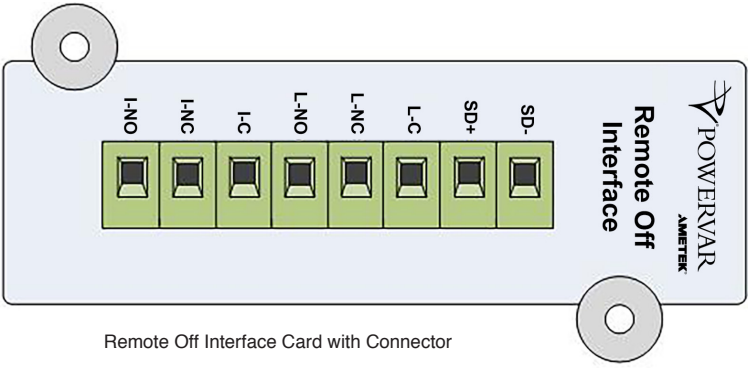
POWERVAR

Remote Off Interface Card

For Use with Security II UPMs

AMETEK

INTRODUCTION



Remote Off Interface Card with Connector

The Remote Off Interface Card provides a remote method for controlling the output of a Security II UPM. It can operate in one of two modes, depending on how the Security II UPM is configured. In the default configuration, the Remote Off Interface Card allows for a remote switch to turn off the output of the UPM in either AC or battery operation. Typically, this is done using an Emergency Off circuit where an operator can press a button to immediately shut off the output of the UPM as a safety feature. When the UPM is configured for full remote operation, the Remote Off Interface Card allows for a remote ON/OFF switch that takes the place of the UPM front panel ON/OFF switch. This is useful in applications where the UPM is installed inside other equipment and is not easily accessible by the operator.

In addition to the Remote OFF and remote ON/OFF control, the card also provides dry contacts for AC Present/AC Fail and Battery OK/Battery Low. These signals are fully isolated from the UPM and can be interfaced to external systems that need to know the UPM's AC and battery status. The dry contact outputs are available in either mode of remote operation.

Please read and save these instructions. This manual contains important instructions for the Remote Off Interface Card. Follow these instructions during the unpacking, installation and use of the Remote Interface Card. If, after reviewing this manual, you have any questions at all, please feel free to contact our technical support team by phone (1-800-369-7179) or email us at rma.powervar@ametek.com.

Registering your POWERVAR Product

Please take a few moments to register your product purchase. Registration is easy and quick via the product registration page found on our website at www.powervar.com.

CONTENTS

Your kit includes:

- Remote Off Interface Card
- 8-pin connector
- User Instruction Manual

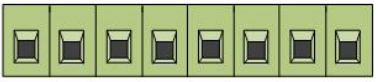
Theory of Operation

The primary purpose of the Remote Off Interface Card is to provide a method for controlling the UPS AC output remotely. This capability is intended for installations where the front panel ON/OFF switch is inconvenient or inaccessible; or, for installations requiring UPS output control be incorporated into a room or work cell EMO scheme.

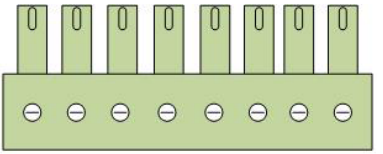
Communications

The Remote Off Interface Card also provides “dry contact” signal interfaces for “AC fail” and “low battery” conditions when running on battery. This communications capability is a supplement or alternative to the standard 9-pin serial communications port included as part of your Security II Series UPM.

External Connections



Connector - Front View



Connector - Top View

The table below shows the pin numbers and definitions for the 8-pin terminal block connector located on the card. The card comes with a removable connector with screw terminals for connecting wires to the card.

Make all connections using 14-28AWG wiring.

When all connections are made, plug the 8-pin connector into card and secure with screws provided.

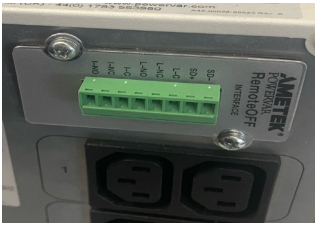
Table 2: Remote Off Interface Connector Pin and Function Table

Function	PIN# - Label
AC Present (NO)	8 I-NO
AC Fail (NC)	7 I-NC
AC Contact Common	6 I-C
Battery OK (NO)	5 L-NO
Battery Low (NC)	4 L-NC
Battery Contact Common	3 L-C
UPS OFF, 1 input (SD+)	2 SD+
UPS OFF, 2 input (SD-)	1 SD-

Remote OFF Interface Card Installation

The Remote OFF card installs in the auxiliary interface slot on the rear panel of the UPM. The UPM should be switched off during installation.

1. Locate the interface card slot on the rear panel of the UPM.
2. Remove the interface card slot cover (if present).
3. Firmly slide the card into the slot.
4. Secure the card with two screws.



UPS Setup – Remote OFF

By default, the Remote OFF Interface card provides a simple way to turn off the UPM output in both AC and battery operation. In order to use this functionality, connect a Single-Pole Single-Throw (SPST) latching switch between pins 1 and 2 of the 8-pin connector.

When the remote switch is in the closed position, the UPM will operate normally. The front panel switch can be used to enable and disable the UPM output. If AC fails, then the UPM will operate from battery until AC returns or the battery is depleted.

If the switch is opened, the UPM will immediately disable the output. If AC is present when the switch is opened, the UPM output is disabled and cannot be enabled from the front panel switch until the remote switch is closed again. If the UPM is operating on battery when the remote switch is opened, the UPM will disable the output and then shutdown to preserve the battery charge. When AC returns, the UPM will restart but the out will remain disabled until the remote switch is closed.

UPS Setup – Remote ON/OFF

If the UPM is configured for remote ON/OFF, the Remote OFF Interface card along with a remote switch (SPST) connected to pins 1 and 2 will provide a remote ON/OFF switch that replaces the front panel switch. To configure the UPM for remote ON/OFF use the following steps.

1. Connect a 9-pin serial cable from a PC to the UPM. The cable must be a null modem type with female pins on the end that connects to the UPM.
2. Open a terminal emulation program on the PC and configure it for 9600 baud, 8 Data bits, No Parity, 1 Stop bit and No Flow Control.
3. Using the terminal program type the following and then press enter: SET.REMOFF
4. The UPM should respond with “SET.REMOFF=0”.
5. Using the terminal program type the following and then press enter: SET.REMOFF.W=1
6. The UPM should respond with “SET.REMOFF=1”.

With the UPM configured for remote operation and the card inserted in the UPM with a remote switch connected, the front panel ON/OFF is disabled. The only way to enable and disable the UPM output is by using the remote switch.

To revert back to the default mode of Remote OFF, use the steps above to send the command “SET.REMOFF.W=0” to the UPM.

UPS Setup – Communications

The dry contact signal interfaces operate in both Remote OFF and Remote ON/OFF modes.

The AC status interface has a NO AC Present and a NC AC Fail signal. The AC Present signal indicates that AC is present at the input of the UPM. The AC Fail signal indicates that AC is not present at the input of the UPM.

The battery status interface has a NO Battery OK signal and a NC Low Battery signal. The Battery OK signal indicates the battery is good (when running on battery). The Low Battery signal indicates that the battery is almost empty and the UPM will shut off soon if AC does not return.

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Access additional product information and support at **powervar.com**

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