AOYUE

2738
Repairing System

INSTRUCTION MANUAL

Thank you for purchasing model 2738 Repairing System.
Please read manual before using the unit.
Keep manual in an accessible place for future reference.

FEATURES:

- Higher power and optimized temperature control of soldering iron for higher melting point requirement of lead free solder.
- Built-in powerful suction, drawing fumes at the source.
- Better thermal conductivity transferring needed heat into the solder joint without increasing process temperature.
- Easy slip in and out soldering iron tip cartridge.
- Combined with hot air gun, increasing functionality in just one machine.

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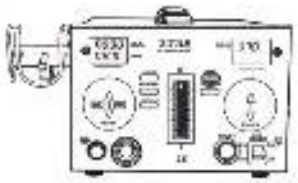
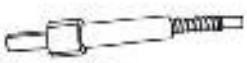
PACKAGE INCLUSION


2738 Repairing System


Hot Air Gun


B011 Soldering Iron with Smoke Absorber


618 Versatile Working Platform (sold separately)


Power Cord


Air Nozzles (1124,1130,1197, 1010,1313,1818)


939 Vacuum Suction Pen


2630 Soldering Iron Stand with Solder Wire Holder


30150J Heat Resistant Pad


G001 IC Popper


LF-2B Soldering Iron Tip with Heating Element


30181X Carbon Filters(2 pieces)

SAFETY INSTRUCTIONS

⚠ CAUTION

When the power is ON, the temperature of the solder iron, hot air gun and the nozzle ranges from 200~480° C. Injury to personnel or damage to items in the work area might be caused if not used carefully. Understand how to use the system and observe the following:

- Check every component after opening the package whether everything is in good working condition. If there are any damages suspected, don't use the item and contact your dealer.
- When moving the unit to another location, be sure to turn off the power switch and remove the plug.
- Do not strike or subject to physical shock the main unit, hot air gun, soldering iron or any parts of the system. Use carefully and lightly so as not to damage any parts.
- Be sure the unit is grounded. Always connect power to a grounded receptacle.

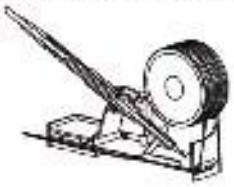
SPECIFICATIONS

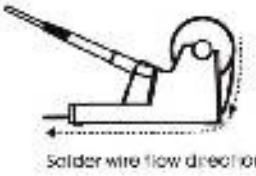
Power Input:	220V
Station Dimensions:	188(w) x 126(h) x 250 (d) mm
Weight:	6kg
SOLDERING IRON	
Power Consumption:	70W
Output Voltage:	24V
Temperature Range:	200-480° C
Heating Element with Tip:	Ceramic Heater
Tip to Ground Resistance:	<2W
Tip to Ground Potential:	<2mV
HOT AIR	
Power Consumption:	500W
Temperature Range:	200-480° C
Heating Element:	Metal Heating Core
Nozzle to Ground Resistance:	<2W
Motor Type:	Diaphragm Pump
Air Capacity:	23ℓ/ min (max)
SMOKE ABSORBER	
Vacuum Pressure:	600 mmHg

ASSEMBLY AND PREPARATION

A. Soldering Iron

1. Install solder wire to the solder iron holder.





2. Attach the soldering iron to the 5-pin output at the bottom right area of the main unit.

3. Place soldering iron to the soldering iron stand as shown above.

B. Smoke Absorber

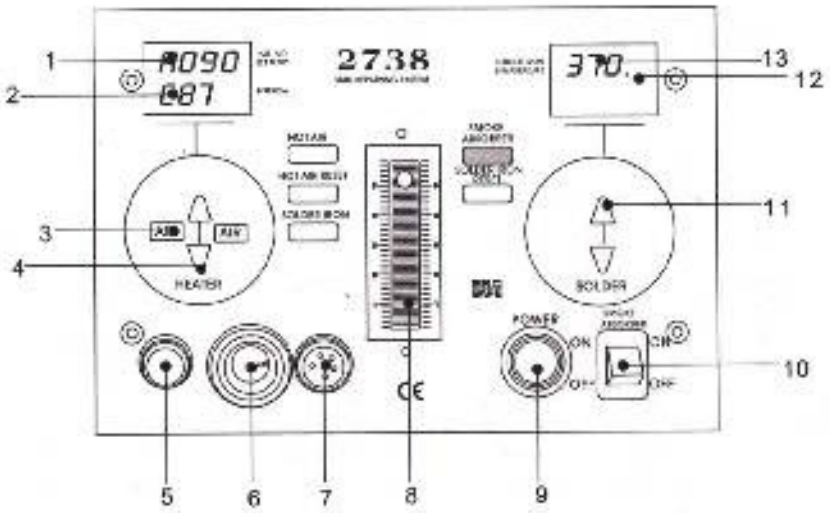
Attach the smoke absorbing pen to the smoke absorber output. Make sure that the cord connections are free from any tangles.

C. Hot Air Gun

Place the hot air gun in the sensor controlled stand to prepare for usage.

OPERATION

CONTROL PANEL



1—Hot air gun temperature display. The first character indicates the function mode.
- A -actual temperature
- b -temperature being set
- E -cooling down
- - -sleep (standby) and off mode

2—Airflow. The first character indicates the function mode.
- F -actual airflow
- C -airflow being set

3—Hot air gun airflow adjustment button
4—Hot air gun temperature adjustment button
5—Hot air gun connecting outlet
6—Smoke absorber output
7—Soldering iron 5-pin output
8—Airflow gauge
9—Main power switch
10—Smoke absorber switch
11—Soldering iron temperature adjustment button
12—Soldering iron heater lamp
13—Soldering iron temperature (actual and set)

OPERATION

I.HOT AIR GUN SOLDERING PROCEDURE

A.Hot air gun airflow and temperature setting

1. Check whether all the function buttons are not pressed. Turn on the power switch. The digital display will indicate blank lines.

When power switch is turned on and one of the display shows numbers, this means that the function is already turned on and is ready for use.

2. Press **HOT AIR** button to turn on the hot air soldering function.

3. Set the airflow level. Press button "3" from Control Panel Figure. Airflow range is from 15-100.

⚠ Be sure to set the airflow accordingly. Never set the airflow low especially when the temperature is high as this will not circulate the hot air and burn the heating element.

4. Set the temperature. Press button " 4 " from Control Panel Figure.

⚠ IMPORTANT: Set airflow level first before setting the temperature. This would help lengthen the usage life span of the main unit and the heating element.

5. When airflow and temperature has been set, wait until the real temperature reaches the set temperature and stabilizes. If so, the hot air gun can now be used.

⚠ IMPORTANT: Do not immediately turn off the power switch after usage. Turn off the HOT AIR button first. The temperature will decrease slowly releasing cooler air to cool down the unit. When a temperature of 100° C is reached, air will stop blowing. The power switch can now be turned off.

Note: When HOT AIR is pressed and not put to use after fifteen minutes, temperature automatically decreases below 100 and turns to sleep mode. When the handle is held again the unit will go back to its previous setting.

B.Replacing the heating element

1. Remove the screws which secure the handle and slide the cord tube.

2. Open the handle. Disconnect the ground wire sleeve and remove the pipe.

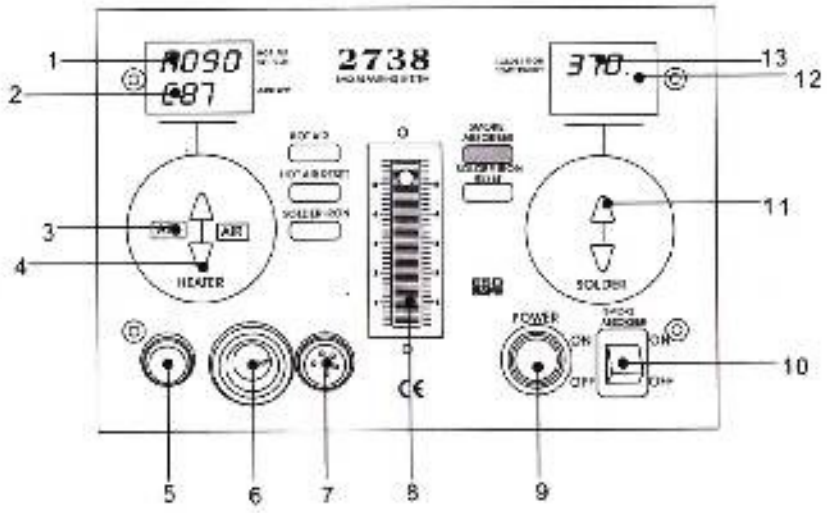
3. Remove the heating element by disconnecting the terminal.

4. Insert a new heating element and reconnect the terminal. Handle the heating element with care. Never rub its wire. Reconnect the ground wire after replacing the element.

5. Assemble the handle in the reverse order of disassembly.

OPERATION

CONTROL PANEL



1—Hot air gun temperature display. The first character indicates the function mode.
- A -actual temperature
- b -temperature being set
- F -cooling down
- - -sleep (standby) and off mode

2—Airflow. The first character indicates the function mode.
- F -actual airflow
- L -airflow being set

3—Hot air gun airflow adjustment button
4—Hot air gun temperature adjustment button
5—Hot air gun connecting outlet
6—Smoke absorber output
7—Soldering iron 5-pin output
8—Airflow gauge
9—Main power switch
10—Smoke absorber switch
11—Soldering iron temperature adjustment button
12—Soldering iron heater lamp
13—Soldering iron temperature (actual and set)

OPERATION

C. Replacing the tip

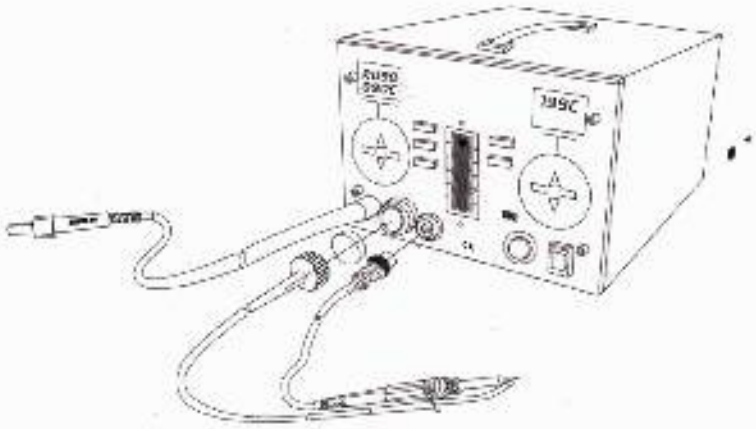
1. Always turn the power OFF when removing or inserting a tip.
2. When the tip is hot, hold it with the heat resistant pad and pull it out.
3. Insert the new tip fully into the handle.If the tip is not fully inserted, the display will show a sensor error when power is turned on. UUU

III.Smoke Absorber Operation

1. Wait until the soldering iron reaches the set temperature and stabilizes.
2. Turn on the smoke absorber switch.

When the smoke absorber is on while working with the soldering iron, the dirty fumes created will be absorbed simultaneously. The fumes will pass through a filter and release clean air through the hot air gun.

Note:The filter must be cleaned or replaced regularly so that dirt won' t clutter.



⚠ Hot air gun and smoke absorbing function cannot be used at the same time.

TROUBLESHOOTING GUIDE

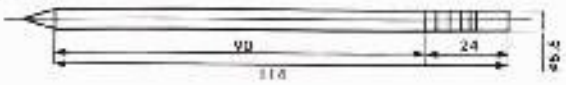
⚠ Before checking the inside part of the station or replacing parts, be sure to disconnect the power plug. Failure to do so may result in electric shock.

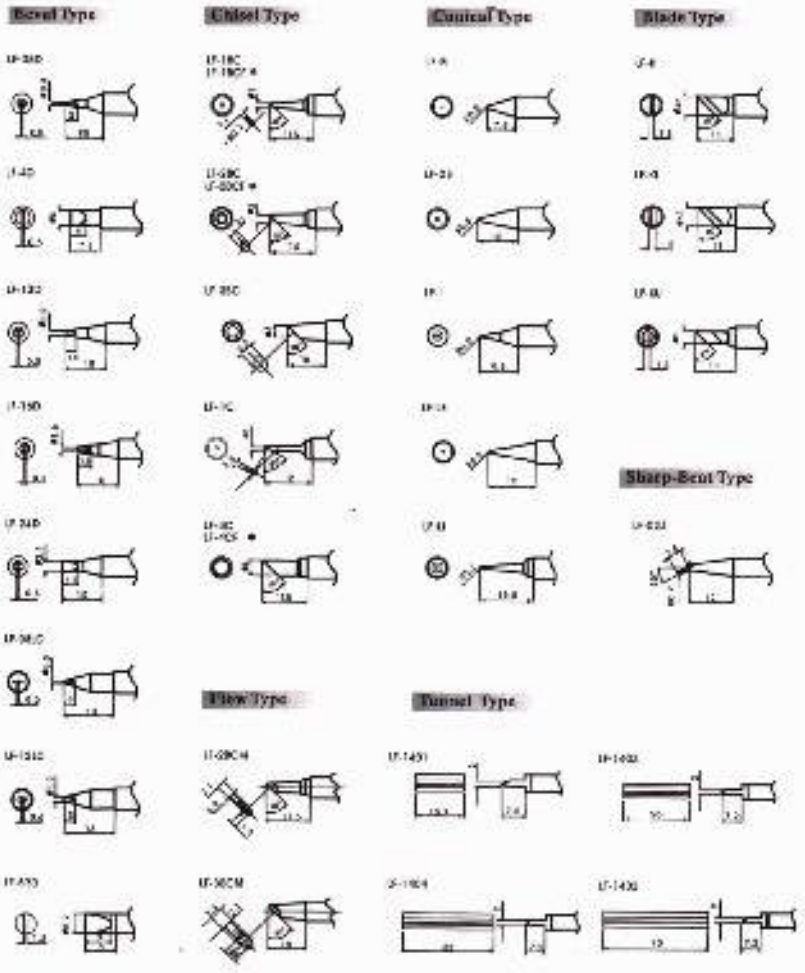
• The unit does not operate when the power switch is turned on.	**CHECK:** Is the power cord and/or the connection plug disconnected? **ACTION:** Connect it. **CHECK:** Is the fuse blown? **ACTION:** Investigate why the fuse blew and then replace the fuse. If the cause can not be determined, replace the fuse. If the fuse blows again, send the unit for repair.
• The soldering iron tip does not heat up. Sensor error [U U U] displayed.	**CHECK:** Is the power cord and/or the connection plug connected? **ACTION:** Connect it. **CHECK:** Is the tip inserted properly? **ACTION:** Insert the tip completely. **CHECK:** Is the connection cord and/or the heater/sensor broken? **ACTION:** Check the connection cord and/or the heater/sensor for breakage.(p.10)
• Solder does not wet the tip.	**CHECK:** Is the tip temperature too high? **ACTION:** Set appropriate temperature. **CHECK:** Is the tip contaminated with oxide? **ACTION:** Remove the oxide.
• The tip temperature is too high.	**CHECK:** Is the connection cord broken? **ACTION:** Check the connection cord for breakage. (p.10)
• The tip temperature too low	**CHECK:** Is the tip contaminated with oxide? **ACTION:** Remove the oxide.
• The smoke absorber is not functioning effectively.	**CHECK:** Is the smoke absorber pipe or hot air gun pipe tangled? **ACTION:** Free up the pipe from any tangles. **CHECK:** Is the smoke absorber opening stranded or the filter cluttered with dirt? **ACTION:** Free up the stranded part or replace the filter pad with a new one.

SOLDERING IRON TIPS WITH HEATING ELEMENT

Sold Separately

24V
70W





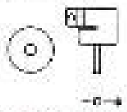
* These tips are used on the soldering surface only.

AIR NOZZLES

Sold Separately

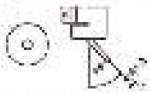
Single Type

Straight Single



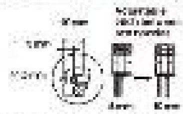
Nozzle Model	Nozzle Size, D(mm)
1124	3.0
1130	4.4
1194	5
1196	6
1195	7
1197	9
1199	[illegible]

Bent Single



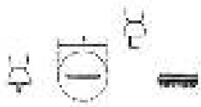
Nozzle Model	1142

Dual Single Adjustable



Nozzle Model	1325

Single In Line Package



Nozzle Model	IC Package Size	Nozzle Length (mm)
1131	SIP 25L	25
1132	SIP 30L	22.5

BGA Packages

Ball Grid Array

Nozzle Model	IC Package Size (mm)	Nozzle Size (mm)	
		W	L
1050	BGA 5x7	10	10
1313	BGA 13x13	17	17
1515	BGA 15x15	19	19
1919	BGA 19x19	23	23
2525	BGA 25x25	29	29
3535	BGA 35x35	39	39
3838	BGA 38x38	42	42
4141	BGA 41x41	45	45

J Lead Components

Small Outline J-Lead

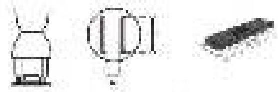
Nozzle Model	IC Package Size (mm)	Nozzle Size (mm)	
		L	W
1183	SOJ 7.5x8	16	8
1184	SOJ 7.5x8	16	10
1214	SOJ 12x20	22.7	12

Plastic Leaded Chip Carrier

Nozzle Model	IC Package Size (mm)		Nozzle Size (mm)			
			A	B	C	D
1128	PLCC 17.5x17.5	(44pin)	16.8	16.8	18	18
1136	PLCC 18x23	(32pin)	21	21	19	19
1137	PLCC 25x25	(68pin)	26	26	28	28
1138	PLCC 30x30	(84pin)	31	31	32	32
1139	PLCC 12x12.5	(28pin)	5	14	47	48
1140	PLCC 11x11	(25pin)	12	12	16	16
1141	PLCC 15x24	(32pin)	15	[illegible]	16	18
1180	PLCC 8x8	(20pin)	11	11	13	13
1182	PLCC 24x24	(100pin)	[illegible]	[illegible]	[illegible]	[illegible]

Gull Wing Leaded Components

Small-Outline Package

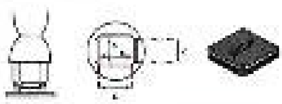


Nozzle Model	IC Package Size (mm)	Nozzle Size (mm)	
		L	W
1191	SOP 4.4x10	15	6.6
1192	SOP 5.5x13	18	8.1
1193	SOP 7.5x18	18	7.5
1134	SOP 7.5x18	19	7.5
1207	SOP 11x31	31	11.5
1208	SOP [illegible]	17	8.5
1209	SOP 7.5x18	20	13.5
1210	SOP 8.5x16	19	14.5

Thin Small-Outline

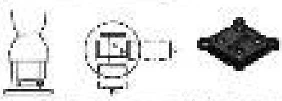
Nozzle Model	IC Package Size (mm)	Nozzle Size (mm)	
		L	A
1185	TSOP 12x16	18	12.8
1187	TSOP 14x20	18	16.4
1188	TSOP 18x18	11.1	18.7

Quad Flat Pack



Nozzle Model	IC Package Size (mm)	Nozzle Size (mm)			
		A	B	C	D
1129	QFP 10x10	10.2	10.2	11	11
1135	QFP 12x14	14.3	15.3	15	15
1161	QFP 17.5x17.5	16.2	16.2	19	19
1132	QFP 14x20	16.7	21.3	16	21
1133	QFP 28x28	28.6	28.6	32	32
1248	QFP 40.5x40.5	42.4	42.4	45	45
1261	QFP 20x20	20.3	20.3	21	21
1262	QFP 10x10	10.3	10.3	12	12
1263	QFP 32x32	32.7	32.7	32	32
1264	QFP 40x40	40.3	41.3	37	37
1265	QFP 28x28	28.3	28.3	31	31

Bumpered Quad Flat Pack



Nozzle Model	IC Package Size (mm)	Nozzle Size (mm)			
		A	B	C	D
1180	BQFP 19x19	19.2	19.2	12.8	12.8
1181	BQFP 17x17	16.2	16.2	16	16
1202	BQFP 28x28	28.5	28.5	30.5	30.5
1182	BQFP 24x24	24.3	24.3	21	21

Manufacturer:
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