This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

The specific instructions related to the safe operation of this appliance (as given in 7.12 of this standard) shall be collated together in the front section of the user instructions.

The height of the characters, measured on the capital letters, shall be at least 3 mm

These instructions shall also available in an alternative format, e.g. on a website.

A fire may result if the appliance is not used with care, therefore:

- → be careful when using the appliance in places where there are combustible materials;
- → do not apply to the same place for a long time;
- do not use in presence of an explosive atmosphere;
- → be aware that heat may be conducted to combustible materials that are out of sight;
- place the appliance on its stand after use and allow it to cool down before storage;
- → do not leave the appliance unattended when it is switched on.

#### Rohs

# Correct Disposal of this product



This marking indicates that this product should not be disposed with other household wastes throughout the EU. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use the return and collection systems or contact the retailer where the product was purchased. They can take this product for environmental safe recycling.

#### Manufacturer:

#### **AOYUE INTERNATIONAL LIMITED**

Jishui Industrial Zone, Nantou, Zhongshan City, Guangdong Province, P.R.China http://www.aoyue.com

# **AOYUE** \*\* INT 702A+

# Dual Port Repairing System

# INSTRUCTION MANUAL

Thank you for purchasing Aoyue Int702A+
Dual Port Repairing System.

It is important to read the manual before using the equipment.
Please keep manual in accessible place for future reference.



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 .

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# BASIC TROUBLESHOOTING GUIDE

#### **PROBLEM 1: THE UNIT HAS NO POWER**

- . Check if the unit is switched ON. Power switch located at the back.
- 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: TEMPERATURE DISPLAY SHOWS "PEN"

**Description:** Soldering Iron digital display shows the message "Pen" **SOLUTION:** 

The soldering iron connecting with the main unit is not detected. Reconnect soldering iron terminal to the main unit. Sensor connection may be damaged, check for cord damage or sensor damage.

#### **PROBLEM 3: 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

#### **OTHER PROBLEMS NOT MENTIONED:**

Contact the vendor.

#### CARE and MAINTENANCE

#### **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 Soldering Iron tip

- 1. Always turn OFF main power switch when removing or inserting a tip.
- 2. If the tip is hot, use the heat resistant pad to pull it out.
- 3. Insert the new tip fully into the handle. If the tip is not fully inserted (or if the tip is damaged), the device will display "PLUG". Indicating a problem with the contacts of the soldering iron or the tip.

#### **Soldering Iron Error Messages**

- 1. Soldering Iron connection assembly is not connected or not properly connected to the receptacle on the control panel.
- Soldering iron sensor, cord or connection is damaged and needs to be replaced. The device will display "PEn". Indicating a problem with the contacts between the soldering iron and the main unit.
- Soldering iron heating element has reached the end of its life, the temperature would consistently display a low temperature value followed by "Err" display. Indicting a problem with the heating element or a reversed sensor polarity.

# PRODUCT DESCRIPTION

The Aoyue Int702A+ Dual Port Repairing System is a reworking equipment with two independently controlled and programmable port. The two ports allows simultaneous usage of two soldering irons, or a combination of soldering iron and tweezers or simply two tweezers.

Two soldering irons with different style tips can be available for use immediately, eliminating loss time spent changing tips and waiting for heat up. Alternately a soldering iron and tweezers combination can also be setup for diverse technology repairing.

It has several advanced features such as digital temperature calibration and configurable auto sleep.

Finally, the unique, innovative design with digital control panel and display provides precision, safety, and ease of use to match all reworking requirements.

# **Features:**

- Microprocessor-controlled ESD safe equipment.
- Dual port repairing system.
- Digital control and display of temperature with touch type panel controls for precision and ease of use.
- User configurable 1 to 60 minute idle-to-auto-sleep mode for additional device protection and power saving.
- Digital calibration for easy temperature calibration.
- Compatibility with different kind of soldering tips.

#### **SPECIFICATION**

MAIN STATION	
Power Input :	available in 110V / 220V
Station Dimensions:	188(w) x 126(h) x 250(d) mm
Weight:	4.8Kg
Port 1 and 2	
Power Consumption:	70W
Temperature Range:	200°C - 480°C
Heating Element:	Ceramic Heater
Output Voltage:	24V

Specifications are subject to change without prior notice.

#### DIGITAL CALIBRATION

# **B.** Utilizing Port A's Temperature Calibration

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

- 1. Turn on Port A function.
- 2. Set to appropriate temperature you want to calibrate. Place the tip of the soldering iron on an external temperature meter.
- 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. First write down the set temperature of the soldering iron and the actual temperature reading from the external temperature meter. For example:

set temperature = **250** external temperature = **300** Calibration needed = **-50** 

- 5. Turn off the <u>Port A Function</u>. Simultaneously press and hold for 5 seconds Port A's **Function button** ande Port A's **Up button**.
- 6. Port A's <u>Temperature Display</u> ("1" from the control panel). Will switch to "000" indicating it is now in the digital calibration adjustment mode. The calibration range is from"-50" to "050". The leading "-" sign signifies a negative calibration number while the leading "0" signifies a positive calibration number.
- 7. Use <u>Port A's Temperature</u> Adjustment buttons ("6" from the control panel) to increase or decrease the calibration number. In our example the set temperature is 250 but the actual temperature is 300, There is a need to decrease the temperature by 50 degrees. Press the down button until we reach "-50".
- 8. Save the value by pressing and holding <u>Port A's Function button</u> ("4" from the control panel).

#### DIGITAL CALIBRATION

#### A. Utilizing Port B's Temperature Calibration

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

- 1. Turn on the soldering iron function.
- 2. Set to appropriate temperature you want to calibrate. Place the tip of the soldering iron on an external temperature meter.
- 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. First write down the set temperature of the soldering iron and the actual temperature reading from the external temperature meter. For example:

set temperature = **350** external temperature = **300** Calibration needed = **+50** 

- 5. Turn off the <u>Port B Function</u>. Simultaneously press and hold for 5 seconds <u>Port B's Function button</u> and <u>Port B's Up button</u>.
- 6. Port B's <u>Temperature Display</u> ("2" from the control panel) . Will switch to "000" indicating it is now in the digital calibration adjustment mode. The calibration range is from"-50" to "050" . The leading "-" sign signifies a negative calibration number while the leading "0" signifies a positive calibration number.
- 7. Use <u>Port B's Temperature</u> Adjustment buttons ("5" from the control panel) to increase or decrease the calibration number. In our example the set temperature is 350 but the actual temperature is 300, There is a need to increase the temperature by 50 degrees. Press the up button until we reach "050".
- 8. Save the value by pressing and holding <u>Port B's Function button</u> ("3" from the control panel).

#### PACCKAGE INCLUSIONS

1 unit	Int 702A+Main Station
1 pc.	B016 Soldering Iron
1pack	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.	C012 Spare Soldering Iron Heating Element
1 pc.	T007 SMD Hot Tweezers
2 pc.	2029343 Tweezers Tips
1 pc.	Tip Alignment Tool
1 pc.	2683 Soldering Iron Stand**
1 pc.	G001 IC Popper
1 pc.	Power Cord
1 pc.	Instruction Manual

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

#### **SAFETY PRECAUTIONS**



**CAUTION:** Improper usage can cause serious injury to personnel A 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.

#### **AUTO SLEEP FUNCTIONS**

#### **Auto-Sleep Mode**

The sleep timer can be configured to power down the Ports after a defined time. When in sleep mode three dashes " - - - " will be shown indicating that it is now in sleep mode. To reactivate simply push its corresponding function or adjustment button.

By default the system's sleep duration is 0 indicating the sleep timer is disabled. To activate the sleep function follow the procedures below.

#### Changing SLEEP Timer

- 1. With the soldering iron function turned off. Simultaneously press and hold for 5 seconds the Soldering Iron Function button and the Soldering Iron Down button .
- 2. The Soldering Iron Temperature Display ("2" from the control panel) . Will switch to "t00" indicating it is now in the soldering iron sleep timer adjustment mode.
- 3. Use the Soldering Iron Temperature Adjustment buttons ("5" from the control panel) to increase or decrease the sleep duration. Timer is adjustable from 1 to 60 minutes, a value of 0 indicates that the sleep timer function is turned off.
- 4. Confirm the change by pressing and holding the Soldering Iron Function button ("3" from the control panel).

# **Changing SLEEP Timer (Tweezers)**

- 1. With the tweezers function turned off. Simultaneously press and hold for 5 seconds the Port A Function button and the Port A Down button .
- 2. The Port A Temperature Display ("1" from the control panel). Will switch to "t00" indicating it is now in the gun sleep timer adjustment mode.
- 3. Use the Port A Temperature Adjustment buttons ("5" from the control panel) to increase or decrease the sleep duration. Timer is adjustable from 1 to 60 minutes, a value of 0 indicates that the sleep timer function is turned off.
- 4. Confirm the change by pressing and holding the Port A Function button ("4" from the control panel).

#### **OPERATING GUIDELINES**

# C. TWEEZERS

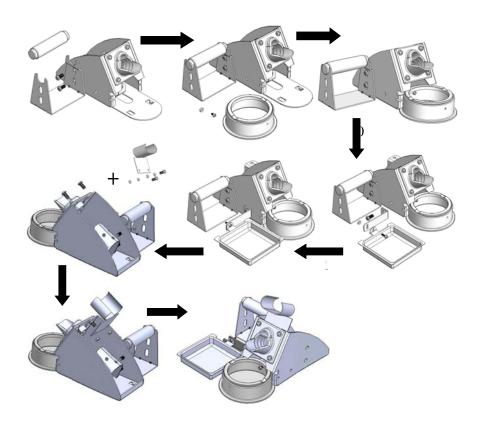
- 1. Connect the Tweezers connection assembly to Port B.
- 2. Follow the initial procedures ("A. INITIAL PROCEDURES").
- 3. To activate the "Tweezers" function, press and hold the Port B function button for 3 to 5 seconds ("3" from control panel). The temperature display will momentarily show the current set temperature then switch to displaying the actual temperature.
- 4. Adjust the soldering iron temperature using the PORT B TEMPERATURE ADJUSTMENT buttons ("5" from the control panel).
- 5. Start using the Tweezers as soon as desired temperature is reached.
- 6. To deactivate the Tweezers function press and hold the soldering iron function button for 3 to 5 seconds ("3" from control panel).
- 7. Allow sufficient time for the Tweezers to cool down before keeping in a safe storage.

#### Notes:

 Industry recommended tip temperature for soldering is 600 to 610F (315 to 320C) for standard solders and 650 to 700F (340 to 370) for unleaded solders.

# **ASSEMBLY and PREPARATIONS**

# A. Soldering Iron Stand



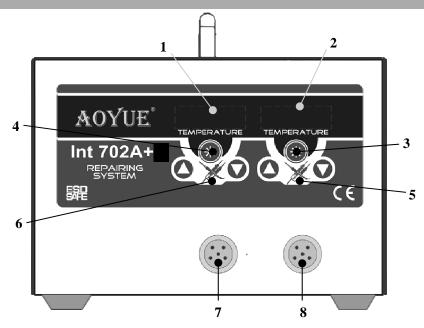
# C. Soldering Iron

- 1. Connect the soldering iron to the main station.
- 2. Place the soldering iron to the soldering iron stand.

#### D. Tweezers

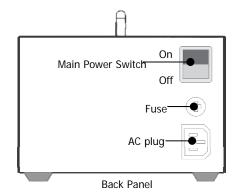
- 1. Connect the cord of the tweezers to main station.
- 2. Place the desoldering gun onto the holder in preparation for usage.

#### CONTROL PANEL GUIDE



#### **LEGEND:**

- 1 Port A Temperature Display
- 2 Port B Temperature Display
- 3 Port B function button
- 4 Port A function button
- 5 Port B Temperature Control Buttons
- 6 Port A Temperature Control Buttons
- 8 Port A Receptacle
- 9 Port B Receptacle



#### **OPERATING GUIDELINES**

#### **IMPORTANT REMINDERS:**

- 1. Make sure the equipment is placed on a flat stable surface and all the heat-generating components placed on their respective holders or stands.
- 2. 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. Switch ON the device by activating the main power switch.
- 3. The display panels, will display show "OFF". The system will remain at this state until the user activates a function.

#### **B. SOLDERING IRON**

- 1. Connect the Soldering Iron connection assembly to Port A.
- 2. Follow the initial procedures ("A. INITIAL PROCEDURES").
- 3. To activate the "SOLDER IRON" function, press and hold the Port A function button for 3 to 5 seconds ("3" from control panel). The temperature display will momentarily show the current set temperature then switch to displaying the actual temperature.
- 4. Adjust the soldering iron temperature using the PORT A TEMPERATURE ADJUSTMENT buttons ("5" from the control panel).
- 5. Start using the soldering iron as soon as desired temperature is reached.
- 6. To deactivate the soldering iron function press and hold the soldering iron function button for 3 to 5 seconds ("3" from control panel).
- 7. Allow sufficient time for the soldering iron to cool down before keeping in a safe storage.