

A large red graphic on the left side of the page, consisting of three downward-pointing chevrons stacked vertically. A vertical black line is positioned to the right of this graphic.

**Smart-Signaling  
UPS Interface  
Expander**

**AP9623**

**Installation Manual**

**APC<sup>®</sup>**



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# Product Description

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## Overview

The APC® Smart-Signaling UPS Interface Expander (AP9623) is an American Power Conversion management card that provides an additional smart-signaling interface port for your APC UPS. The Smart-Signaling Interface Expander allows for multiple computers to use the advanced features of APC PowerChute® *plus* and PowerChute Business Edition software to manage the output power of the UPS and to provide safe system shutdown in extended power outages. For a complete description of the monitoring and control features of your PowerChute software, see the user's guide supplied with the software.

## Hardware and software requirements

The Smart-Signaling Interface Expander requires the following:

- An APC product that is equipped with a card slot:
  - Smart-UPS® series UPS
  - Matrix-UPST™ series UPS
  - Symmetra® series UPS
  - Silcon™ DP300E series UPS
- APC PowerChute software
  - PowerChute *plus*
  - PowerChute Business Edition
- One null modem cable (940-0103, supplied)
- You can also use the Smart-Signaling Interface Expander with the following cards and chassis:
  - Environmental Monitoring Card (AP9312TH)
  - Web/SNMP Management Card (AP9606)
  - Network Management Card (AP9616)
  - Triple Expansion Chassis (AP9604)
  - Expansion Chassis (AP9600)

## Front panel



## Handling

The card is shipped in a conductive bag to dissipate damaging electrostatic charges.



- Leave the card in the bag until you are ready to install it.
- Handle the card by the end plate only.
- Do not touch the printed circuit board (PCB) or other components.

## Initial inspection

Unpack the card and notify the carrier and place of purchase immediately if the card was damaged during shipping.

## Inventory

The shipment contains:

- Smart-Signaling UPS Interface Expander
- Null modem cable (940-0103)
- This *Installation Guide*

## Please recycle



The shipping materials for the card are recyclable. Save them for later reuse or dispose of them appropriately.

# Installation

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## Multiple management cards

If your system uses more than one APC management card, refer to the addendum, *Installation of Multiple Management Cards*.

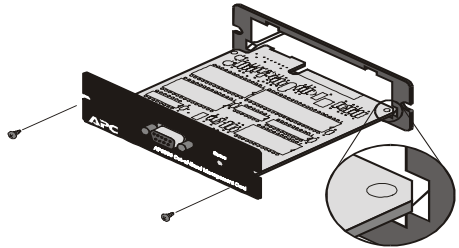
## Installation procedure

First install your UPS, and then install the Smart-Signaling Interface Expander.

1. Shut down protected equipment and turn off the UPS.
2. Remove the card slot coverplate using a #2 Phillips-head screw driver.
3. Slide the card into the slot until the front panel of the card is flush with the front of the slot. (The card slot may be horizontal or vertical.)

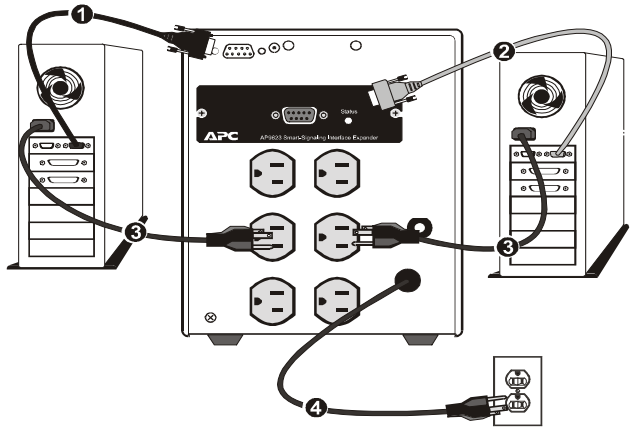


Inserting the card upside down can damage the card. Align the sides of the printed circuit board with the guides, as shown.



4. Secure the card, using the screws removed in Step 2.
5. Turn on the UPS and the protected equipment.
6. Confirm that the status LED on the card is on continuously. If it flashes rapidly, the card has failed its power-on self-test; call APC Customer Service.
7. Complete the necessary connections for your system. See Configuration on page 4 for a typical connection.

# Configuration



1	UPS cable (940-0024)
2	Null modem cable (940-0103)
3	Server power cords
4	UPS power cord

## Configuration setup

1. Insert the card into the provided slot.
2. Attach the null modem cable (940-0103) from your server to the smart-signaling interface port.
3. Attach the UPS cable (940-0024), supplied with your UPS, from your second server to the UPS port.
4. Plug the server power cords into the protected power outlets of the UPS.
5. Plug your UPS into a power source.
6. Turn on your UPS
7. Check status LED on your card for green light



Output Power to your UPS must be turned off before connecting the Smart-Signaling Interface Expander.



# Warranty and Service

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## **Limited warranty**

APC warrants the Smart-Signaling Interface Expander to be free from defects in materials and workmanship for a period of two years from the date of purchase. Its obligation under this warranty is limited to repairing or replacing, at its own sole option, any such defective products. This warranty does not apply to equipment that has been damaged by accident, negligence, or misapplication or has been altered or modified in any way. This warranty applies only to the original purchaser.

## **Obtaining service**

To obtain support for problems with your Smart-Signaling Interface Expander:

1. Note the serial number and date of purchase.
2. Contact Customer Support at a phone number on the back cover of this document. A technician will try to help you solve the problem by phone.
3. If you must return the product, the technician will give you a return material authorization (RMA) number. If the warranty expired, you will be charged for repair or replacement.
4. Pack the unit carefully. The warranty does not cover damage sustained in transit. Enclose a letter with your name, address, RMA number and daytime phone number; a copy of the sales receipt; and a check as payment, if applicable.
5. Mark the RMA number clearly on the outside of the shipping carton.
6. Ship by insured, prepaid carrier to the address provided by the Customer Support technician.

**Warranty  
limitations**

Except as provided herein, APC makes no warranties, express or implied, including warranties of merchantability and fitness for a particular purpose. Some jurisdictions do not permit limitation or exclusion of implied warranties; therefore, the aforesaid limitation(s) or exclusion(s) may not apply to the purchaser.

Except as provided above, in no event will APC be liable for direct, indirect, special, incidental, or consequential damages arising out of the use of this product, even if advised of the possibility of such damage.

Specifically, APC is not liable for any costs, such as lost profits or revenue, loss of equipment, loss of use of equipment, loss of software, loss of data, costs of substitutes, claims by third parties, or otherwise. This warranty gives you specific legal rights and you may also have other rights, which vary according to jurisdiction.

# Life-Support Policy

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## General policy

American Power Conversion (APC) does not recommend the use of any of its products in the following situations:

- In life-support applications where failure or malfunction of the APC product can be reasonably expected to cause failure of the life-support device or to affect significantly its safety or effectiveness.
- In direct patient care.

APC will not knowingly sell its products for use in such applications unless it receives in writing assurances satisfactory to APC that (a) the risks of injury or damage have been minimized, (b) the customer assumes all such risks, and (c) the liability of American Power Conversion is adequately protected under the circumstances.

## Examples of life-support devices

The term *life-support device* includes but is not limited to neonatal oxygen analyzers, nerve stimulators (whether used for anesthesia, pain relief, or other purposes), autotransfusion devices, blood pumps, defibrillators, arrhythmia detectors and alarms, pacemakers, hemodialysis systems, peritoneal dialysis systems, neonatal ventilator incubators, ventilators (for adults and infants), anesthesia ventilators, infusion pumps, and any other devices designated as “critical” by the U.S. FDA.

Hospital-grade wiring devices and leakage current protection may be ordered as options on many APC UPS systems. APC does not claim that units with this modifications are certified or listed as hospital-grade by APC or any other organization. Therefore these units do not meet the requirements for use in direct patient care.

# Specifications

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## Communication port

The management port is a standard 9-pin RS-232 serial communications port with the following characteristics:

- It is configured as data terminal equipment (DTE) with no handshaking
- It supports bit rates of 1200, 2400, 9600, and 19,200 bits per second.
- The data format is 8 data bits, 1 stop bit, default setting configurative, and no parity.
- The pinout is as follows:

Pin	Function
1	Unused
2	Receive data input
3	Transmit data output
4	RS-232 high
5	Ground
6	Unused
7	Request to send output
8	Clear to send input
9	Unused

**Product specifications**

<b>Type</b>	<b>Item</b>	<b>Specification</b>
Electrical	Operating current draw	45 mA (typical)
Physical	Size (H × W × D)	1.46 × 4.75 × 4.30 in 3.7 × 12.1 × 10.9 cm
	Weight	0.25 lb 0.11 kg
	Shipping weight:	0.8 lb 0.36 kg
Environmental	Operating elevation	0 to 10 000 ft MSL 0 to 3000 ft MSL
	Storage elevation	0 to 50 000 ft MSL 0 to 15 000 ft MSL
	Operating temperature	25 to 133° F –5 to 45° C
	Storage temperature	–13 to 149° F –25 to 65° C
	Operating humidity	5 – 95% RH (non-condensing)
	Storage humidity	5 – 95% RH (non-condensing)

**Approvals**

<b>Type</b>	<b>Approval</b>
EMC Verification	EMC Verification, FCC Class A CE EN 55022: 1998 Class A EN 55024: 1998

# Radio Frequency Interference

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Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with this user manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference. The user will bear sole responsibility for correcting such interference.

This Class A digital apparatus complies with Canadian ICES-003.

*Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.*



## APC Worldwide Customer Support

Customer support for this or any other APC product is available at no charge in any of the following ways:

- Visit the APC Web site to find answers to frequently asked questions (FAQs), to access documents in the APC Knowledge Base, and to submit customer support requests.
  - **www.apc.com** (Corporate Headquarters)  
Connect to localized APC Web sites for specific countries, each of which provides customer support information.
  - **www.apc.com/support/**  
Global support with FAQs, knowledge base, and e-support.
- Contact an APC Customer Support center by telephone or e-mail.
  - Regional centers:

APC Headquarters U.S. & Canada	(1) (800) 800-4272 (toll free)
Latin America	(1) (401) 789-5735 (United States)
Europe, Middle East, Africa	(353) (91) 702020 (Ireland)
Japan	(03) 5434-2021 Guidance 3

- Local, country-specific centers: go to **www.apc.com/support/contact** for contact information.

Contact the APC representative or other distributor from whom you purchased your APC product for information on how to obtain local customer support.

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