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## QUESTIONS AND ANSWERS

A1. Why is there no or very low output when the front panel display illuminates and the input voltage is 115VAC?

The supply may be configured for 230VAC input. Refer to 'DCS1Kacinput.ppt' to determine the current AC input voltage setting.

(ADD link for DCS 1KE input voltage selection document 'DCS1K acinput.ppt').

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A2. Can the GPIB IEEE-488 interface (M9) option be added after receiving the supply?

Yes, but because some special test equipment is required to align the option after installation factory installation is recommended. Factory installation can be quickly accomplished for a nominal fee, please contact a Service Administrator for details.

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A3. Is RS-232 control available?

Yes, it is a standard feature of the GPIB and Ethernet options.

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A4. Can I change the input wiring of my DCS1k power supply from 230VAC to 115VAC?

Yes refer to this document for instructions on AC input voltage selection.

(ADD link for DCS 1KE input voltage selection document 'DCS1K acinput.ppt').

A5. Why does the Voltmeter reading remain at zero while the Current LED illuminates when I increase the Voltage control setting?

First, verify that the supply has the correct AC input voltage and that both front panel adjustment controls are fully CCW (Counter Clockwise). The CURRENT adjust control must be adjusted to some level above zero or the supply will operate in current mode with the current set to zero allowing no

voltage to be developed. To test for this condition rotate the CURRENT control clockwise one or two turns, The Voltage mode lamp should illuminate and voltage will be displayed on the Voltmeter. As you increase the voltage, if the Current LED should illuminate again, it is indicating more current draw through your load then the Current adjust set point is allowing. Before raising the Current adjust any higher analyze the load conditions being presented to the supply.

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A6. Why is there no output from the supply even though the input voltage is correct?

Is the user interface connector J3 installed on the back of the supply?

This shorting connector allows analog remote control and is necessary for local operation. For more information on this connector and all its functions check your operation manual. A quick reference is shown here: [\(Add link for J3 connectors' factory wiring drawing.\)](#)

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A7. Can we use the DCS1k to charge a battery?

Yes, but certain precautions must be taken. The supply is designed to supply current it does not have the ability to absorb current. A blocking diode must be added to prevent current flow from the battery through the supply. The anode of the diode connects to the positive output of the supply and the cathode connects to the positive terminal of the battery. Use a diode with a PRV(peak reverse rating) higher than the maximum charging voltage and a current rating higher than the maximum charge current connected in series with the battery. Depending on the charge current a heatsink on the diode may be required.

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A8. Can the DCS1K supplies be connected in series?

When using series connected supplies the only connection that can be used on J3 are the J3-1, J3-14 and J3-2 these are the isolated analog shutdown inputs and the isolated analog shutdown return lines. All other signals are referenced to the negative output terminal and must not be used. The M51A option can be used to allow these connections to be safely used in a series connected configuration, the maximum series connected voltage is 600 volts above or below ground.

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A9. What is Remote Sense?

The remote sense feature allows the supply to regulate the output voltage at any point between the output terminals of the supply and the load. If your application requires you to maintain a near constant voltage at a location other than the output terminals of the supply, then you should use remote sense.

To use this feature, remove the jumpers from J3-12 to J3-24 and J3-13 to J3-25. Connect the desired sense point so the Positive sense line (J3-13) is connected to Positive power line and the Negative sense line (J3-12) is connected to the Negative power line, usually at the load itself. The supply will

now regulate the voltage at the load and automatically adjust the Output voltage under changing conditions to control the voltage at the load, compensating for losses through the power connections between the supply and the load.

To prevent a malfunction in case one of these connections inadvertently opens, add 100-ohm resistors from the Positive output terminal to J3-13 and from the Negative output terminal to J3-12.

DO NOT allow the sense lead connections to be connected with reverse polarity as the output will uncontrolled.

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A10. We need to cover the output terminals of the supply, is an enclosure available?

Yes, we have several covers available. Please 'Output covers.ppt for the available covers. Please contact AMETEK Programmable Power Customer Care for ordering information to install this option for existing supplies. If ordering a new supply, refer to these options to the sales representative.

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A11. Is technical support available for this product?

Yes, please check for contact telephone numbers at [www.programmablepower.com](http://www.programmablepower.com) If you decide to call, please record the full model number and serial number as printed on the unit ID label. The model number found on the faceplate of the unit does not list options or modifications that may have been installed on the supply and this lack of information may lead to a delay or incorrect information in obtaining technical assistance.

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