Quick Reference Card
PVA-1500V2/V3/V4/T & SolSensor 300V2
For use with PVA PC software version 4.0 and later

⚠️ **WARNING - Risk of electrical shock.** To be used only by qualified personnel. Use Personal Protective Equipment. Isolate PV circuit to be tested from inverter & other PV circuits. Use only PVA-1500 test leads.

I-V Measurement Unit specifications
Measurement ranges: 20 to 1500V DC, 0 to 30 A DC (high efficiency modules limited to single strings)
Operating temperature: 0 to 45°C (32 to 113°F)
Test Lead and Clip specifications
Measurement ranges: 1500V DC Max, 30 A DC Max
Operating conditions: Temperature 5 to 40C. Humidity – see User Guide.

Caution Use only the test leads & Dolphin clips provided with the PVA-1500. Inspect before each use. If damaged, replace them before further use.
Caution Keep PV connectors, test leads, and equipment clean
Caution Keep the PV connector-saver jumpers attached to the I-V Unit's main leads at all times. Replace them after each 100 connections.
Warning Do not touch white 'eye' of irradiance sensor. Cover when not in use. Clean only with distilled water and clean, soft cloth, no soaps.
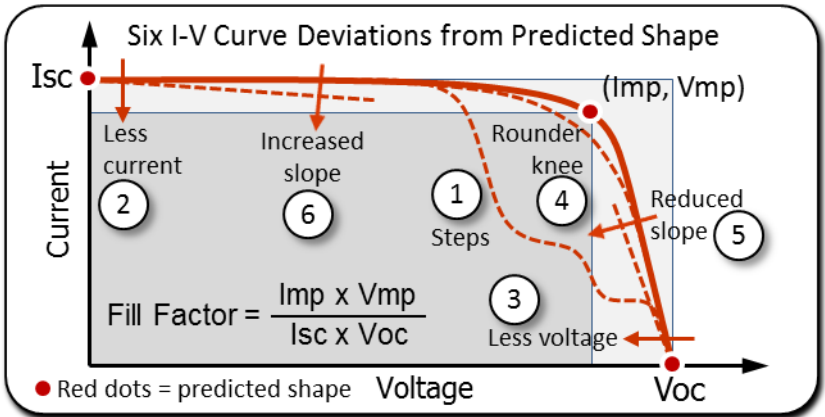**Battery Run Time:** I-V Unit & SolSensor: 8hr continuous use. Charge nightly.
Network Connection: Select "pva1500_yyyyyy" from PC's Wi-Fi network list. SolSensor™ will automatically connect via I-V unit.

I-V Unit LED 🟢	I-V Unit State	Pushbutton
Off	Off	Press once to turn on
Rapid flashing	Attempting to reconnect the I-V Unit with the PC	Press 3x to turn off.
Steady ON	Connected to PC, sweep enabled	Press once to pause, or 3x to turn off.
Very slow flashing	Paused (will turn off automatically in 15 minutes	Press once to enable sweep, or 3x to turn off.
Slow flashing / Steady ON	Battery charging / charged	
Five flashes, pause, repeat	Re-pairing with SolSensor.	See User Guide to initiate re-pairing
To turn off I-V Unit: In any state, press the pushbutton 3x		
To reset I-V Unit or SolSensor: Hold pushbutton down 12 seconds & release		

Measurement Example - Testing strings at a fused combiner box:

1. Turn on the I-V Unit. Blinking LED indicates searching for PC.
2. Connect your PC to the I-V Unit's Wi-Fi hot spot. LED glows steadily.
3. Start the PVA software. In 20 seconds, status indicator shows "Ready".
4. Mount SolSensor to PV module frame, uncover irradiance sensor, plug thermocouple into T1 socket, and attach tip to module backside. Turn SolSensor ON. Sensor readings appear in PVA screen within 60 seconds.
5. Open your **Project** from the **File** menu or create a new **Project**.
6. Open the DC disconnect to isolate combiner box from rest of system.
7. Lift all fuses to de-energize the combiner box's buss bars.
8. Clip the PVA's test leads to the combiner box's buss bars.
9. Insert the fuse for the string to be measured.
10. Press **Measure Now** to take an I-V trace. When trace and tree appear, highlight the string number and click **Assign and Save**.

Troubleshooting I-V Unit & SolSensor Operation:

Segmented or incomplete I-V trace: Just take a fresh trace. Can occur on first test after I-V Unit is turned on, or if PV source changes substantially.
"Searching for I-V Unit" or "Searching for SolSensor" message: Equipment may be out of wireless range or may have turned itself off after extended inactivity (15 min). Improve line of sight, raise instruments above metal surfaces, or move equipment closer together.
Wireless connection briefly drops out: The network should restore in 1-2 minutes. If not, re-connect your PC to the I-V Unit Wi-Fi hotspot.
"Disabled" message: Click the status indicator for more information. Clear the underlying condition, (over-voltage, -current, -temp, low battery) and reset I-V Unit or charge the battery.

Software updates: www.solmetric.com/downloads-pva.html
Technical Support: Phone: 877-263-5026 Ext 2, support@solmetric.com