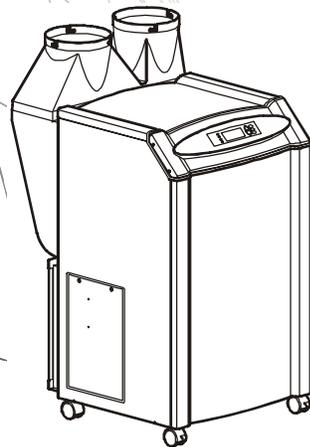


# Installation, Operation, and Maintenance

## NetworkAIR<sup>®</sup> Portable Air Conditioning Unit

ACPA4000





## **American Power Conversion Legal Disclaimer**

The information presented in this manual is not warranted by the American Power Conversion Corporation to be authoritative, error free, or complete. This publication is not meant to be a substitute for a detailed operational and site specific development plan. Therefore, American Power Conversion Corporation assumes no liability for damages, violations of codes, improper installation, system failures, or any other problems that could arise based on the use of this Publication.

The information contained in this Publication is provided as is and has been prepared solely for the purpose of evaluating data center design and construction. This Publication has been compiled in good faith by American Power Conversion Corporation. However, no representation is made or warranty given, either express or implied, as to the completeness or accuracy of the information this Publication contains.

**IN NO EVENT SHALL AMERICAN POWER CONVERSION CORPORATION BE LIABLE FOR ANY DIRECT, INDIRECT, CONSEQUENTIAL, PUNITIVE, SPECIAL, OR INCIDENTAL DAMAGES (INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF BUSINESS, CONTRACT, REVENUE, DATA, INFORMATION, OR BUSINESS INTERRUPTION) RESULTING FROM, ARISING OUT, OR IN CONNECTION WITH THE USE OF, OR INABILITY TO USE THIS PUBLICATION OR THE CONTENT, EVEN IF AMERICAN POWER CONVERSION CORPORATION HAS BEEN EXPRESSLY ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. AMERICAN POWER CONVERSION CORPORATION RESERVES THE RIGHT TO MAKE CHANGES OR UPDATES WITH RESPECT TO OR IN THE CONTENT OF THE PUBLICATION OR THE FORMAT THEREOF AT ANY TIME WITHOUT NOTICE.**

Copyright, intellectual, and all other proprietary rights in the content (including but not limited to software, audio, video, text, and photographs) rests with American Power Conversion Corporation or its licensors. All rights in the content not expressly granted herein are reserved. No rights of any kind are licensed or assigned or shall otherwise pass to persons accessing this information.

This Publication shall not be for resale in whole or in part.



# Contents

---

<b>General Information .....</b>	<b>1</b>
<b>Overview .....</b>	<b>1</b>
About the NetworkAIR ACPA4000 .....	1
Save these instructions .....	1
Manual updates .....	1
Safety symbols that may be used in this manual .....	2
Cross-reference symbol used in this manual .....	2
Safety .....	3
<b>Inspecting the Equipment .....</b>	<b>3</b>
Filing a claim .....	3
<b>Storing the Equipment Before Installation .....</b>	<b>3</b>
<b>Tools Required .....</b>	<b>4</b>
<b>Inventory .....</b>	<b>4</b>
<b>Component Identification .....</b>	<b>5</b>
Front view .....	5
Rear view .....	5
<b>Dimensions and Weights .....</b>	<b>6</b>
<b>Installation .....</b>	<b>7</b>
Where to locate the equipment .....	7
Lock the rolling casters .....	7
<b>Intake and Exhaust Vents .....</b>	<b>8</b>
Hose connections .....	8
Assemble the ceiling adapter .....	8
Install the adapter in a drop ceiling .....	9
Assemble the ducts .....	10
<b>Drain Line .....</b>	<b>11</b>
<b>Accessories .....</b>	<b>12</b>
Temperature/humidity sensor .....	12

<b>Relays and Contacts</b> .....	<b>13</b>
Overview .....	13
Output relays .....	13
Input contacts .....	14
<b>Start-Up</b> .....	<b>15</b>
Start-up checklist .....	15
How to apply power to the equipment .....	15
<b>Operation</b> .....	<b>16</b>
<b>Overview</b> .....	<b>16</b>
Display interface identification .....	16
<b>How to Use the Interface</b> .....	<b>17</b>
Turn on the equipment .....	17
Scrolling status screens .....	17
Main menu screen .....	18
Navigating the interface .....	18
Change settings .....	19
Password entry .....	19
Turn off the equipment .....	19
<b>Set Environmental Controls</b> .....	<b>20</b>
Default schedule .....	20
Operating schedules .....	21
<b>Set Up Alarms</b> .....	<b>22</b>
Temperature and humidity alarms .....	22
Set the alarm delay .....	22
<b>Set Up the Display</b> .....	<b>23</b>
Password and time-out .....	23
Set the date and time .....	23
Display interface options .....	23
Device settings .....	24
Resetting to default settings .....	24
User-defined product data .....	24
How to download firmware .....	25
<b>Set Up Contacts and Relays</b> .....	<b>26</b>
Input contacts .....	26
User input contacts .....	26
User outputs .....	26

<b>Checking Equipment Status</b> .....	<b>.27</b>
Scrolling status screens .....	27
Default schedule status .....	27
System and environmental status screens .....	27
Manufacturer data .....	28
Viewing alarm status .....	28
<b>Responding to Alarms</b> .....	<b>.29</b>
Silencing the alarm beeper .....	29
Warning or alarm LED .....	29
Active alarm screen .....	30
Alarm and event log .....	30
Resolving alarm conditions .....	30
Alarm messages .....	31
<b>Display Interface Reference Charts</b> .....	<b>.33</b>
Scrolling status screens .....	33
Monitoring information .....	33
Programmable settings .....	34
<b>Maintenance and Troubleshooting</b> .....	<b>36</b>
<b>Maintenance</b> .....	<b>.36</b>
Replace the air filter .....	36
Clean the condenser filter and test the LCDI plug .....	37
Clean the cabinet .....	37
Update the main control board firmware .....	37
<b>Troubleshooting</b> .....	<b>.38</b>
<b>One-Year Factory Warranty</b> .....	<b>.39</b>
Terms of warranty .....	39
Non-transferable warranty .....	39
Exclusions .....	39
Warranty claims .....	40
<b>Warranty Procedures</b> .....	<b>.40</b>
Claims .....	40
Parts .....	40
<b>Specifications</b> .....	<b>.42</b>



# General Information

---

## Overview

### About the NetworkAIR ACPA4000

Your NetworkAIR ACPA4000 is a portable, compact air conditioner designed for spot-cooling, emergency-cooling, and after-hours cooling of server closets, data centers, conference rooms, home offices, or rooms that house heat-sensitive equipment.

The ACPA4000 provides 3.8 kWh (13,000 BTU) of cooling power. It automatically adjusts room temperature and reduces moisture while filtering the air. Additional features of the equipment include:

- Electronic control panel with LCD display
- On/Off scheduling
- Automatic restart after power failure
- Two condenser ducts; one for inlet and one for exhaust
- High-head pressure cut-out to prevent compressor damage
- Hot gas bypass to prevent coil freeze-up
- Remote Web monitoring
- On board condensate pump

### Save these instructions

This manual contains important instructions that must be followed during the installation of this equipment.

### Manual updates

Check for updates to this manual on the APC Web site, [www.apc.com/support](http://www.apc.com/support). Click on the **User Manuals** link and enter the manual part number or SKU for your equipment in the search field. See the back cover of this manual for the part number.

## Safety symbols that may be used in this manual



**Electrical Hazard:** Indicates an electrical hazard which, if not avoided, could result in injury or death.



**Danger:** Indicates a hazard which, if not avoided, could result in severe personal injury or substantial damage to product or other property.



**Warning:** Indicates a hazard which, if not avoided, could result in personal injury or damage to product or other property.



**Heavy:** Indicates a heavy load that should not be lifted without assistance.



**Caution:** Indicates a potential hazard which, if not avoided, could result in personal injury or damage to product or other property.

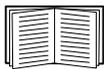


**Tip Hazard:** This equipment is easily tipped. Use extreme caution when unpacking or moving.



**Note:** Indicates important information.

## Cross-reference symbol used in this manual



See another section of this document or another document for more information on this subject.

## Safety



**Warning:** Use the equipment on a flat surface.

Do not obstruct the equipment air outlets.

For indoor use only.

Do not attempt to service the equipment except to clean and replace the air filters. The equipment contains no other user-serviceable parts.

Do not place the rear of the equipment closer than 203 mm (8 in) to any wall or obstacle.

Do not install the equipment where there are fumes or flammable gases, or in an extremely humid space such as a greenhouse.

Do not place this equipment on its side. If the equipment has been tipped, place it upright on a flat, solid surface and keep it in this position for a minimum of 12 hours before operating.



**Electrical Hazard:** Connect the equipment to a 3-wire AC outlet (two poles plus a ground).

The receptacle must be connected to a dedicated, properly grounded 115 volt 60Hz branch circuit rated for 20 amp main protection (fuses/circuit breaker). Connection to any other power source may result in a shock hazard or damage to the equipment.

Use the equipment with the supplied power cord only.

Do not use an extension cord.

## Inspecting the Equipment

Your equipment has been tested and inspected for quality assurance before shipment. To ensure that the equipment has not been damaged during transit, carefully inspect both the exterior and interior packaging of the equipment immediately upon receipt.

Verify that all parts ordered were received as specified. See “Inventory” on page 4.

### Filing a claim

If damage is identified on receipt of the equipment, note the damage on the bill of lading and file a damage claim with the shipping company. Contact APC for information on filing a claim with the shipping company. The shipping claim must be filed at the receiving end of the delivery.



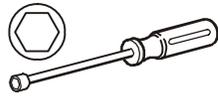
**Note:** In case of shipping damage, do not operate the equipment. Keep all packaging for inspection by the shipper and contact APC customer support at one of the numbers listed on the back cover of this manual.

## Storing the Equipment Before Installation

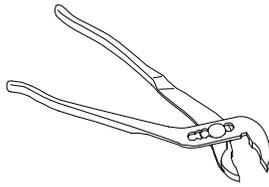


**Caution:** Leaving the equipment uncovered and exposed to the elements can cause damage and voids the factory warranty.

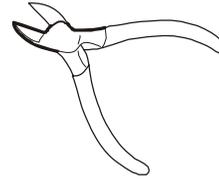
# Tools Required



Nutdriver-M6



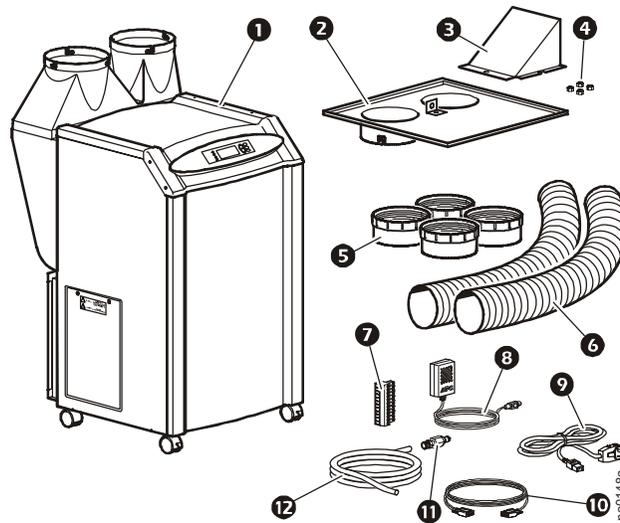
Pliers



Wire cutters

# Inventory

The equipment ships with the items shown below:



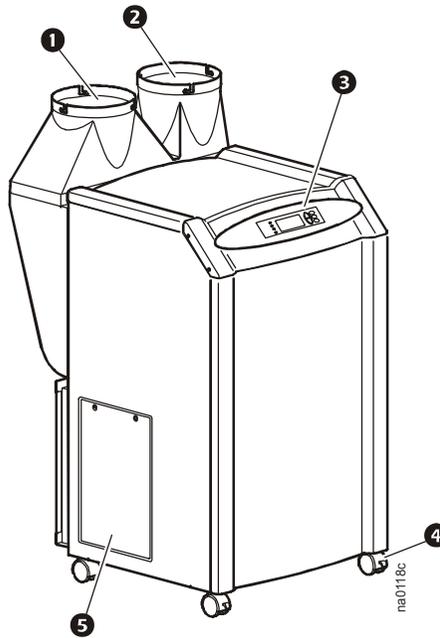
- |                                   |  |
|-----------------------------------|--|
| <b>1</b> Portable air conditioner | <b>7</b> Terminal blocks   |
| <b>2</b> Ceiling adapter          | <b>8</b> Remote temperature sensor-3.66 m (12 ft)                                |
| <b>3</b> Air deflector            | <b>9</b> Power cord - Leakage Current Detection Interruptor (LCDI)-2.40 m (8 ft) |
| <b>4</b> M6 nuts                  | <b>10</b> Communication cable-2 m (6.50 ft)                                      |
| <b>5</b> Duct collars             | <b>11</b> Quick-connect fitting  |
| <b>6</b> Ducts                    | <b>12</b> Drain line-15.24 m (50 ft)   |



This equipment requires an LCDI plug. Use only the power cord supplied with the equipment.

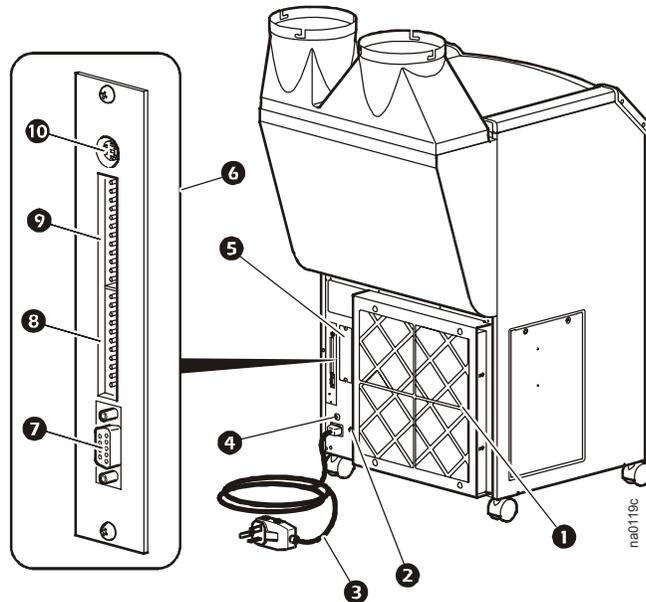
# Component Identification

## Front view



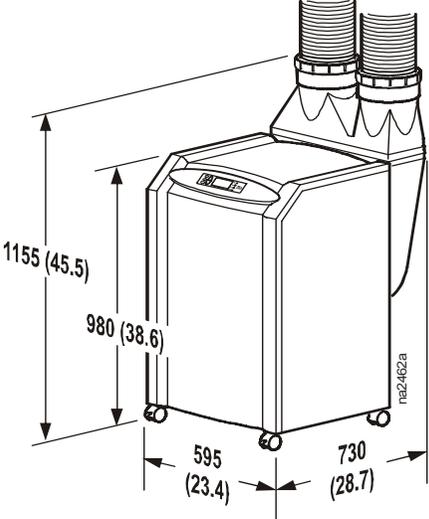
- ❶ Condenser air intake
- ❷ Condenser exhaust
- ❸ Display interface
- ❹ Locking casters (front 2 casters only)
- ❺ Access panel (for use by service personnel only)

## Rear view



- ❶ Replaceable air filter element
- ❷ Drain line connector
- ❸ Detachable power cord—2.4 m (8 ft)
- ❹ 20A circuit breaker
- ❺ Network Management Card
- ❻ Main control board
- ❼ Communication port, RS-232 connector
- ❽ Input contact connectors
- ❾ Output relay connectors
- ❿ Temperature sensor connector

# Dimensions and Weights



Dimensions are shown in mm (in).

Net Weight (Equipment Only)	Shipping Weight
79 kg (175 lb)	88 kg (195 lb)

# Installation

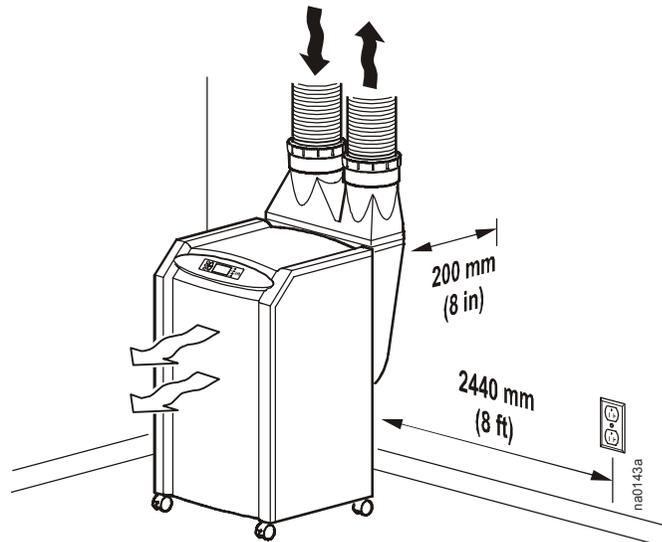
## Where to locate the equipment

When deciding where to locate the equipment, consider your cooling needs, air flow, the location of the electrical outlet (no more than 2.4 m (8 ft) from the equipment), and access for the condenser intake and exhaust.

**Cooling needs.** Position the equipment as close as possible to the main source of heat that requires cooling.

**Air flow.** Position the equipment so that its rear is at least 200 mm (8 in) away from a wall or other equipment.

**Location of electrical outlet.** Place the equipment no farther than 2.4 m (8 ft) from a dedicated 115V, 60Hz, 20A branch circuit receptacle.



Dimensions are shown in mm (in).



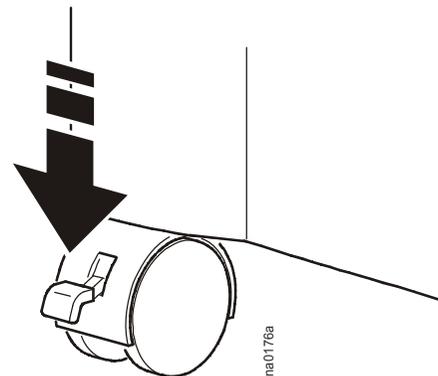
**Electrical Hazard:** Do not use extension cords with this equipment. Using an extension cord reduces circuit protection and voids the warranty.



**Caution:** To help avoid loss of cooling, only connect this equipment to a single-outlet dedicated circuit.

## Lock the rolling casters

To prevent the equipment from rolling, press down on the locking tabs on the two front casters.

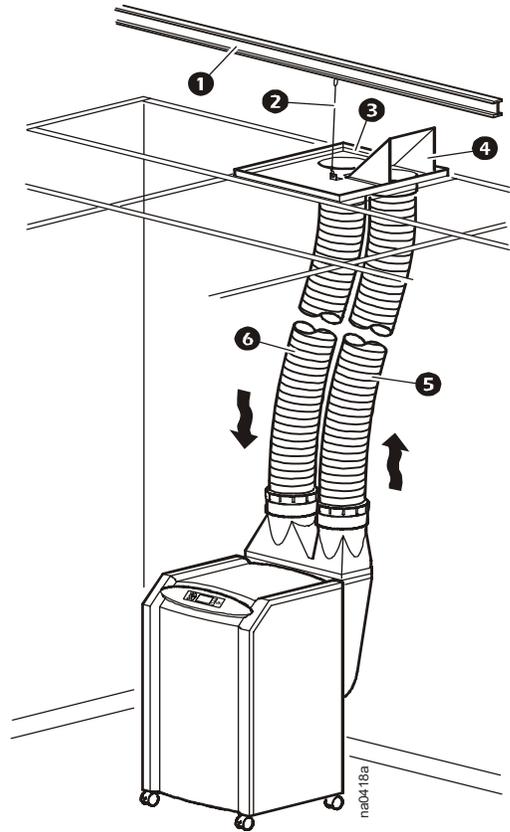


# Intake and Exhaust Vents

## Hose connections

The equipment requires the installation of intake and exhaust ducts for the condenser. See the drawing to identify the intake and exhaust sides of the equipment.

- ❶ Building structural support
- ❷ 10-gauge (minimum) steel wire
- ❸ Ceiling adapter
- ❹ Air deflector
- ❺ Condenser exhaust duct
- ❻ Condenser air intake duct

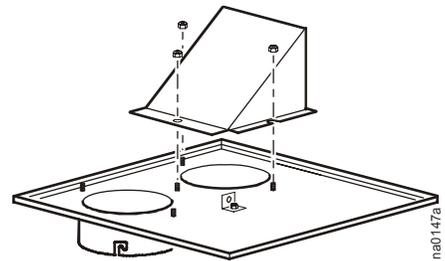


## Assemble the ceiling adapter

Attach the air deflector to the exhaust side of the ceiling adapter using three M6 nuts.



**Caution:** The air deflector must face away from the air intake and obstructions such as walls or piping. Failure to position it in this way reduces cooling capacity and could cause alarms.



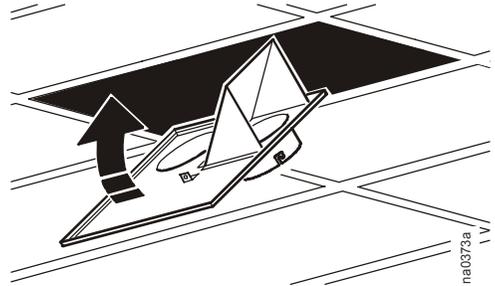
## Install the adapter in a drop ceiling

Use the ceiling adapter to provide an intake and exhaust outlet for the condenser.

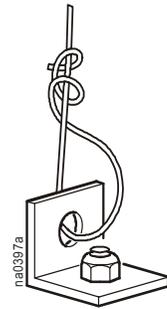


**Note:** Allow at least 305 mm (12 in) of open space above the ceiling adapter opening so exhaust air is not blocked.

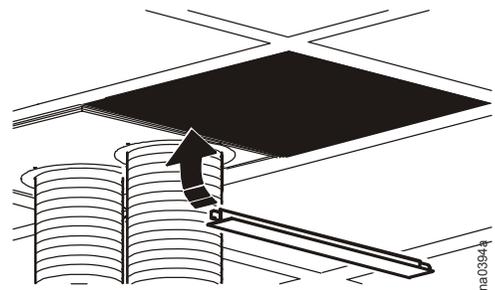
1. Determine a location to install the ceiling adapter.
2. Remove the ceiling tile in the chosen location and save it for a future step.
3. Place the ceiling adapter into the ceiling tile grid.



4. Secure the ceiling adapter to the building structural support (not the drop ceiling), using 10-gauge (minimum) steel wire.



5. When using 2 x 4 ft ceiling tiles, insert a cross member (not provided) for added support.

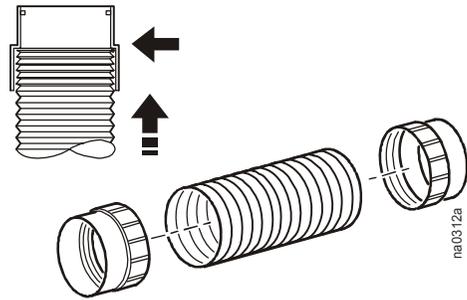


## Assemble the ducts

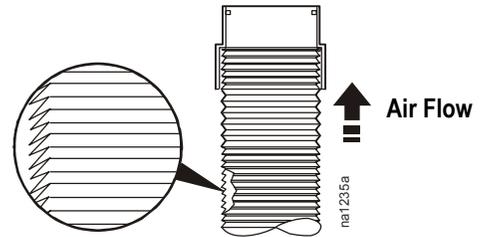
1. Thread the duct collars counterclockwise onto each of the ducts until they bottom out.



**Note:** The hoses used are directional and reduce airflow if not properly installed. Expand the length of hose to fit the required space.



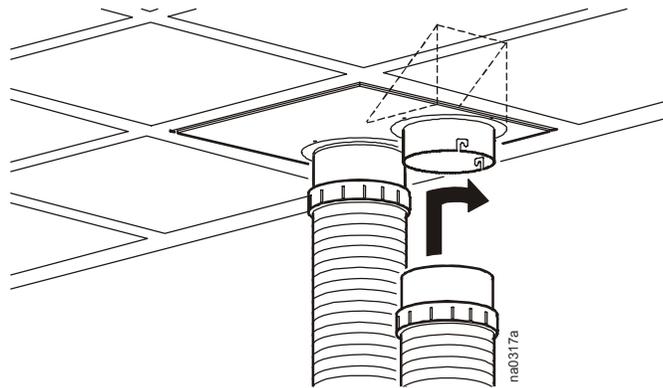
2. Install each hose so that the leading edge of the compressed section of the hose matches air direction flow.



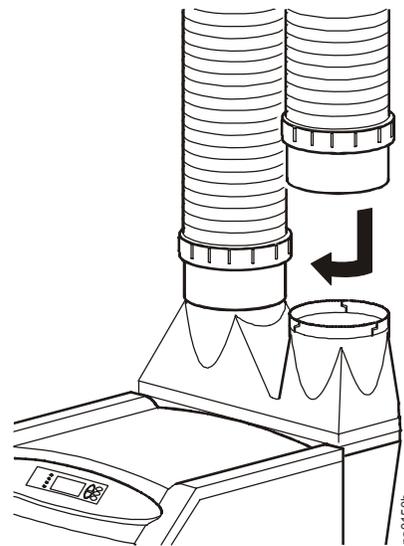
3. Slide the duct collar of each hose over the ceiling adapter sleeves and turn the duct collar to lock in place.



**Note:** Connect the air diverter side of the ceiling adapter to the exhaust hose.



4. Slide the duct collars on the other end of the ducts over the condenser flanges and turn to lock in place.



na0150b

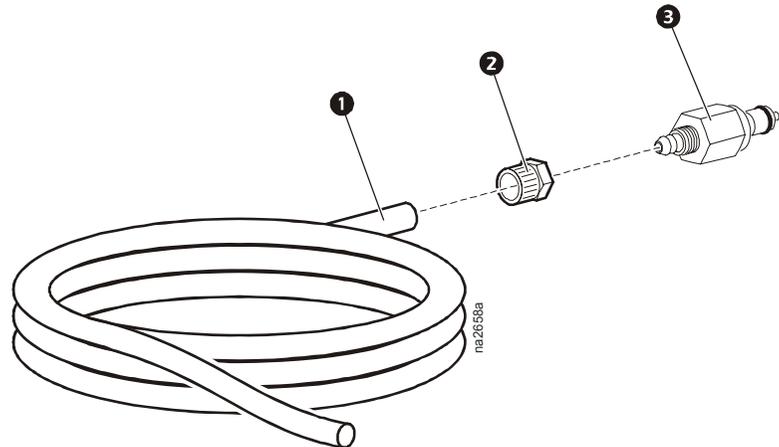
# Drain Line

The equipment contains an on-board condensate pump for automatic condensate removal. The equipment ships with 15.24 m (50 ft) of hose and a quick-connect fitting for removing condensate. You can attach a different hose to the equipment if you follow these requirements:

- You must use a 6-mm (1/4-in) outside diameter (OD), clear, polyurethane hose.
- The hose length must not exceed 15.24 m (50 ft), and 4.88 m (16 ft) vertical maximum.
- You must cut off all excess drain line and avoid kinking or pinching the drain line.

## Connect the fitting to the drain line.

1. Insert the drain hose ❶ through the capture nut ❷.
2. Push the drain hose ❶ over the barbs at the rear of the quick-connect fitting ❸.
3. Screw the capture nut ❷ onto the quick-connect fitting ❸.

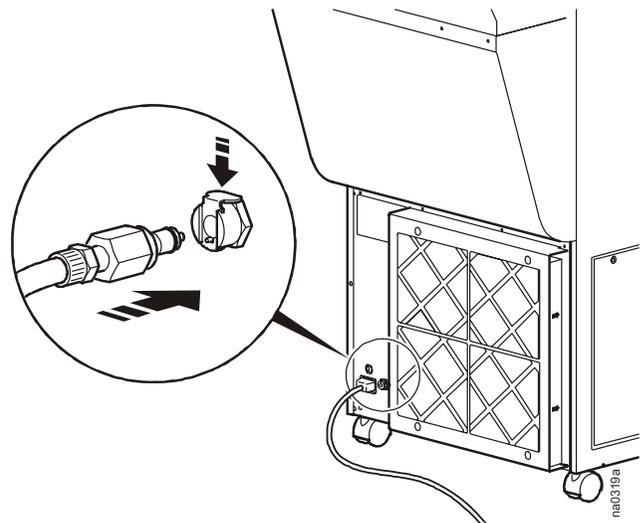


**Attach the drain line.** Attach the connector end of the hose to the drain line connector on the rear of the equipment and run the hose to a drain.

**Detach the drain line.** Press the quick-release button on the top of the drain line connector and remove the hose.

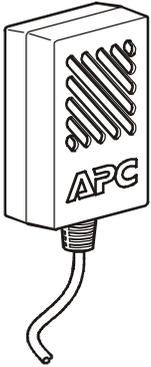


**Note:** The equipment does not drain unless the drain line is installed.



# Accessories

## Temperature/humidity sensor



The Remote Temperature/humidity sensor (AP9512TH) monitors the room temperature and relative humidity. This remote sensor monitors the environment surrounding the cooling equipment to ensure that the conditioned air is cooling the desired area.



**Note:** The equipment cannot be controlled based on the temperature measured by the sensor.

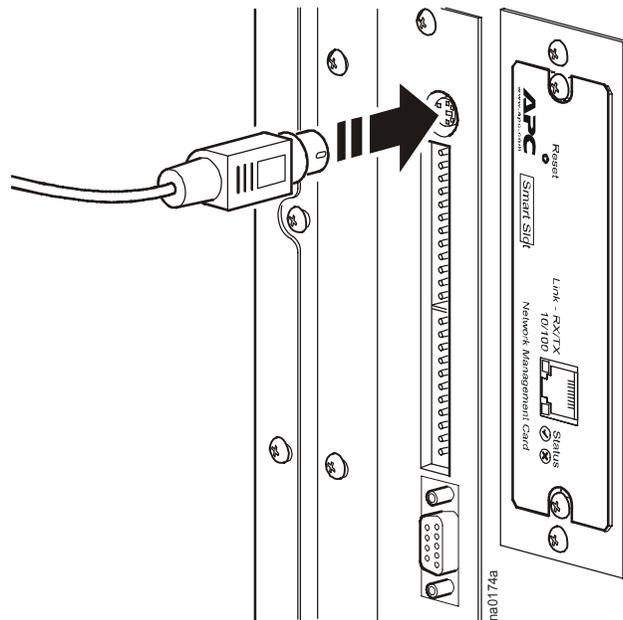
### To install the sensor:

1. Determine a location that allows you to neatly route and secure the 3.66-m (12-ft) cord near the heat source you want to control.



**Note:** Avoid locating the sensor in areas that could give you an inaccurate reading such as near air ducts, other heat sources, windows, direct sunlight, or room entrances.

2. Attach the sensor to a wall or other surface with the provided hook-and-loop fasteners.
3. Neatly route and secure the 3.66-m (12-ft) cord with wire tie or cable clips.
4. Connect the sensor to the controller board at the rear of the equipment.



# Relays and Contacts

## Overview

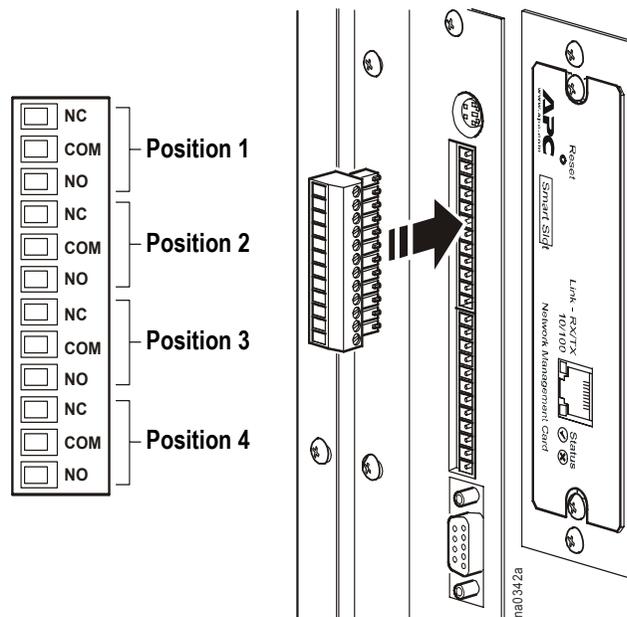
The controller board provides connectors for output relays and input contacts. The connectors can be used with any dry-contact sensors. The connectors are designed to monitor circuits that have no voltage potential of their own. Connecting the contact or relay to any circuit other than a dry closure connector may result in damage to the main control board.

You can connect any normally open (NO) or normally closed (NC) dry contact sensor, including:

- magnetic contact switches
- window foil
- tamper switches
- heat detectors
- water sensors
- pressure sensors
- smoke detectors

## Output relays

This figure shows the four positions on the output relay connector and provides the individual pin assignments for each position.



**Note:** The terminal block accepts wire sizes from 1.6mm<sup>2</sup> (14AWG) to 0.4mm<sup>2</sup> (26AWG).



**Electrical Hazard:** Control board connections should be made only to Class 2 circuits.

### To connect an output relay:

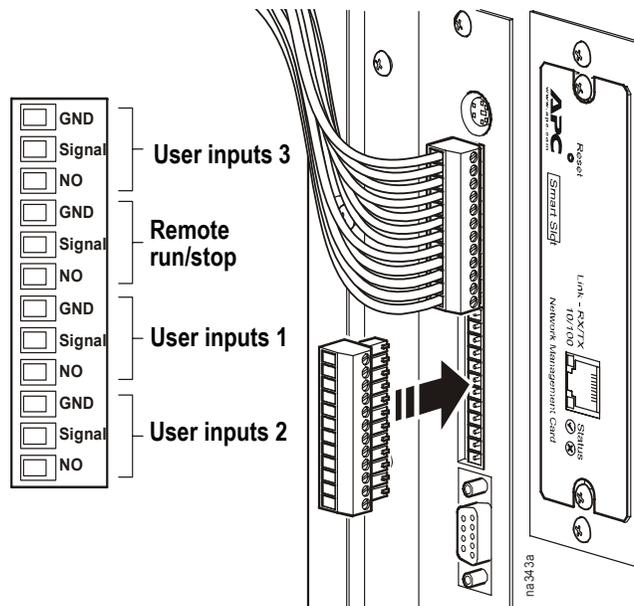
1. Attach a 12-position terminal block (provided) to the output relay connector.
2. Strip the wire insulation on the sensor 6 mm (0.25 in) from the end.
3. Connect your sensor wires to the pins associated with one of the four positions on the output relay connector.
4. Configure the settings for the output relay through the display interface.



See “Set Up Contacts and Relays” on page 26.

### Input contacts

The figure below shows the four positions on the input contact connector and provides the individual pin assignments for each position.



### To connect an input contact:

1. Attach a 12-position terminal block (provided) to the input contact connector.
2. Strip the insulation of the wires you are connecting 6 mm (0.25 in) from the ends of the wires.
3. Connect the wires to pins associated with the appropriate position on the input contact connector.
4. Configure the settings for the input contacts through the display interface.



See “Set Up Contacts and Relays” on page 26.

# Start-Up

## Start-up checklist

Before starting the equipment, check to see that the following conditions are met:

- All electrical connections comply with national and local codes and safety standards.
- All accessories and ductwork have been installed.
- Air flow to and from the equipment is not blocked.
- The condensate drain is connected and not kinked or pinched.

## How to apply power to the equipment

Insert the IEC-320-C19 connector of the power cord into the back of the equipment. Insert the opposite end of the power cord, a NEMA 5-20 plug, into the wall outlet. Verify the circuit breaker is pressed in (flush with the rear of the equipment), and the green LED on the back of the plug is on.



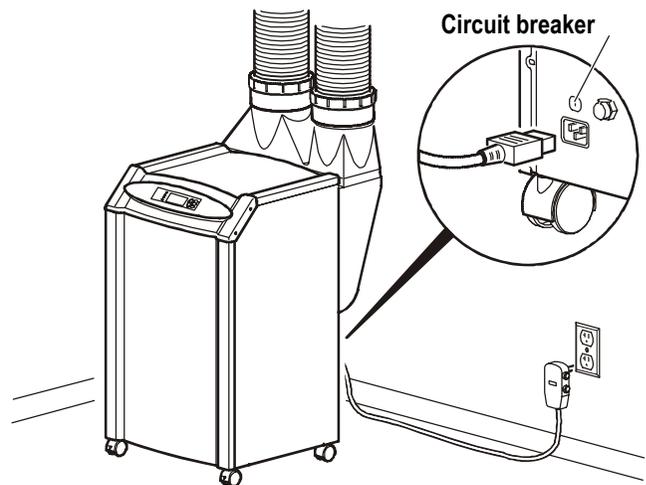
**Electrical Hazard:** Do not use extension cords with this equipment. Using an extension cord reduces circuit protection and voids the warranty.



**Note:** If the equipment has been unplugged or off for less than three minutes, it waits three minutes before starting the compressor.



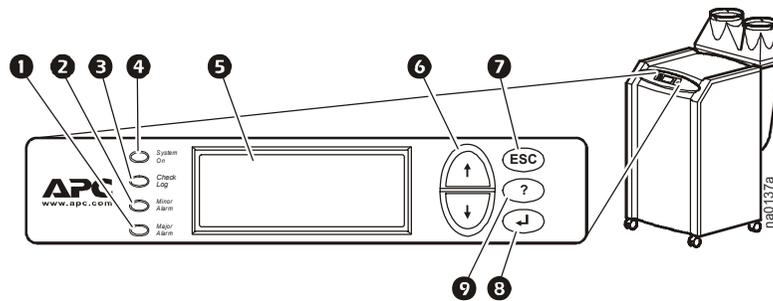
**Warning:** Route the power cord and the condensate line to prevent accidental injury to people or damage to the equipment.



# Operation

## Overview

### Display interface identification



Item	Function
➊ Major Alarm LED	When red, a major alarm condition exists.
➋ Minor Alarm LED	When orange, a minor alarm condition exists.
➌ Check Log LED	When orange, at least one new alarm or warning event has occurred.
➍ System On LED	When green, the evaporator blower is running.
➎ Liquid Crystal Display (LCD)	Shows alarms, status data, instructional help, and setup items.
➏ Up and down arrow keys	Navigate the display menus.
➐ ESC key	Return to previous screen.
➑ Enter key	Open menu items and input changes to system settings.
➒ Help key	Launches context-sensitive help. Press this key for information about each item on the screen and for instructions on how to perform tasks.

# How to Use the Interface

All settings are controlled through the display interface located on the front of the equipment.

## Turn on the equipment

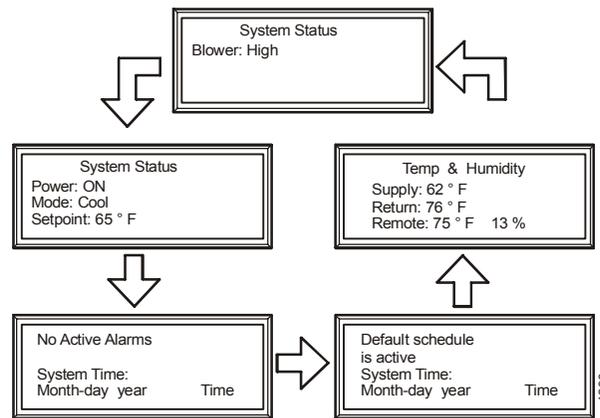
After you plug in the power cord, the equipment immediately begins operation based on its last programmed settings.



**Note:** The equipment waits three minutes before engaging the compressor if it has been unplugged or has been off for less than three minutes.

## Scrolling status screens

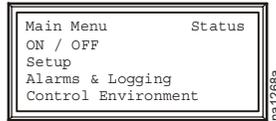
After start-up, the interface displays a screen that shows the firmware revision number. The display interface then scrolls automatically and continuously through five screens of status information as shown.



Press the up or down arrow key to interrupt the automatic scrolling and view a specific status screen.

## Main menu screen

On any of the scrolling status screens, press the ENTER or ESC key to open the main menu screen.



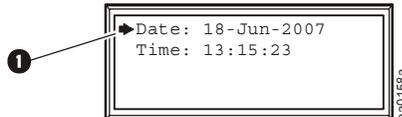
**Note:** After the display interface is inactive for a configured period of time (time-out delay), it reverts to the scrolling status screens.



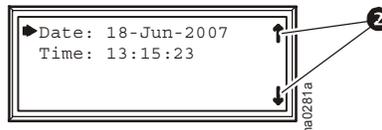
To change the time-out delay setting, see “Password and time-out” on page 23.

## Navigating the interface

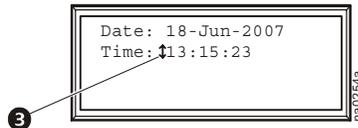
**Selector arrows.** Press the up or down arrow key to move the selector arrow ❶ to a menu option or setting. Press the ENTER key to view the selected screen or modify the setting.



**Continue arrows.** Continue arrows ❷ indicate that additional options or settings are available on a menu or status screen. Press the up or down arrow key to view the additional items.



**Input arrows.** Input arrows ❸ next to a selected setting indicate that the setting can be modified by pressing the up or down arrow key. Press the ENTER key to save the change or the ESC key to cancel the change.



## Change settings

To change a setting, use the up or down arrow keys to move the selector arrow to the setting and press the ENTER key.

**List of choices.** If the setting is a list of choices, an input arrow is displayed next to the setting. Press the up or down arrow key to make your selection. Press the ENTER keys to save the setting and exit from input mode. Press the ESC key to exit without saving.

**Numbers or text fields.** If the setting is a number or text field, use the arrow keys to select the value for the first character and press the ENTER key to move to the next character position. Repeat this procedure to select and set each character. After the last character is set, press the ENTER key to save the setting and exit from input mode. Press the ESC key to exit without saving.

## Password entry

To change any setting, you are prompted to enter your password. The default password is **APC**. To enter each character or digit of the password, use the up and down arrow keys to scroll to the character and press the ENTER key. The cursor moves to the next position. After entering the last character of the password, press the ENTER key again to submit the password.



**Note:** Passwords are case-sensitive.

## Turn off the equipment

**Path:** Main Menu > On/Off.

To shut off the equipment, select the **On/Off** option on the main menu and change the setting to **Off**.



**Note:** Change the setting to **Off** to shut down the cool mode and the blower fan. The display continues to receive power.

# Set Environmental Controls

The equipment controls the environment through the use of schedules. There are nine schedules; one schedule has default settings and the other eight schedules are programmable. Cooling during the times and days for which there is no programmed schedule is performed according to the default schedule (**Control Environment**).

## Default schedule

**Path:** Main menu > **Control Environment**.

The default schedule controls cooling when other schedules are not available or are deactivated.



**Note:** Changes to the default schedule do not override active schedules.

**Mode.** The mode settings are **Cool**, **Vent Only**, or **System Off**. **Vent Only** provides circulation without cooling the room. The **System Off** option stops the equipment and the blower. The **Cool** option engages the compressor (after a delay) and cools the room.

**Set Point.** The setpoint is the target temperature the equipment maintains in the room. The acceptable range for setpoints is 15.6 to 32.2°C (60 to 90°F).

**Deadband.** The deadband is the range above the setpoint at which cooling begins. The equipment does not begin to cool until the room temperature is at the setpoint plus the deadband. The acceptable range for the deadband is 0.6 to 1.7°C (1 to 3°F).



**Note:** The deadband for the system must be set to **Control Environment**. It cannot be set for each schedule.

## Operating schedules

**Path: Main Menu > Setup > Operating Schedule.** Program up to eight sets of environmental controls that run according to the time and day.

**Scheduling: on/off.** Select Off to use the default schedule, or On to use the programmed schedules.

**Reset schedules.** Turn all schedules off and reset them to their factory default settings.

**Edit schedules.** Set the cooling options for up to eight time periods.

<b>Schedule: 1 of 8</b>	Select a schedule to modify.
<b>Schedule: On/Off</b>	Activate or deactivate this schedule.
<b>Mode</b>	Choose <b>Cool</b> , <b>Vent Only</b> , or <b>System Off</b> . See “Mode” on page 20.
<b>Set Point</b>	Set the target temperature for the room. See “Set Point” on page 20.
<b>Blower</b>	Set the speed of the blower to <b>High</b> or <b>Low</b> . Use the <b>Low</b> blower speed to remove humidity from the room air.
<b>Day</b>	Choose the days for this schedule to run. Options include: <b>Every day</b> , <b>Weekdays</b> , <b>Weekends</b> , <b>Sun</b> , <b>Mon</b> , <b>Tue</b> , <b>Wed</b> , <b>Thu</b> , <b>Fri</b> , and <b>Sat</b> .
<b>Start Time</b>	Set the time when this schedule becomes active. Times are entered using a 24-hour clock.
<b>Stop Time</b>	Set the time when this schedule becomes inactive. Times are entered using a 24-hour clock.



**Note:** If schedules overlap, the schedule with the highest day-priority runs. The priority is:

- Highest: **Sun, Mon, Tue, Wed, Thu, Fri, Sat**
- Next Highest: **Weekdays, Weekends**
- Lowest: **Every Day**

# Set Up Alarms

The Portable Air Conditioning Unit is equipped with user-definable alarms. Set these alarms to alert you to abnormally high or low temperature and humidity.



Alarms also alert you to malfunctions; however, malfunction alarms are not user-definable. See “Responding to Alarms” on page 29 for information on responding to alarms.

## Temperature and humidity alarms

**Path:** Main Menu > Alarms & Logging > Alarm Setup > Temperature Limits *or* > Humidity Limits.

**Temperature Limits.** Set the acceptable temperature range for the air in the room. Temperatures outside the range generate a status alarm. See “Responding to Alarms” on page 29 for information about status alarms.

- |               |  |
|---------------|--|
| <b>Supply</b> | Temperature limits for the air blown into the room.                    |
| <b>Return</b> | Temperature limits for the air drawn from the room into the equipment. |
| <b>Remote</b> | Temperature limits for a remote sensor in the room.                    |

**Humidity Limits.** Set the acceptable humidity range for the air in the room (at the remote sensor). Humidity outside of the range triggers a status alarm. See “Responding to Alarms” on page 29 for information about status alarms.

## Set the alarm delay

**Path:** Main Menu > Respond to Alarms > Alarm Setup. The alarm delay begins after the equipment is started. It prevents temperature and humidity alarms from occurring before the equipment can begin cooling the room.

**Alarm Dly.** Set the alarm delay up to 999 seconds.

# Set Up the Display

The display interface provides access to the data and settings necessary to operate the equipment. Use the display interface to control data displayed, configure security features, and update and upgrade the firmware that controls the equipment.

## Password and time-out

**Path: Main Menu > Setup > System > System Password.**



**Note:** The default password is **APC**. See “Password entry” on page 19 for information on how to enter the password.

### Change the password:

1. Move the selector arrow to the password option and press the **ENTER** key.
2. Enter the current password to return to the password setup screen.
3. Press the **ENTER** key to change the password and enter a new password string (up to eight characters).
4. Press the **ENTER** key to confirm.

**Password and menu time-out.** The time-out is the adjustable period allowed for changing settings. Once the time period has elapsed, the display interface returns to the scrolling status screens and you must enter the password again.

**Invalidate password.** Use the **Invalidate NOW** option to override the password time-out and require password entry again.

## Set the date and time

**Path: Main Menu > Setup > System > Date/Time.**

**Setting the date.** The date is displayed on some status screens and is also used in the alarm/event log to date-stamp system events. Enter the day, month, and year and press the **ESC** key to exit the input mode.

**Setting the time.** The time is displayed on some status screens and is also used in the alarm/event log to time-stamp system events. Enter the correct time and press the **ENTER** key.

**Daylight saving time adjust.** Set the **DST Adjust** to **On** or **Off**. It automatically changes the clock settings on the appropriate dates to account for daylight saving time.

## Display interface options

**Path: Main Menu > Setup > System > Local Interface.**

**LCD contrast.** Adjust the visibility of the screen text. Lower numbered settings provide darker text and higher numbers provide lighter text. Settings range from 0–7.

**Key Click.** Enable an audible tone every time a key is pressed on the display interface.

**Beeper Volume.** Adjust the volume of the alarm tone and key clicks for the audible tone that sounds every time a key is pressed on the display interface. Options are **low**, **medium**, **high**, and **off**.

## Device settings

**Path:** Main Menu > Setup > System > Device.

**Temperature Units.** Set the units of measure for temperature readings and settings.

**Start Delay.** Set the delay between equipment start and when cooling begins.



This delay is in addition to the start-up delay described in “Turn on the equipment” on page 17.

## Resetting to default settings

**Path:** Main Menu > Setup > Factory Defaults.

**Reset to factory defaults.** Resetting to factory defaults returns display options to their factory settings. It does not affect the mode, setpoints, deadband, time, date, run hour meters, or password settings.

## User-defined product data

**Path:** Main Menu > Setup > Product Data.

The **Product Data** menu option provides a place to store information about the display interface. Enter the equipment name, the physical address of the equipment, and emergency or service contact information.

## How to download firmware

**Path: Main Menu > Setup > Firmware Updates.**

### To download firmware:

1. Go to **www.apc.com/tools/download/** and check for the most recent version of the firmware.
2. If a newer version is available, download it to a location that can be accessed in step 5.
3. Set up the serial connection:
  - a. Connect an available serial port of your computer to the serial port on the back of the unit using the supplied serial cable.
  - b. Run a terminal emulation program, such as Windows® HyperTerminal.
  - c. Configure the following settings on the serial port you will use:

<b>Baud Rate</b>	19200
<b>Data Bits</b>	8
<b>Parity</b>	None
<b>Stop Bits</b>	1
<b>Flow Control</b>	None



**Note:** Some terminal emulation programs require that you disconnect and then reconnect for the new serial port settings to take effect.

4. On the display interface, Select **YES, Start download** from the **Firmware Updates** option of the **Setup** menu.
5. In your terminal emulator, ensure that the connection is active (HyperTerminal displays a series of “C” characters), and send the file using the Xmodem protocol.

When the download is complete, the new version is displayed on the screen.



**Note:** The equipment shuts down during the firmware update process.

# Set Up Contacts and Relays

Input contacts can be set to trigger an alarm if their current state changes from the user-defined normal state. Output relays can map internal alarms and events to external devices.

## Input contacts

**Path: Main Menu > Status > Contact I/O > Inputs.** There is one predefined input contact that can be configured: **Remote Stop**.

**Change the normal state.** Move the selector arrow to the **Normal** option and press the ENTER key. Choose either **Open** or **Closed** for the normal state and press the ENTER key to confirm.

## User input contacts

**Path: Main Menu > Status > Contact I/O > User Inputs.**

The Portable Air Conditioning Unit can monitor up to three user-defined input contacts.



To connect the user input contacts, see “Input contacts” on page 14.

**Set the contact name.** The user input contacts have user-definable names. To set the name of the contact, move the selector arrow to the **Name** option and press the ENTER key.



See “Password entry” on page 19 for a description of how to enter strings of characters.

**Change the normal state.** Select the **Normal** menu option and press the ENTER key. Choose either **Open** or **Closed** for the normal state and press the ENTER key to confirm.

## User outputs

**Path: Main Menu > Status > Contact I/O > User Outputs.**

The equipment supports four user-defined output relays that map alarms and events to external devices.

**Change the source.** Move the selector arrow to the **SRC** option and press ENTER. Use the arrow keys to scroll through the list of events to monitor. Each event on the list is mapped to a firmware variable. Press ENTER to confirm your choice.

**Changing the normal state.** Select the **Normal** menu option and press ENTER. Choose either **Open** or **Closed** for the normal state and press ENTER to confirm.

# Checking Equipment Status

The Portable Air Conditioning Unit has several options for viewing the status of the equipment and the environment being cooled. Temperature and humidity readings and the detailed status of the equipment are available through the display interface.

## Scrolling status screens

The display interface automatically scrolls through five screens of equipment information:

- Active cooling schedule
- Current mode and setpoint of the equipment
- Active alarms
- Current temperature and humidity reading for the supply, return, and remote sensors
- Blower status



See “Scrolling status screens” on page 17 for navigation instructions.

## Default schedule status

**Path: Main Menu > Control Environment.**

Displays the settings for the default schedule. These settings do not apply if a programmed schedule is active. Check the scrolling status screen for the current mode and setpoint information.



See “Scrolling status screens” on page 17 for navigation instructions.

## System and environmental status screens

**Path: Main Menu > Status.**

**Detailed Status.** View information about components of the equipment, their current state, and the airflow status and pressure in the refrigeration system.

**Measurements.** View temperature and humidity readings at the supply, return, and remote sensors.

**Run hours.** View the number of hours each of the three major components has been running. Move the selector arrow to the component name and press the ENTER key to scroll through the list of components - compressor, condenser fan, and blower. The screen automatically refreshes with each change to show the total hours. **Clear total** resets the hours to zero for the displayed component.

## Manufacturer data

**Path: Main Menu > Setup > Manufacturer Data.**

APC preprograms your display with information that is helpful when obtaining service.

The information provided includes:

- Manufacturer Name
- Model Number
- Serial Number
- Firmware Revision
- Hardware Revision
- Date of Manufacture

## Viewing alarm status

**Path: Main Menu > Alarms & Logging.**

**View active alarms.** Displays all active alarm conditions.

**Alarm/Event log.** The **Entire Log** item on this menu displays all alarms and the time and date that they occurred. The log begins overwriting older data when the memory is full.

The **All Possible Alarms** item on the **Alarm/Event Log** menu also lists the alarm text for all possible alarms that can occur.

# Responding to Alarms

When an alarm condition is triggered, the Portable Air Conditioning Unit alerts you through the:

- Alarm beeper
- Alarm or warning LED
- Active alarm screen
- Alarm/Event log

Depending on the severity of the alarm, you may need to take action to clear the alarm condition or to resume operation.



See “Alarm messages” on page 31 for a listing of alarms and the actions required to clear them.

## Silencing the alarm beeper

**Path: Main Menu > Alarms & Logging > Alarm Beeper.**

An active alarm causes an audible alarm from the display interface (one short tone in 30-second intervals) until the alarm is cleared or the beeper is silenced. To silence the beeper, follow the path above and choose one of the following options:

- Silence **Active Alarm**
- Silence **All Alarms** (you must re-activate the beeper to receive future audible alarm alerts).



See “Beeper Volume” on page 23 for information about changing the beeper volume.

## Warning or alarm LED

When an alarm condition occurs, the **Check Log LED** and either the **Warning LED** or **Alarm LED** are activated. The alarm and warning LEDs cannot be deactivated manually; the alarm condition must be cleared to deactivate them.

**Warning LED.** Requires action, but is not critical to equipment operation.

**Alarm LED.** Requires action to continue equipment operation.

## Active alarm screen

**Path: Main Menu > Alarms & Logging > View Active Alarms.**

The active alarms screen is available at the above path or on the scrolling status screens. View the number of alarms (e.g., 1 of 2) and a description of the alarm condition.

## Alarm and event log

**Path: Main Menu > Alarms & Logging > Alarm/Event Log.**

The alarm/event log lists each alarm condition and the date and time it occurred. Viewing either the **New Logged Items** or the **Entire Log** deactivates the Check Log LED.

**Clearing the alarm/event log.** To clear the entire log, use the **Clear Log** option. This permanently erases all logged items.

## Resolving alarm conditions

See “Alarm messages” on page 31 to determine the course of action required to clear each alarm condition.

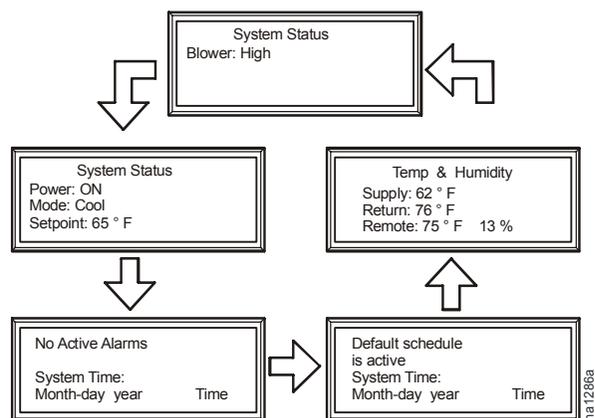
## Alarm messages

Alarm Message	Action Required
High head pressure	<p>Ensure condenser exhaust air diverter is not blocked, facing a wall, or pointed at the condenser air inlet.</p> <p>Check the area above the ceiling where the condenser air is circulating for excessive heat buildup. Additional ventilation may be required.</p> <p>Check the condenser inlet filter for cleanliness.</p>
Supply temperature high	<p>Alarm setpoint may be too low. Alarm should normally be set to 10° (C or F) above the cool setpoint plus the dead band.</p> <p>Check that the unit is in cool mode and the compressor is running.</p>
Supply temperature low	<p>Alarm setpoint may be too high.</p> <p>Front airflow may be obstructed. Check the return air filter for cleanliness. Check the front discharge air grille for free air movement.</p> <p>Cooling setpoint may be too low to allow for at least an 11°C (20°F) temperature differential between return and supply temperatures. Example: A setpoint of 21.1°C (70°F) could have a supply temperature as low as 10°C (50°F).</p>
Return temperature high	<p>Alarm setpoint may be too low.</p> <p>Check that the unit is in cool mode and the compressor is running.</p> <p>Equipment capacity may be too small for room load.</p> <p>Ensure that return air (air coming back to the equipment) is not from a direct heat source, equipment discharge fan, or room supply duct.</p> <p>Alarm delay may be too short. Sufficient time must be allowed to let the equipment bring the temperature in the space under control. This is especially true at equipment start-up.</p>
Return temperature low	<p>Alarm setpoint may be too high.</p> <p>Verify that the return air is not coming from a cold air supply source such as a room discharge duct.</p> <p>There should not be any obstructions near the grill front that could divert supply air back to the return air grill.</p>

<b>Alarm Message</b>	<b>Action Required</b>
Remote temperature high	<p>Alarm setpoint may be too low.</p> <p>Check the sensor placement. Ensure that the sensor is able to sense the cool supply air from the unit.</p> <p>Check that the sensor is not near a direct heat source such as an equipment discharge fan, a room supply duct, a window, direct sunlight, or a room entrance.</p> <p>Equipment capacity may be too small for room load.</p> <p>Check that the equipment is cooling. Verify that there is at least an 8°C (15°F) temperature difference between supply and return air.</p>
Remote temperature low	<p>Alarm setpoint may be too high.</p> <p>Verify that the return air is not coming from a cold air supply source such as a room discharge duct or an open window.</p>
Remote humidity high	<p>Alarm setpoint may be too low.</p> <p>Alarm delay may be too short. Allow sufficient time to let the equipment bring space humidity under control. This is especially true with new equipment start-up.</p> <p>Remote sensor may be located near a moisture source such as an open sink, a window, or an entrance to an unconditioned space.</p> <p>Equipment capacity may be too large for space. Reduce fan speed to low.</p>
Remote humidity low	<p>Alarm setpoint may be too high.</p>
Air filter clogged	<p>Change the filter.</p>
Water collection pan full	<p>Check the drain line for kinks, blockages, excessive length, or excessive lift.</p> <p>Check the drain line connection on the rear of the unit for proper connection. Ensure the quick connect fitting is inserted and locked into the unit drain connection.</p>
User contact 1 alarm	<p>Check the connected device.</p>
User contact 2 alarm	<p>Check the connected device.</p>
User contact 3 alarm	<p>Check the connected device.</p>
Equipment shutdown via remote stop	<p>Verify remote stop.</p>

# Display Interface Reference Charts

## Scrolling status screens



## Monitoring information

### Status

Menu Item	System Display
Detailed status	<ul style="list-style-type: none"> <li>• Temp &amp; Humidity</li> <li>• Compressor—On/Off</li> <li>• Blower—Low/High</li> <li>• Pump—Enable/Disable</li> <li>• Condenser fan—On/Off</li> </ul>
Measurements	<ul style="list-style-type: none"> <li>• Temp &amp; Humidity</li> <li>• Supply—°F or °C</li> <li>• Return—°F or °C</li> <li>• Remote—°F or °C, %RH</li> </ul>
Run hours	<ul style="list-style-type: none"> <li>• Name</li> <li>• Compressor</li> <li>• Blower</li> <li>• Condenser fan</li> </ul>

### Setup

Menu Item	Setting Variable
Manufacturing data	<ul style="list-style-type: none"> <li>• Mfg data</li> <li>• 1 of 6—Manufacturer name—APC</li> <li>• 2 of 6—Model number</li> <li>• 3 of 6—Serial number</li> <li>• 4 of 6—Firmware revision</li> <li>• 5 of 6—Hardware revision</li> <li>• 6 of 6—Date of manufacture</li> </ul>

## Setup

Menu Item	Setting Variable
Product data	<ul style="list-style-type: none"><li>• Device name— Your device name</li><li>• Product location—Location of the equipment</li><li>• Product contact—Name of contact</li></ul>

---

## Programmable settings

### Status

Menu Item	Setting Variable
Run hours	<ul style="list-style-type: none"><li>• Alarm: 1000–9000 hrs.</li><li>• Clear Total (Reset to Zero)—Yes/No</li></ul>
Contact I/O	<ul style="list-style-type: none"><li>• Inputs<ul style="list-style-type: none"><li>– Input—Mains fail/Remote stop</li><li>– Name—Enter name</li><li>– Normal—Open/Closed</li><li>– Status—Open/Closed</li></ul></li><li>• User inputs</li><li>• Input—1 of 3/3 of 3</li><li>• Name—Enter equipment name (14-character limit)</li><li>• Normal—Open/Closed</li><li>• Status—Open/Closed</li></ul>

---

### Control Environment

Menu Item	Setting Variable
Mode	<ul style="list-style-type: none"><li>• System off/Cool/Vent only</li></ul>
Blower	<ul style="list-style-type: none"><li>• High/Low</li></ul>
Setpoint	<ul style="list-style-type: none"><li>• 16 to 32°C (60° to 90°F)</li></ul>
Deadband	<ul style="list-style-type: none"><li>• 0.6° to 1.7°C (1° to 3°F)</li></ul>

---

## Setup

<b>Menu Item</b>	<b>Setting Variable</b>
System	<ul style="list-style-type: none"><li>• System password Password—Enter password Time-out—Never–4 hrs Invalidate (ends session)</li><li>• Date &amp; Time Date—Enter date Time—Enter time DST Adjust—On/Off</li><li>• Local interface Contrast—0–7 Key click—On/Off Beeper volume — Off/Low/Med/High</li><li>• Device Temp unit— °C/°F Start Dly (Start Delay)— 000–999 sec</li></ul>
Factory defaults	<ul style="list-style-type: none"><li>• Set configuration to factory defaults? Yes, set defaults No, abort</li></ul>
Firmware updates	<ul style="list-style-type: none"><li>• Load new firmware? Yes, start download No, abort</li></ul>

# Maintenance and Troubleshooting

---

## Maintenance

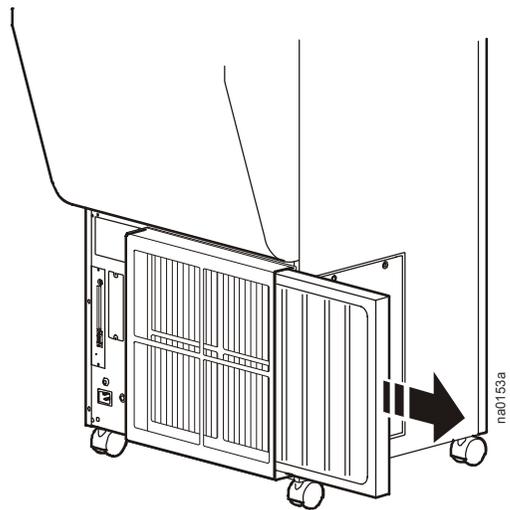
### Replace the air filter

Replace the air filter every 90 days or sooner if an alarm occurs. Keep the air filter clean to maximize the performance and life of the equipment.



**Note:** For maximum efficiency and to prevent equipment damage, always replace the filter with the size and type given below.

1. Slide the filter element out from the rear of the equipment.
2. Insert a new air filter (APC part number ACPA4000RF).



## Clean the condenser filter and test the LCDI plug

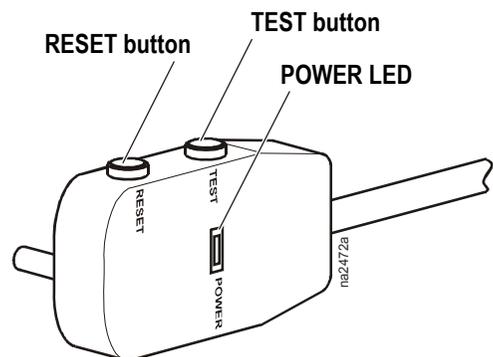
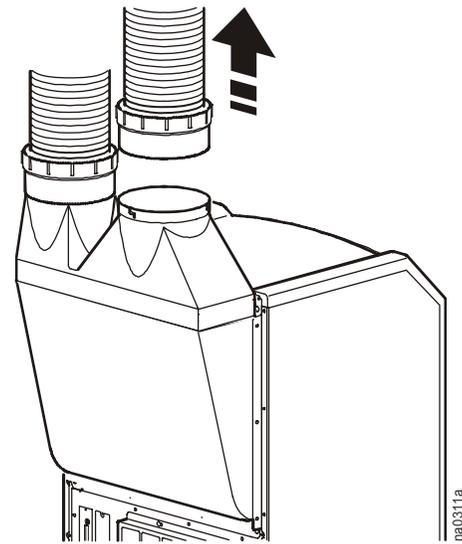
The condenser filter traps large items that may fall into the ducts. Periodically check and clean the filter to prevent damage to the condenser. While power is off, test the LCDI plug for proper operation.

1. Turn off the equipment and unplug it from its electrical outlet.
2. Remove the condenser air intake duct from the back of the equipment.
3. Clean the filter (inside the air intake duct) using your hand or a dry cloth.



**Caution:** To avoid equipment damage, do not test the LCDI plug while the equipment is operating.

4. Press the TEST button on the LCDI plug. The POWER LED should go off.
5. Press the RESET button on the LCDI plug. The POWER LED should come on.



## Clean the cabinet

Turn off the equipment and unplug it from its electrical outlet. Use a moist rag to wipe down the cabinet.



**Caution:** Do not clean the surface with thinners, alcohol, polishing powder, alkaline detergent, acid, or an abrasive brush. Using these items will damage the cabinet.

## Update the main control board firmware

Occasionally, new firmware becomes available which may add new features. Firmware is available for download through the APC software/firmware downloads page, [www.apc.com/tools/download](http://www.apc.com/tools/download).

You will need a computer with a serial port, a null modem serial cable, and a terminal emulation program that can use the xmodem protocol.



See “How to download firmware” on page 25.

# Troubleshooting

<b>Problem</b>	<b>Possible cause</b>	<b>Corrective action</b>
Equipment does not respond	Main power is off.	Check building fuse or circuit breaker.
	Equipment is not plugged in.	Securely insert the plug into the outlet.
	LCDI power cord has tripped.	If the green LED on the back of the LCDI plug is not on, press the RESET button on the plug. If the LED does not light, replace the power cord.
	Equipment circuit breaker has tripped.	Reset the circuit breaker (located above the power cord receptacle on the rear of the equipment).
Poor cooling performance	Air exhaust or intake is blocked.	Clear all objects away from air grills; move the equipment away from the wall.
	Air filters are dirty.	Clean or replace air filter.
	Heat load is beyond equipment capacity.	Additional cooling capacity required.
	Fan speed is too low.	Increase fan speed.
Noise or vibration	Surface is not level.	Place equipment on a level surface, away from obstructions.
Equipment starts and stops	Air exhaust duct is not attached properly or is blocked.	Check exhaust duct.
Alarm condition		See “Alarm messages” on page 31.

# One-Year Factory Warranty

The limited warranty provided by American Power Conversion (APC®) in this Statement of Limited Factory Warranty applies only to products you purchase for your commercial or industrial use in the ordinary course of your business.

## Terms of warranty

American Power Conversion warrants its products to be free from defects in materials and workmanship for a period of one year from the date of purchase. The obligation of APC under this warranty is limited to repairing or replacing, at its sole discretion, 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. 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, start-up by non-APC designated personnel, a change in location or operating use, 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.

**THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, BY OPERATION OF LAW OR OTHERWISE, OF PRODUCTS SOLD, SERVICED OR FURNISHED UNDER THIS AGREEMENT OR IN CONNECTION HEREWITH. APC DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY, SATISFACTION AND FITNESS FOR A PARTICULAR PURPOSE. APC EXPRESS WARRANTIES WILL NOT BE ENLARGED, DIMINISHED, OR AFFECTED BY AND NO OBLIGATION OR LIABILITY WILL ARISE OUT OF, APC RENDERING OF TECHNICAL OR OTHER ADVICE OR SERVICE IN CONNECTION WITH THE PRODUCTS. THE FOREGOING WARRANTIES AND REMEDIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES AND REMEDIES. THE WARRANTIES SET FORTH ABOVE CONSTITUTE APC'S SOLE LIABILITY AND PURCHASER'S EXCLUSIVE REMEDY FOR ANY BREACH OF SUCH WARRANTIES. APC WARRANTIES EXTEND ONLY TO PURCHASER AND ARE NOT EXTENDED TO ANY THIRD PARTIES.**

**IN NO EVENT SHALL APC, ITS OFFICERS, DIRECTORS, AFFILIATES OR EMPLOYEES BE LIABLE FOR ANY FORM OF INDIRECT, SPECIAL, CONSEQUENTIAL OR PUNITIVE DAMAGES, ARISING OUT OF THE USE, SERVICE OR INSTALLATION, OF THE PRODUCTS, WHETHER SUCH DAMAGES ARISE IN CONTRACT OR TORT, IRRESPECTIVE OF FAULT, NEGLIGENCE OR STRICT LIABILITY OR WHETHER APC HAS BEEN ADVISED IN ADVANCE OF THE POSSIBILITY OF SUCH DAMAGES. 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 SUBSTITUENTS, CLAIMS BY THIRD PARTIES, OR OTHERWISE.**

**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.

# Warranty Procedures

## Claims

To obtain service under the warranty, contact APC Customer Support (see the back cover of this manual for contact information). You will need the model number of the Product, the serial number, and the date purchased. A technician will also ask you to describe the problem. If it is determined that the Product will need to be returned to APC, you must obtain a returned material authorization (RMA) number from APC Customer Support. Products that must be returned must have the RMA number marked on the outside of the package and must be returned with transportation charges prepaid. If it is determined by APC Customer Support that on-site repair of the Product is allowed, APC will arrange to have APC authorized service personnel dispatched to the Product location for repair or replacement, at the discretion of APC.

## Parts

- APC warrants the parts of their systems for 1 year from the date of commissioning or 18 months from the ship date. This warranty only covers the cost of the part and not the labor for installation.
- Calls for warranty parts requests need to have specific unit information (serial number, model number, job number) to allow proper identification and processing of the warranty part transaction.
- A purchase order may be required to issue any warranty parts. An invoice will be sent once the parts are shipped to the field. You have 30 days to return the defective parts to APC. After 30 days, the warranty invoice will be outstanding, and payment of the invoice will be expected in full.
- Return authorization documentation will be sent with the replacement part. This documentation must be sent back with the defective part to APC for proper identification of the warranty return. Mark the warranty return number on the outside of the package.
- After the part has been received at APC, we will determine the status of the credit based on the findings of the returned part. Parts that are damaged from lack of maintenance, misapplication, improper installation, shipping damage, or acts of man/nature will not be covered under the parts warranty.
- Any warranty parts request received before 1:00 PM EST will be shipped same-day standard ground delivery. Any costs associated with Next Day or Airfreight will be the responsibility of the party requesting the part.
- Return freight of warranty parts to APC is the responsibility of the party returning the part.

# Specifications

## Electrical

---

Input voltage	115 V; 60 Hz; 1 Ph
Rated current	14.4 A

---

## Physical

---

Physical dimensions W × D × H	584 × 724 × 980 mm (23 × 28.5 × 38.6 in)
Net weight (equipment only)	79 kg (175 lb)
Shipping weight	88 kg (195 lb)

---

## Component Type

---

Compressor type	Rotary
Refrigerant	HCFC R22 (2.0 lb)
Air filter (ACPA4000RF) W × D × H	406.4 × 50.8 × 406.4 mm (nominal) (16 × 2 × 16 in)

---

## Cooling Capacity

---

	35°C (95°F) at 61% RH	22°C (72°F) at 50% RH
Total BTU/hr (kW)	13,000 (3.81)	10,000 (2.96)
Sensible BTU/hr (kW)	7,000 (2.05)	8,500 (2.50)

---



**Note:** Entering air to the condenser at a temperature over 35° C (95° F) will reduce cooling capacity performance.

## Environmental

---

Airflow	High: 660 CFM Low: 450 CFM
Sound level	62 dB
Dehumidifier value	0.98 L/h maximum (0.26 gal/h)

---

## Condensate Management

---

Hose length	15.24 m (50 ft) with 4.88 m (16 ft) vertical lift maximum
Hose diameter	6.35 mm (1/4 in) OD

---



# 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 Customer Support Line	(1)(877)537-0607 (toll free)
APC headquarters U.S., Canada	(1)(800)800-4272 (toll free)
Latin America	(1)(401)789-5735 (USA)
Europe, Middle East, Africa	(353)(91)702000 (Ireland)
Western Europe (inc. Scandinavia)	+800 0272 0272
Japan	(0) 36402-2001
Australia, New Zealand, South Pacific area	(61) (2) 9955 9366 (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.

Entire contents copyright 2008 American Power Conversion Corporation. All rights reserved. Reproduction in whole or in part without permission is prohibited. APC, the APC logo, InfraStruXure, and NetworkAIR are trademarks of American Power Conversion Corporation. All other trademarks, product names, and corporate names are the property of their respective owners and are used for informational purposes only.



990-0412D



03/2008