



SYSTIMAX 360™ iPatch® System Panel Manager Instructions

General

SYSTIMAX 360™ iPatch® Panel Manager units communicate with each other using the rack manager LAN. Modular patch cords can be used to make the panel manager LAN connections. The panel bus allows the **iPatch** Panel Manager and **iPatch** panels to communicate. The **iPatch** equipment in each equipment room communicates with system manager via the **iPatch** System Manager connected to the Ethernet network. After installing the panel manager system, see the **SYSTIMAX® iPatch® System Panel Manager User Guide**, 860561125, for operating guidelines.

In a standard configuration, the system includes **iPatch** System Manager software, one **iPatch** Panel Manager on each rack with **iPatch** panels which are connected to the rack's **iPatch** Panel Manager using the panel bus. Install one network manager module (ordered separately) on the first rack on the rack manager LAN to allow the panel manager to supervise the equipment room and communicate directly with **iPatch** System Manager.

Note: The **iPatch** Rack and Panel Managers must be running firmware version 7.2V or later. The system manager software, used to manage the system, must be version 6.6.1 or later. We recommend that you upgrade the system manager software to version 7.1 or a later version before you install the shelf.

Ordering information is listed below:

Material ID	Part No.	Description
760095562	360-iP-PANEL-MGR	SYSTIMAX 360™ iPatch® panel manager



How to Contact Us

- To find out more about **CommScope®** products, visit us on the web at <http://www.commscope.com/>
- For technical assistance:
 - Within the United States, contact your local account representative or technical support at 1-800-344-0223. Outside the United States, contact your local account representative or Authorized Business Partner.
 - Within the United States, report any missing/damaged parts or any other issues to CommScope Customer Claims at 1-866-539-2795. Outside the United States, contact your local account representative or Authorized Business Partner.

The SYSTIMAX® iPatch® System is covered by U.S. patents or their foreign equivalents: 6222908, 6234830, 6,285,293, 6,522,737, 6330307, 6350148, 6424710, and 6688910.

Tools Required

- Phillips head screwdriver #2

Specifications

Microprocessor (base): 16-bit, 16 MHz 18LF8722 processor

Microprocessor (display): 16-bit, 16 MHz 18F45J10 processor

Power Requirements: 12 VDC at 450 mA (panel manager),

Programming:

Downloadable software: From host software

Program data retention without power: Minimum 10 years

Program storage: Flash memory

Data storage: EEPROM

Connections

Panel connections per rack: Maximum 45

iPatch manager units per rack manager LAN: Maximum 99

Recommended Mounting Height: Approximately 65 inches (1.7m) above the floor, measured from the top edge of the panel manager (the 34th 1U slot up from the bottom of a rack)

Display type: LCD graphics display

Display size: 3.25 inches (8.25 cm) measured diagonally;
240 x 64 pixels

Display backlighting White LED

Operational Environment:

Temperature range: 32°F to 122°F (0°C to 50°C)

Humidity 90% noncondensing

Panel Manager Standards

The **SYSTIMAX® iPatch®** system components meet the standards listed below.

Safety

- CAN/CSA-C22.2 No 60950-1-03
- UL 60950-1
- IEC/EN 60950-1, First Edition
- AS/NZ 60950-1:2003

Emissions

- FCC Part 15, Subpart B, Sections 15.107b & 15.109b for Class A Information Technology Equipment (USA)
- EN 55022:1944 (C.I.S.P.R. 22, 1993) for Class A Information Technology Equipment (EU)

Immunity

- EN 55024:1998 Information Technology Equipment (EU)

Parts List

Verify parts against the parts list below:

Quantity	Description
1	Base unit
1	Display unit
1	Panel, 1U
1	Power supply
1	Panel bus assembly
4	Mounting screws with lock washers
1	Patch cord CPC3312-03F007, 7 foot (2.1m)
1	Cable (panel bus) jumper assembly, 16 in (40.6cm)
1	Instruction sheet

Separately Orderable Components

Material ID	Part No.	Description
760105353	360-IP-NET-MGR-MOD	SYSTIMAX 360™ iPatch® network manager module



Important Safety Cautions

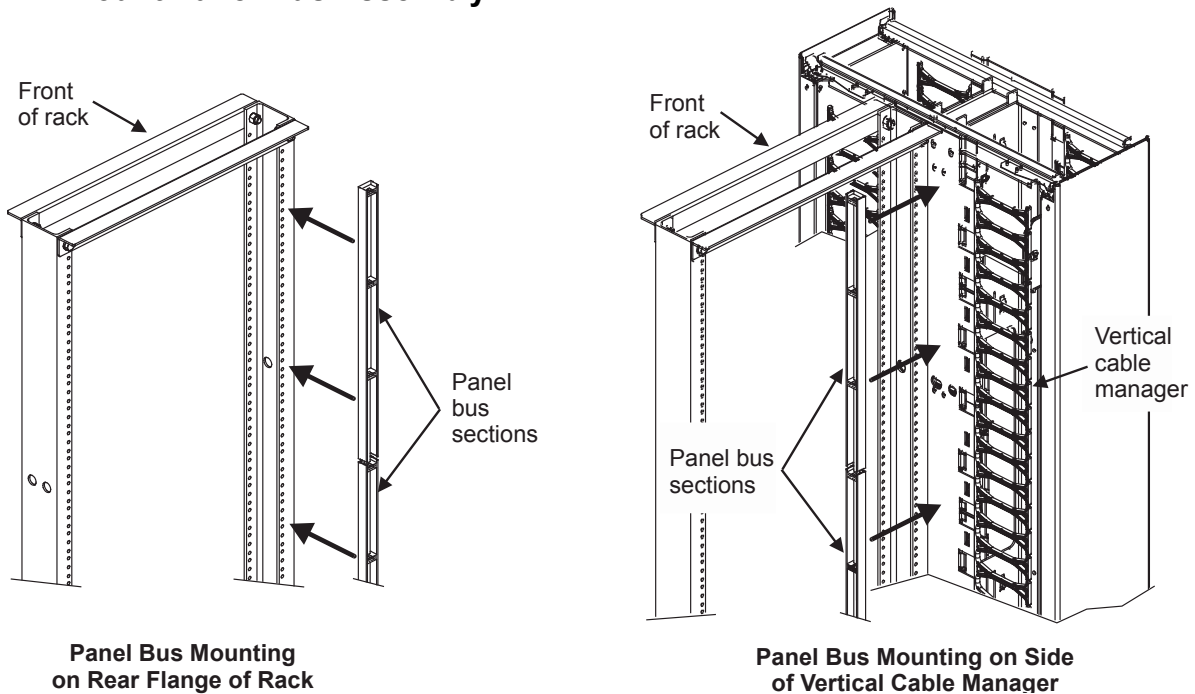
When installing, operating, or maintaining **SYSTIMAX** equipment, basic safety precautions should always be followed to reduce the risk of fire, electric shock, and injury to persons, including the following:

- This product should be operated using only the power supply provided by **CommScope** with the product. Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of the circuits might have on over current protection and supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.
- Never install this product in wet locations or during lightning storms. There is a remote risk of electric shock.
- To reduce the risk of an electrical shock, do not disassemble this product. Service should be performed by trained personnel only. Opening or removing covers and/or circuit boards may expose you to dangerous voltages or other risks. Incorrect reassembly can cause electrical shock when the unit is subsequently used.
- If this product is installed in a closed or multi-unit rack assembly, the operating ambient temperature of rack environment may be greater than room ambient temperature. Therefore, consideration should be given to installing the equipment in an environment compatible with the product's maximum ambient temperature (104°F or 50°C).

Precautions

- All wiring that connects to this equipment must meet applicable local and national building codes and network wiring standards for communication cable.
- Care should be taken not to compromise the stability of the rack by installation of this equipment.
- **SYSTIMAX 360 iPatch** shelves use infrared sensing technology and should be installed where they are not exposed to direct sunlight or other infrared sources.
- Prior to installation, clean the jumper connectors per the manufacturer's recommendations.
- Installation of the equipment in a rack should be such that the amount of airflow required for safe operation of the equipment is not compromised.

Step 1 – Mount Panel Bus Assembly



Note: It is recommended the panel bus assembly be mounted on either the outside of the rear flange on the equipment rack or, if panels/shelves will be used that may block access to it, on the side of the vertical cable manager next to the rack.

1. Check the selected installation surface to be sure it is free of protrusions, such as threaded inserts, nuts, and bolts. Ensure that it is dry and clean of dust or other contaminants that may reduce adhesion.
2. Unfold the panel bus assembly, which is shipped folded in sections, each approximately 19 inches (483mm) long.
3. Orient the panel bus assembly so the section with the connection point closest to the end is at the top of the rack.
4. One section at a time, remove the adhesive backing and press the panel bus assembly firmly against the installation surface.



Important: Limits for iPatch panel connections to panel bus

- Limit the chain of **iPatch** panels connected to each cable bus port to a maximum of five (5) panels (including controller). Start a new chain of panels with every 6th panel in the rack system.

Step 2 – Install the Network Manager Module

To use a panel manager to communicate with system manager, you must install a network manager module and connect it to the panel manager. We recommend performing this installation before mounting the panel manager on the rack. The network manager module provides the Ethernet functionality previously provided by rack manager plus.

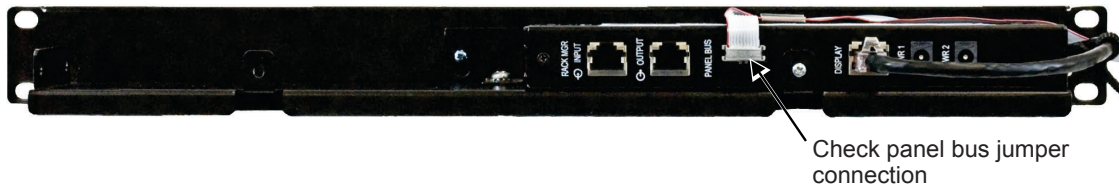
The panel manager with one network manager module must be installed on the first rack on the rack manager LAN. The network manager module is connected to the panel manager, and the panel manager is connected to the rack's panel bus.

See the **SYSTIMAX® iPatch® Network Manager Module Instructions** (860508340) for detailed instructions about installing a network manager module for the rack.

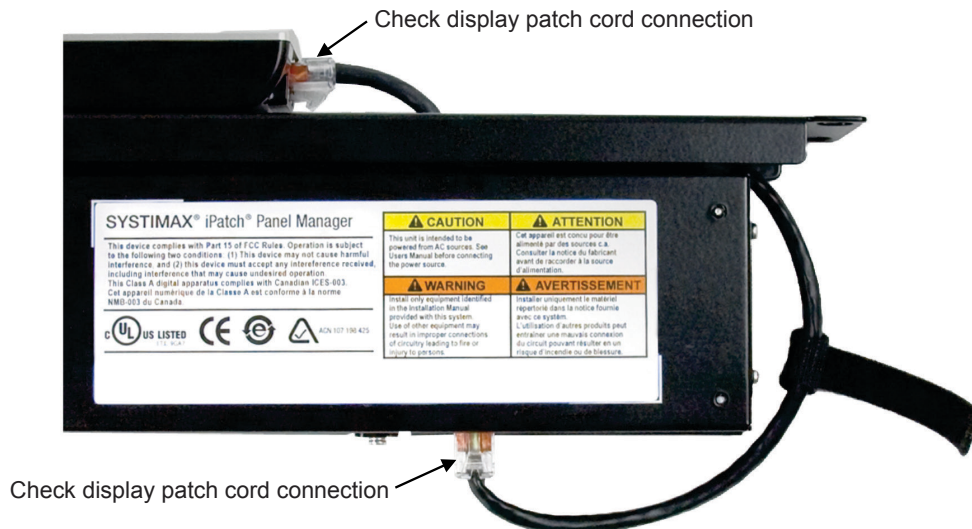
Step 3 – Mount the Panel Manager

Each rack with iPatch panels is managed by an iPatch panel manager. The iPatch panel manager and each iPatch panel must be connected to the rack's panel bus. To install the panel manager for each rack with iPatch panels, perform the steps below.

1. Make sure that the panel bus jumper is connected firmly to the PANEL BUS jack on the back of the panel manager as shown.

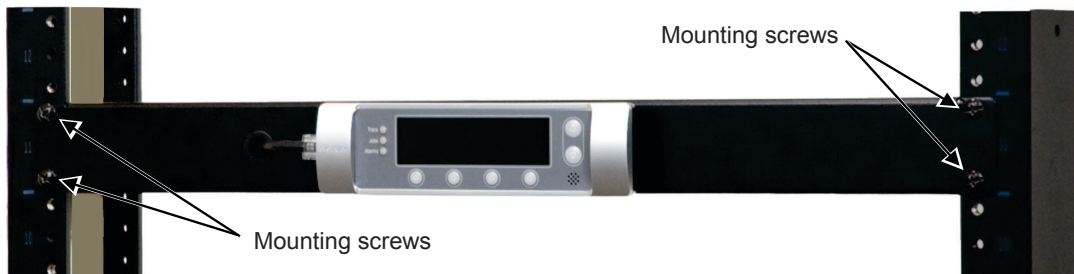


2. Make sure the display patch cord is securely connected to the back of the panel manager housing and the side of the attached display as shown.



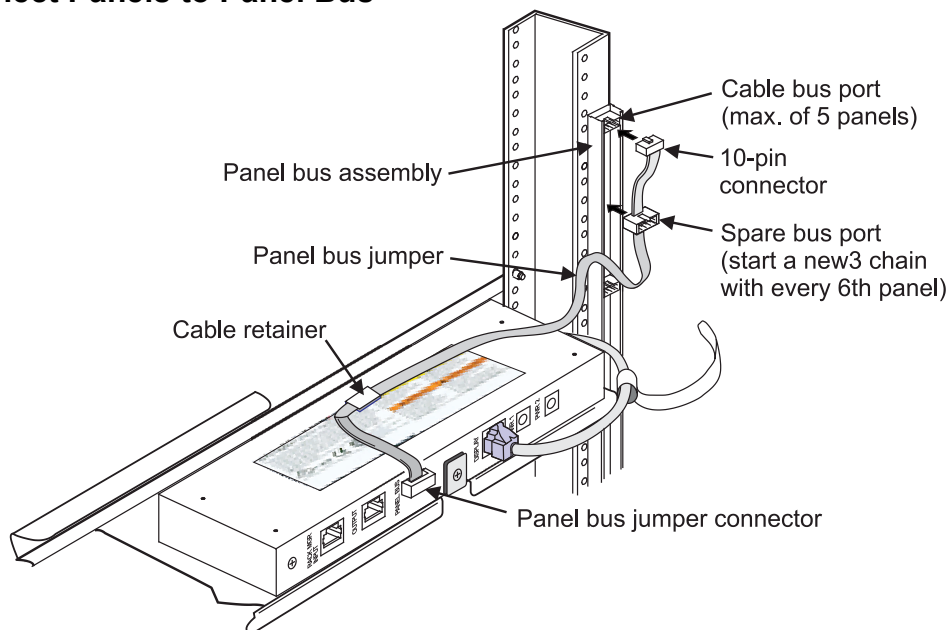
3. Using the four (4) mounting screws and four (4) star washers provided, install the panel manager on the rack. When possible, we recommend using the 34th 1U slot up from the bottom of the rack so that the top of the unit is about 65 inches (165cm) above the floor. Be careful not to pinch the panel bus jumper between the panel manager and the rack.

Important: To improve static protection, install each star washer between the rack and the panel manager. If the rack is painted, the star washers must be installed.



4. Remove the protective film from the display.

Step 4 – Connect Panels to Panel Bus



1. Unfold panel bus jumper and insert female 10-pin connector into the nearest cable bus port on panel bus assembly as shown.
2. Install spare port built into jumper cordage into panel bus frame by turning it at an angle, inserting into frame, and turning it back perpendicular to frame.
3. Position cable retainer on the panel bus jumper and remove the adhesive backing from the cable retainer. Press the cable retainer against the rack where indicated.

Note: The connector is keyed. The polarized tab on the jumper connector fits into the opening in the header connector on the panel bus.

Important: For 48-port panels, connect both panel bus jumpers.

Step 5 – Connect Each iPatch Panel Manager to the Rack Manager LAN

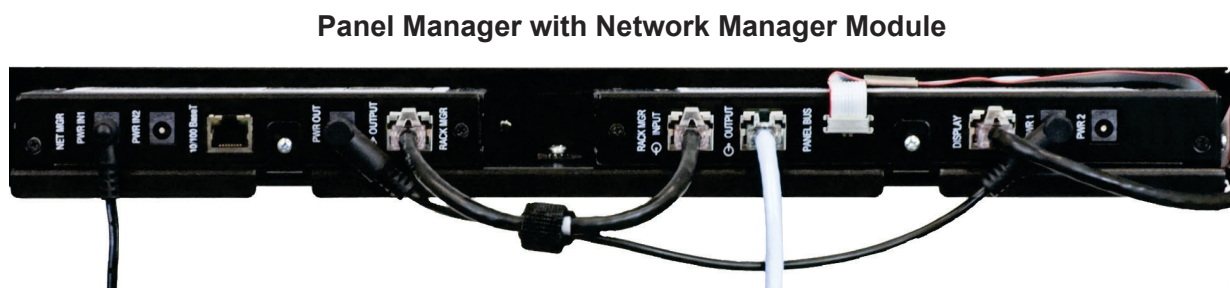
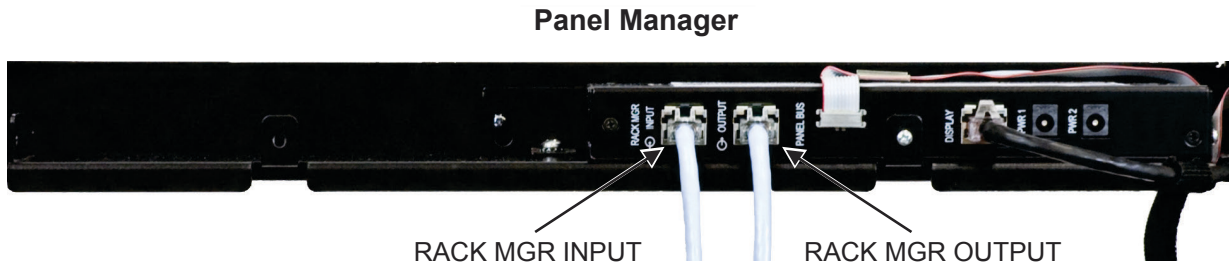
The panel manager units in an equipment room communicate with each other using the rack manager LAN. Modular patch cords can be used to make the rack manager LAN connections. A 7-foot patch cord is provided with each panel manager for this purpose. You can use a longer modular patch cord if necessary. The panel manager units are connected to each other in series using the RACK MGR INPUT and OUTPUT jacks on the back of the panel manager units.

Important: When using a panel manager with a network manager module to communicate with system manager, this panel manager must be the first unit connected to the rack manager LAN.

Note: Looking at the back of the racks, work from the right-most rack to the left-most rack when connecting the panel manager units to the rack manager LAN.

1. Connect a modular patch cord to the RACK MGR OUTPUT jack on the back of the panel manager in the first rack as shown, next page.
2. Run the patch cord to the next panel manager. Connect the patch cord to the RACK MGR INPUT jack on the back of that panel manager.
3. Connect another patch cord to the RACK MGR OUTPUT jack on the back of the second panel manager.
4. Run the patch cord to the next panel manager. Connect the patch cord to the RACK MGR INPUT jack on the back of that panel manager.

5. Repeat item 3 and item 4 until all of the **iPatch** panel manager units are connected.
Note: The first panel manager on the rack manager LAN uses only its OUTPUT jack (unless it is a panel manager with network manager module installed). The last panel manager on the LAN uses only its INPUT jack.



Connect iPatch Managers to the Rack Manager LAN

Step 6 – Install the iPatch Panels

Important: To use **iPatch** fiber shelves in an existing **iPatch** system, the **iPatch** panel manager units (and any network managers) must be running a compatible software version. To determine which software versions are compatible with your **iPatch** fiber shelves, refer to the installation instructions provided with the shelves. To obtain the latest version of software, contact your **SYSTIMAX** local account representative.

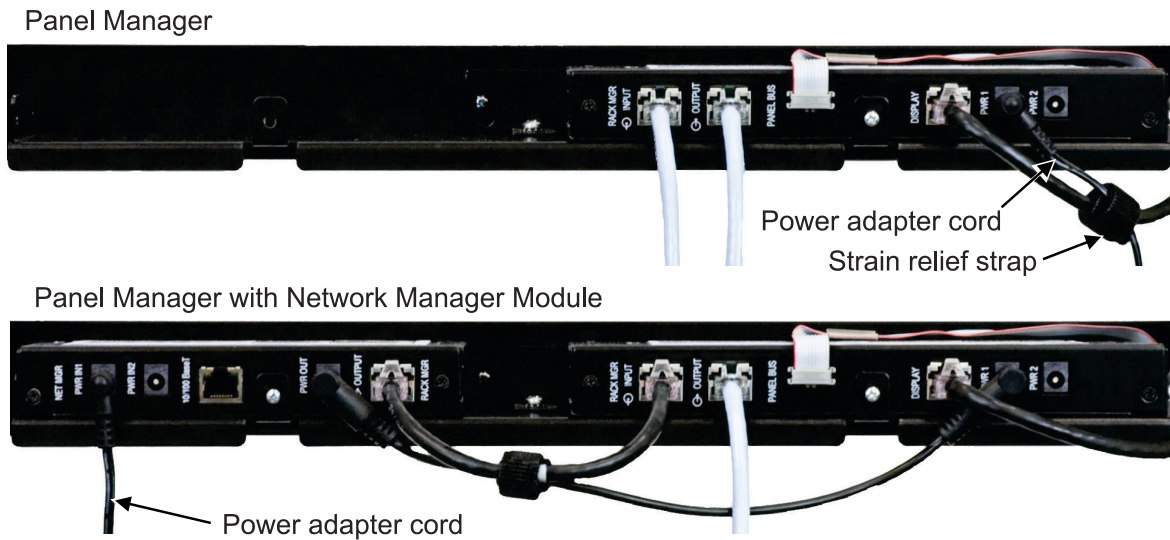
1. Install the **iPatch** panels on the rack. For instructions, see the installation instructions provided with the panel.

Important: Make sure that each **iPatch** panel is securely connected to the panel bus. The most common problems that occur with equipment installation are due to improper panel bus jumper connections at the panel or at the panel bus.

2. *For a Panel Manager*, connect the power adapter plug to the PWR1 jack on the back of the panel manager. Route the power adapter cord along the display patch cord. Use the strain relief strap to secure the power adapter cord to the display patch cord as shown on the next page.

For a Panel Manager with a Network Manager module installed, connect the power adapter plug to the PWR IN1 jack on the back of the network manager. Route the power adapter cord along the patch cord connected to the Panel Manager as shown.

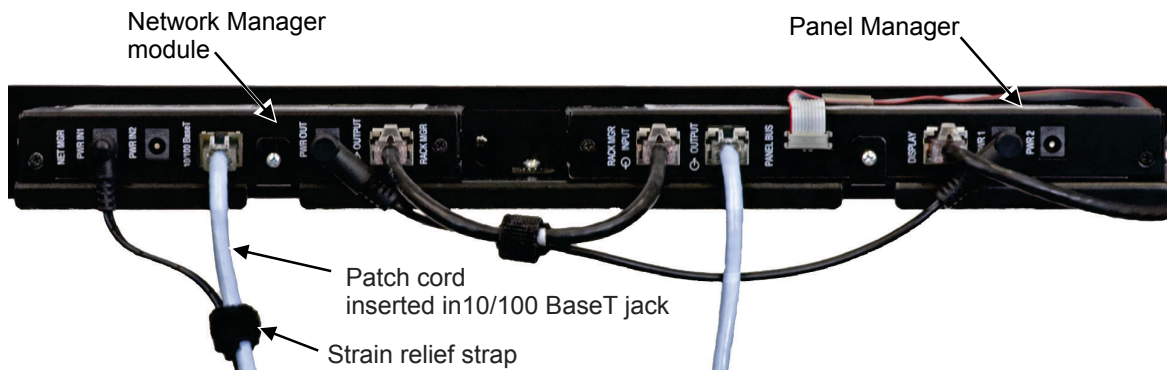
Note: Remove the strain relief strap from the panel manager display patch cord. It will be used in Step 7 to provide strain relief for the power adapter cord.



Step 7 – Connecting the Panel Manager

Perform the steps below to connect the panel manager with network manager module installed to the data network to be used for communication with system manager.

1. Connect a modular patch cord to the 10/100 BaseT jack, on the back of the network manager module.



2. Connect the other end of the patch cord to the port providing the data network service as shown.
3. Use the strain relief strap from the panel manager display patch cord to secure the power adapter cord to the patch cord inserted in the 10/100 BaseT jack as shown.
4. Refer to **SYSTIMAX® iPatch® System Panel Manager User Guide** (860561125), Section 3, for details about setting up network connections.

Step 8 – Power Up Controller

1. Please go to the **CommScope** e-Catalog to download the **SYSTIMAX® iPatch® System Panel Manager User Guide** (860561125) for operating information, including power up guidelines.
2. Power up controller and configure settings and panels following the user guide procedures.
3. Please go to the **CommScope** e-Catalog to download the **iPatch® 96F-LC Shelves and Panels Programming Instructions** (860568435) for panel ordering information.