

## LP-SW902FGP

9 port Midspan PoE Ethernet Switch  
with 8x10/100M PoE ports plus 1x10/100/1000M  
copper port interchangeable with 1x SFP Gigabit port.



Quick Installation Guide

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### **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 user's 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.

### **CE Mark Warning:**

This is a Class B product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

### **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 room ambient. 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 air flow required for safe operation of the equipment is not compromised.
- **Mechanical Loading -** mounting of the equipment in the rack should be such that a hazardous condition is not achieved due to uneven mechanical loading.

## 1 Introduction

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The **LP-SW902FGP** 9 port Midspan PoE Ethernet Switch with 8x10/100M PoE ports plus 1x10/100/1000M copper port interchangeable with 1x SFP Gigabit port, is an unmanaged 10/100M Ethernet PoE switch designed to enhance workgroup performance while providing a high level of flexibility.

The **LP-SW902FGP** provides 8 x 10/100M ports serving also as 8 x IEEE802.3af Power over Ethernet (PoE) ports for workstation, plus 1 copper 10/100/1000M port or 1 Gigabit SFP port for workgroup and departments.

The **LP-SW902FGP** is a **Power Source Equipment (PSE)** and fully compatible with **Powered Devices (PD)** that comply with the IEEE 802.3af PoE standard and no configuration is required and its 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.

**\* Note: M=Mbps**

### **Notes:**

- 1-Year Limited Warranty for switch and 1-Year Limited Warranty for the power adaptor is our standard Limited Warranty.
- This device is designed for indoor use, do not use outdoors.
- Installation manual included.

## 2 Power Over Ethernet (PoE) (IEEE 802.3af standard)

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Power over Ethernet (PoE) integrates 48V power and data onto one single cable, eliminating the need to have AC power available at all equipment locations. Power and Data are integrated onto the same cable, supporting category 5/5e/6/6A up to 100 Meters. PoE provides power to PoE compatible devices, such as VOIP telephones, wireless LAN access points, and IP security cameras.

PoE devices are readily in the market, saving up to 50% of overall installation cost by eliminating the need to install separate local electrical wiring and power outlets to the powered devices.

## 3 Features

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- Eight (8) 10/100M Auto-negotiation Fast Ethernet RJ-45 ports with IEEE 802.3af PoE function (Ports 1-8).
- One (1) 10/100/1000M copper RJ-45 Port logically interchangeable with (1) 10/100/1000M SFP for Workgroup and Department.
- Compliant with the IEEE802.3af standard for the sum of all the PoE ports up to 112 W.
- Supports PoE IEEE 802.3af Powered Devices (PD) in the 10/100M ports.
- Each port supports auto MDI/MDIX, so there is no need to use cross-over cables.
- Full and Half duplex transfer mode for each port.
- Wire –Speed reception and transmission.
- Up to 4K Unicast address entities per device.
- Self-Learning and automatic Table Aging.
- 2.75 MB RAM packet buffer.

## 4 Applications

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The **LP-SW902FGP** enables users to attach IEEE802.3af compliant devices such as wireless Access Points (AP's), VOIP phones, IP video surveillance cameras, printers and Network Attached Storage (NAS) directly to the 9-port Ethernet PoE Switch without requiring additional power on the network.

The unit was designed with home and small business users in mind and is ideal for installations where AC power is not available or cost-effective to install.

This device is designed for indoor use. Do not use outdoors.

### **Important Note:**

The **LP-SW902FGP** has a Safety Operating Area (SOA) with a linear derate after 30°C from 112 W to 0W at 40°C. This means you can operate it at the maximum power of 112W as the sum of all the outputs from 0°C to 30°C and linearly reduce the power supplied to 0W at 40 °C to operate it safely. E.G.: if you operate it at 35°C of ambient temperature, there will be only 56W available as the sum of all the outputs.

## 5 Unpacking and Installation

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Please open the shipping cartons of the **LP-SW902FGP** and carefully unpack its contents. The cartons should include the following items:

- One (1) LP-SW902FGP Ethernet PoE Switch
- One (1) AD/DC Power Adaptor
- Four rubber feet with adhesive backing
- Two (2) Quick Installation Guides LPSW812FGP\_IG\_ENB011 in English/ LPSW902FGP\_IG\_SPB011 in Spanish.

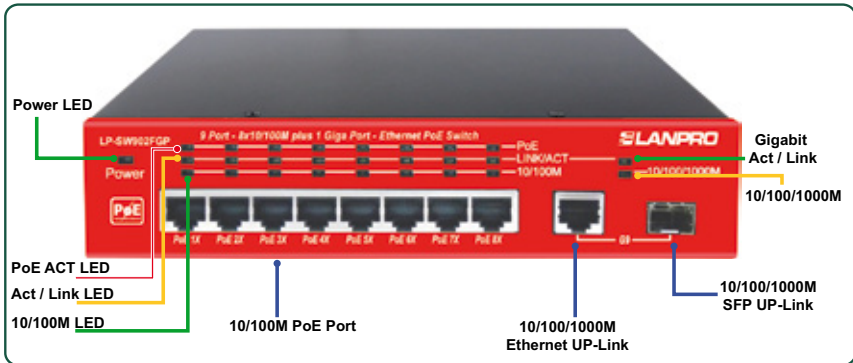
*Note: If any item is found missing or damaged, please contact your local Representative for replacement.*

## 6 System requirements

### Installation:

The installation of the LP-SW902FGP Ethernet PoE Switch requires the following steps:	
1	A computer with a 10/100BASE-T or 10/100/1000BASE-T network adapter installed.
2	The power adaptor must support at least 3.0 Kg (6.6lib) for the switch.
3	The Power adaptor should be within 1.5 (5 meter from the Switch).
4	Visually inspect the DC power cord and make sure that is fully secured to the power outlet.
5	Make sure that the proper heat dissipation from adequate ventilation around the switch.
6	Do not place heavy objects on the switch.

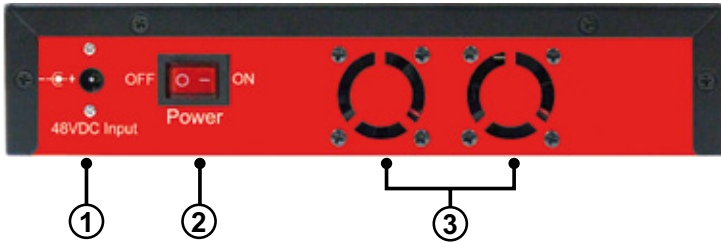
## 7 Front Panel/LED/PoE Network



LED Display	
●Light ☼: Blinking Slowly O: Inactive *: Blinking Fast	
Power LED	LED on: Power ON / LED off: Power off.
10/100M (1-8)	● : Link for 100Mbps, ☼ : Link for 10Mbps.
LINK/ACT (1-8)	● : Link in full duplex mode and no activity *: Activity ongoing ☼ : Link in half duplex mode and no activity O : Link down.
10/100/1000M (9)	● : Link for 1000Mbps, ☼ : Link for 100Mbps, O: Link for 10Mbps
Gigabit Act / Link	● : Link in full duplex mode and no activity *: Activity ongoing ☼ : Link in half duplex mode and no activity O : Link down
PoE (1 to 8)	LED on: The PoE power device (PD) is connected and the port is supplying power successfully.
	LED off: no PoE power device (PD) connected
Interface Port	
Port 1-8 PoE	10/100MBASE-T Ethernet PoE Port 1 – Port 8. 8P8C RJ-45.
Port 9 (RJ-45 or SFP)	10/100/1000MBASE-T Data Up-Link 8P8C RJ-45.
	10/100/1000MBASE-T Data Up-Link SFP.



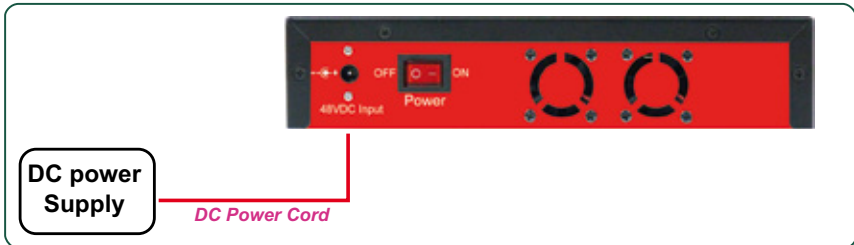
## 8 Rear Panel



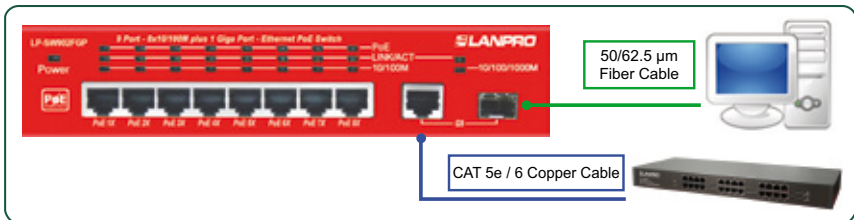
1	DC Power Input jack: DC Input 48VDC 2.5A 5.5mm/2.5mm
2	Power Switch
3	Fan Window

## 9 Hardware Installation

**A: Power:** Connect the AC Power Cord to the 9-Port 10/100M Ethernet PoE switchS-af/at/AT and then to a power outlet.

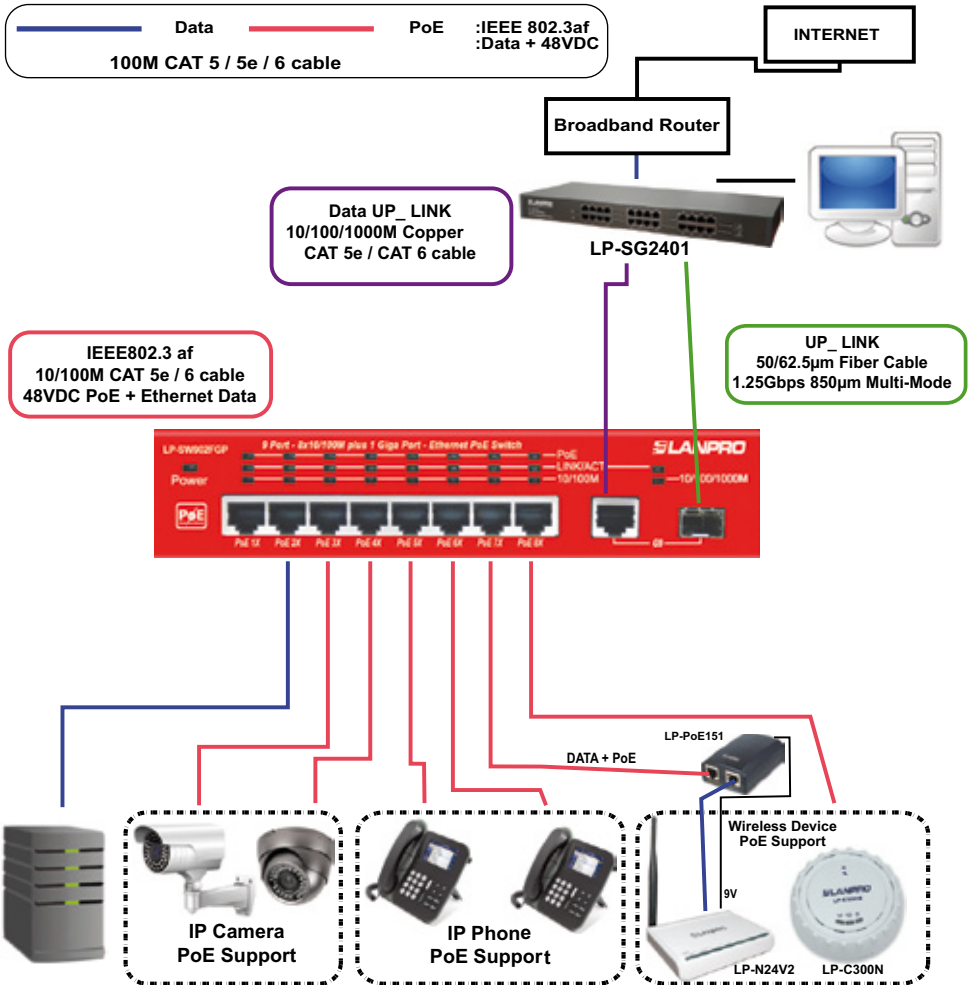


**B: Up-Link:** Connect a CAT 5, 5e, 6 RJ-45 network cable or 50/62.5µm Fiber cable from the Computer or Router to an Up-Link port on the 9-Port 10/100/1000M Ethernet PoE switch.



## 10 Connecting Ethernet Cables and Fiber Cable

### PoE Ethernet Network Diagram





Laboratory testing setup view

## 11 Technical Specifications

<b>LP-SW812FGP</b>	9 port Midspan PoE Ethernet Switich with 8x10/100M PoE ports plus 1x10/100/1000M copper port interchangeable with 1x SFP Gigabit port.
Standards	IEEE 802.3 10BASE-T Ethernet IEEE 802.3u 100BASE-TX Fast Ethernet IEEE 802.3ab 1000BASE-T Gigabit Ethernet (Twisted –Pair Copper) IEEE 802.3x Full Duplex Flow control IEEE 802.3af 15.4W Power over Ethernet
Protocol	CSMA/CD
Data Transfer Rate	Ethernet 10M (half Duplex), 20 Mbps (full Duplex)
	Fast Ethernet: 100M (Half Duplex), 200M (Full Duplex)
	Gigabit Ethernet: 200M (Full Duplex)
Network Cables	10BASE-T: 2 pair UTP CAT 3, 4, 5 up to 100 meters
	100BASE-T: 2 pair UTP CAT 5, 5e up to 100 meters
	1000BASE-T: 4 pair UTP CAT 5e, 6, 6A up to 100meters
	9/125 μm Single-Mode or 50/125 μm, 62.5/125μm Multi-Mode duplex fiber Cable (LC connector)
Number of Ports	8 x 10/100M auto- MDIX RJ-45 ports with 8 PoE Enabled Ports.
PoE Power on RJ-45 ports	Power +: pines 3&4, -: pines 1&2
AC to DC Power Supply	Input: 110VAC-240VAC, 50Hz-60Hz. Output: 48VDC/2.5A
Power Consumption	8 Watt max. (No PoE PD's connected)
Total PoE ports power sum	112 Watt max.
PoE Power limit per port	15.4W max.

Temperature	Operation	0°C to 40°C
	Storage	-10°C to 70°C
Relative Humidity	5% to 95% without condensation	
Dimensions (mm)	210x170x45	
EMI	FCC Class B, CE Mark Class B	
Safety	100VAC to 240VAC Power Supply UL Listed	
RAM Buffer	2.75MB per device	
Filtering Address Table	4K entries per device	
Packet Filtering Forwarding Rate	10M Ethernet: 14,880pps 100M Ethernet: 148,880pps 1000M Ethernet: 1,488,000pps	
MAC address learning	Automatic Update	
Transmission Method	Store-and-forward	
LED Indicators:	Per Port: 10/100/1000M, Link / ACT, PoE Act / Status. Per Unit: Power	
Installation manual	Included	
Warranty	1 Year	

## 12 Troubleshooting

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<b>12.1</b>	<b>After connecting the Switch to a power outlet, the LEDs do not turn on.</b>
*	Check the connection of the power cord to the 9-Port 10/100M Ethernet PoE switchS and the power outlet.
*	Check that the power outlet is receiving power.

<b>12.2</b>	<b>When I connect a computer to the Switch's port, the Link/ACT LED turns on, but the 100M LED remains off.</b>
*	When the 100M LED is off, the computer's connection speed is 10M.

<b>12.3</b>	<b>After I connect my PCs to the Switch, I am unable to share files.</b>
*	Check the LEDs on the Switch. Make sure the Link/ACT LED is on.
*	Check the network cable. The minimum length of the cable is 1.5 meters and the maximum length of the cable is 100 meters.
*	Disable any software firewall program.
*	Verify that you have file sharing enabled. Please contact your Operating System support for more information.

<b>12.4</b>	<b>After I connect my PCs to the Switch, I can only get onto the Internet from one computer.</b>
*	The Switch was not designed to share Internet between multiple computers. You need to get an Internet router.

<b>12.5</b>	<b>Where is the uplink port located on the Switch?</b>
*	Since all the ports on the Switch are Auto-MDIX, any of the ports can be used as an uplink port.

### 13 How to Order

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#### **LP-SW902FGP**

9 port Midspan PoE Ethernet Switch with 8x10/100M PoE ports plus 1x10/100/1000M copper port interchangeable with 1x SFP Gigabit port.

*LanPro is continuously improving its products and reserves the right to change specifications and availability without prior notice.*

Panel Frontal



Panel Posterior



Designed and Manufactured under LanPro™ standards and specifications.  
LanPro™ is a member of One Network Alliance Group of Companies.  
LanPro™ products are made in one of the following countries: USA,  
China, Taiwan, Thailand and Korea. The exact country of origin is unknown.  
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