

TIP CARE AND USE

Tip Temperature

High soldering temperatures can degrade the tip. Use the lowest possible soldering temperature. The excellent thermal recovery characteristics ensure efficient and effective soldering even at low temperatures.

This also protects the soldered items from thermal damage.

Cleaning

Clean the tip regularly with a cleaning sponge, as oxides and Carbides. From the solder and flux can form impurities on the tip.

These impurities can result in defective or reduce the tip's heat conductivity, When using the soldering iron continuously, be sure to loosen the tip and remove all soldering iron continuously, be sure to loosen the tip and remove all oxides at least once a week

This helps prevent seizure and reduction of the tip temperature.

When not in use

Never leave the soldering iron sitting at high temperature for long periods of time, as the tip's solder plating will become covered with oxide, which can greatly reduce the tip's heat conductivity

After usage

wipe the tip clean and coat the tip with fresh solder. This helps prevent tip oxidation.

Manufacturer:

AOYUE INTERNATIONAL LIMITED

Jishui Industrial Zone, Nantou, Zhongshan City,
Guangdong Province, P.R.China

<http://www.aoyue.com>

AOYUE[®] 474A+

DESOLDERING STATION

INSTRUCTION MANUAL

Thank you for purchasing 474A+ Desoldering Station.

Please read the manual before using the unit.

Keep manual in accessible place for future reference.

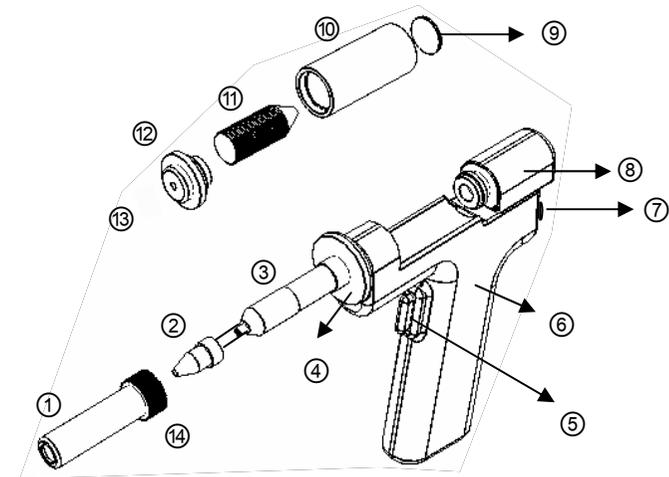
CAUTION

Please remember to remove the pump securing screw (M4×10 marked red) from the bottom of the station before using. Failure to do so may cause damage to the unit.

SPARE PARTS LIST

TABLE OF CONTENTS

Package Inclusion	3
Care and Safety Precaution	4
Specifications	5
Features	5
Control Panel Guide.....	6
Parts Guide	7
Operation Guidelines	8-10
Maintenance	11-14
Spare Parts List	15
Tip Care and Use	16



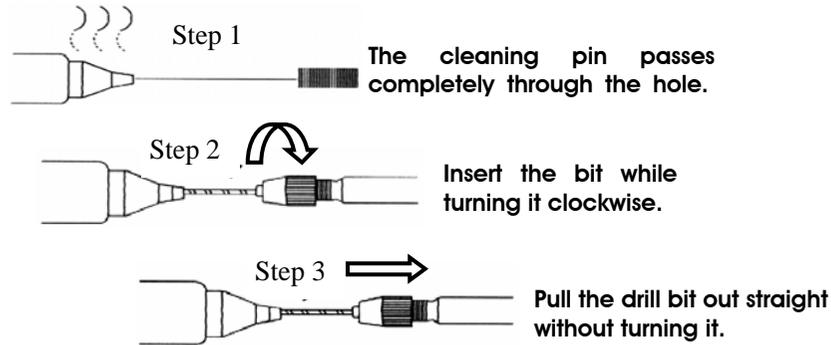
N0	Part No.	Part Name
①	30129	Desoldering Gun Tip Cylinder with Tip Lock
②	302082	Desoldering Tip 1.0MM
	302092	Desoldering Tip 1.5MM
	301212	Desoldering Tip 1.8MM
③	C005A	Desoldering Gun Heating Element
④	301282	Heat Guard Assembly
⑤	3021X	Red Release Knob
⑥	3072D	Desoldering Gun Outer Case
	3074D	Desoldering Gun Outer Case
⑦	3021X	Release Knob
⑧	3035X	Back Holder Assembly
	30180X	Filter Pad
⑨	3017J	Pack Of 6 Filter Pad
⑩	3022X	Filter Pipe
⑪	201252	Spring Filter
⑫	3024X	Filter Pipe Cap
⑬	3025X	Silicone Pad
⑭	20133	Tip Lock only

DESOLDERING GUN MAINTENANCE

Cleaning the Desoldering Tip

CAUTION:

The desoldering gun will be extremely hot. During maintenance, please wear proper protection and work carefully.



Using Cleaning pin:

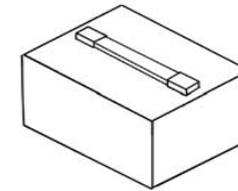
Caution: Desoldering gun will be hot during maintenance please use proper materials and equipments to avoid injuries.

When suction efficiency has deteriorated the desoldering gun might be clogged follow these directions to properly clean the desoldering gun.

1. Turn on the desoldering gun and wait for the nozzle to heat up.
2. Slowly insert the cleaning pin while turning the cleaning pin clockwise.
 - The cleaning pin will not pass through the nozzle until the solder inside the nozzle is completely melted.
 - If the cleaning pin does not pass through the hole in the nozzle, clean with the cleaning drill.
3. Pull out the cleaning pin in a straight motion.
4. Repeat steps 2-3 until clog is removed.

Caution: If the cleaning drill is forced into the nozzle, the drill could break. Please use the proper sized cleaning pin or cleaning drill for the nozzle diameter. If the cleaning pin cannot pass through the hole, replace the Tip.

PACKAGE INCLUSION



Int474A+ Main



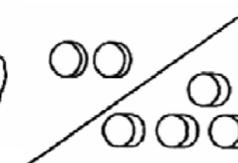
Desoldering Gun



201252 Spring Filter



3022X Filter Pipe



30180X Ceramic Filter Paper



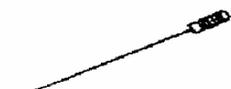
Gun Holder



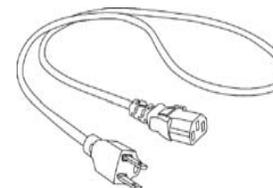
3006X Vacuum Cover



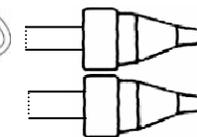
20178 Cleaning Drill



201242 Cleaning Pin



Power Cord



302092 Desoldering Tip
302082 Desoldering Tip

Silicon Grease
Instruction Manual

CARE and SAFETY PRECAUTIONS



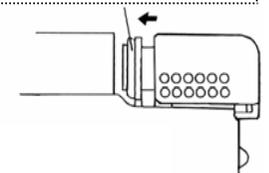
CAUTION: Misuse may cause extensive damage to the unit.
For your own safety, be sure to comply with the following precautions.

- 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.
- Upon using, please make sure that the plug is properly grounded. When moving the unit to another location, be sure to turn off the power switch and remove the plug.
- Do not disassemble/modify unit, high voltage pressure inside unit may cause damages.
- Do not allow nozzle tip to touch board directly.
- Unit produces heat, use under ventilated environment.
- Disconnect plug when not to be used for a long period of time.
- Do not strike or subject to physical shock the main unit 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.

DESOLDERING GUN MAINTENANCE

3. Re-assemble Filter Pipe Assembly and place back to the de-soldering gun body.
4. Push the Back Holder Assembly in place until a "click" sound is heard signifying that it is properly secured.

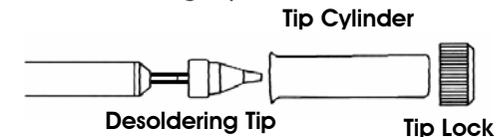
Firmly press the Back Holder Assembly into the Filter Pipe in order to properly seat front cap against the pipe.



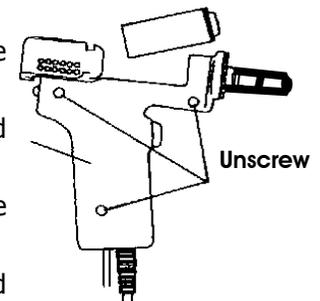
Replacing the Heating Element

WARNING: Unplug the power cord before starting this procedure.

1. Unscrew the Tip Lock and pull out Tip Cylinder together with the Tip Lock and remove Desoldering Tip.



2. Remove the Filter Pipe Assembly.
3. Loosen the 3 fastening screws on the plastic handle and separate the housing.
4. Desolder the heating element leads and sensor leads.
5. Detach the terminal and remove the heating element.
6. Insert a new heating element and solder.



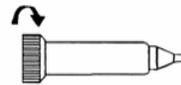
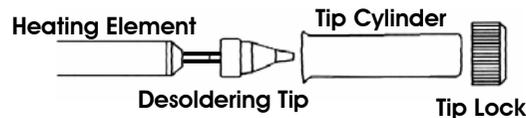
Note:

- There is no polarity between leads of the same colors.
- Bend the leads at right angle to prevent short-circuit.

DESOLDERING GUN MAINTENANCE

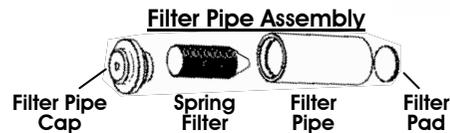
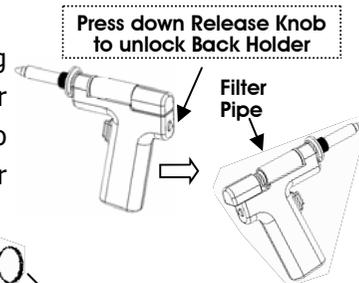
Changing Desoldering Tip:

1. Unscrew the Tip Lock and pull out Tip Cylinder together with the Tip Lock.
2. Pull out Desoldering Tip and replace with new one.
3. Re-secure nozzle by tightening the Tip Lock on its receptacle.



Changing Filter Pad and Spring Filter:

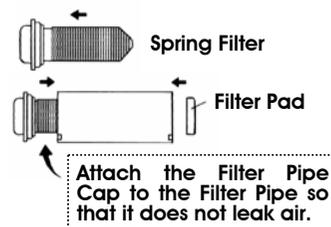
1. Unlock the Filter Pipe by toggling the Release Knob. The Back Holder Assembly would spring back to allow easy extraction of the Filter



2. Take out the Spring Filter or the Filter

- If solder is collected in two-thirds of the spring filter replace the spring filter.
- Replace filter if stiff with flux and solder.

Pads for cleaning or replacement.



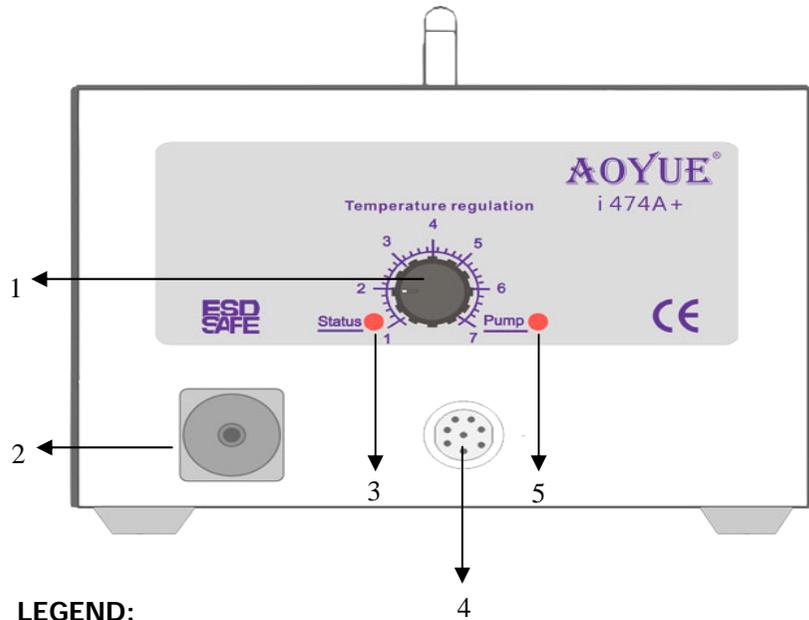
SPECIFICATIONS

Power Input :	available in 110V / 220V
Power Consumption:	80W (Max)
Temperature Range:	150°C - 380°C
Heating Element:	Heating Element
Output Voltage:	24V
Tip to Ground Resistance:	Below 2 Ω
Tip to Ground Potential:	Below 2mV
Suction Flow:	15 l /min (max)
Vacuum Generator:	Double Cylinder
Vacuum Pressure:	600mm Hg
Station Dimensions:	188(w) x 127(h) x 244(d) mm
Weight:	5.3Kg

FEATURES

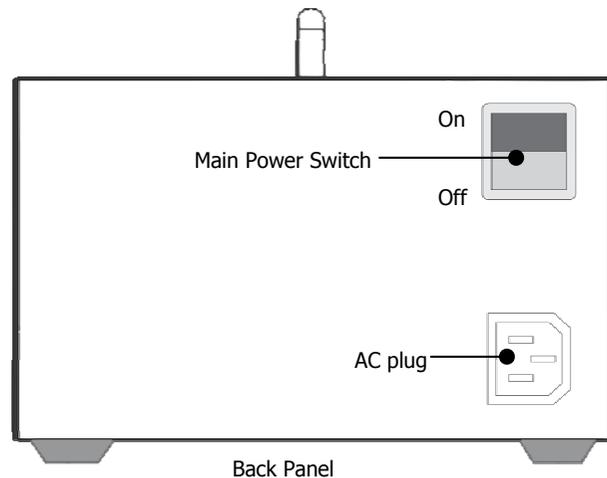
- Compact unit with air cylinder type strong suction vacuum pump.
- Suited for multi-layered PCB reworking.
- The heating element and tip are designed closely to guarantee enough temperature during desoldering.

CONTROL PANEL GUIDE



LEGEND:

- 1 — Desoldering Gun Temperature Konb
- 2 — Vacuum Cap
- 3 — Desoldering Gun Heater Lamp
- 4 — Desoldering Gun Receptacle
- 5 — Desoldering Gun Pump Indicator Lamp



Back Panel

DESOLDERING GUN MAINTENANCE

General Guidelines:

- Before usage dampen the filter pads with a little bit of water to allow efficient air passage and filter action, re-dampen pads frequently for maximum efficiency.
- Routinely clean Spring Filter, and replace Filter Pads when they are dirty or clogged.
- The solder pathway can be cleaned using the provided Cleaning Pin, use the cleaning pin when pathway seems clogged.



Filter Spring

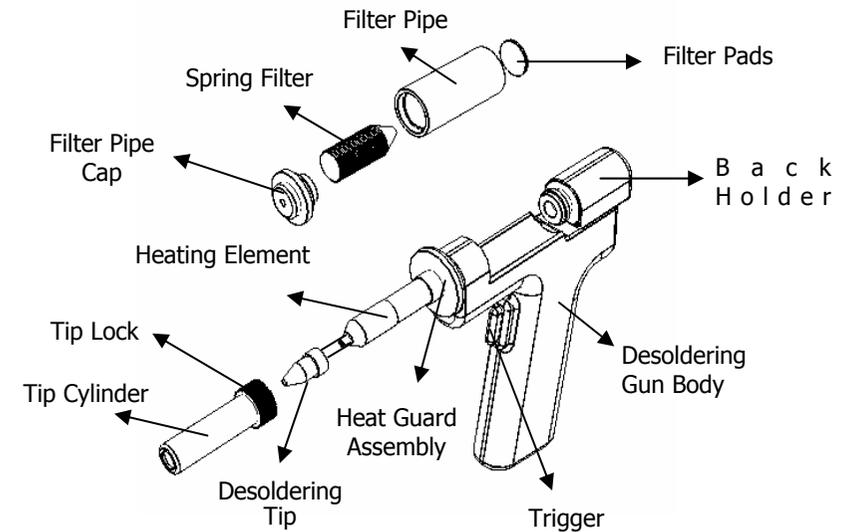


Filter Pads



Cleaning Pin

Disassembled Illustration:

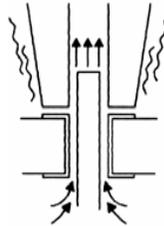


OPERATION GUIDELINES

B. Absorb the solder

1. After confirming that the solder is completely melted, absorb the solder by pressing the trigger on the gun.
2. Never leave any solder remaining inside the hole of the PCB.
3. After fully absorbing all the solder, cool the soldering junction in order to prevent it from becoming re-soldered.
4. If solder remains, re-solder the component and repeat the desoldering process.

Absorb the solder by slowly moving the lead back and forth with the tip of the nozzle. While pressing the trigger.



IV. Cleaning during Operation

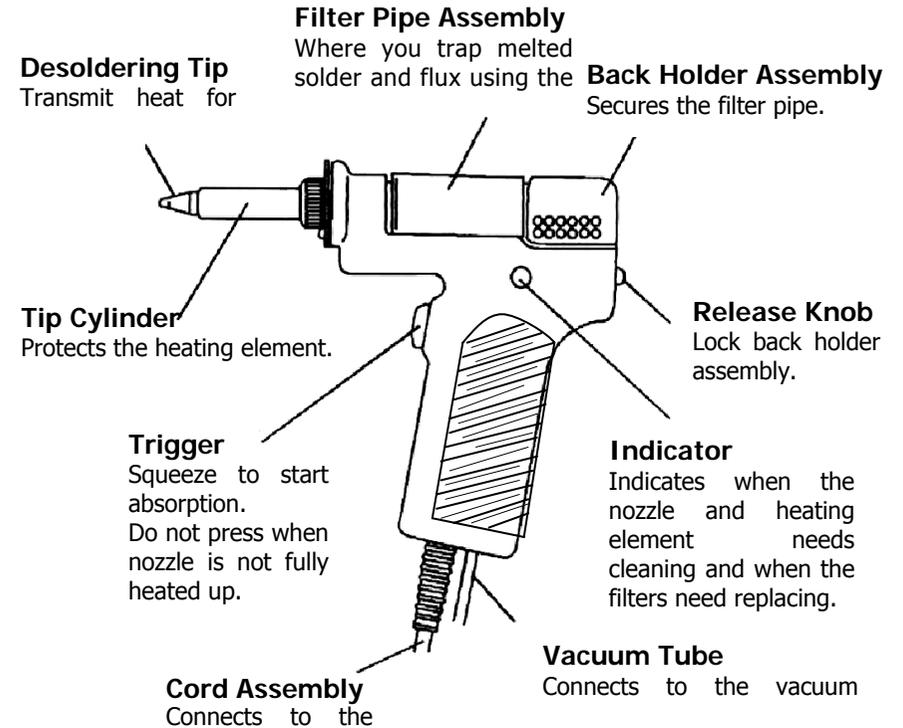
1. Observe the Indicator during desoldering process, pull the trigger and look at the indicator. If it is red, clean or change the Filter Pipe and Spring Filter. If the indicator is blue, cleaning is not necessary

		Solution
○	●	If the indicator is more than half red, replace the filter and clean the nozzle and the inside of the heating element.
Blue or slight amount of red can be seen.	More than half of the indicator is red.	

and operations can be resumed.

- The indicator will not operate accurately if the hole of the tip is blocked (usually by un-melted solder from the PCB).
- If there is a noticeable drop in suction efficiency, clean the desoldering tip with the cleaning pin.
- During operation, the filter pipe is very hot wait until the filter

PARTS GUIDE



OPERATION GUIDELINES

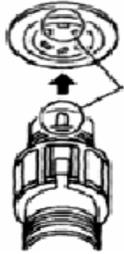
I. Connections

1. Connect the cord assembly of the desoldering gun to the receptacle in the desoldering station.

2. Connect the vacuum tube to the vacuum



outlet

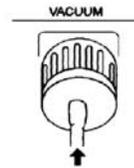


Insert the cord assembly by keying the plug to the key on the receptacle.

Secure the plug by turning it clockwise.

cap.

3. Connect the power cord.



Fully insert the vacuum tube in the vacuum cover.

⚠ CAUTION:

Confirm that the power switch is set to "OFF", before connecting the power plug to the power supply.

II. Desoldering Gun

1. Power Switch

- Turn "ON" the main power switch.
- Check if the *indicator light* lights up when you turn the unit "ON".

NOTE: The suction nozzle begins to heat up as soon as the desoldering switch is turned on.

2. Setting the temperature

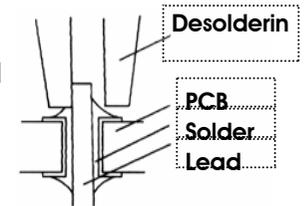
- Turn knob to desired temperature.
- Always set the temperature to the lowest possible working temperature enough to melt the solder.
- Wait for a few minutes (until desoldering tip fully heats up) before beginning desoldering operations.

OPERATION GUIDELINES

III. Desoldering Process

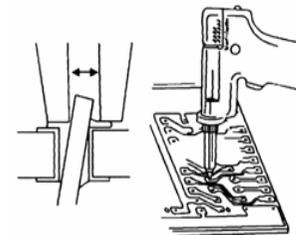
A. Melt the solder

1. Apply the tip to the soldered part and melt the solder.



NOTE: Never allow desoldering tip to directly touch the board.

2. Confirm that the solder is melted. To confirm that all the solder has melted, observe the inside of the hole and the backside of the PCB.



Slowly move the lead

3. Try moving the lead using the desoldering gun tip, if it moves easily then it means that solder is completely melted.

4. Never move the lead by force. If it doesn't move easily, the solder is not fully melted.

NOTE:

Use a preheating oven or heating gun to heat the PCB to a temperature that won't damage the board or its components [between 70°C(160°F)and 80°C(180°F)].Then desolder. Do not increase the temperature of the gun by recalibration as this may damage the PCB. and its components.