



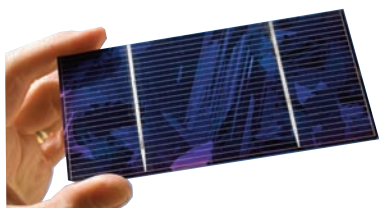
# PS-900-Solar Soldering System

## Superior Photo Voltaic Tabbing and Buss Soldering with Lower Thermal Stress on Solar Cells

The need to reduce PV manufacturing costs combined with the present shortage of polysilicon feedstock is driving a steady reduction in wafer and cell thicknesses. Hand soldering of tabs and stringers without causing damage or latent defects to the cells is one of the steps that has become more challenging. Cells can break during the process or crack in the completed modules. Process equipment such as soldering irons must adapt in order to maintain high yields with acceptable mechanical and module reliability as the industry shifts the wafer thickness below 200 microns.

The ability to solder at low, controlled temperatures (connection temperatures must be maintained below 300°C) within a short time window, also reduces the stresses on the cells and the likelihood of micro-cracking, while still producing a controlled, high quality solder joint.

OK International introduces the perfect solution: The PS-900-Solar Soldering System offering low cost of ownership, ease of use and unique SmartHeat® Technology. SmartHeat® supplies power on demand using a calibration-free system that reacts instantly to changing thermal demands, thus minimizing thermally induced stresses on the surface of the solar cells.



The PS-900-Solar combined with the specially designed STV-DRH440A hoof tip optimizes the power delivered to the solder joint providing high performance efficiency with increased tip life.



Visit our **Solar Zone** to view videos  
and download more info:  
[www.okinternational.com/solarzone](http://www.okinternational.com/solarzone)



# PS-900-Solar System

Part No.	Includes
PS-900-Solar	PS-PW900 Power Supply, PS-900-PC9 Hand-piece with long cord (274cm / 9ft) and Coil Assembly, STV-DRH440A soldering tip, WS2-NS Workstand, AC-CP2 tip removal pad

## Other tips available

STV-DRH440A	4mm Drag Solder Tip (included with PS-900-Solar)
STV-DRH440R	4mm Drag Solder Tip, Rectangular Hoof
STV-DRH430A	3mm Hoof Solder Tip
STV-DRH420A	2mm Hoof Solder Tip

We can build custom tips for specific applications. Please contact us.

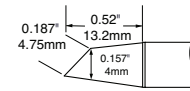
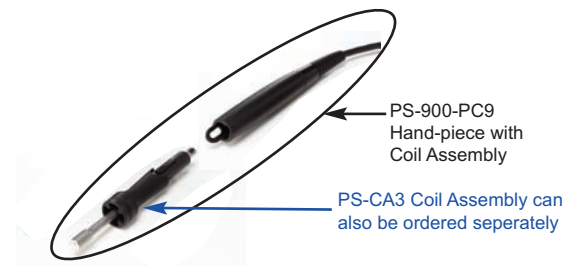
## PS-900 Technical Specifications

### Power Supply

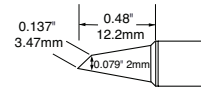
Ambient Operating Temperature	10 - 40°C
Maximum Enclosure Temperature	65°C
Input Line Voltage	100 - 240 VAC
Input Line Frequency	50/60 Hz
Power Consumption	90 Watts max.
Output Power	60 Watts max. at 22°C ambient temperature
Output Frequency	450 KHz
Power Cord (3-wire)	183 cm 18/3 SJT
Dimensions W x D x H	80 x 160 x 115 mm (3.1" x 6.3" x 4.5")

### Soldering Handle and Coil Assembly

Tip-to-Ground Potential	< 2 mV True RMS, 50-500 Hz
Tip-to-Ground Resistance	< 2 ohms DC, unit on
Idle Temperature Repeatability	± 1.1°C in still air
Handle Cord Assembly Length	274 cm (9ft) – burn proof, ESD safe
Connector	3-pin power connector
Overall length (with tip)	230 mm (9.06") with standard tips
Grip diameter	13 mm (0.51")
Tip to grip	58 mm (2.28")
Tip shaft diameter	8.0 mm (0.31")
Tip length	82 mm (3.23") to 93 mm (3.66") (typical)
Workstand W x D x H	105 x 175 x 90 mm (4.1" x 6.9" x 3.5")



**STV-DRH440A**  
Drag Solder Tip Hoof,  
4.75mm (.187")



**STV-DRH420A**  
Hoof Solder Tip  
2mm (.079")

## Other recommended Soldering Systems when more flexibility is needed



MFR-1120

### MFR-1120 Single Output and MFR-2220 Dual Output Soldering Systems.

These systems use the same tips as the PS-900-SOLAR and can be fitted with either a cartridge or tweezer handpiece to satisfy the changing applications within your facility.



MX-5010

### MX-5010 Soldering and Rework System

This system enables increased productivity and process control for a wide range of applications.



BVX-201-KIT

### BVX-200 Fume Extraction System

Protect your operators with this flexible and portable solution absorbing toxic fumes from solar soldering.

