



# Installation and Operation

## G-Type Rack Power Filter

**G5BLK**  
**120V**  
**15A**



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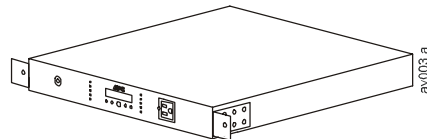
# General Information

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## Overview

The APC® AV G-Type Rack Power Filter protects high-performance audio and video system equipment from damage due to power surges, spikes, and lightning strikes.

## Inventory



Power conditioner (1)



Stabilizing feet (4)

## Safety



- **Electrical Hazard:** For indoor use only.

- **CAUTION** - Do not install this device if there is not at least 10 meters (30 feet) or more of wire between the electrical outlet and the electrical service panel.



- **Risk of electric shock.** Do not plug into another relocatable power tap.

- **Contains always on receptacles.** To reduce the risk of electric shock, disconnect the unit from the power source before servicing the equipment.

- **Overloading.** Do not overload the wall outlet where this device is being connected. Do not overload this device. Ensure the total load to this device does not exceed that which is listed in the Specifications section of this manual.

- **Power.** Ensure this device is connected to a properly grounded AC power source. Further ensure the device is plugged into a source providing the required 120 Vac. Do not use a plug adapter which defeats the ground pin of the AC plug.

- **Placement.** Do not install this device on any unsteady surface. Do not install this device on any heat source.

- **Water and Moisture.** Do not use this product near any source of water, or in an environment where the relative humidity may exceed 95% (non-condensing)

- **Polarization.** This device has a polarized AC line plug having one grounding pin. This plug will only fit into the wall outlet in one orientation. This is a safety feature. Do not remove the round grounding pin.

- **System Ground Terminal.** The unit provides for the connection of grounding wires from all of your equipment to a central terminal lug. This ground connection eliminates ground loop problems; tie all component grounds to this screw to break any possible ground loops that can cause an audible noise.

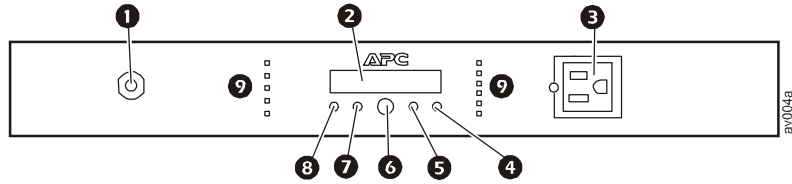
- **Servicing.** There are no user-serviceable components within this device. Removal of the cover from this device may present a shock hazard, and/or void the warranty.

- **Damage Requiring Service.** If any type of damage occurs to this device, immediately disconnect it from the wall outlet. Notify APC Technical Support or Customer Service at once.

- **Replacement Parts.** There are no components within this device that can or should be removed/replaced unless it is by an APC-qualified technician.

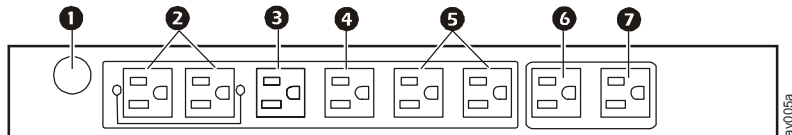
# Components

## Front view



- ❶ Circuit breaker
- ❷ LCD Display
- ❸ ALWAYS ON outlet
- ❹ DOWN button
- ❺ UP button
- ❻ Power button
- ❼ SETUP button
- ❽ STATUS button
- ❾ LED Indicators:
  - POWER ON
  - LINE OK
  - PROTECTION WORKING
  - WIRING OK
  - OVERLOAD
  - DELAYS 1-4
  - SWITCHED
  - ALWAYS ON

## Rear view



- ❶ System Ground
- ❷ ALWAYS ON outlets
- ❸ SWITCHED outlet
- ❹ DELAY 1 outlet
- ❺ DELAY 2 outlets
- ❻ DELAY 3 outlet
- ❼ DELAY 4 outlet

# Installation

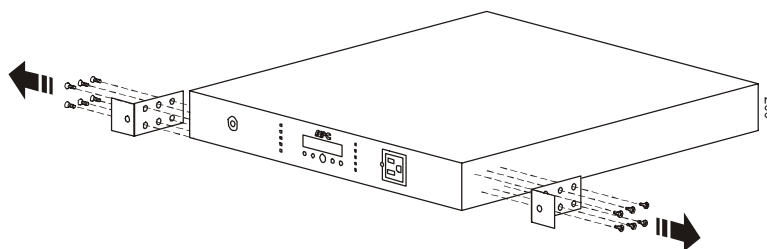
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## Install the Unit

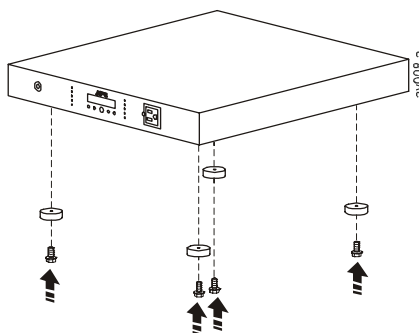
### Install the unit on a flat surface

The unit may be installed on any flat surface capable of supporting at least 27.3 kg (60 lbs).

#### Remove the mounting brackets.



**Attach the stabilizing feet.** Attach the stabilizing feet (included) to the bottom of the unit before placing it on a flat surface to avoid scratching the surface and to protect the unit.



### Install the unit in a rack or enclosure

Use four screws to secure the mounting brackets to the rails in the rack or enclosure.

## Connect A/C Power

### Connect the unit to A/C power



**Note:** If the unit is connected to A/C power, the unit is actively monitoring input power, but is operating in Standby mode.

Use the A/C power cord to connect the unit to A/C power. If the unit is functioning properly, the display will illuminate.

### Connect components to the unit

Before connecting components to the unit, determine which components will utilize the ALWAYS ON outlets, the SWITCHED outlet, and the DELAY outlets. Then, connect components to the outlets on the back panel of the unit.

**Always On outlets.** The ALWAYS ON outlets supply power to the connected components, even if the unit is turned off. If A/C power is lost, and then re-applied to the unit, components connected to the ALWAYS ON outlets will turn on immediately, as power will be supplied to them immediately.

**Switched outlet.** The SWITCHED outlet supplies power to the connected equipment while the unit is on. If the unit shuts off, it will not supply power to equipment connected to the SWITCHED outlet. If A/C power is lost, and then re-applied to the unit, equipment connected to the SWITCHED outlet will turn on immediately.

**Delay outlets.** The unit has five delayed outlets. When the unit is turned on, power is immediately applied to the SWITCHED outlet (power was already being supplied to the ALWAYS ON outlets, even though the unit was off). Then, power is applied to each of the DELAYED outlets in sequence, DELAY 1 first, through DELAY 4.

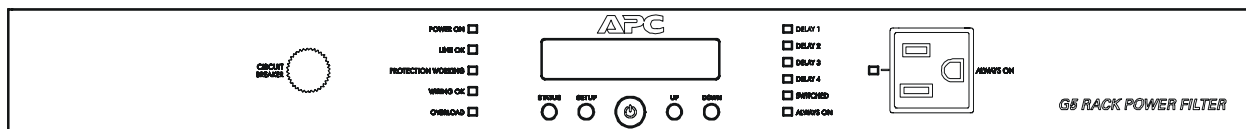
When the unit is turned off, power is disconnected from the delayed outlets in reverse order.

Use the display interface to customize the delay times.

# Operation

## Display Interface

### Using the display interface



Use the display interface on the front of the G5BLK to configure and operate the unit.

**Power.** Push to apply power to the unit or to shut off power to the unit.

**Status.** Push to display the current status of the unit, including the current input/output voltage.

**Setup.** Push to scroll through the setup menus.

**Up/Down.** Push to change values (Setup menu) and browse menu pages (Status menu).

### Display interface LEDs

There are eleven LEDs on the display interface.

LED	Illuminated	Not Illuminated
<b>POWER ON</b>	The unit is supplied with utility power.	There is no input utility power.
<b>LINE OK</b>	The utility power is within acceptable range, 92 V to 140 V.	The input voltage from utility power is outside the acceptable range and the unit has disconnected from utility power to protect the connected equipment.
<b>PROTECTION WORKING</b>	The unit is protecting all connected equipment.	The unit is not providing power protection. See Troubleshooting and contact APC Technical Support immediately.
<b>WIRING OK</b>	The unit is functioning properly.	There is a problem with the building wiring. Contact a certified electrician.
<b>OVERLOAD</b>	The unit is overloaded. Disconnect some connected components. Contact APC Technical Support.	The unit is functioning properly.
<b>DELAY 1</b>	Power is being supplied to DELAY1.	Power is not being supplied to DELAY1.
<b>DELAY 2</b>	Power is being supplied to DELAY2.	Power is not being supplied to DELAY2.
<b>DELAY 3</b>	Power is being supplied to DELAY3.	Power is not being supplied to DELAY3.
<b>DELAY 4</b>	Power is being supplied to DELAY4.	Power is not being supplied to DELAY4.
<b>SWITCHED</b>	Power is being supplied to the SWITCHED outlet.	Power is not being supplied to the SWITCHED outlet.
<b>ALWAYS ON</b>	Power is being supplied to the ALWAYS ON outlets.	Power is not being supplied to the ALWAYS ON outlets. See “Troubleshooting” on page 10 and contact APC Technical Support immediately.

## Status menu



**Note:** The menus shown in this manual are for reference only. Information displayed on the unit may be different than shown here.

### Utility Source, Voltage and Frequency.

UTILITY SOURCE 120V 60Hz
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### Current and Percentage.

TOTAL OUTPUT 12A 80%
-------------------------

### Contact Information.

1-888-8827228 WWW.APCAV.COM
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### Model and Serial Number.

G5 POWER FILTER SN: AB1234567890
-------------------------------------

### Firmware version.

FW REVISION: 860.M1.D
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### Recent Faults.

NO FAULT
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FAULT CONDITION <i>Description</i>
---------------------------------------

## Setup menu



**Note:** The menus shown in this manual are for reference only. Information displayed on the unit may be different than shown here.

Use the Setup menus to configure the unit. There are nine setup menus. Push SETUP to scroll to the next menu.

**LCD dimmer.** Set the brightness of the display.

DISPLAY DIMMER: NORMAL
---------------------------



**LED dimmer.** Set the brightness of the LED.

LED DIMMER:  
DIM1

**Delay1.** Select the number of seconds for the delay.

DELAY 1:  
4SEC (1-60)

**Delay2.** Select the number of seconds for the delay.

DELAY 2:  
4SEC (1-60)

**Delay3.** Select the number of seconds for the delay.

DELAY 3:  
4SEC (1-60)

**Delay4.** Select the number of seconds for the delay.

DELAY 4:  
4SEC (1-60)

**Cut-Off Voltage.** Select the maximum and minimum voltage. The unit will protect connected equipment from high and low voltages that are not safe for operation.

MAX UPPER VOLT:  
140V (132-140)

MIN LOWER VOLT:  
92V (92-100)

**Language.** Select the language for the display: English, French, or Spanish. Push SETUP to go to the next screen, RESET TO DEFAULT.

MENU LANGUAGE:  
ENGLISH

**Restore default settings.** Select YES or NO to restore the default settings.

RESET TO DEFAULT  
YES

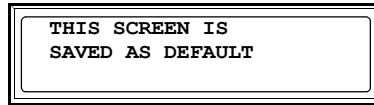
## Lock the unit

The unit can be locked to prevent unwanted access. To lock or unlock the unit, push STATUS and DOWN for three seconds.

G5BLK LOCKED

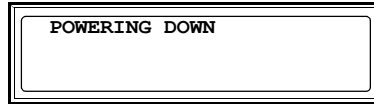
## Save screen as default

To save a screen as the default, push STATUS for three seconds.



## Shut down the unit

Push and hold the POWER button.



# Configuration

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## Configure the unit

**Select a language.** Push the **SETUP** button until the Language menu is displayed. Select English, French, or Spanish.

**Configure the brightness of the display.** To alter the brightness of the LCD display screen, push **SETUP** one time and select a numerical value, one through seven.

## Configure the sequence delay outlets

Configure the delay options so that the **DELAY** outlets apply power in sequence, instead of all at one time.

Push **SETUP** until the delay menu screen appears. Use the **UP** and **DOWN** buttons to change the number of seconds of delay. When finished, push **SETUP** again to move to the next delay screen.

## View status of the unit

Push the **STATUS** button until the input source voltage and frequency screen appears.

Push the **STATUS** button to display the output current and percentage.

You can also view APC Technical Support contact information, the model and serial number of the unit, the firmware version, and the last three faults registered by the unit using the **STATUS** menus.

# Troubleshooting

## Common problems and solutions

### The unit will not turn on

Probable Cause	Solution
There is no input power, or insufficient input power from the wall outlet.	Use a voltmeter to check the output of the wall outlet. Use a device that is known to work properly to check the outlet.  <b>Note:</b> The unit will not turn on if the input utility power is out of the acceptable range.
A circuit breaker has been tripped.	Check the building circuit breakers and the unit's circuit breaker. If the circuit breaker on the unit has been tripped, the center post will protrude from the unit. To reset the breaker, push the center post into the unit. If it trips again, unplug one of the components plugged into the unit and reset the breaker.  The unit is rated for 15 Amps, however, the National Electric Code (NEC) dictates that any home circuit should not be loaded to more than 80% of its rating.  <b>Note:</b> If the breaker is tripped again after trying this solution, contact APC Technical Support.

### The Overload indicator is illuminated

Probable Cause	Solution
The unit is overloaded. The overload LED is flashing.	The Overload LED on the front of the unit will illuminate red if the unit is overloaded. Reduce the load by disconnecting one or more components from the back of the unit. When the load is below 95%, the LED will stop flashing.

### The Wiring OK indicator is not illuminated

Probable Cause	Solution
<ul style="list-style-type: none"> <li>• The wall outlet polarity is reversed.</li> <li>• The neutral wire is overloaded.</li> <li>• The earth ground is not connected at the wall outlet.</li> </ul>	Contact an electrician to inspect the building wiring.  <b>WARNING:</b> Do not operate the unit if any of these conditions exist. The unit may not be providing surge protection.
The unit is on, but none of the LEDs are illuminated.	Push UP or DOWN several times. The LEDs should illuminate. If they do not illuminate, contact APC Technical Support.

# Specifications

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<b>Input/Output</b>	
Input/Output Voltage	Nominal 120 V
Input/Output Current	15 A
Frequency	50/60 Hz
Receptacle Types	NEMA 5-15R
Number of Outlet Receptacles	9
Dimensions (HxWxL)	4.34 cm x 24 cm x 43.5 (1.71 in x 9.45 in 17.13 in)
Power Cord	2.4 m (8 ft.) right angle NEMA 5-15P
<b>AC Surge Performance</b>	
EMI/RFI Filtering	50 db 150 kHz to 1 MHz 40 dB to 30 MHz
<b>Environmental Performance Specifications</b>	
Operating temperature	0° – 40°C (32° – 104°F)
Storage temperature	-15° – 45°C (5° – 113° F)
Net weight	3.9 kg (8.58 lbs)
Relative Humidity	0–95% non-condensing
<b>Safety Agency Approval</b>	
UL1449, UL1363, cCSAus Listed, FCC Part 15 Class B	
<b>Contact Information</b>	
<a href="http://www.apcav.com">www.apcav.com</a> or 1-888-88APCAV	

## Warranty

APC warrants its products to be free from defects in materials and workmanship under normal use and service for the lifetime of the original purchaser. Its obligation under this warranty is limited to repairing or replacing, at its sole option, any such defective products. To obtain service under warranty you must obtain a Returned Material Authorization (RMA) number from APC or an APC Service Center with transportation charges prepaid and must be accompanied by a brief description of the problem and proof of date and place of purchase. This warranty applies only to the original purchaser.