

**ELGAR**

**Model PDU 2000-5**  
**Power Distribution Unit**

**Manual Addendum**

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## **1.1 INTRODUCTION**

The PDU 2000-5 is a special modification of the PDU 2000 that provides a load-shedding mode of operation if the UPS transitions to run from its battery and remains in that state for more than 10 seconds. Also, the temperature annunciation thresholds have been increased to 51°C for overtemperature and 56°C for shutdown.

## **1.2 GENERAL**

Installation and operation of the PDU 2000-5 is the same as presented in the PDU 2000 Operation Manual except for the additional control feature of shedding the output loads connected to "OUT 5-8" during UPS battery operation.

## **1.3 LOAD-SHEDDING OPERATION**

Load-shedding is a mode of operation wherein the ac outputs, "OUT 5-8", are turned off when the UPS is running from its battery. This reduces the load on the UPS, extending the back-up time for the remaining loads. Load-shedding is enabled when the UPS transitions from running on the ac input to running on battery, and after a delay of 10 seconds. With load-shedding enabled, the loads connected to "OUT 5-8" will be turned off regardless of the positions of the "OUTPUT POWER" switches. The "OUTPUT STATUS" indicators will be amber for any of the outputs 5-8 which had been previously on, indicating that the PDU microcontroller has overridden the "OUTPUT POWER" switches. When the UPS transitions back to running on the ac input, those ac outputs, "OUT 5-8", that were overridden will remain off. To turn those outputs back on, the "OUTPUT POWER" switches must be toggled OFF and then back ON.

The UPS must first transition from ac input to battery operation, and remain running on battery continuously for 10 seconds before load-shedding is enabled. Load-shedding will not be enabled if the PDU is started while the UPS is already running on its battery. The PDU monitors the "UPS PWR" signal to determine the UPS mode of operation: A logic-low level from J15-PIN9 to J15-PIN1 signifies that the UPS is running from its battery.

If the "BATL SHRT" switch is turned ON while in the load-shedding mode of operation, any of the ac outputs, "OUT 5-8", whose "OUTPUT POWER" switches are in the ON position (previously overridden to be off) will be energized. Also, the "OUTPUT STATUS" indicators for those outputs will remain amber. Subsequently turning the "BATL SHRT" switch OFF will again turn off the ac outputs, regardless of whether the UPS is still running from its battery or has transitioned to running from the ac input.

## **1.4 TEMPERATURE THRESHOLDS**

The monitor for the rack temperature has the following thresholds: overtemperature, 51°C (124°C); overtemperature shutdown: 56°C (133°C).