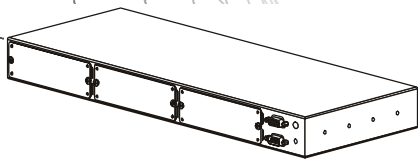


**APC**<sup>®</sup>  
www.apc.com

# Installation

## Triple Expansion Chassis

AP9604BLK





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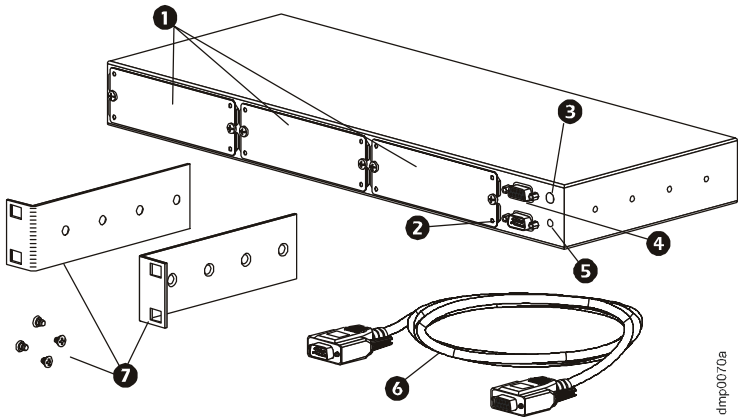
# Product Description and Inventory

## Product description

The American Power Conversion (APC)<sup>®</sup> Triple Chassis is a 3-slot expansion chassis in which you can install APC management cards for the following purposes:

- To use cards with an APC UPS that has no card slot but has an advanced-signaling computer interface port
- To add cards to a UPS that has one or two card slots, but can support more cards
- To use cards, such as the Environmental Monitoring Card, in a stand-alone configuration

## Hardware features and inventory



- 1 Three card slots
- 2 9-pin male port for connecting the cable from the Triple Chassis to the computer interface port of the UPS
- 3 Power input connector for an optional power adapter
- 4 9-pin female UPS monitoring port that duplicates the functions of the computer interface port on the UPS
- 5 Status indicator (LED)
- 6 Cable to connect the Triple Chassis to the computer interface port of the UPS
- 7 Mounting hardware to mount the Triple Chassis in an enclosure

dimp0070a

# Installation

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You can connect the Triple Chassis to any APC device equipped with an advanced-signaling computer interface port. For example:

- Smart-UPS<sup>®</sup>, Smart-UPS RT, and Matrix-UPS<sup>®</sup> models.



**Note:** Matrix-UPS is a discontinued UPS, no longer available for purchase.

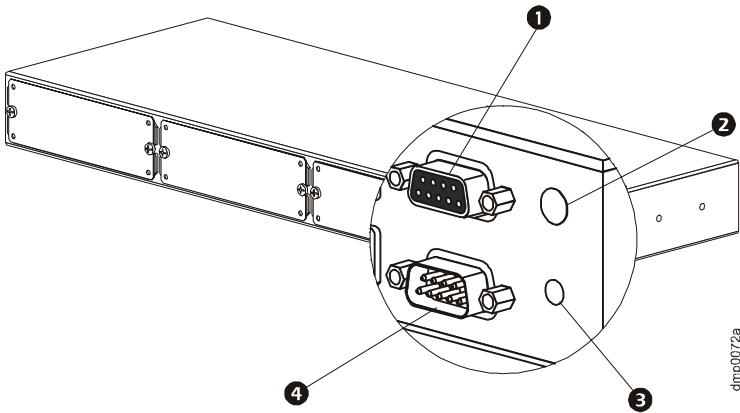
- A Symmetra<sup>®</sup> LX UPS, which has two card slots but can support up to four management cards.
- Any device that duplicates the functions of the advanced-signaling computer interface port of a UPS, such as the 8-Port UPS Interface Expander (AP9207).

## Configurations

You can install the Triple Chassis in one of two ways:

- As a stand-alone desktop unit
- In a NetShelter<sup>®</sup> (EIA-310-D) or other standard 19-inch enclosure

## Ports and LEDs



❶ Monitoring port

❸ Status LED

❷ Optional power

❹ To UPS

dmp0072a

## Desktop installation

For stand-alone installation, with the Triple Chassis on its rubber feet:

1. Place the Triple Chassis in its permanent location within 10 ft (3.3 m) of the UPS and with the front of the chassis accessible.
2. Connect the female end of the cable (APC part number 940-1000A) to the 9-pin male port labeled **To UPS** on the front of the Triple Chassis.
3. Connect the male end of the cable to the 9-pin female computer interface port on the rear of the UPS.
4. If UPS monitoring software or firmware will be used, connect the required cable (APC part number 940-0024, not supplied) from the 9-pin female UPS monitoring port on the front of the Triple Chassis to a serial port on your computer.
5. If additional power is needed, connect the optional power adapter output to the front of the Triple Chassis.

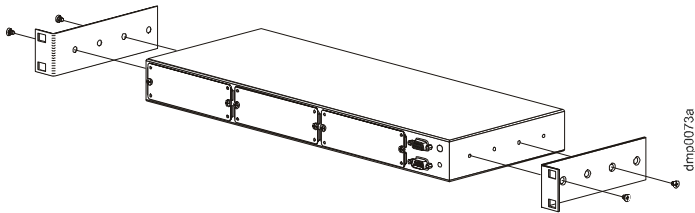


See "Power Considerations" on page 5.

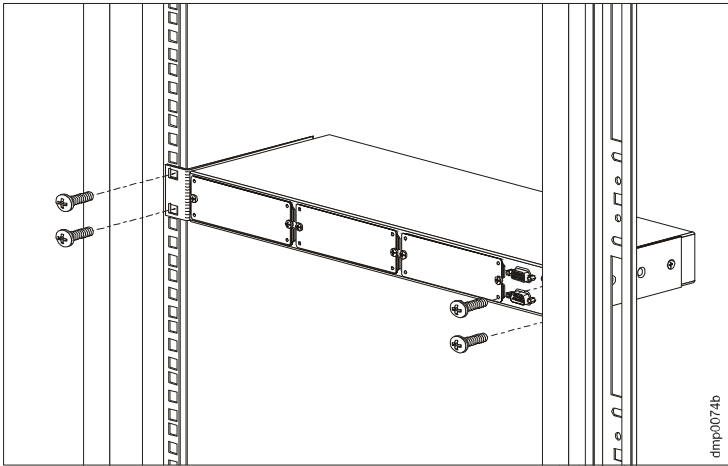
## Installation in an enclosure or rack

To install the Triple Chassis in a NetShelter enclosure (or other 19-inch standard EIA-310-D enclosure or rack) use the hardware included with the Triple Chassis:

1. Peel the rubber feet from the bottom of the Triple Chassis.
2. Attach a mounting bracket to each side of the Triple Chassis using two small flat-head screws (supplied) and a #2 Phillips screwdriver.



3. In a NetShelter enclosure, mount the Triple Chassis with four caged nuts and mounting screws (provided with the enclosure). Choose a position in which the Triple Chassis and the attached cables will not interfere with closing the door of the enclosure and will not protrude from the enclosure.



**Note:** To install the Triple Chassis in an enclosure other than a NetShelter enclosure, use the hardware appropriate for the enclosure.

4. Connect the female end of the included cable to the 9-pin male port labeled **To UPS** on the front of the Triple Chassis.
5. Connect the male end of the cable to the 9-pin female computer interface port on the rear of the UPS.
6. If UPS monitoring software or firmware will be used, connect the required cable (APC part number 940-0024, not supplied) from the 9-pin monitoring port on the front of the Triple Chassis to an appropriate serial port on a computer.
7. If additional power is needed, connect the optional power adapter to the power port on the front of the Triple Chassis.



See "Power Considerations" on page 5.

# Power Considerations

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## Maximum current draw

The UPS provides power to the Triple Chassis and its installed management cards. The maximum current draw of the Triple Chassis, not including the cards, is 30 mA. If the maximum current draw of the Triple Chassis and its installed management cards will exceed 200 mA, use one of the adapters described in “Optional power adapter” on this page.



For the power requirement for a specific management card, see the documentation for that card.

## Optional power adapter

If the power requirements of the Triple Chassis and its installed cards will exceed 200 mA, use one of the following types of power adapter (not supplied), which can provide an additional 400 mA of power:

- For 100/120 Vac input power, use AP9505, an APC 24-Vdc power adapter.
- For universal input power, use AP9505I, an APC power adapter that requires a customer-supplied line cord.



**Note:** A power adapter is always required with a Matrix-UPS when the remote turn-on feature of the UPS will be used.

You can order either power adapter from the APC Web site, [www.apc.com](http://www.apc.com). The availability of the power adapters varies by country. In the drop-down list at the top of the home page, select the name of the country where the power adapter will be used. The appropriate power adapter will then be available for you to order.



# Operation

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## Check the status indicator

The Triple Chassis status LED indicates one of the following states:

LED	State of the Triple Chassis
Bright	The Triple Chassis is receiving power, and at least one management card is installed.
Dim	The Triple Chassis is receiving power, and no management card is installed.
Off	The Triple Chassis is not receiving power.

## Confirm correct operation of the Triple Chassis and cards

1. After you install the Triple Chassis and before you install any card, confirm that the LED is dimly lit.
2. Install the management cards.



For correct operation of the cards, you must install them in the order described in “Installing Multiple Management Cards.” For the latest version of that document, search by part number for AP9604BLK on the APC Web site at [www.apc.com](http://www.apc.com), and see the list of documents available to be downloaded from the Triple Chassis product page.

3. After you install each card:
  - a. Confirm that the LED is brightly lit.
  - b. Confirm the operation of the card.



See the documentation included with the card for the proper checking procedure.

- c. Confirm that any previously installed cards and software continue to operate.

# Specifications

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## Electrical

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Operating voltage	18 to 30V
Maximum total current draw	30 mA (not including installed cards)

## Physical

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Dimensions (H x W x D)	For desktop installation with rubber feet: 5.4 × 43.18 x 16.51 cm (2.13 x 17 x 6.5 in) For installation in an enclosure with mounting brackets: 4.4 x 43.18 x 16.51 cm (1.75 x 17 x 6.5 in)
Shipping dimensions (H x W x D)	6.67 x 47.63 x 34.29 cm (2.63 x 18.75 x 13.5 in)
Weight	1.75 kg (3.85 lb)
Shipping weight	3.0 kg (6.4 lb)

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## Environmental

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Elevation (above MSL)	
Operating	0 to 3000 m (0 to 10,000 ft)
Storage	0 to 15 000 m (0 to 50,000 ft)
Temperature	
Operating	0 to 45°C (32 to 113°F)
Storage	-15 to 65°C (5 to 149°F)
Relative Humidity	
Operating	0 to 95%, non-condensing
Storage	0 to 95%, non-condensing

## Compliance

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Regulatory Approvals	AS/NZS CISPR 22, CE, Industry Canada ICES-003, EN 55022 Class A, EN 55024, EN 55082, FCC Part 15 Class A, VCCI, GOST
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# Two-Year Factory Warranty

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This warranty applies only to the products you purchase for your use in accordance with this manual.

## Terms of warranty

APC warrants its products to be free from defects in materials and workmanship for a period of two years from the date of purchase. APC will repair or replace defective products covered by this warranty. 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. Repair or replacement of a defective product or part thereof does not extend the original warranty period. Any parts furnished under this warranty may be new or factory-remanufactured.

## Non-transferable warranty

This warranty extends only to the original purchaser who must have properly registered the product. The product may be registered at the APC Web site, [www.apc.com](http://www.apc.com).

## Exclusions

APC shall not be liable under the warranty if its testing and examination disclose that the alleged defect in the product does not exist or was caused by end user's or any third person's misuse, negligence, improper installation or testing. Further, APC shall not be liable under the warranty for unauthorized attempts to repair or modify wrong or inadequate electrical voltage or connection, inappropriate on-site operation conditions, corrosive atmosphere, repair, installation, exposure to the elements, Acts of God, fire, theft, or installation contrary to APC recommendations or specifications or in any event if the APC serial number has been altered, defaced, or removed, or any other cause beyond the range of the intended use.

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**NO SALESMAN, EMPLOYEE OR AGENT OF APC IS AUTHORIZED TO ADD TO OR VARY THE TERMS OF THIS WARRANTY. WARRANTY TERMS MAY BE MODIFIED, IF AT ALL, ONLY IN WRITING SIGNED BY AN APC OFFICER AND LEGAL DEPARTMENT.**

### **Warranty claims**

Customers with warranty claims issues may access the APC customer support network through the Support page of the APC Web site, **[www.apc.com/support](http://www.apc.com/support)**. Select your country from the country selection pull-down menu at the top of the Web page. Select the Support tab to obtain contact information for customer support in your region.

# 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 APC 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 these 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.

# Radio Frequency Interference



**Warning: 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.**

## **USA—FCC**

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.

## **Canada—ICES**

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.*

## **Japan—VCCI**

This is a Class A product based on the standard of the Voluntary Control Council for Interference by Information Technology Equipment (VCCI). If this equipment is used in a domestic environment, radio disturbance may occur, in which case, the user may be required to take corrective actions.

この装置は、情報処理装置等電波障害自主規制協議会（VCCI）の基準に基づくクラス A 情報技術装置です。この装置を家庭環境で使用すると、電波妨害を引き起こすことがあります。この場合には、使用者が適切な対策を講ずるよう要求されることがあります。

## **Taiwan—BSMI**

警告使用者：這是甲類的資訊產品，在居住的環境中使用時，可能會造成射頻干擾，在這種情況下，使用者會被要求採取某些適當的對策。

## **Australia and New Zealand**

**Attention:** This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

## **European Union**

This product is in conformity with the protection requirements of EU Council Directive 89/336/EEC on the approximation of the laws of the Member States relating to electromagnetic compatibility. APC cannot accept responsibility for any failure to satisfy the protection requirements resulting from an unapproved modification of the product.

This product has been tested and found to comply with the limits for Class A Information Technology Equipment according to CISPR 22/European Standard EN 55022. The limits for Class A equipment were derived for commercial and industrial environments to provide a reasonable protection against interference with licensed communication equipment.

**Attention:** This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

# 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 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 searching APC Knowledge Base and using e-support.
- Contact an APC Customer Support center by telephone or e-mail.
  - Regional centers

Direct InfraStruXure (1)(877)537-0607  
Customer Support Line (toll free)

APC headquarters U.S., (1)(800)800-4272  
Canada (toll free)

Latin America (1)(401)789-5735  
(USA)

Europe, Middle East, (353)(91)702000  
Africa (Ireland)

Western Europe (including Scandinavia) +800 0272 0272

Japan (0) 3 5434-2021

Australia, New Zealand, (61) (2) 9955 9366  
South Pacific area (Australia)

- 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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