AOYUE®

INT 738H

(Centigrade / Fahrenheit switchable)

Multi-Function Re-Working System

INSTRUCTION MANUAL

Thank you for purchasing Aoyue Int738H Multi-Function Re-Working System.
It is important to read the manual before using the equipment.
Please keep manual in accessible place for future reference.

RoHS COMPLIANT

ESD SAFE

This manual is designed to familiarize and instruct the operator with the proper usage and maintenance of the equipment. The "Care and Safety Precautions" section explains the hazards of using any type of soldering or reworking device. Please read carefully and observe the guidelines in order to maximize usage and minimize the risk of injury or accidents .

TABLE OF CONTENTS

Manufacturer:
AOYUE INTERNATIONAL LIMITED
Jishui Industrial Zone, Nantou, Zhongshan City, Guangdong Province, P.R.China
http://www.aoyue.co

PRODUCT DESCRIPTION

The Aoyue INT738H Lead-Free Repairing System is a reworking equipment that combines the functionality of Hot Air Gun, 70 watts Soldering Iron and Smoke Absorber in one package.

It has several safety features such as the auto-cooling process of the Hot Air Gun. This functionality protects the device (and its components) from excessive heat upon reaching any of the following conditions: (1) when the soldering gun remained idle on its resting handle after a certain period and (2) when the temperature of the device is above a safe threshold upon turning off. It has several advanced features such as solder iron digital calibration, configurable auto sleep for hot-air and soldering iron and switchable centigrade or Fahrenheit readout.

SPECIFICATION

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)**

PACCKAGE INCLUSIONS

1 unit	Int 738H Main Station with Hot Air Gun and Holder
1 pack	AT-7 Hot Air Nozzle Set(1124,1130.1197,1010,1313,1919 ,936 Sponge, Suction nozzle cover)
1 pc	20094 Spare Hot Air Gun Heating Element
1 pc	T005 Soldering Tweezers
1 pc	Tip Alignment Tool
1 pc	B018 Solder Iron with Smoke Absorbing function
1 pack	Soldering Iron Tips(9pcs) includes (T-B, T-LB, T-0.8D, T-1.2D, T-1.6D, T-2.4D, T-1C, T-0.8C, T-0.5C)
1 pc	C031 Heating Element
1 pc	2680 Soldering Iron Stand
1 pc	Large Copper Ball
1 pc	932-3 Handle Vacuum Pick-up
1 pc	G001 IC Popper
1 pc	H036 Soldering Paste
1 pc	Tool Box
1 pc	M4 Nut
1 pc	Instruction Manual
1 pc	Power Cord

*** Type of soldering tip included might change depending on availability.**
**** Kindly refer to soldering iron stand installation on page 7 for parts and instructions.**

FUNCTION and FEATURES

- Microprocessor-controlled ESD safe equipment.
- 3-in-1 repairing system combining Hot Air Gun, Soldering Iron, and Smoke Absorber in one sophisticated package.
- Digital control and display of hot air temperature, soldering iron temperature, and air pressure with touch type panel controls for precision and ease of use.
- Switchable temperature readout between Fahrenheit and Centigrade.
- Integrated smoke absorber functionality with filter pad to efficiently absorb and filter harmful fumes.
- User configurable 1 to 30 minute idle-to-auto-stand-by mode (with 5 minutes as default) for additional device protection and power saving.
- Built-in auto-cooling process that protects the system and its components from excessive heat, prolonging usage life.
- Built-in auto-sleep mode for soldering iron and desoldering gun.
- Compatibility with air nozzles of various types.
- Compatibility with different kind of soldering tips.

SAFETY PRECAUTIONS

CAUTION: Improper usage can cause serious injury to personnel and/or damage to equipment. For your own safety, please observe the ff. precautions.

- Check each component after opening the package to make sure everything is in good condition. If there are any suspected damage, do not use the item and report the issue to your vendor.
- Turn OFF the *Main Power Switch* and unplug the device when moving the device from one location to another.
- Do not strike or subject the main unit to physical shock. Use carefully to avoid injury and damage to any part.
- Handle with care.
  - Never drop or sharply jolt the unit.
  - Contains delicate parts that may break if the unit is dropped.
- Make sure the equipment is always grounded. Always connect power to a grounded receptacle.
- Temperature may reach as high as 480°C when switched ON.
  - Do not use the device near flammable gases, paper and other flammable materials.
  - Do not touch heated parts, which can cause severe burns.
  - Do not touch metallic parts near the tip.
- Disconnect the plug from the power source if the unit will not be used for a long period.
  - Turn OFF power during breaks, if possible.
- Use only genuine replacement parts.
  - Turn OFF power and let the unit cool before replacing parts.
- The unit may produce a small amount of smoke and unusual odor during initial usage. This is normal and should not yield any negative result when reworking.
- Soldering process produces smoke — use on well ventilated place.
- Do not alter the unit, specifically the internal circuitry, in any manner.

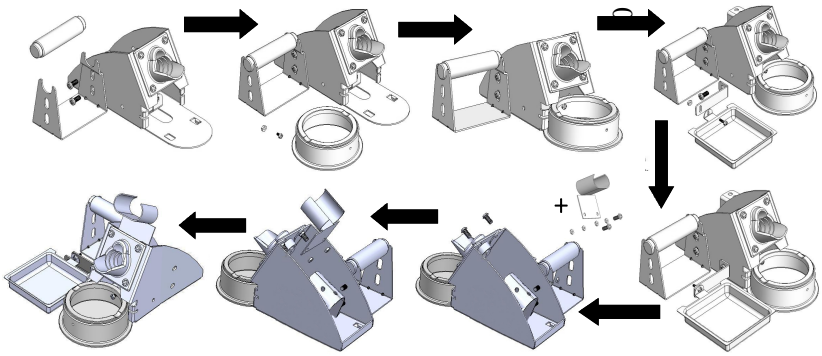
ASSEMBLY and PREPARATIONS

A. Main Station

As soon as the equipment has been removed from the package, **REMOVE THE SCREW** located at the center of the bottom of the main unit. This screw holds the pump in place during transportation.

> ⚠ **WARNING:** Failure to remove the screw before using the equipment can cause damage to the system.

B. Soldering Iron Stand



C. Soldering Iron

1. Connect the soldering iron cord assembly to the soldering iron output terminal found at the lower middle portion of the main unit.
2. Place the soldering iron to the soldering iron stand.

D. Smoke Absorber

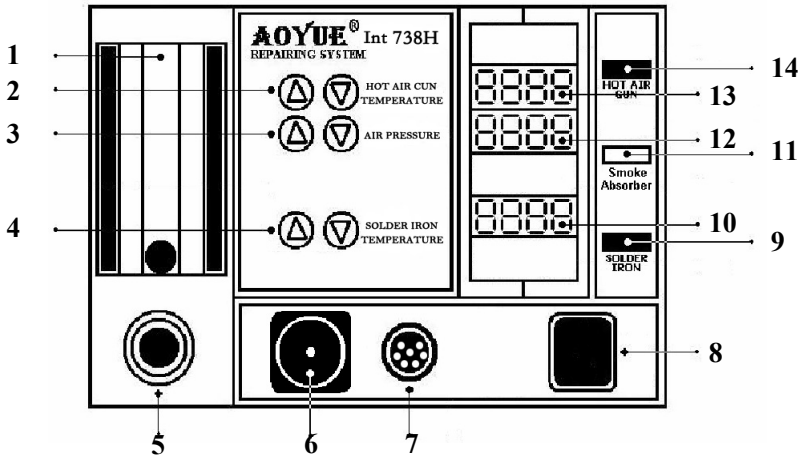
1. Attach the smoke absorbing tube to the suction vacuum cap. Make sure the cord connections are free from tangles.

F. Hot Air Gun

The Hot Air Gun holder was installed on the station upside down for packaging purpose. To set up the Hot Air Gun holder:

1. Loosen the two screws that secure the holder to the station.
2. Turn the holder right side up.
3. Re-fasten the two screws.
4. Place the hot air gun onto the holder in preparation for usage.

CONTROL PANEL GUIDE



LEGEND:

1 — Air Pressure Gauge
2 — Hot Air Gun Temperature Adjustment Buttons
3 — Air Pressure Adjustment Buttons
4 — Soldering Iron Temperature Adjustment Buttons
5 — Hot Air Gun Output Terminal
6 — Smoke Absorber Terminal or Vacuum Cap
7 — Soldering Iron Receptacle
8 — Main Power Switch
9 — Soldering Iron Function Switch
10 — Soldering Iron Temperature Display

Prefixes and meanings:	**"H" - actual temperature** **"h" - temperature being set**

11 — Smoke Absorber Function Switch
12 — Air Pressure Display
13 — Hot Air Gun Temperature Display

Prefixes and meanings:	**"H" - actual temperature** **"h" - temperature being set** **"C" - cooling down** **"---" - sleep mode display** **"OFF" - function deactivated display**

14 — Hot Air Gun Function Switch

OPERATING GUIDELINES

IMPORTANT REMINDERS:

1. Make sure the equipment is placed on a flat stable surface and all the heat-generating components are placed on their respective holders or stands.
2. Ensure all function switches are OFF prior to reworking.
3. Ensure all terminal connections are properly secured.

IMPORTANT: Please refer to the **CONTROL PANEL GUIDE** page for buttons and display panel directory.

A. INITIAL PROCEDURES

1. Plug the device to the main power source using the power cord provided in the package.
2. With all function switches deactivated and all terminal connections properly secured, switch ON the device using the *Main Power Switch* ("**8**" from the control panel).
3. The display panels, "**10**" and "**12**" will temporarily show the product name in a scrolling manner and then display "**OFF**" on all rows once the scroll is finished. The system will remain in this state until the user activates a function.

B. HOT AIR GUN

1. Follow the initial procedures above, "**A. INITIAL PROCEDURES**".
2. Activate *Hot Air Gun Function Switch* ("**14**" from the control panel).
3. The system will immediately start to blow air at an airflow rate of **50** while rapidly and safely increasing the air temperature to **100°C** (default system operating parameters). These values will be reflected on the Hot Air Gun Air Temperature and Air Pressure display panels, "**13**" and "**12**" from the control panel, respectively. The metal ball inside the air pressure gauge ("**1**" from the control panel) will also settle somewhere in the middle of the visible area indicating that the system is blowing air at an average or normal rate.

4. Adjust the air pressure level using the *Air Pressure Adjustment Buttons* ("**3**" from the control panel).
5. Adjust the hot air gun air temperature using the *Hot Air Gun Temperature Adjustment Buttons* ("**2**" from the control panel). The prefix of the display for Hot Air Gun Temperature will change from "**H**" to "**h**" indicating that temperature is being adjusted. It will return to "**H**" (indicating actual temperature) while the temperature is gradually increasing or decreasing until the set temperature is reached.

> ⚠ **IMPORTANT: When adjusting the hot air gun temperature, it is strongly advised to initially increase the airflow level in order to manage the system temperature. This is to protect the heating element inside the handle from excessive heat and avoid the possibility of subjecting adjacent components to thermal shock.**

6. Reworking task can be started 1 minute after the desired hot air temperature and airflow level are reached, indicated on display panels "**10**" and "**12**", respectively.
7. When reworking is complete, return the Hot Air Gun to its holder and **DO NOT** immediately turn OFF the *Main Power Switch*.
8. Turn OFF the *Hot Air Gun Function Switch* first in order to activate the auto-cooling process. The system will start to blow air (at room temperature) at a fast rate to reduce heat from the hot air gun and bring down the temperature to a reasonable safe level of **90°C**. During this time, the prefix of the display for hot air gun temperature will also change from "**H**" to "**C**" while temperature is gradually decreasing. Likewise, the air pressure level is at its highest reading as indicated from the display panel. Once the temperature drops to approximately **90°C** the system will halt and display "**OFF**" on the panel. It is now safe to switch OFF the *Main Power Switch*.
9. Turn OFF the *Main Power Switch*.
10. Unplug the device from the main power source.

NOTES:
1. Hot Air Gun Temperature is adjustable between **100°** and **480°C** with an increment of **2°** on each step.
2. Hot Air Gun Airflow Rate is adjustable between **10** and **100** with an increment of **2** on each step.

C. SOLDERING IRON

1. Connect the Soldering Iron connection assembly to the 6-pin *Soldering Iron Receptacle* located at the front of the control panel ("**7**" from the control panel).
2. Follow the initial procedures ("**A. INITIAL PROCEDURES**").
3. Connect the vacuum tube to the *Smoke Absorber Terminal* or *Vacuum Cap* ("**6**" from the control panel). If smoke absorber function is to be used.
4. Activate the *Soldering Iron Function Switch* ("**9**" from control panel). This will automatically start to increase the temperature of the soldering iron to **350°C** (default).
5. Adjust the soldering iron temperature using the *Soldering Iron Temperature Adjustment Buttons* ("**4**" from the control panel).
6. If smoke absorber function is to be used. Activate the *Smoke Absorber Function Switch* ("**11**" from the control panel).
7. Start using the soldering iron as soon as desired temperature is reached.
8. When the task is finished, deactivate the *Smoke Absorber Function Switch*.
9. Deactivate the *Soldering Iron Function Switch* .
10. Allow sufficient time for the soldering iron to cool down before keeping in a safe storage.

AUTO SLEEP FUNCTIONS

A. Auto-Sleep Mode (Hot Air Gun)

The device has a built-in auto-sleep mode feature such that if the Hot Air Gun sits on its handle and remained idle after a certain period (the prefix of the display for Hot Air Gun air temperature will also change from "**H**" to "**L**") , the device will switch to sleep mode. This mechanism is triggered by a countdown timer so when the time has elapsed, the system will blow air (at room temperature) at maximum rate in order to bring down the temperature. During this time, the prefix of the display for Hot Air Gun air temperature will also change from "**L**" to "**C**". Once the temperature drops to approximately 90°C, the Hot Air Gun will automatically stop and show an all-dash "**- - - -**" display indicating that the system is now on sleep mode.

B. Changing SLEEP Mode Timer (HOT AIR GUN)

By default, the system has 5-minute countdown time before the hot air gun goes to sleep mode. This can be altered by the following procedure.

1. While the hot air gun is on stand-by mode ("**OFF**" is displayed on the panels "**13**" and "**12**"), hold both **UP** and **DOWN** buttons of the *Hot Air Gun Temperature Adjustment Buttons*.
2. Wait until "**t005**" is displayed on the Hot Air Gun Temperature display panel, "**13**".
3. Release the buttons when "**t005**" appears.
4. Adjust the time using the same **UP** and **DOWN** buttons of the *Hot Air Gun Temperature Adjustment Buttons*.
5. Confirm the change by activating the *Hot Air Gun Function Switch*.
6. The system will immediately switch back to operation and use the defined countdown parameter for the entire usage.

AUTO SLEEP FUNCTIONS

NOTES:

- The sleep mode timer is configurable between **1** and **30** minutes.
- Sleep mode settings for Hot-Air Gun and Soldering Iron is saved into the memory an shall remain effective until it is reset or new data is entered.

C. Activating Soldering Iron Auto-Sleep Mode

The Soldering Iron's SLEEP mode is deactivated by default. Follow the set of procedures below to activate this feature.

CONDITION: SOLDERING IRON function is inactive.

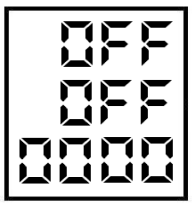
1. While soldering iron is displaying "**OFF**" or in stand-by mode, push both UP and DOWN buttons of the *Soldering Iron Temperature Adjustment Buttons* ("**4**" from the CONTROL PANEL GUIDE page).
2. Wait until "**t0FF**" appears from soldering iron temperature display panel. This means sleep mode is currently turned OFF.
3. Release the two buttons after the change in display.
4. Use the same two buttons to adjust the countdown time. "**t001**" means solder iron will go to sleep in 1 minute. Timer is adjustable from 1 to 60minutes.
5. Confirm the change by activating the SOLDERING IRON switch.
6. To **DEACTIVATE** this feature, simply follow the above procedures. This time, select "**t0FF**".
7. During sleep mode, the soldering iron temperature display panel will show an all-dash, "**- - - -**".
8. To wake the soldering iron from sleep mode, press the soldering iron temperature adjustment buttons.

DIGITAL CALIBRATION

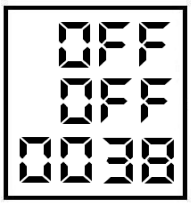
Utilizing the Solder Iron Digital Temperature Calibration

By default, the system is properly calibrated but for cases when a little adjustment of the soldering iron calibration is required the following procedure can be done.

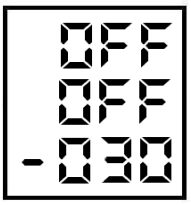
1. Turn ON the *Soldering Iron Function Switch*.
2. Set to appropriate temperature you want to calibrate. Place the tip of the soldering iron on an external temperature sensor.
3. The readings on the external temperature sensor should be more or less equal to the displayed temperature.
4. If there are large discrepancy in the temperature reading we can re-calibrate the temperature setting.
5. While the solder iron is operating make sure the hot air gun is in OFF mode ("**0FF**" is displayed on the panels "**6**" and "**7**"), hold the air pressure **UP** button for a few seconds until four zeroes are displayed "0000" .
6. Adjust the temperature compensation using the **UP** and **DOWN** buttons of the *Soldering Iron Temperature Adjustment Buttons*.
7. A zero "0" on the first digit signifies addition to the current temperature and a minus "-" on the first digit will subtract the displayed value from the current settings.
8. Confirm the change by pressing the air pressure down button.



Initial display when in calibration mode



Increase temperature by 38 degrees



Decrease temperature by 30 degrees

DIGITAL CALIBRATION

Solder Iron Digital Temperature Calibration Example

- The external temperature sensor displays 248 to 252 degrees.
- The set temperature and displayed actual temperature of the soldering iron is 300 degrees.
- 300 — 248 = 52. An additional adjustment of 52 degrees is required.
- Enter calibration mode
- We increase from "0000" to "0052".
- Exit calibration mode.
- The external temperature sensor would now display 298 to 302 degrees.

NOTES:

- The calibrated data is saved into the memory an shall remain effective until it is recalibrated again or new data is entered.
- Calibration will only make the newly calibrated point the most accurate. Other temperature points may be a little off.
- The soldering Iron has a lowest temperature limit such that when the temperature has been set to 200 degrees with external actual temperature also showing 200 degrees, further decreasing the temperature offset would be only have minimal effect to the actual temperature.
- **To reset the calibration settings to factory setting,** switch OFF and ON the unit and while holding the hot-air temperature up button until the banner finishes scrolling, the Set temperature / Temperature calibration of the unit would revert to its default factory setting.

CENTIGRADE /FAHRENHEIT

To switch between the centigrade and Fahrenheit scale

By default, the system is set to the centigrade scale, if the Fahrenheit scale is preferred proceed with the following procedures .

1. Turn OFF power to the main unit.
2. Make sure all function switches are in the OFF position.
3. Press and hold the down button of the soldering iron temperature adjustment button while switching the main POWER switch to ON.
4. The initial display would show a scrolling "AOYUE" name and "768F" the "F" at the end of the model number indicates that current settings are in the Fahrenheit mode.
5. To switch back to using the Centigrade mode, Press and hold the up button of the soldering iron temperature adjustment button while switch the main switch ON.
6. The initial display would show a scrolling "AOYUE" name and "768C" the "C" at the end of the model number indicates that current system settings are in the Centigrade scale.

Spare Parts Guide

Part No.	Description
20094	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

CARE and MAINTENANCE

Blower/Vacuum Air Terminal Filters

Filters should be cleaned and replaced regularly to avoid dirt which can clog the air passage. More importantly, this will also effectively clean the toxic fumes produced during soldering process.

Soldering Iron Tip

Always keep the solder-plated section of the tip/nozzle coated with a small amount of solder. Oxide coating on the tip of the nozzle reduces its heat conductivity. Coating the tip with a small amount of fresh solder ensures maximum heat conductivity is obtained.

Replacing the heating element of the Hot Air Gun

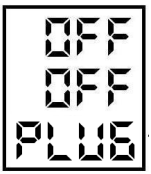
The heating element is found in the middle part of the hot air gun. The normal life of a heating element is 1 year under normal operating conditions.

Steps:

1. Loosen the 3 screws that secure the handle.
2. Slide off the plastic tube.
3. Disconnect the ground wire sleeve.
4. Inside the pipe, the quartz glass and heat insulation are installed. Loosen the cable and take out the heating element.
5. Insert new heating element and reconnect the terminal. *Be careful not to rub Heating Element wire.*
6. Reconnect the ground wire after replacing the element.
7. Assemble the handle again.

Soldering Iron Error Messages

1. Soldering Iron connection assembly is not connected or not properly connected to the receptacle on the control panel.
2. Soldering iron tip is damaged and needs to be replaced. The device will display "PLUG".
3. Indicating a problem with the contacts of the soldering iron or the tip.



BASIC TROUBLESHOOTING GUIDE

PROBLEM 1: THE UNIT HAS NO POWER

1. Check if the unit is switched ON.
2. Check the fuse. Replace with the same type if fuse is blown.
3. Check the power cord and make sure there are no disconnections.
4. Verify that the unit is properly connected to the power source.

PROBLEM 2: HOT-AIR GUN TEMPERATURE DISPLAY IS ALWAYS ABOVE 500°C

Description: Constant display of above 500°C temperature from the panel then displays an "Err1" on the panel after a few minutes.

SOLUTION: The thermal sensor may be broken and needs to be replaced.

PROBLEM 3: HOT-AIR GUN ACTUAL AIR TEMPERATURE IS NOT INCREASING

Description: Actual temperature reading is not increasing or decreasing based on desired level.

SOLUTION: The heating element may be broken or is at the end of its life and needs to be replaced.

PROBLEM 4: THE UNIT IS VIBRATING TOO MUCH

SOLUTION: Check if the 4 screws that hold the pump in place are properly and tightly connected. Unplug the system from the main power source before opening the case to check inside the station.

PROBLEM 5: THE UNIT IS VERY NOISY

SOLUTION: Make sure the screw at the center of the base of the main unit has been removed. This holds the pump in place during transportation and needs to be removed before using the equipment.

PROBLEM 6: SOLDERING IRON TEMPERATURE DISPLAY PANEL SHOWS "PLUG" CHARACTERS

Case 1: The system shows "**PLUG**" from the soldering iron temperature display panel .

SOLUTION 1: Check if the soldering iron connection assembly is properly connected and secured to the receptacle on the control panel.

SOLUTION 2: Make sure the soldering iron tip is properly inserted and secured inside the handle. Loose contacts between the tip and handle can also cause this error message.

SOLUTION 3: See "**Soldering Iron Error Messages**" on page 21 for further details.

PROBLEM 7: AIR PRESSURE LEVEL IS SIGNIFICANTLY LOW NO MATTER HOW HIGH THE AIRFLOW LEVEL IS CALIBRATED

Case 1: Check the mains voltage (AC power source). If the voltage level falls significantly low, about 15-20% lower than the standard, there will also be a noticeable drop in the air pressure level.

SOLUTION: Please refer to your local power service provider.

Case 2: The microcontroller might have detected the operating frequency incorrectly. The user will notice that airflow level is weaker with reference to the airflow gauge compared with the displayed value.

SOLUTION: Turn off the unit and on again to let the device re-detect the proper operating frequency.

Case 3: The Suction Vacuum cap is connected to the Smoke Absorber Terminal or Vacuum cap instead of the Wire mesh cap.

SOLUTION: Change the cap to the Wire mesh cap. This allows more air to pass through the system. Make sure as well that the vacuum tube of the soldering iron or desoldering gun is not connected.

Case 4: The Wire mesh cap is connected but airflow level is still low.

SOLUTION: Check the filter pad inside for dirt that can block the air passage. Clean or replace if necessary.

ADDITIONAL SOLUTION: Check for any tangles in the tube of the hot air gun that can cause the air blockage.

PROBLEM 8: UNIT SHOWS UNCONVENTIONAL BEHAVIOR

Description: Unit operates erratically.

SOLUTION1: Try to switch OFF the device and switch ON again. Unplug the system from the main power source and plug in again when necessary

SOLUTION2: Restore unit to default factory setting. switch OFF/ON the unit while holding the hot-air temperature down button until the banner finishes scrolling, the unit would revert to its default factory setting.

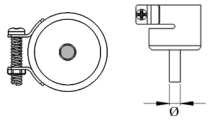
OTHER PROBLEMS NOT MENTIONED:

Contact the vendor.

AOYUE®

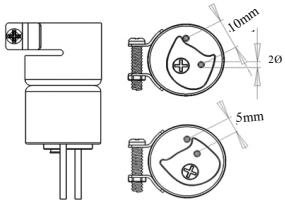
Replacement Air Nozzles

SGL SERIES

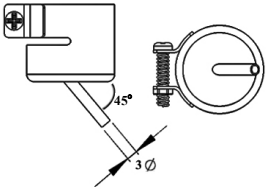


MODEL#	NOZZLE SIZE Ø
1124	2.4mm
1130	4.4mm
1194	6mm
1195	8mm
1196	7mm
1197	9mm
1198	12mm

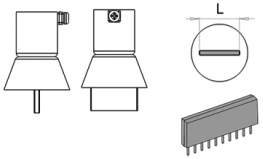
J325 Air Nozzle



L1C Air Nozzle

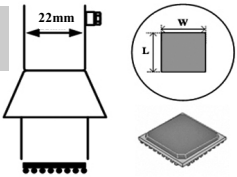


SIL SERIES



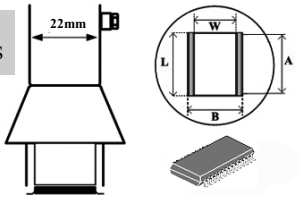
MODEL#	IC SIZE	L(mm)
1191	SIP25L	26
1192	SIP50L	52.5

BGA SERIES



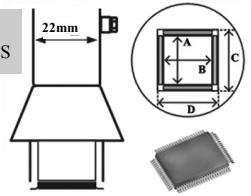
MODEL#	IC SIZE	L(mm)	W(mm)
1010	9×9mm	10	10
1313	12×12mm	13	13
1616	15×15mm	16	16
1919	18×18mm	19	19
2828N	27×27mm	28	28
3030N	29×29mm	30	30
3232W	31×31mm	32	32
3636W	36×36mm	36	36
3939W	38×38mm	39	39
4141W	40×40mm	41	41
4343W	42×42mm	43	43
4545W	44×44mm	45	45

SOP SERIES



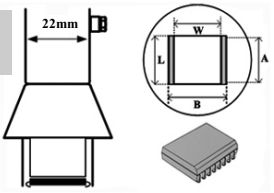
MODEL#	IC SIZE	L(mm)	W(mm)	A(mm)	B(mm)
1131	4.4×10mm	11	3.8	9	10.3
1132	5.6×13mm	16	4.7	14	11.7
1133	7.5×15mm	17	6	15	13
1134	7.5×18mm	20	6	18	13
1257	11×21mm	22	11	20	18
1258	7.6×12.7mm	12	7	10	14
1259	13×28mm	30	12.5	28	19.5
1260	8.6×18mm	20	7.7	18	14.7

QFP SERIES



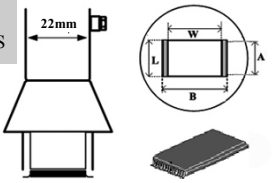
MODEL#	IC SIZE	A(mm)	B(mm)	C(mm)	D(mm)
1125	10×10mm	9	9	16	16
1126	14×14mm	14	14	21	21
1127	17.5×17.5mm	18	18	25	25
1128	14×20mm	20	14	21	27
1129	28×28mm	28	28	35	35
1215	42.5×42.5mm	41	41	48	48
1261	20×20mm	19	19	26	26
1262	12×12mm	11	11	18	18
1263	28×40mm	38	28	35	45
1264	40×40mm	39	39	46	46
1265	32×32mm	31	31	38	38

SOJ SERIES



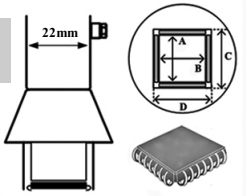
MODEL#	IC SIZE	L(mm)	W(mm)	A(mm)	B(mm)
1183	15×8mm	17	7	15	14
1184	18×8mm	20	9	18	16
1214	10×26mm	27	11	25	18

TSOL SERIES



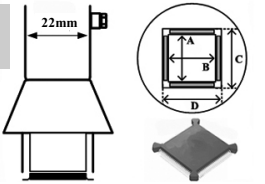
MODEL#	IC SIZE	L(mm)	W(mm)	A(mm)	B(mm)
1185	13×10mm	11	11	9	18
1186	18×10mm	12	17	10	24
1187	18.5×8mm	11	18	9	25

PLCC SERIES



MODEL#	IC SIZE	A(mm)	B(mm)	C(mm)	D(mm)
1135	17.5×17.5mm	17.5	17.5	24.5	24.5
1136	20×20mm	20	20	27	27
1137	25×25mm	25	25	32	32
1138	30×30mm	30	30	37	37
1139	7.3×12.5mm	7.5	12.5	14.5	19.5
1140	11.5×11.5mm	12	12	19	19
1141	11.5×14mm	12	14	19	21
1188	9×9mm	10	10	17	17
1189	34×34mm	35.5	35.5	42.5	42.5

BQFP SE-



MODEL#	IC SIZE	L(mm)	W(mm)	A(mm)	B(mm)
1180	17×17mm	17.2	17.2	24.2	24.2
1181	19×19mm	18.2	18.2	25.2	25.2
1182	24×24mm	23.2	23.2	30.2	30.2
1203	35×35mm	34.2	34.2	41.2	41.2