

## PS-900-Solar

## Introducing Superior PV Tabbing and Bussing Soldering with lower thermal stresses on Solar Cells

The need to reduce PV manufacturing costs combined with the present shortage of polysilicon feedstock are driving a steady reduction in wafer and cell thicknesses. Soldering of wires (tabs and stringers) without causing damage, or cracks, to the cells is one step that becomes more challenging. Cells can break during the process or later crack in the 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 heater that reacts instantly to changing thermal loads, thus minimizing thermally induced stresses on the surface of the solar cells.

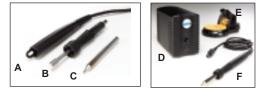
The PS-900-Solar combined with the specially designed STV-DRH440A hoof tip optimizes the power delivered to the work surface (solder joint) thus providing high performance efficiency with increased tip life.







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- A. PS-H3 Hand-piece with Cord, NO Coil Assembly
- B. PS-CA3 Coil Assembly
- C. SxV Tip
- D. PS-PW900 Power Supply
- E. WS2-NS Black Workstand
- F. PS-HC3 Hand-piece with cord and Coil Assembly

## PS-900-Solar System

Part No. Description

| PS-900-Solar | Incldudes: PS-PW900, PS-HC3, STV-DRH440A, WS2-NS, AC-CP2 |
|--------------|--|
| Accessories  |  |
| PS-PW900     | Power Supply, 100 to 240 VAC, 50/60 Hz, 90W Max. Input   |
| PS-HC3       | Hand-piece with cord (PS-H3) and Coil Assembly (PS-CA3)  |
| PS-CA3       | Coil Assembly, PS-900 System                             |
| PS-H3        | Hand-piece with Cord, NO Coil Assembly                   |
| WS2          | Auto-sleep Workstand, Black                              |
| WS2G         | Auto-sleep Workstand, Green                              |
| AC-CP2       | Tip Removal Pad  |

| ECONOMICAL AND AFFORDABLE SOLDERING TIPS |   | NEW GEOMETRIES!   |  |
|--|---|---|--|
| 0.04'                                    | SFV-CH10A<br>Chisel Solder Tip<br>1.0mm (.04")          | 0.016'  | SFV-CN05A<br>Conical Solder Tip<br>0.4mm (.016")       |
| 0.06'<br>1.5mm                           | SFV-CH15A<br>Chisel Solder Tip<br>1.5mm (.06")          | 0.04*   | SFV-CNL10A<br>Conical Long Solder Tip<br>1.0mm (.04")  |
| 0.094"                                   | SFV-CH24A<br>Chisel Solder Tip<br>2.4mm (.094")         | 0.137 <sup>+</sup> - 0.48 <sup>+</sup> - 12.2 <sup>mm</sup>       | SFV-DRH420A<br>Hoof Solder Tip<br>3.47mm (.137")       |
| 0.2'<br>5.0mm                            | SFV-CH50A<br>Chisel Solder Tip<br>5.0mm (.20")          | 0.187' 0.52'<br>4.75mm 13.2mm                                     | SFV-DRH440A<br>Drag Solder Tip<br>Hoof, 4.75mm (.187") |
| 0.016"<br>.40mm 0.61"<br>15.5mm          | SFV-CNB04A<br>Conical Bent Solder Tip<br>0.4mm (.0155") | 2.4mm.095"<br>.200"<br>5.0mm<br>1.455<br>.0mm<br>1.15.1mm<br>.00" | SFV-DRK45A<br>Knife Solder Tip<br>5.0mm (.20")         |

| SOLDERING TIPS for heavy duty applications |   |  |  |  |  |  |
|--|---|--|--|--|--|--|
| 004 ·                                      | SFV-CH10<br>Chisel Solder Tip<br>30° 1.0mm (.04")         |  | SFV-CNL10<br>Conical Long Solder Tip<br>1.0mm (.04")   |  |  |  |
| 2.00 ·                                     | SFV-CH20<br>Chisel Solder Tip<br>2.0mm (.08")             | 6.000 ·  | SFV-CNL14<br>Conical Long Solder Tip<br>1.4mm (.056")  |  |  |  |
| 6.1 ·                                      | SFV-CH25<br>Chisel Solder Tip<br>2.5mm (.10")             | 0.8"<br>2.0mm  | SFV-DRH20<br>Conical Bevel Solder Tip<br>2.0mm (.08")  |  |  |  |
| 63 ·                                       | SFV-CH50<br>Extra Large Chisel Solder Tip<br>5.0mm (.20") |  | SFV-DRK50<br>Knife Solder Tip<br>5.0mm (.20")          |  |  |  |
| 2.00 · · · · · · · · · · · · · · · · · ·   | SFV-CHB15<br>Chisel Bent 30°Solder Tip<br>1.5mm (.06")    | 0.00 ·   | SFV-CNL04<br>Conical Long Solder Tip<br>0.4mm (.016")  |  |  |  |
| ase  | SFV-CN05<br>Conical Solder Tip<br>0.5mm (.02")            | $\frac{1}{2} \frac{1}{2} \frac{1}$ | SFV-DRK50S<br>Drag Soldering Tip<br>Knife 5.0mm (.20") |  |  |  |
| 0.00 ·                                     | SFV-CNB05<br>Conical Bent Solder Tip<br>0.5mm (.02")      | 20m  | SFV-CNL20<br>Conical Tip Long<br>2.0mm (.08")          |  |  |  |

The second digit denotes substrate material (damage tolerance). F= FR4 / Glass Fiber, for most standard applications. Two other series are also available, just replace F with either T or C. T = Temperature Sensitive, C = Ceramic

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