



# Installation

## NetShelter<sup>®</sup> AV Rack Cooling

ACF600  
ACF601  
ACAC40000  
ACAC40001

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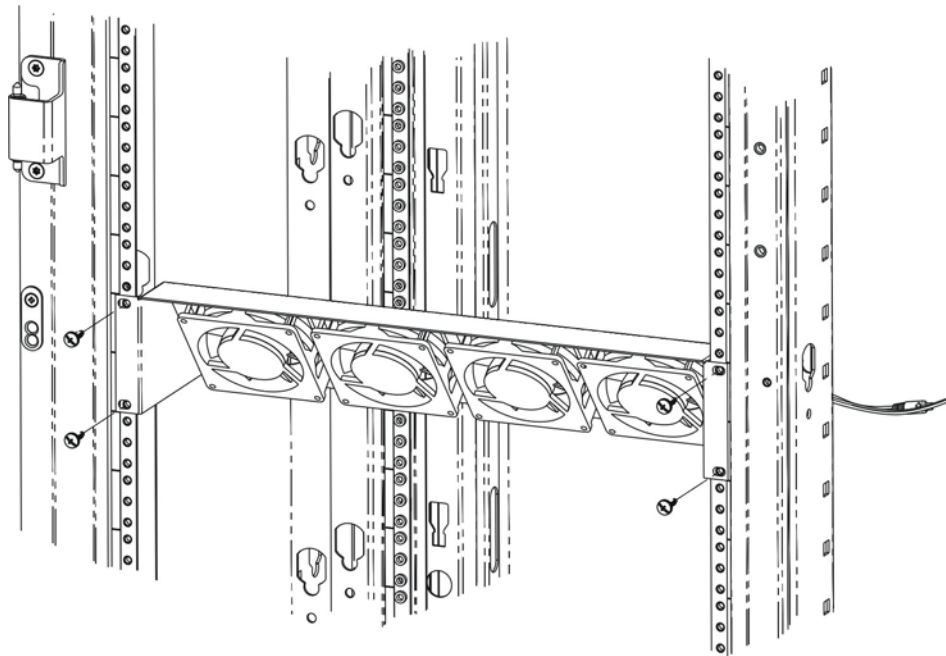
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## Installing the Rack Fan Panel (ACF600)

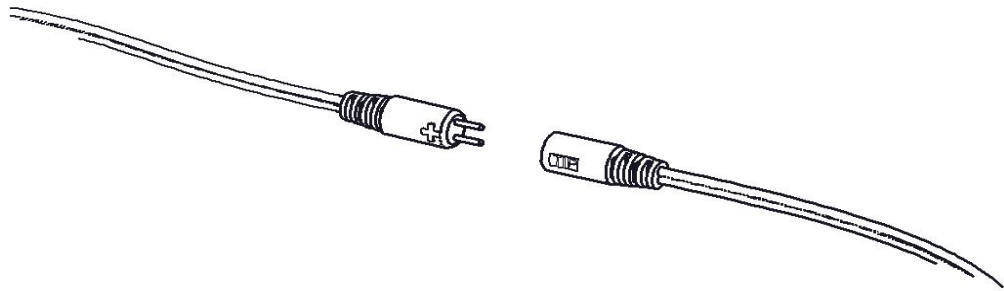
The NetShelter AV 2U rack fan panel can be used to cool individual devices or to draw air into or out of a rack. Before installing the fan panel, determine its application.

1. Determine the desired airflow direction and reverse the fans if necessary. Airflow direction is indicated by an arrow on each fan.
  - a. To reverse the airflow direction, slowly pull the fans from the rubber mounts one at a time.  
Note: All four fans are wired together
  - b. Turn the entire fan assembly over.
  - c. To reattach the fans, pull the rubber mounts through the sheet metal housing and then pull the rubber mounts through the mounting holes on the fans.
2. Determine the installation location in the rack.  
Note: The fan panel requires 2U of available rack space.  
If you are using the optional ACF601 temperature controller, install the temperature controller before you install the fan panel. See the installation instructions on page 4.
3. To install the unit fan panel in a standard AV enclosure, use the provided 10-32 threaded screws.



Note: For installation in a standard IT equipment enclosure, use the cage nuts provided with the enclosure.

4. Connect the provided power cord to the fan panel. To ensure polarity protection, align TIP to +.



Note: Reversing polarity will not damage the fan panel, but the fan panel will not operate until the power cord is connected correctly.

5. Ensure that the voltage switch on the power supply is set to at least 7 Volts and that no wires or other obstructions can come in contact with the fans.

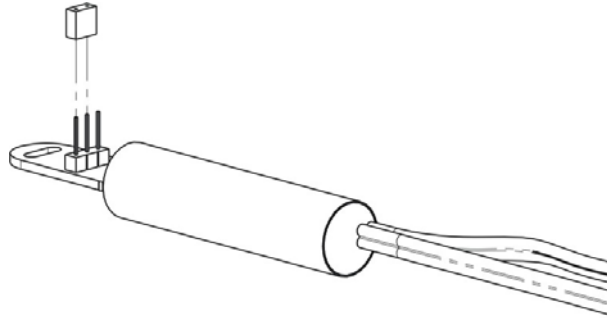
Note: The universal power supply voltage must be set to 12 Volts when used with the rack fan temperature controller.

6. Plug in the power supply to turn on the fan panel.
  - Control the speed and noise level by adjusting the voltage on the power supply.
  - Enhance the effectiveness of the fan panel by changing the airflow direction and the position of the panel.

## Installing the Rack Fan Temperature Controller (ACF601)

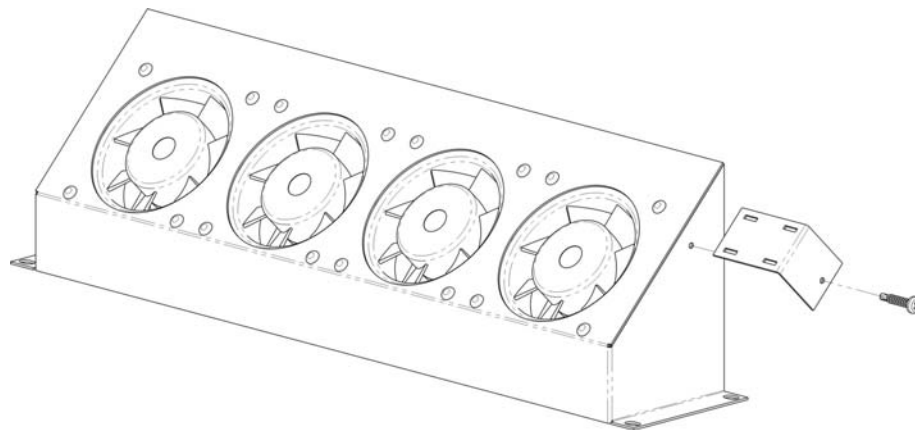
The Rack Fan Temperature Controller is designed to provide on/off and variable speed fan control based on the ambient temperature of the unit. The unit features two jumper selectable on/off set points, identified by an 'L' (low) and 'H' (high) on the unit's circuit board.

1. Set the jumper on the unit to the appropriate position for your application.



Note: The On set point for the low setting is 80°F and is most appropriate for equipment rooms or closets. The On set point for the high setting is 88°F and is most appropriate for cabinets or other small enclosure applications. The unit's Off set point is approximately 3 degrees lower than the On set point. On the low setting, the fans will turn on at 80°F and turn off when the temperature at the unit drops below 77°F. On the high setting, the fans will turn on at 88°F and turn off when the temperature at the unit drops below 85°F. As the temperature increases, the fan speed will also increase in linear progression. In the low setting, the fans will turn on at roughly 50% fan speed when the temperature reaches 80°F and will reach full speed at 100°F. For the high setting, the fans will turn on at 88°F and reach at full speed at 105°F. These are fixed set points that cannot be modified.

2. Attach the provided bracket to the fan panel using the provided screw.



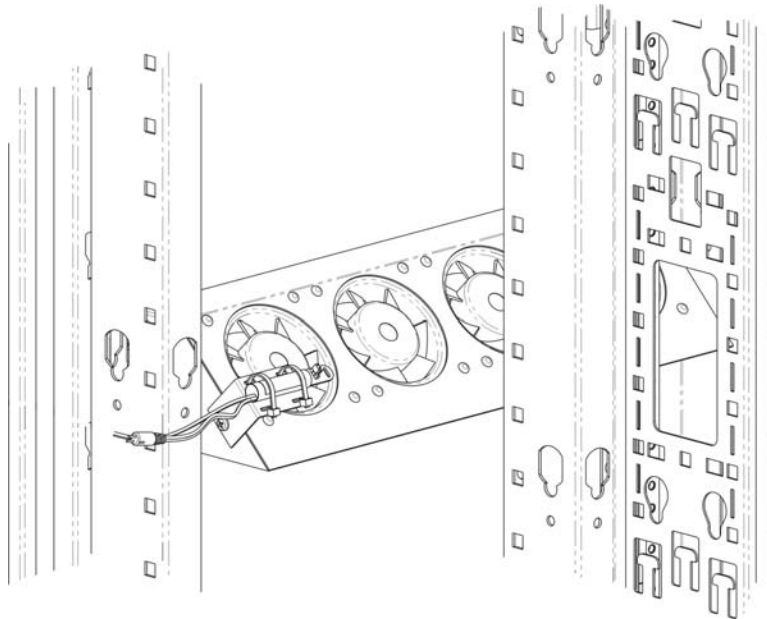
3. Turn on the temperature controller by connecting it between the Rack Fan Panel and the supplied power cord as shown below.

Note: For proper functionality, the power supply must be set to 12 Volts.

Note: Observe proper polarity by connecting TIP to +.

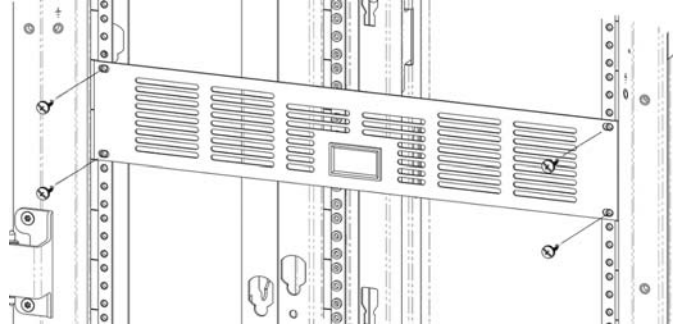
4. Install the sensor on the bracket using the supplied hook and loop fastener.

Note: Be sure the end of the controller extends slightly over the edge of the bracket.



## Installing the Vent Panel (ACAC40000) and Vent Panel with Temperature Display (ACAC40001)

1. Install the Vent Panel in an open 2U space using the 10-32 threaded screws provided.



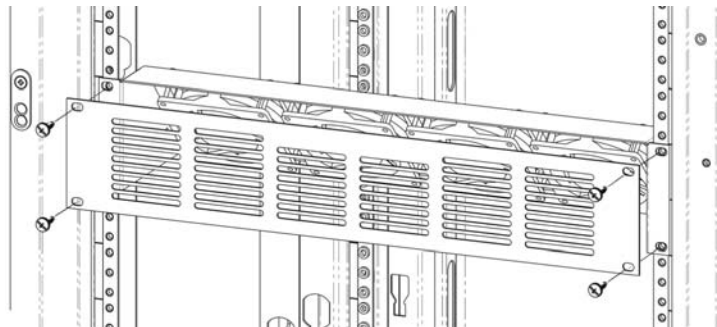
2. Install the temperature sensor in the area to be monitored. (ACAC40001 Only)

Note: To monitor a specific device, position the sensor near the component's ventilation area for the most accurate reading. The sensor wire is approximately 36 inches long.

3. Provide power to the Temperature Display using the provided fixed 9 volt AC to DC adapter. (ACAC40001 Only)
4. Determine the best route for the sensor and supply cables, and secure the cables using the provided wire ties. (ACAC40001 Only)

## Alternative Installation (ACAC40000 or ACAC40001)

1. Install the Vent Panel over the Fan Panel in an open 2U space using the 10-32 threaded screws provided.



2. Route the sensor cable and the power cable through the hole in the center of the Fan Panel and secure the cables to the back of the Fan Panel using the provided wire ties.
3. To secure cable when routing it in either direction from the center, use the wire tie slots positioned along the edge of the Fan Panel.



Customer support and warranty information is available at the APC Web site, [www.apc.com](http://www.apc.com).

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