



APPLICATION NOTE

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Product Family: Networking Hardware

Number: AN-NH-013

Subject: Troubleshooting Power

Date Issued: Dec 14, 2011

Revision: Original

Synopsis:

Users may encounter situations where their switch does not appear to start up successfully or not power up at all. Troubleshooting this process has several phases:

1. Physical connections check
2. Power type check
3. LED indicator check
4. Additional troubleshooting
5. RMA criteria

Phase 1: Physical connections check

Confirm DC power is connected to P1 and/or P2 terminals (positive lead) as well as the “-” terminal (negative/return). Ensure the power block is firmly seated into the socket.

Caution: The wiring pinout is not consistent across models.



Wiring connection example. Pinout is NOT typical for all models.



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Phase 2: Power type check

Confirm DC power in the range of 10 to 30 Volts is supplied. The recommended Voltage is 24VDC.

Phase 3: LED indicator check

When power is applied, the P1 and/or P2 LEDs should be illuminated, depending upon which terminals are being supplied with power. On managed switches the status LED should also flash for several seconds and then illuminate steadily. This indicates that the switch has begun the startup process. Unmanaged switches do not have a status LED. Switch startup times can be up to 45 seconds, depending on model.

After these times, the port LEDs should accurately indicate Link and Traffic status. The OK LED is a configurable alarm. Depending upon your configuration, this LED may be on or off.

Phase 4: Additional troubleshooting

Size of power supply

It is important to ensure that the power supply used to power your switch is properly sized for the load. Review the power input ratings on the label of your switch and allocate 2-3 times this capacity for the initial startup current.

If you are having problems with switches not always powering up or repeatedly rebooting, try removing all equipment but your switch from the supply.

Phase 5: RMA criteria

After progressing through phases 1-4, if the switch still does not power up correctly, there may be a hardware failure with your switch. Please gather the following information and an RMA request will be generated:

- Full model number
- Serial number and Date code
- Any information related to the failure, such as potential cause

Technical

Assistance: If you have questions regarding this Application Note, please contact us at 770-844-4200 for further assistance.