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BAKON CA-BK601S

BAKON CA-BK601S 90W Digital Soldering Station Instruction Manual

Model: CA-BK601S

1. INTRODUCTION

This manual provides detailed instructions for the safe and efficient operation of your BAKON CA-BK601S 90W Digital Soldering Station. Please read this manual thoroughly before using the device to ensure proper functionality and to prevent damage or injury. This soldering station is designed for precision electronic soldering, repairs, and DIY projects, offering fast heating, stable temperature control, and user-friendly features.

2. SAFETY INSTRUCTIONS

- **Always wear safety glasses:** Protect your eyes from solder splashes and fumes.
- **Work in a well-ventilated area:** Soldering fumes can be harmful. Use a fume extractor if possible.
- **Avoid touching hot surfaces:** The soldering iron tip and heating element reach very high temperatures. Use the provided stand and handle with care.
- **Keep flammable materials away:** Ensure your workspace is clear of combustible items.
- **Unplug when not in use:** Always turn off and unplug the soldering station when not actively soldering or when leaving the workstation.
- **Use appropriate power supply:** Connect the device to a grounded power outlet with the correct voltage (110V AC).
- **Keep out of reach of children:** This is not a toy and should only be operated by trained adults.

3. PACKAGE CONTENTS

Verify that all items listed below are included in your package:

- Main Unit (Soldering Station)
- Soldering Iron
- Soldering Iron Stand (integrated design)
- Cleaning Sponge
- Cleaning Steel Wire
- Tweezers
- Solder Sucker

- Soldering Wire
- 5 x Soldering Iron Tips (various types)
- Power Cord
- Instruction Manual

EASY TO USE

Multifunctional, Suitable for Repairing Various Electronic and Home Appliances

<input checked="" type="checkbox"/> Electronics	<input checked="" type="checkbox"/> Watches
<input checked="" type="checkbox"/> Wires	<input checked="" type="checkbox"/> Appliance
<input checked="" type="checkbox"/> RC	<input checked="" type="checkbox"/> Mainboard



Figure 3.1: All components included in the BAKON CA-BK601S Soldering Station kit.

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Video 3.1: Unboxing and overview of the BAKON BK968S Soldering Station components. Note: This video demonstrates a similar model, BK968S, but illustrates general unboxing and component identification relevant to the BK601S.

4. PRODUCT FEATURES

- **90W Fast Heating:** Achieves set temperature in approximately 10 seconds, with a temperature range of 80°C to 480°C (356°F to 896°F).
- **PID Temperature Stabilization:** Maintains consistent temperature for precise soldering.
- **Digital Display:** Real-time temperature display for accurate monitoring.
- **Ergonomic Soldering Pen:** Features a ceramic heating core for high thermal efficiency and a comfortable handle for extended use. Compatible with BK900M series tips.
- **Automatic Dormancy (Sleep Mode):** Extends soldering tip lifespan and saves energy.
- **3-Speed Temperature Presets:** Allows quick selection of frequently used temperatures.
- **Password Protection:** Secures custom temperature settings.
- **°C / °F Temperature Unit Conversion:** Easily switch between Celsius and Fahrenheit.

- **Integrated Design:** Compact unit with integrated soldering iron stand, cleaning sponge, and wire holder.
- **Safety Protections:** Includes heating core short circuit protection and sensor abnormality reminders.

LARGE SCREEN DISPLAY

Free to switch degrees Fahrenheit and Celsius

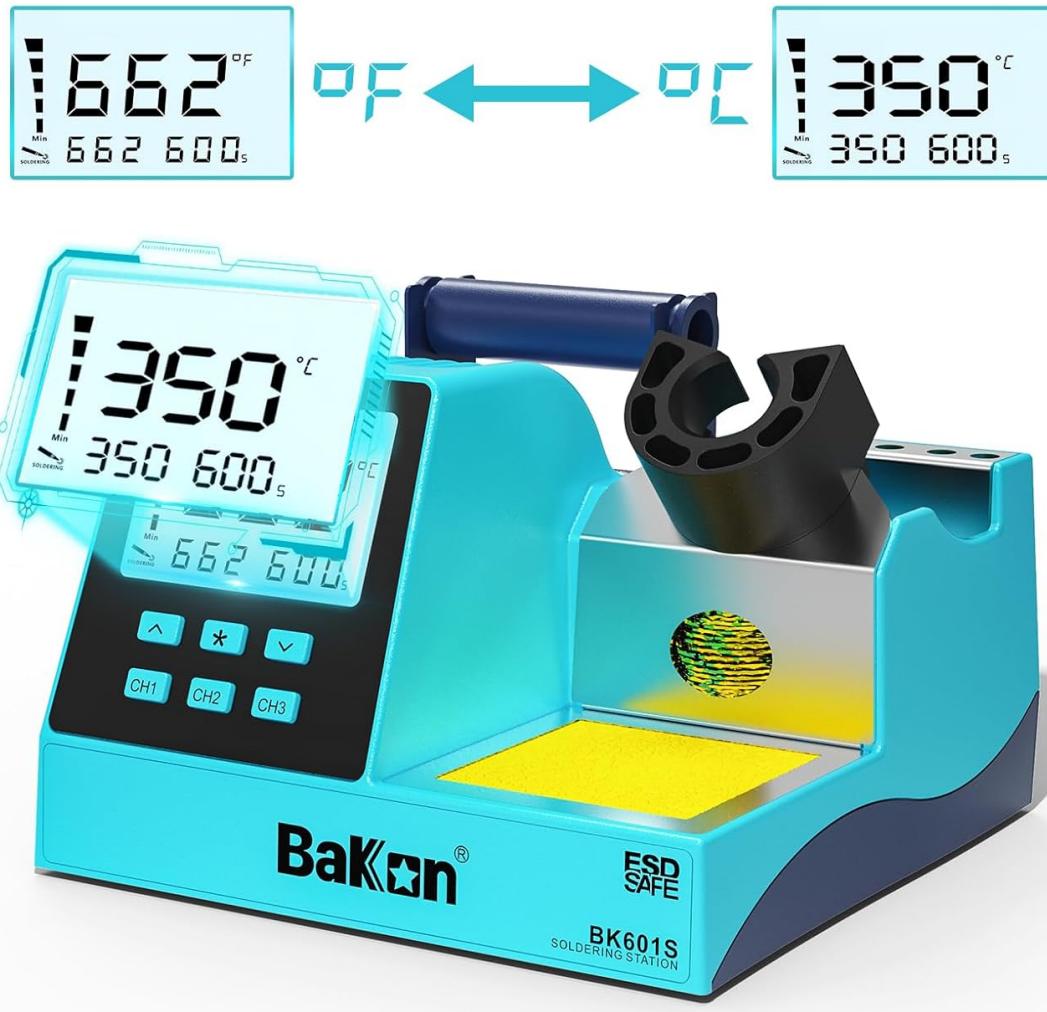


Figure 4.1: Large screen display showing temperature in both Celsius and Fahrenheit, with conversion capability.

ONE-KEY QUICK TEMP ADJUSTMENT

Customize your regularly used temperature settings with 3 channel

652°F CH1
Used for micro welding

698°F CH2
For general welding

715°F CH3
For sensitive components



Figure 4.2: One-key quick temperature adjustment feature with three preset channels for micro welding, general welding, and sensitive components.

PID TEMPERATURE CONTROL TECHNOLOGY

90W Power Fast Heating Up



Adjustable Temperature

356°F~896°F

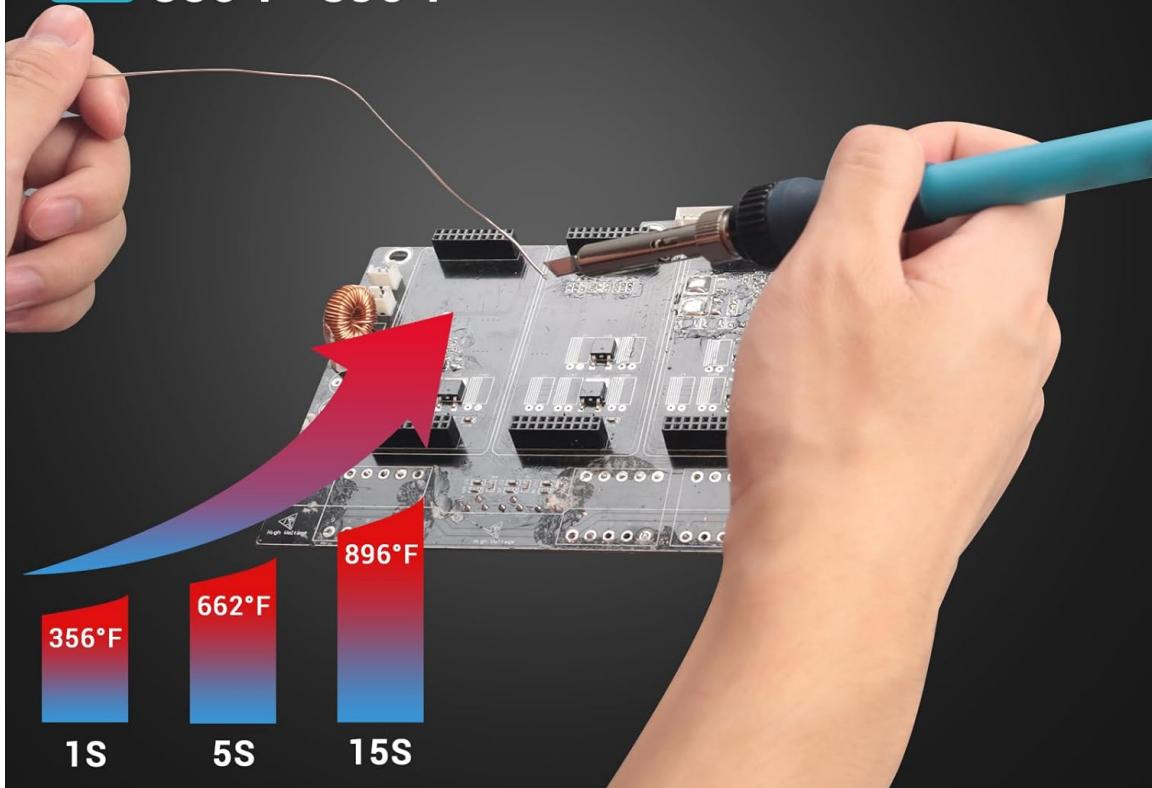


Figure 4.3: Illustration of PID temperature control technology ensuring rapid heating and stable temperatures.

5. SETUP

- 1. Unpack Components:** Carefully remove all items from the packaging and verify against the "Package Contents" list.
- 2. Position the Station:** Place the main unit on a stable, heat-resistant surface in a well-ventilated area.
- 3. Connect Soldering Iron:** Plug the soldering iron cable into the designated port on the main unit.
- 4. Install Soldering Tip:** Ensure a soldering tip is securely installed in the soldering iron.
- 5. Prepare Stand:** Place the cleaning sponge in the soldering iron stand and moisten it slightly with water. The steel wire can be used dry.
- 6. Connect Power:** Plug the power cord into the main unit and then into a grounded 110V AC power outlet.
- 7. Power On:** Flip the power switch on the main unit to the 'ON' position. The display will illuminate.



Figure 5.1: The BAKON CA-BK601S Soldering Station with all components connected and ready for use.

6. OPERATING INSTRUCTIONS

6.1. Temperature Adjustment

- Upon powering on, the station will automatically heat to the last set temperature.
- Use the **UP** and **DOWN** arrow buttons to adjust the temperature.
- Pressing the **CH1**, **CH2**, or **CH3** buttons will quickly set the temperature to one of the three pre-programmed presets. These presets can be customized (refer to advanced settings in the full manual).
- To switch between Celsius (°C) and Fahrenheit (°F), press and hold the **MODE/OK** button (or similar settings button, refer to full manual for exact button).

LARGE SCREEN DISPLAY

Free to switch degrees Fahrenheit and Celsius



Figure 6.1: The digital display allows for precise temperature control and unit conversion.

6.2. Soldering Process

1. Ensure the soldering iron is heated to the desired temperature.
2. Clean the soldering tip using the cleaning steel wire or a damp sponge.
3. Apply a small amount of solder to the tip (tinning) to improve heat transfer and prevent oxidation.
4. Place the hot tip against the component lead and the PCB pad simultaneously.
5. Feed solder onto the joint, not directly onto the iron tip. Allow the solder to flow evenly around the joint.
6. Remove the solder wire, then remove the soldering iron. Allow the joint to cool naturally without disturbance.

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Video 6.1: Demonstration of quick heating and soldering with a BAKON soldering station (BK968S model shown). This illustrates the general soldering process.

6.3. Sleep Mode & Auto Wake

- The soldering station features an automatic dormancy function. When the soldering iron is placed in its stand for a set period (adjustable, typically 60-600 seconds), it will enter sleep mode, reducing the tip temperature to a constant 180°C (or a user-defined lower temperature).
- To wake the iron from sleep mode, simply pick it up from the stand. It will quickly return to the previously set working temperature.

- This feature conserves energy and significantly extends the lifespan of the soldering tip by preventing excessive oxidation.

SLEEP MODE & AUTO WAKE



Figure 6.2: The sleep mode feature automatically lowers the iron's temperature when idle, and auto-wakes when picked up.

7. MAINTENANCE

7.1. Soldering Tip Care

- **Clean Regularly:** Always clean the soldering tip before and after each use with the cleaning steel wire or a damp sponge.
- **Tinning:** Re-tin the tip with a small amount of fresh solder after cleaning and before storing to prevent oxidation.
- **Tip Replacement:** Replace worn or damaged tips promptly to maintain soldering quality. The BK601S uses BK900M series tips.

7.2. Solder Sucker Usage

- The included solder sucker is used to remove excess solder from joints.
- Heat the solder joint until the solder melts.
- Quickly place the tip of the solder sucker over the molten solder and press the release button to suction the solder.
- Repeat if necessary until the joint is clean.

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Video 7.1: Demonstration of tin suction for cleaning solder residue using a BAKON soldering station (BK968S model shown). This illustrates the general process of using a solder sucker.

8. TROUBLESHOOTING

Problem	Possible Cause	Solution
"H-E" Error Displayed	Heating core short circuit or malfunction.	Check the soldering iron connection. If the error persists, the heating core may need replacement. Contact customer support.
"S-E" Error Displayed	Sensor abnormality.	Check the soldering iron connection. If the error persists, the temperature sensor may be faulty. Contact customer support.
Iron not heating up	Power not connected, power switch off, or faulty heating element.	Ensure power cord is securely plugged in and the power switch is ON. Check for error codes.
Solder not melting easily	Insufficient temperature, oxidized tip, or incorrect tip for the task.	Increase temperature, clean and re-tin the tip, or replace with a suitable tip.

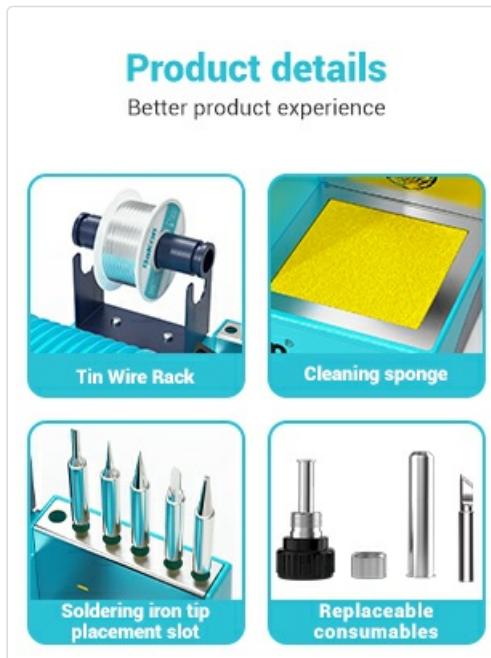


Figure 8.1: Examples of error messages displayed on the unit, indicating potential issues with the heating core or sensor.

9. SPECIFICATIONS

Parameter	Value
Output Power	90W (Max)
Temperature Range	80°C ~ 480°C (356°F ~ 896°F)
Input Voltage	AC 110V 50Hz
Dimensions (Main Unit)	160 x 165 x 105 mm
Resistance from Iron Tip to Ground	$\leq 2\Omega$

Parameter	Value
Item Weight	1.15 kg
Display Type	LCD



Figure 9.1: Detailed product specifications for the BAKON CA-BK601S Soldering Station.

10. WARRANTY AND SUPPORT

For warranty information, technical support, or service inquiries, please refer to the contact details provided with your purchase documentation or visit the official BAKON website. Keep your purchase receipt as proof of purchase for any warranty claims.

Related Documents - CA-BK601S

<p>Bakon BK601Pro Integrated High-Efficiency Soldering Station User's Manual</p> <p>This manual is an electrical product and safety precautions must be followed. Please read the manual carefully before use. This manual contains important information to prevent accidents and how to use the product correctly. Please keep the manual in a safe place for future reference.</p>	<p>Bakon BK601Pro Integrated High-Efficiency Soldering Station User Manual</p> <p>Comprehensive user manual for the Bakon BK601Pro soldering station, covering setup, operation, features, technical specifications, maintenance, and safety guidelines for optimal performance.</p>
<p>Bakon 950D Portable Digital Control Temperatures Soldering Station Instruction Manual</p> <p>This manual is an electrical product and safety precautions must be followed. Please read the manual carefully before use. This manual contains important information to prevent accidents and how to use the product correctly. Please keep the manual in a safe place for future reference.</p>	<p>Bakon 950D Portable Digital Control Temperatures Soldering Station Instruction Manual</p> <p>Instruction manual for the Bakon 950D Portable Digital Control Temperatures Soldering Station, detailing specifications, operation, maintenance, and warranty information.</p>
<p>Bakon BK5600 Ionizing Air Blower User's Manual</p> <p>This manual is an electrical product and safety precautions must be followed. Please read the manual carefully before use. This manual contains important information to prevent accidents and how to use the product correctly. Please keep the manual in a safe place for future reference.</p>	<p>Bakon BK5600 Ionizing Air Blower User Manual</p> <p>User manual for the Bakon BK5600 Ionizing Air Blower, detailing safety precautions, product features, operation principles, specifications, installation, maintenance, and warranty information.</p>



Bakon BK6025 2-in-1 SMD Rework Station Technical Specifications

Detailed technical specifications for the Bakon BK6025 2-in-1 SMD Rework Station, including host, hot air gun, and soldering iron parameters.



[Bakon BK602PRO Integrated Efficient Comprehensive Soldering Station - Product Overview](#)

Detailed product overview of the Bakon BK602PRO soldering station, highlighting its integrated design, high-definition display, microcomputer control, and adaptive heating core capabilities for professional electronics repair and assembly.



Bakon BK893 Fully Automatic Dispensing Machine Overview

Detailed overview of the Bakon BK893 Fully Automatic Dispensing Machine, including its features, specifications, and operational capabilities for precise material dispensing.