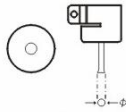


AIR NOZZLES

Sold Separately

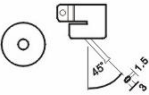
Single Type

Straight Single



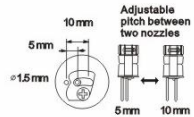
Nozzle Model	Nozzle Size, ϕ (mm)
1124	2.5
1130	4.4
1194	6
1195	8
1196	7
1197	9
1198	12

Bent Single



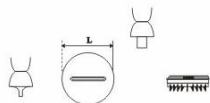
Nozzle Model	1142
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Dual Single Adjustable



Nozzle Model	1325
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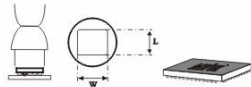
Single In Line Package



Nozzle Model	IC Package Size	Nozzle Length (mm)
1191	SIP 25L	26
1192	SIP 50L	52.5

BGA Packages

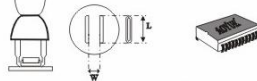
Ball Grid Array



Nozzle Model	IC Package Size (mm)	Nozzle Size (mm)	
		W	L
1010	BGA 9x9	10	10
1313	BGA 12x12	13	13
1616	BGA 15x15	16	16
1919	BGA 18x18	19	19
2626	BGA 27x27	28	28
3636	BGA 35x35	36	36
3939	BGA 38x38	39	39
4141	BGA 40x40	41	41

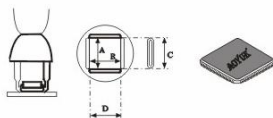
J Lead Components

Small Outline J-Lead



Nozzle Model	IC Package Size (mm)	Nozzle Size (mm)	
		L	W
1183	SOJ 15x8	16	8
1184	SOJ 18x8	19	10
1214	SOJ 10x26	25.9	12

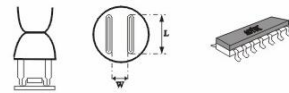
Plastic Leaded Chip Carrier



Nozzle Model	IC Package Size (mm)	Nozzle Size (mm)			
		A	B	C	D
1135	PLCC 17.5x17.5 (44pins)	18.5	18.5	15	15
1136	PLCC 20x20 (52pins)	21	21	19	19
1137	PLCC 25x25 (68pins)	26	26	24	24
1138	PLCC 30x30 (84pins)	31	31	29	29
1139	PLCC 7.3x12.5 (18pins)	9	14	69	69
1140	PLCC 11.5x15 (28pins)	13	13	15	10
1141	PLCC 11.5x14 (32pins)	15	13	15	10
1188	PLCC 9x9 (20pins)	11	11	10	10
1189	PLCC 34x34 (100pins)	36.5	36.5	33.5	33.5

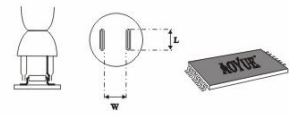
Gull Wing Leaded Components

Small-Outline Package



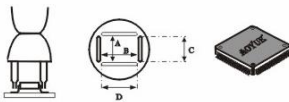
Nozzle Model	IC Package Size (mm)	Nozzle Size (mm)	
		L	W
1131	SOP 4.4x10	10	4.8
1132	SOP 5.6x13	15	5.7
1133	SOP 7.5x15	16	7.2
1134	SOP 7.5x18	19	7.2
1257	SOP 11x21	21	11.7
1258	SOP 7.6x12.7	11.7	8.2
1259	SOP 13x28	29	13.6
1260	SOP 8.6x18	19	8.7

Thin Small-Outline



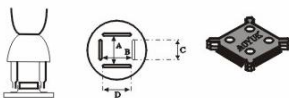
Nozzle Model	IC Package Size (mm)	Nozzle Size (mm)	
		L	W
1185	TSOL 13x10	10	11.9
1187	TSOL 18.8x8	10	18.5
1186	TSOL 18x10	11.7	18.2

Quad Flat Pack



Nozzle Model	IC Package Size (mm)	Nozzle Size (mm)			
		A	B	C	D
1125	QFP 10x10	10.2	10.2	10	10
1126	QFP 14x14	15.2	15.2	16	16
1127	QFP 17.5x17.5	19.2	19.2	19	19
1128	QFP 14x20	15.2	21.2	16	21
1229	QFP 28x28	29.5	29.7	29	29
1215	QFP 42.5x42.5	42.5	42.5	40	40
1261	QFP 20x20	20.2	20.2	21	21
1262	QFP 12x12	12.2	12.2	12	12
1263	QFP 28x40	27.7	39.7	29	39
1264	QFP 40x40	40.2	40.2	39	39
1265	QFP 32x32	32.2	32.2	31	31

Bumpered Quad Flat Pack



Nozzle Model	IC Package Size (mm)	Nozzle Size (mm)			
		A	B	C	D
1180	BQFP 17x17	18.2	18.2	13.6	13.6
1181	BQFP 19x19	19.2	19.2	16	16
1203	BQFP 35x35	35.2	35.2	30.6	30.6
1182	BQFP 24x24	24.2	24.2	21	21



INSTRUCTION MANUAL

Thank you for purchasing model 2702 Lead-free Repairing System.
Please read manual before using the unit.
Keep manual in an accessible place for future reference.

Manufacturer:
AOYUE TONGYI ELECTRONIC EQUIPMENT FACTORY
Jishui Industrial Zone, Nantou, Zhongshan City,
Guangdong Province, P.R.China
<http://www.aoyue.com>

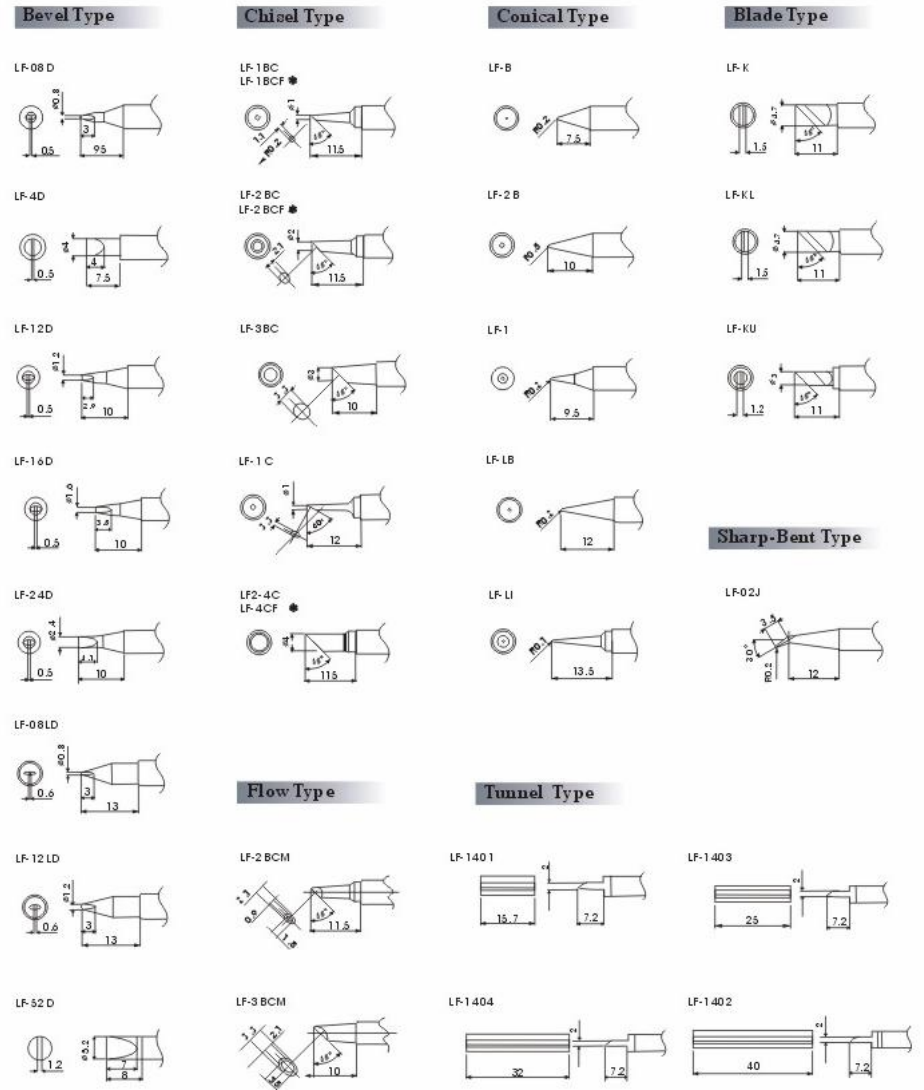
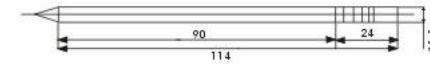


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TIP WITH HEATER CARTRIDGE

Sold Separately



* This etips are tinned on the soldering surface only.

OPERATING PROCEDURE

IV. DESOLDERING GUN

1. Turn off Power Switch then replace Soldering Iron with the Desoldering Gun.
2. Check if the Desoldering Gun is attached properly to the 6-pin receptacle, and the vacuum tube is securely connected.
3. Be sure that all function buttons are not pressed.
4. Turn on the Power Switch.
5. Set Vacuum Control to *vacuum air*.
6. Proceed to operate the desolder gun with steps 4-7 of the soldering iron operating procedure.

! *IMPORTANT: Check and make sure that Smoke Absorber function button is not selected while desoldering. Vacuum will be operated using the trigger in the desoldering gun.*

MAINTENANCE

A. Replacing the Hot Air Gun heating element

1. Remove the screws which secure the handle and slide the cord tube.
2. Open the handle. Disconnect the ground wire 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.

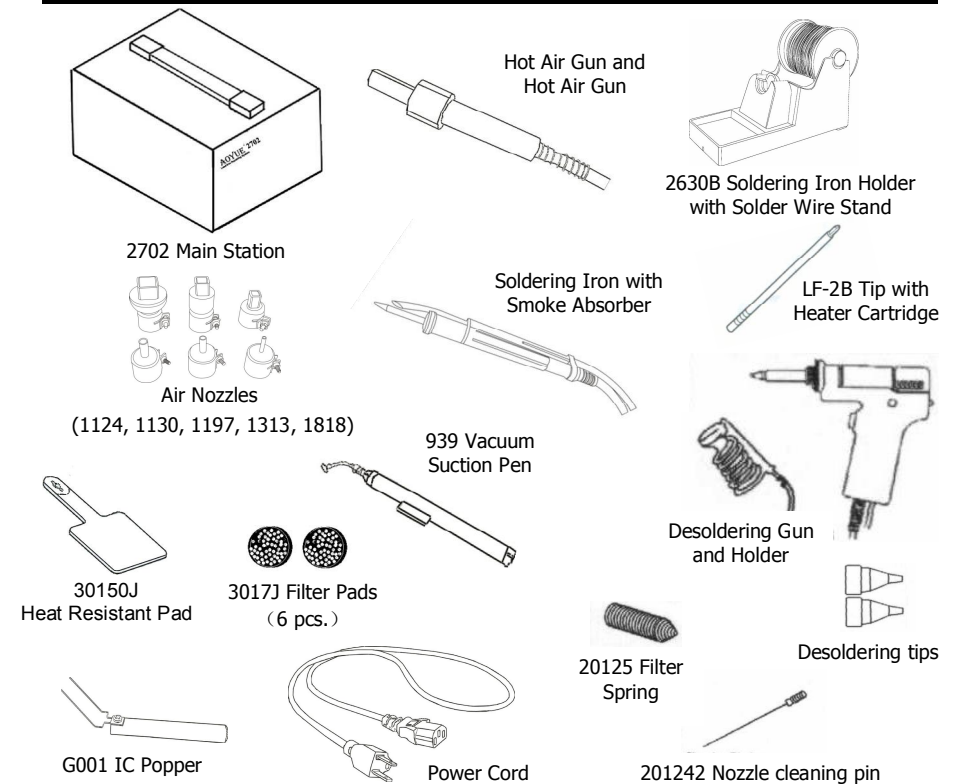
B. Replacing the Soldering Iron tip

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

C. Care for the Soldering Iron tip and Desoldering Nozzle

Always keep the solder-plated section of the tip/nozzle coated with a small amount of solder. If the tip of the nozzle is coated with oxide, the tip/nozzle's heat conductivity will be lowered. Coating the tip with a small amount of fresh solder ensures maximum heat conductivity.

PACKAGE INCLUSION



SPARE PARTS LIST

Part No.	Description
10094	Hot air gun heating element
30106S	Plastic handle of hot air gun
S009	Hot air gun complete handle
20962	Hot air gun metal pipe
B012	Soldering Iron complete handle
C005	Desoldering gun heating element
3072D	Plastic handle of desoldering gun
B1003	Desoldering gun complete handle

SPECIFICATIONS

MAIN STATION	
Power Input :	available in 110V / 220V
Station Dimensions:	188(w) x 126(h) x 250(d) mm
Weight:	5.6Kg
SOLDERING IRON	
Power Consumption:	70W
Temperature Range:	200°C - 480°C
Heating Element:	Ceramic Heater
Output Voltage:	24V
HOT AIR GUN	
Power Consumption:	500W
Temperature Range:	100°C - 480°C
Heating Element	Metal Heating Core
Pump/Motor Type:	Diaphragm Pump
Air Capacity:	23 l /min (max)
DESOLDERING IRON	
Temperature Range:	200°C - 480°C
Heating Element:	Ceramic Heater
Output Voltage:	24V
Suction Flow:	15 l /min (max)
Vacuum Generator:	Vacuum Pump
Vacuum Pressure:	600mm Hg

OPERATING PROCEDURE

II. SOLDERING IRON

1. Check if the Soldering Iron is attached properly to the 6-pin receptacle and the vacuum tube is securely connected.
2. Be sure that all function buttons are not pressed.
3. Turn on the Power Switch.
4. Press the **SOLDER IRON** function switch to turn on soldering iron function.
5. When a signal beep is heard, press the Reset button.
6. Solder iron is set to automatically increase temperature to 350°C upon turning on. Unit will display 350°C for 3 seconds then automatically switch to display *real temperature* of the solder iron.
7. Set the temperature. Adjust to your desired temperature, using the \triangle ∇ button.
8. Start using when real temperature reaches the set temperature.

Note: Automate soldering time — This is an optional setting. You can set soldering time to 30 minutes then it automatically turns off.

To activate this function:

1. Press the \triangle ∇ temperature adjust button of the solder iron in a simultaneous manner together with the Reset button.
2. The display will show **E 30** indicating that the 30 minute automate time is turned on.
3. After 30 minutes the buzzer beeps and the temperature decreases to room temperature. When heating element power has been shutdown, the display will show **E 00**.
4. To start soldering again, press the Reset button once.

**** Automate function is automatically deactivated when temperature is re-adjusted or when reset button is pressed.**

III. SMOKE ABSORBER





1. Wait until the soldering iron reaches the set temperature and stabilizes.
2. Set Vacuum Control to *vacuum air*.
3. Press the **SMOKE ABSORBER** function switch.
4. Fumes absorbed will pass through a filter and be blown out thru the hot air gun. So the smoke that is blown out from the hot air gun during soldering is already filtered.





IMPORTANT: Filters should be cleaned and replaced regularly so that it would not clog up the air path and will effectively clean the toxic fumes produced during soldering process.

OPERATING PROCEDURE

I. HOT AIR GUN

1. Be sure that all function buttons are not pressed.
2. Turn on the Power Switch.
3. Set Vacuum Control to *blow air*.
4. Press the **HOT AIR GUN** function switch to turn on hot air soldering function.
5. Set the airflow level. You can adjust to your desired airflow by using the   buttons. Airflow range is from 15 – 99.
6. Set the temperature. Adjust to your desired temperature, using the   button.
7. When airflow and temperature has been set, wait until the *real temperature* reaches the *set temperature* before using the Hot Air Gun.
8. After using the Hot Air Gun, do not immediately turn off the power switch, instead turn off the hot air gun function switch to activate the *auto-cool off function* of the unit. This is for safety and proper maintenance of the unit.

 **IMPORTANT:** Remember to set airflow level first before setting the temperature so that it would not damage the heating element, causing it to be burnt out prematurely.

 **IMPORTANT:** Airflow level should be set accordingly, working with low airflow and high temperature often causes heating element to get easily burnt.

Note: Auto-cool off function — after turning off the hot air gun function switch, unit starts to blow cool air to decrease temperature of the hot air gun, hot air gun function will automatically be turned off when the hot air gun temperature reached a safe level of 90°C. (Auto-cool off will not function when main power switch is turned off)

Note: Auto-sleep mode — unit is also programmed to have an auto-sleep mode, this is activated when hot air gun is turned on but is placed on the hot air gun holder and not put to use for fifteen minutes, temperature automatically decreases and eventually turns to sleep mode. When the handle is held again the unit will go back to its previous setting.

FEATURES

- ◆ All in One system. Combines the function of a Hot Air Gun, a Soldering Iron and a Desoldering Gun.
- ◆ Microprocessor controlled ESD safe unit. All digital display of hot air temperature, soldering iron temperature, desoldering gun temperature and air pressure with touch type panel controls.
- ◆ The desoldering tool comes with zero crossing circuitry preventing electrical surges and is equipped with air cylinder type strong suction vacuum pump.
- ◆ The 24V soldering iron is compatible with the compound tip design by connecting the ceramic heater, sensor, control unit and tip as one. Designed for efficiency. Replacement of tips with easy slip in/out method.
- ◆ Designed with an auto-cool off process. Upon turning the unit off, it starts to blow cold air until it reaches a safe temperature of 85 degrees, this is to ensure safety and to prolong usage life of the heating element.
- ◆ Compatible with various type of air nozzles. Please see page#12 for list of available air nozzles.
- ◆ Compatible with different kind of tips. Please see page#11 for list of replacement tips.

SAFETY PRECAUTION



CAUTION: Misuse may cause extensive damage to the unit.
For your own safety, be sure to comply with the following precautions.

- ◆ 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.

ASSEMBLY AND PREPARATION

A. Soldering Iron

1. Install solder wire to the solder iron holder. (Figure 1)

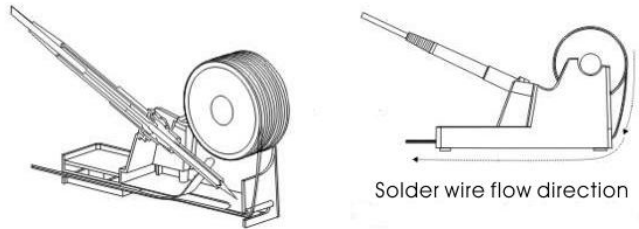


Figure 1. Soldering Iron stand with solder wire holder

2. Attach the soldering iron cord assembly to the 6-pin output at the lower center area of the main unit.
3. Place soldering iron to the soldering iron stand as shown in Figure 1.

B. Smoke Absorber

Attach the smoke absorbing tube to the vacuum cap. Make sure that the cord connections are free from any tangles.

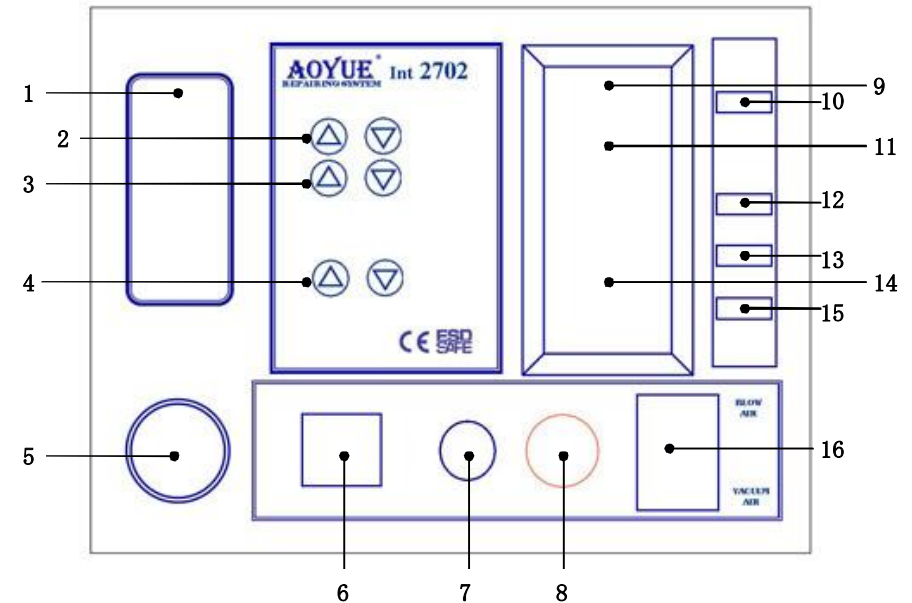
C. Hot Air Gun

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

D. Desoldering Gun

1. Connect the cord assembly of the Desoldering Gun to the 6-pin output receptacle .
2. Connect the vacuum tube to the vacuum cap.

PANEL GUIDE



- 1 — Airflow gauge
- 2 — Hot air gun temperature adjustment button
- 3 — Hot air gun airflow adjustment button
- 4 — Soldering iron temperature adjustment button
- 5 — Hot air gun connecting outlet
- 6 — Vacuum Cap
- 7 — Soldering iron / Desoldering 6-pin receptacle
- 8 — Main power switch
- 9 — Digital display of hot air gun temperature (actual and set)
 - \bar{R} - actual temperature
 - \bar{b} - temperature being set
 - \bar{E} - cooling down
 - - sleep (standby) and off mode
- 10 — Hot air gun function switch
- 11 — Digital display of airflow
 - \bar{F} - actual airflow
 - \bar{C} - airflow being set
- 12 — Reset button for all settings
- 13 — Automate smoke absorber
- 14 — Soldering iron temperature (actual and set)
- 15 — Soldering iron function switch
- 16 — Vacuum control *protruded part pertains to selected function*
 - Blow air — for SMD rework
 - Vacuum air — for smoke absorber and desoldering gun