

PS-800

Soldering System



PS-800 System User Guide

PS-800 Soldering System

Operations Manual & User Guide

Congratulations on your purchase of the PS-800 Soldering Station. It utilizes SmartHeat® technology to insure unsurpassed performance without concern for system calibration or board damage. It has been designed and manufactured to the highest quality standards and will continue to provide consistent performance and reliability. We appreciate your confidence and pledge the highest level of support and customer service to you.

This document has been prepared to guide you with the setup, operation, and user maintenance of your station. We recommend that you review it to optimize performance and operational consistency.

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1. Packing List:

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|---|-----------------------------|
| a. PS-800 Power Supply | (Part Number: PS-PW1) |
| b. PS-800 Workstand | (Part Number: PS-WSK1/WSAS) |
| c. Sponge | (Part Number: AC-YS4) |
| d. PS-800 Soldering Handle w/ Coil Assembly | (Part Number: PS-HC1/HC2) |
| e. Cartridge Removal Pad | (Part Number: AC-CP2) |
| f. Power Cord | |
| g. Instruction Manual | |

2. Initial Setup

The PS-800 Soldering System consists of a Power Supply, Workstand with Cradle and Sponge, and a Soldering Handle. The soldering handle also houses a replaceable Coil Assembly and replaceable heater tip. Both are available from your authorized OK International distributor as needed. The power supply features a Power Switch, green "Power On" indicator light, power cord, and a connecting port for the solder handle cord.

1. Mount the power supply in a convenient location in your workspace, such as under the workbench.
2. Align the key in the rear of the Coil assembly with the Soldering handle and insert the Coil assembly (with heater tip) into the Soldering Handle assembly until it clicks into place
3. Insert a heater tip into the solder handle by aligning the Heater Tip shaft with the opening in the handle. Push the Heater Tip all the way until it seats. You should feel a slight "click" as it locks into place.



Insert Tip → into Handle



Heater Tip seated in Handle

4. With the power "off", attach the solder handle cord to the power supply by inserting the cord connector into the power supply connecting port. To align the 3 pins, position the flat side of the cable connector toward the top of the power supply.
5. Wet the sponge with de-ionized water until it is moist but not soaked. Then place it in the work stand tray.
6. Plug the power cord into a grounded wall socket of the appropriately rated input line voltage. To turn the unit on, push the switch (located on the front of the power supply). The green indicator light should light up. If it does not, see the "Troubleshooting Guide" in this manual.

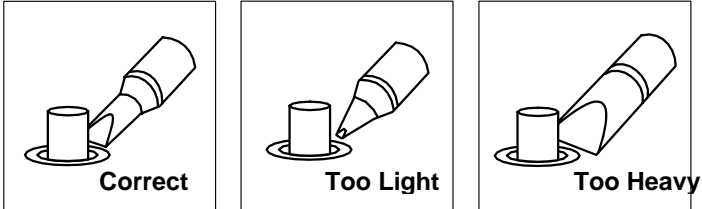
CAUTION: To provide continued protection against the risk of electric shock, connect only to properly grounded outlets.

3. SMARTHEAT: NO CALIBRATION REQUIRED

The PS-800 System is comprised of an induction coil assembly and a heater tip. Each heater tip is equipped with a self-regulating heater, which senses its own temperature and tightly maintains its pre-set idle temperature for the life of the heater-tip – our proprietary OK International SmartHeat technology. The temperature is determined by the inherent metallurgical properties of the heater; no external adjustment or equipment is required. The power delivered to the tip automatically varies in direct response to the thermal load. This eliminates spikes and transients associated with electrically switched elements found in conventional soldering irons. Please feel free to contact OK International (www.okinternational.com) with any questions.

4. SELECTING HEATER TIPS

OK International Heater Tips come in a wide variety of tip geometries and temperature ranges (contact your local OK International Representative for more information). These tip geometries cover a broad range of tasks from delicate precision work to heavy ground plane soldering.



1. Pick a tip that **maximizes contact area** between the tip and solder joint. Maximizing contact area gives the most efficient heat transfer, producing high quality solder joints quickly.
2. Pick a tip that allows good access to the solder joint. Shorter tip lengths allow more precise control. Longer or angled tips may be needed for soldering densely populated boards.
3. Pick the lowest temperature tip cartridge that will accomplish the task. This minimizes the potential for thermal damage. The temperature series is marked on the shaft of the Heater Tip.

5. REPLACING HEATER TIPS

1. Push the Power Switch "Off." Removal of the Heater Tip with the power on will result in damage to the coil assembly.



2. Pull out the heater tip using the AC-CP2 Cartridge Removal Pad. **DO NOT USE METAL TOOLS (SUCH AS PLIERS) TO REMOVE HEATER TIPS, AS THIS CAN DAMAGE THE HEATER.**

CAUTION: THE HEATER TIP MAY BE HOT!

3. Push a new heater tip into the solder handle with the AC-CP2 Cartridge Pad.
4. Push the Power Switch "On." The new heater tip will heat up to temperature in less than 20 seconds.

6. REPLACING COIL ASSEMBLIES

1. Push the Power Switch "Off." Wait for the heater tip to reach room temperature.
2. To disconnect the Coil assembly from the Soldering Handle assembly press the button on the Coil assembly and pull it away from the Soldering Handle assembly.



3. Remove the heater tip from the handle assembly. **DO NOT USE METAL TOOLS (SUCH AS PLIERS) TO REMOVE HEATER TIPS.**
4. Insert the heater tip into the replacement Coil assembly, PS-CA1/PS-CA2.



5. Align the key in the rear of the Coil assembly with the Soldering handle and insert the new Coil assembly (with heater tip) into the Soldering Handle assembly until it clicks into place.

7. TROUBLESHOOTING

- a. Power LED Not ON
 - Check the power cord
 - Check to see that you have mains voltage
 - Check to see if the power switch is in the ON position
- b. Tip Does Not Heat
 - Is the LED Illuminated?
 - Is the Hand-Piece Connected to the Power Supply?
 - Is the Coil Assembly firmly inserted into the Soldering Handle assembly?
 - Is the Tip Firmly Inserted into the Hand-Piece?

If you cannot resolve the problem after conformation of the above, please contact your local OK International representative.

8. SPECIFICATIONS

Power Supply

Ambient Operating Temperature	10 - 40°C
Maximum Enclosure Temperature	65°C
Input Line Voltage	90 - 240 VAC
Input Line Frequency	50/60 Hz
Power Consumption	50 Watts max.
Output Power	35 Watts max. at 22°C ambient temperature
Output Frequency	470 kHz
Power Cord (3-wire)	1.83 cm 18/3 SJT
Dimensions (approx.)	W = 70 mm (2.76"), D = 161 mm (6.34"), H = 100 mm (3.94")

Soldering Handle w/ Coil

Tip-to-Ground Potential	< 2 mV True RMS, 50-500 Hz
Tip-to-Ground Resistance	< 2 ohms DC, unit on
Idle Temperature Stability	± 1.1°C in still air
Handle Cord Assembly Length	122 cm – burn proof, ESD safe
Connector	3-pin power connector
Dimensions (approx.)	
Overall length (with tip)	214 mm (8.43") with standard tips
Grip diameter	13 mm (0.51")
Tip to grip	58 mm (2.28")
Tip shaft diameter	5.5 mm (0.22")
Tip length	52 mm (2.05") (typical)

Workstand

Dimensions	W = 101 mm (3.98"), D = 173 mm (6.81"), H = 76 mm (3.0")
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9. WARRANTY

Please visit OK International's products web page (www.okinternational.com) where you will find available information on systems, tips, accessories, technical notes, and more. You may also contact your local OK International representative for pricing and availability.

OK International warrants the PS-800 power supply and Handle cord assembly against any defects in materials or workmanship for one (1) year from the date of purchase by the original owner. This Warranty excludes normal maintenance and shall not apply to any opened, misused, abused, altered or damaged items. If the product should become defective within the warranty period, OK International will repair or replace it free of charge at its sole option. The replacement item(s) will be shipped, freight prepaid, to the original purchaser. The warranty period will start from the date of purchase. If the date of purchase cannot be substantiated the date of manufacture will be used as the start of the warranty period.

SERVICE AFTER WARRANTY

OK International will repair or replace (at OK International's sole option) a PS-800 Power Supply that fails in normal use within one year (1) year after the expiration of the one-year warranty at the then current repair or exchange rate. To return a failed Power Supply for repair or replacement, follow the steps outlined below. This offer does not apply to any previously opened, modified, repaired, altered, misused or damaged Power Supply.

REPLACEABLE COIL ASSEMBLY WARRANTY

OK International warrants the coil assembly against material and workmanship defects for a period of 30 days.

REPLACEABLE HEATER -TIP WARRANTY

OK International warrants that the heater-tip will operate according to specifications for the lifetime of the tip plating. A heater tip that fails to heat during the lifetime of the plating will be replaced at no charge. For replacement contact your local retail supplier. Because tip plating is mainly dependent upon the user's application and practices, tips are not warranted for plating wear. Heater-tips are warranted against any defects in materials or workmanship. Misused, abused, altered or damaged tips are not warranted. All heater-tips that fail to heat will be repaired or replaced at OK International's option. For returns follow the steps outlined below.

RETURN PROCEDURE

Please contact your local OK International Representative for return procedures and policies.

10. SAFETY INFORMATION



With power applied, the tip temperature can be $> 300^{\circ}\text{C}$. Failure to observe the following precautions may lead to injury to users or damage the equipment:

- Do not touch any metallic parts of the hand-piece
- Do not use near flammable items
- Do not use unit for any function other than described in this manual
- Use only genuine PS replacement parts
- Use in a well ventilated area
- Do not use the equipment with wet hands
- Connect only to properly grounded outlets to prevent risk of electric shock.
- Always place hand-piece back into the workstand to prevent accidental burning of oneself or surrounding objects.

Although the systems offer superior EOS (Electrical Overstress) protection, periodic checks of the instrument cord should be incorporated into standard operator maintenance procedures.

Waste Electrical and Electronic Equipment Directive - WEEE (2002/96/EC).

When this product is no longer required, if it cannot be re-used, we ask our customers not to dispose of it as unsorted municipal waste but to appropriately recycle the product. In Europe, please contact your OK International distributor who can advise the recycling options available (www.okinternational.com).

