



INSTALLATION MANUAL©

ST-POE-S16-200W 16-Port 10/100 Ethernet PoE Switch



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PACKAGE CONTENTS

This package contains:

- One ST-POE-S16-120W Power over Ethernet switch
- One AC power cord
- One mounting kit (two brackets with screws)
- Four rubber feet
- One installation manual

PRODUCT DESCRIPTION

The ST-POE-S16-200W is a 16-port 10/100Mbps Ethernet switch combined with a standard 802.3af 16-port PoE capability. The unit incorporates an external 48VDC power supply. Each of the PoE Ethernet ports can provide 15.4 watts of power as well as 10/100Mbps data transmission over as CAT 5/ 5e /6 cables.

The ST-POE-S16-200W is a Power Source Equipment (PSE) and fully compatible with Powered Devices (PD) that comply with the IEEE 802.3af PoE standard. The device enables users to attach IEEE802.3af compliant devices such as wireless Access Points (APs), VOIP phone, IP camera, printer and Network Attached Storage (NAS) directly to the unit without requiring additional power on the network. The ST-POE-S16-200W was designed with home and small business users in mind and is ideal for installations where AC power is not available or not cost-effective.

No configuration is required and installation is quick and easy. Support for Auto – MDI / MDI-X on all of the ports eliminates the need for crossover connection to another switch or HUB. Auto-Negotiation on each port senses the link speed of a network device (either 10 or 100) and intelligently adjusts for compatibility and optimal performance.

This unit is designed for indoor use only.

FCC Warning

This device has been tested and found to comply with the regulations for Class B digital equipment pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with users guide, may cause harmful interference to radio communications. Operation of this device in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his/her own expense.

UL Warning

Elevated Operating Ambient Temperature – If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than the room's ambient temperature. Therefore, consideration should be given to installing the equipment in an environment compatible with manufacturer's maximum rated ambient temperature.

Reduced Air Flow – Installation of equipment in a rack should be such that the amount of airflow required for safe operation of the equipment is not compromised.

Mechanical Loading – Rack mounting should be done to prevent any hazardous conditions associated with uneven/unbalanced loading.

SPECIFICATIONS

ST-POE-S16-200W

Specifications (Typical)

| | |
|--------------------------------------|--|
| 1. Standard | IEEE 802.3 10Base-T Ethernet IEEE 802.3u 100Base-TX Fast Ethernet IEEE 802.3x Full Duplex Flow Control IEEE 802.3af Power over Ethernet |
| 2. Protocol | CSMA/CD |
| 3. Data Transfer Rate | Ethernet: 10Mbps (half-duplex), 20Mbps (full-duplex) Fast Ethernet: 100Mbps (half-duplex), 200Mbps (full-duplex) |
| 4. Network Cables | 10BASE-T: 2-pair UTP CAT 3, 4, 5 up to 328 feet 100BASE-Tx: 2-pair UTP CAT 5, 5e up to 328 feet |
| 5. Number of Ports | 16x10/100Mbps auto-MDIX RJ-45 ports with 16 PoE enabled ports |
| 6. PoE Power on RJ-45 | Power +: ping 3 and ping 6; Power -: ping 1 and ping 2 |
| 7. AC to DC Power | Input 110V~240VAC, 50Hz ~ 60Hz. Output 48VDC @ 4.16A |
| 8. Power Consumption | 8.0 watts (max with no PD device connected) 192 watts (max with 16 PoE ports connected) |
| 9. Humidity | Relative humidity 5% - 95% |
| 10. EMI | FCC Class B, CE Mark Class B |
| 11. Safety | 110VAC to 240VAC power supply UL listed |
| 12. RAM Buffer | 64K bytes per device |
| 13. Filtering Address Table | 1K entries per device |
| 14. Packet Filtering/Forwarding Rate | 10Mbps Ethernet: 14,880/pps; 100Mbps Ethernet: 148,800/pps |
| 15. MAC Address Learning | Automatic Update |
| 16. Transmission Method | Store-and-Forward |
| 17. Dimensions | 17"W x 10.4"D x 2.6"H |
| 18. Operating Temperature | 32°F ~ 104°F |

INSTALLATION AND OPERATION

1. UNPACKING and HANDLING

Each unit is shipped assembled and factory tested.

Ensure that all accessories are removed from the container before discarding packing material

2. MECHANICAL INSPECTION

Inspect the front and rear of the equipment for shipping damage. Make sure the equipment is clean, and no connectors are broken, damaged, or loose. If equipment appears to be damaged or defective please contact your distributor or Securitytronix in the USA at 1-610-429-1511 for assistance.

3. HARDWARE CONNECTIONS

The unit should be installed within 5 feet of the AC power outlet and on a surface capable of supporting the device's 13.2 lbs weight. Objects are not to be placed on the device and there must be sufficient space and ventilation for proper heat dissipation.

Front Panel Description



Ports

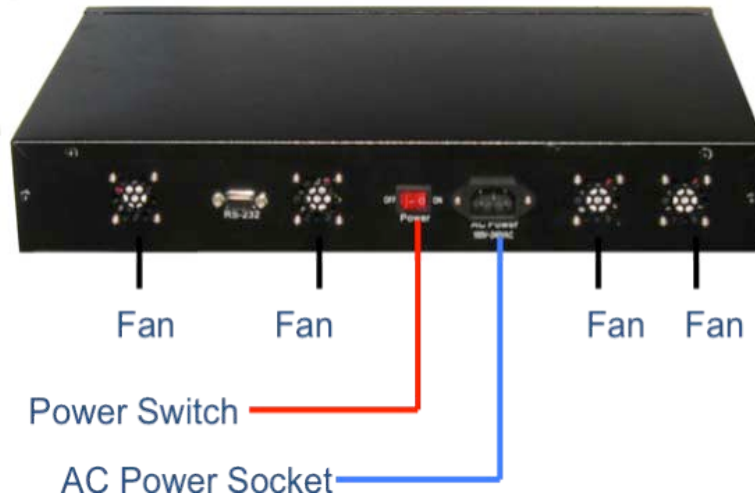
- Ports 1X through 16X – A standard 10/100Mbps Ethernet ports supporting 10Mbps Ethernet or 100Mbps Fast Ethernet. The port runs in both half and full duplex modes using two pair of CAT 5/5e cable.
- PoE Port 1X through PoE Ports 16X – These ports support 10/100Mbps Ethernet in addition to 802.3af Power Over Ethernet. All PoE ports will automatically activate when a compatible terminal is connected. The device will supply power through the Ethernet port to the connected PoE Device (PD). The unit also supports legacy devices allowing users to mix legacy and PoE compatible equipment on the same network.
- All ports are Auto-MDI. As the device can auto negotiate to MDII or MDI-X, the CAT cable can be connected regardless of whether it is a standard or crossover cable.

LED Status Indicators

The LEDs provide instant status feedback and provides assistance when troubleshooting is required.

| | |
|------------------|---|
| Power LED | LED "On": Power is on; LED "OFF": Power is off |
| LINK/ACT | LED "On": Specific port is linked and active. LED "OFF": Specific port is not connected or inactive |
| PoE LED (1 – 16) | LED "On": The PoE Power Device (PD) is connected and the port is successfully supplying power. LED "Off": No PoE Power Device (PD) connected |

Rear Panel Description

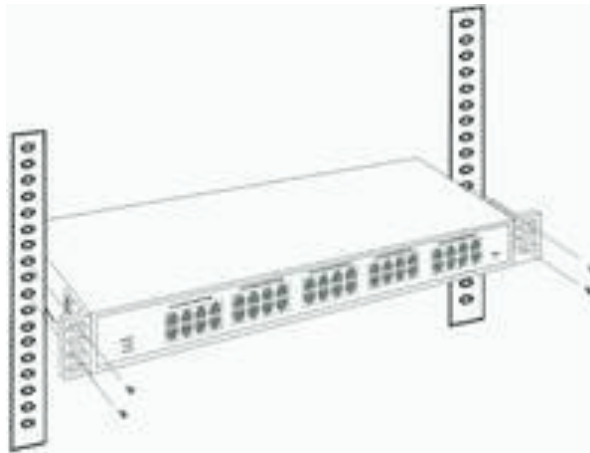


Desktop Installation

If installing the ST-POE-S16-200W on a desktop or shelf place the included rubber feet on the bottom of the unit (one per corner) to provide cushioning and reduce the possibility of scratching furniture.

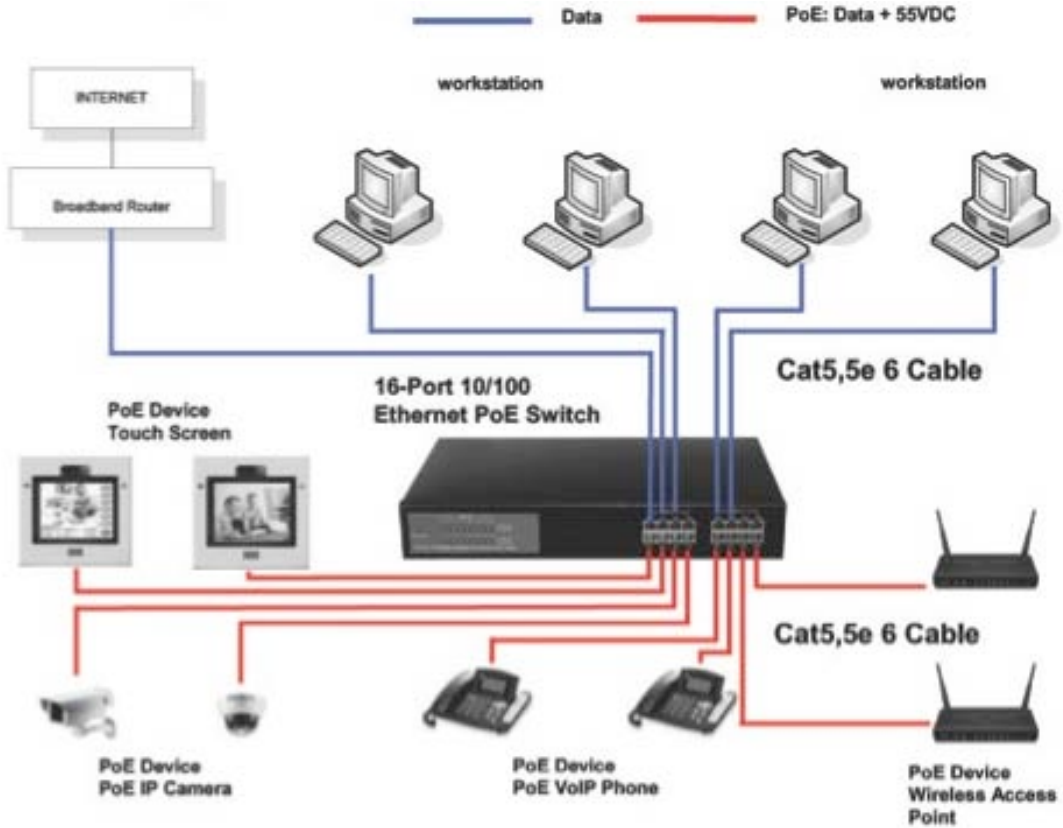
19" Rack Installation

Fasten the two included mounting brackets to the ST-POE-S16-200W using the screws provided. With the brackets attached securely, mount the unit in a standard EIA 19" rack as shown below.



Cable Connections

- Connect the AC power cord to the unit and then to an appropriately rated AC power outlet. Move the unit's power switch to the "On" position.
- As required connect a CAT5/5e or CAT 6 network cable from the network device to any of the ST-POE-S16-200W's available RJ-45 ports.



4. TROUBLESHOOTING

- a. Make sure all component and cable connections are tight and not loose.
- b. When connecting a computer to the ST-POE-S16-200W if the Link/ACT LED turns on but the 100Mbps LED remains off the computer's connection speed is 10Mbps.
- c. If unable to share files once the computer is connected to the ST-POE-S16-200W (i) check to see if the Link/ACT LED is on; (ii) measure the network cable to ensure the minimum and maximum lengths are respectively 5 feet and 328 feet; (iii) disable any software firewall program and (iv) verify that file sharing is enabled via the computer's operating system.
- d. Ensure the CAT wire connections on the switch and connected devices are using the same pins and the data wires the correct polarities.
- e. The quality of CAT cables has a major effect on the usable distance of transmission lines and the quality of the displayed signal. Therefore, the actual transmission length is subject to the quality of the CAT cables being used. Professional grade transmission lines should be used.
- f. If your device is not displaying a video signal check to be sure the transmitter and receiver each have power. Then check all wire connections for tight fit and correct polarity.
- g. If interference appears on the image check all system connections including camera, housing, monitor, DVR, etc. as well as ensuring all devices are property grounded.
- h. If the image appears twisted or wobbly make sure the wire connections on the transmitter and receiver have the same polarities. Also check the CAT cable connections to the RJ-45 connectors are in the correct order.
- i. If power is getting to the remote camera but PTZ controls are not functioning correctly (i) make sure all control cables have tight connections at the remote camera and controller and (ii) ensure the polarities for the control wires are consistent among the between the remote camera and controller connections.
- j. Further troubleshooting assistance can be found on-line at www.securitytronix.com in addition to support from Securitytronix sales engineers at 1-610-429-1511.