

BlackJack SolderWerks BK3000 Multipro Soldering Station

INSTRUCTION MANUAL

Please read this manual before operating the equipment.
Keep manual in accessible place for future reference.

TABLE OF CONTENTS

Product Description.....	3
Package Inclusion.....	3
Safety Precautions.....	4
Specifications.....	5
Functions and Features.....	5
Control Panel Guide.....	5
Operating Guidelines	6
Menu structure	6
Initial Procedures	6
Temperature Control	7
Digital Offset.....	7
Quick Jump Feature	8
Sleep Function	9
System Lock	10
Temperature Scale	11
Power LED	11
Basic Troubleshooting Guide	12

Blackjack SoliderWerks

AK3000 M416

Soldering Station

INSTRUCTION MANUAL

PRODUCT DESCRIPTION

The Aoyue BK3000 Multipro multi-tool station having up to 75 watts of heating power. It can be equipped with a variety of tools such as a tweezers, a sculpting tool, a composite Iron, T-series soldering iron. Each tool is intelligently recognized by the station and quickly set the appropriate settings for the tool. All tools feature quick heating ceramic heater for fast response and heat recovery.

PACKAGE INCLUSION

1 unit Multipro Main Station

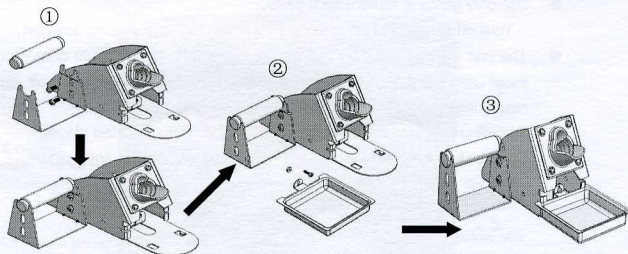
1 pc. Soldering Iron

1 pc. Soldering Iron Stand

1 pc. Power Cord

1 pc. Instruction Manual

Iron Stand Assembly



SAFETY PRECAUTIONS



CAUTION: Improper usage can cause serious injury to personnel and/or damage to equipment and work area. For your own safety, please observe the following 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 from power source when moving the device.
- Do not strike or subject the main unit (and all its components) to physical shock. Use carefully to avoid 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 down before replacing any part.
- 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 places.
- Do not alter the unit, specifically the internal circuitry, in any manner.

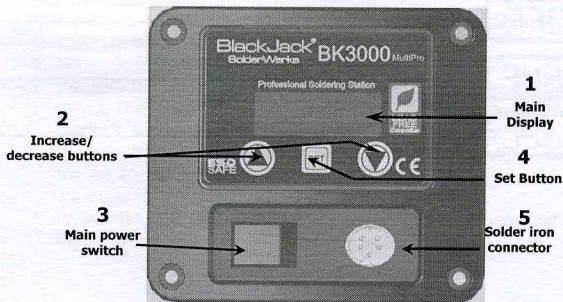
SPECIFICATION

Voltage Input :	available in 110V / 220V
Weight:	1.5Kg
Power Consumption:	Up to 75W (60W with default Iron)
Temperature Range:	200°C - 480°C
Heating Element	Ceramic heater
Output voltage:	24V

FUNCTIONS and FEATURES

- Microprocessor-controlled ESD safe Soldering station.
- Multi-tool system: tweezers, sculpting pen, composite tip, others.
- Intelligent station automatically recognized plugged tool.
- Compatible with Lead free applications.
- High power heating element for fast heat recovery.
- Large display with digital controls.
- Programmable sleep timer, with auto sleep and wake up function.
- Digital offset.
- System-lock out feature.
- Quick jump to favorite settings.
- Switch between Centigrade and Fahrenheit scale.

CONTROL PANEL GUIDE




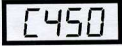




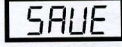
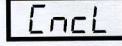


OPERATING GUIDELINES

REMINDERS:

- ♦ Make sure the equipment is placed on a flat stable surface and all the heat-generating components placed on their respective holders or stands.
- ♦ Ensure all function switches are in the OFF position.

Menu Structure:

	Current tool detected.
	Digital offset value (-70 to +70).
	Quick Jump Settings 1 (200– 480).
	Quick Jump Settings 2 (200– 480).
	Sleep timer currently set to 60 minutes (0-60 minutes).
	Lock out feature.
	Centigrade or Fahrenheit selection
	Power LED for LED tool .
	Save settings and exit.
	Do not save settings and exit.

OPERATING GUIDELINES

A. INITIAL PROCEDURES

1. Insert the power cord into the receptacle at the back of the station.
2. Plug the power cord into a grounded wall socket. The station is protected against electrostatic discharge and must be grounded for full efficiency.
3. Be sure the power switch is OFF before connecting or disconnecting the soldering iron cord. Failure to do so may result in damage to the circuit board.
4. Follow instructions on soldering iron stand assembly guide.
5. Attach the soldering iron to the 8-pin output at the bottom right area of the station.
6. Place soldering iron to the soldering iron stand as shown .
7. Dampen the sponge with water and squeeze excess water before using. The tips maybe damaged when used with dry sponge.
8. The unit is now ready for use.

B. TEMPERATURE CONTROL

1. Turn the power ON.
2. The display would show a number between 200 to 480 indicating the set temperature.
3. The display would then switch to showing the actual temperature.
4. Adjust desired set temperature by pressing the increase/decrease buttons.
5. While adjusting the set temperature the display would show the current adjusted set temperature, after a few seconds the display will revert to showing the actual temperature.
6. Temperature control range is from 200C to 480C.

C. DIGITAL OFFSET

The unit is provided with a digital offset feature for tip calibration.

To calibrate the tip temperature:

1. Set to desired working temperature.
2. Measure the tip temperature through an external temperature reader with a thermocouple as its sensor. Ensure the external temperature reader's sensor and the solder iron's tip can keep good physical contact. Wait for the display to reach the set temperature , then allow the tip to idle at the sensor for 60 seconds for proper temperature measurement.
3. Press and hold the SET button to enter the system configuration mode. Wait for the display to change to [01] meaning current tool 01.

OPERATING GUIDELINES

4. Press the set button again to scroll to the Digital offset function. The display shows a number with an "A" as its prefix. This denotes that we are now configuring the digital offset of the system. A display like "A000" indicates that the digital offset is currently set at neutral.
5. Press the increase and decrease button to adjust the digital offset. A negative number denotes a negative offset and a positive number denotes a positive offset. Adjust the offset number until the external temperature sensor reading is equal to our set temperature.
6. Adjust the offset number until the external temperature sensor reading is equal to our set temperature.
7. Repeatedly press the SET button until the display shows the word "SAVE". Press the decrease button to save and exit from the system configuration mode.
8. The tip has now been properly calibrated.
9. Saved settings are stored into memory and will remain in effect unless changed by the user.

D. QUICK JUMP FEATURE

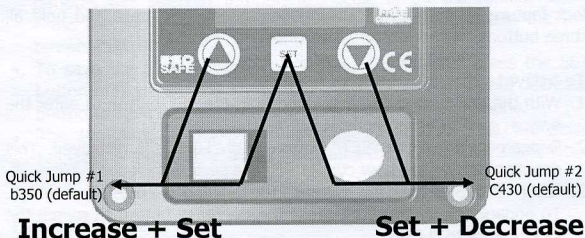
The system has two configurable quick jump settings. The quick jump features enables the user to easily jump to a predefined temperature level. The two most frequently used temperature level must first be saved into system memory. A simple push of two button will automatically jump to these preset temperature level.

To configure these two quick jump temperature level:

1. Press and hold the SET button to enter the system configuration mode.
2. Repeatedly press the SET button until the display shows a number with "b" as its prefix. This denotes that we are now configuring the first quick jump setting.
3. Select your desired quick jump temperature level by pressing the increase or decrease button.
4. To adjust the second quick jump level, repeatedly press the "SET" button until a number with a prefix "C" is displayed. This denotes that we are now configuring the second quick jump setting.
5. Select your desired quick jump temperature level by pressing the increase or decrease button.

OPERATING GUIDELINES

6. To save the settings, repeatedly press the SET button until the display shows the word "SAVE". Press the decrease button to save and exit from the system configuration mode.
7. The two quick jump settings has now been configured and can be accessed by simultaneously pressing the "INCREASE" and "SET" button for the first Quick jump level. And simultaneously pressing the "DECREASE" and "SET" button will access the second quick jump level.



E. SLEEP FUNCTION

The Soldering Iron is equipped with a vibration sensor. When the soldering iron has been left unmoved the system would begin the count down of the sleep timer. The suffix will change to a small letter "d" to indicate that the system is preparing to enter sleep mode. The display will show four dashes "- - - -" to indicate the system has entered sleep mode. To wake the system, simply lift up the soldering iron or push any control buttons.

Sleep timer is configurable via the following method:

1. With the unit turned On, Press and hold the SET button to enter the system configuration mode.
2. Repeatedly press the "SET" button until a number with prefix "t" or "t000" is displayed. This denotes that we are now configuring the sleep timer setting.

OPERATING GUIDELINES

3. "t000" indicates that the sleep function is currently turned off. To adjust the timer settings press the increase or decrease button. Sleep timer is adjustable from 2 to 60 minutes.
4. To save the settings, repeatedly press the SET button until the display shows the word "SAVE". Press the decrease button to save and exit from the system configuration mode.

F. SYSTEM LOCK

The System lock feature disables adjustment to both temperature and system configuration. The display will show "SAFE" when system lock feature is enabled. To disengage system lock press and hold all three buttons for more than 15 seconds.

To activate the system lock feature:

1. With the unit turned On, Press and hold the SET button to enter the system configuration mode.
2. Repeatedly press the "SET" button until "LOFF" is displayed. This denotes that we are now configuring the system lock setting.
3. "LOFF" indicates that the system lock function is currently disabled. To engage the system lock press the decrease button to switch the lock feature to "LOn".
4. To save and activate the system lock settings, repeatedly press the SET button until the display shows the word "SAVE". Press the idecrease button to save and exit from the system configuration mode.
5. The display would show the word "SAFE", indicating system lock is enabled.

When the system lock feature is enabled changing of temperature and system settings are blocked. The system lock must be disengaged to re-enable access to the system.

To de-activate the system lock:

1. With the unit turned On, press and hold the INCREASE, SET and DECREASE button for more than 15 seconds.
2. The display would switch from "SAFE" to the set temperature display when system lock has been disengaged.

OPERATING GUIDELINES

G. TEMPERATURE SCALE

The displayed temperature can be toggled between the centigrade scale or the Fahrenheit scale.

To switch between the two scales follow these procedures:

1. With the unit turned On, Press and hold the SET button to enter the system configuration mode.
 2. Repeatedly press the "SET" button until " C°" or " F°" is displayed. This denotes that we are now configuring temperature scale settings.
 3. "C°" indicates that the current system scale is Centigrade. "F°" denotes the selected temperature scale is the Fahrenheit scale. Press the increase or decrease button to select between the two temperature scales.
 4. To save the temperature scale settings, repeatedly press the SET button until the display shows the word "SAVE". Press the decrease button to save and exit from the system configuration mode.
- ♦ The temperature display would change according to the scale selected. A suffix "F" /"###F" indicates the Fahrenheit scale, while "C" /"###C" indicated the Centigrade scale.

H. POWER LED

For tools with LED capabilities only.

To switch between the On and Off:

1. With the unit turned On, Press and hold the SET button to enter the system configuration mode.
2. Repeatedly press the "SET" button until " POFF" is displayed. This denotes that we are now configuring Power LED settings. Press up and down button to select between ON and OFF.
3. "OFF" indicates that the LED is turned OFF. "ON" indicates LED is turned on.
4. To save the settings, repeatedly press the SET button until the display shows the word "SAVE". Press the decrease button to save and exit from the system configuration mode.

Note: During system configuration mode if it is decided that the recently changed setting should not be saved into system memory, repeatedly press the set button until the display shows the word "CncL" (cancel). Press the decrease button to exit system configuration mode without saving the most recent changes made.

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: TEMPERATURE IS NOT INCREASING

CASE 1: Tip temperature does not increase, display shows the word "Err1"

SOLUTION:

The solder Iron is not connected or its connection is loosely connected to the main station. Plug the solder iron firmly and lock into position.

CASE 2: Solder Iron is properly connected, display still shows "Err1"

SOLUTION:

The heating element may have been damaged. Replace heating element. Or check the wirings of the solder iron pen.

CASE 3: Solder Iron is properly connected, Display shows low temperature levels then switches to "Err2"

SOLUTION:

The heating element is damaged. Replace heating element. Or check the wirings of the solder iron pen.

PROBLEM 3: SOLDER IRON TIP IS OVERHEATING

Description: Solder iron tip is getting too hot.

SOLUTION:

Digital offset settings might be adjusted too high causing overheat protection. Repeat the steps in page 8 under **DIGITAL OFFSET**. Ensure that the maximum temperature is only at 480C.

PROBLEM 4: OTHER PROBLEMS NOT MENTIONED IN THIS DOCUMENT

SOLUTION: Contact authorized service station.