replacement parts Item No. Part No.

	A1548	Heating element/Right	100 - 120V
(14)		Equipped with a sensor	
(19)	A1550	Heating element/Right	220 - 240V
		Equipped with a sensor	
	A1552	Heating element/Left	100 - 110V
15	A1554	Heating element/Left	120V
	A1555	Heating element/Left	220 - 240V
	A1539	Solder pot	Special coating
16			50 × 50 × 43.5(mm)
			/1.97 × 1.97 × 1.7(in.)
17	B2919	J-shaped waste collector	
(18)			
	B2932	Spatula	
19	B2932 B1417	Spatula Hexagon wrench	2.5mm

Optional parts

	Part Name	
A1540	Solder pot	Special coating $75 \times 75 \times 52.5$ (mm)/ $3.0 \times 3.0 \times 2.1$ (in.)