cablematic

User's Manual

16/24-Port 10/100Mbps Fast Ethernet Switch

FNSW-1601/FNSW-2401

1. Package Contents

Thank you for purchasing PLANET 16-/24-Port 10/100BASE-TX Unmanaged Fast Ethernet Switch, FNSW-1601/FNSW-2401. **"Fast Ethernet Switch"** mentioned in this User's Manual refers to the FNSW-1601/FNSW-2401.

Open the box of the Fast Ethernet Switch and carefully unpack it. The box should contain the following items:

Fast Ethernet Switch x 1	User's Manual x 1
	
Power Cord x 1	Accessories x 1
	

If any of these are missing or damaged, please contact your dealer immediately; if possible, retain the carton including the original packing material, and use them again to repack the product in case there is a need to return it to us for repair.

2. Product Features

Physical Port

- 16/24 10/100BASE-TX Fast Ethernet ports
- Supports auto MDI/MDI-X function

Layer 2 Features

- Complies with IEEE 802.3, 10BASE-T, IEEE 802.3u 100BASE-TX Ethernet standards
- Features Store-and-Forward mode with wire-speed filtering and forwarding rates
- Integrated address look-up engine, supporting 8K absolute MAC addresses
- Power saving ability for Green networking
- IEEE 802.1Q VLAN packet transparency support
- IEEE 802.3x flow control for full duplex operation and back pressure for half duplex operation
- Hardware-based 10/100BASE-TX, half/full duplex, flow control and auto-negotiation
- Automatic address learning and address aging
- Supports CSMA/CD protocol

Hardware Features

- 100~240V AC, 0.2A, 50~60Hz universal power input
- DIP switch for standard/flow control off/VLAN/Extend mode selection
- FCC, CE class A compliant

3. Product Specifications

Product	FNSW-1601	FNSW-2401
Hardware Specifications		
Hardware Version	V9	V11
10/100BASE-TX MDI/ MDIX Ports	16	24
Throughput (packet per second)	2.38Mpps	3.57Mpps
Switch Fabric	3.2Gbps	4.8Gbps
Weight	1.3kg	1.4kg
Power Consumption/ Dissipation	2.5 watts/ 8.5BTU	3.5 watts/ 11.9BTU
Power Requirements	100~240V AC, 0.2A, 50-60Hz	
Dimensions (W x D x H)	440 x 140 x 44mm, 1U height	
Switch Processing Scheme	Store-and-Forward	
Address Table	8K entries	
Maximum Packet Size	1522bytes	
Flow Control	Back pressure for half duplex, IEEE 802.3x Pause Frame for full duplex	

DIP Switch	Standard/flow control off/VLAN/ Extend mode selection
Temperature	Operating: 0~50 degrees C Storage: -10~70 degrees C
Humidity	Operating: 5% to 95% (non-condensing) Storage: 5% to 95% (non-condensing)
Standards Conformance	
Regulatory Compliance	FCC Part 15 Class A, CE
Standards Compliance	IEEE 802.3 (Ethernet) IEEE 802.3u (Fast Ethernet) IEEE 802.3x (Full-Duplex Flow Control) IEEE 802.3az Energy Efficient Ethernet (EEE)

4. Switch Front Panel

Figures **1** & **2** show the front panels of the FNSW-1601 and FNSW-2401.

Figure 1: FNSW-1601 Front Panel

Figure 2: FNSW-2401 Front Panel

LED Indicators

FNSW-1601/FNSW-2401

System

LED	Color	Function
PWR	Green	Lights: to indicate that the Switch has power.

Per 10/100BASE-TX Port

LED	Color	Function
10/100 LNK/ACT	Green	Lights: to indicate the link through that port is established successfully at 10/100Mbps. Blinks: to indicate that the Switch is actively sending or receiving data over that port.

DIP Switch

The front panel of Fast Ethernet Switch provides one DIP switch for **"Standard"**, **"Flow Control Off"**, **"VLAN"** and **"Extend"** mode selections. The detailed descriptions are shown in the following table.

DIP Switch Mode	Function
Standard (default)	This mode makes the **Fast Ethernet Switch** operate as a general switch and all ports operate at 10/100Mbps auto-negotiation.
Flow Control Off	This mode **disables the Fast Ethernet Switch flow control function**.

DIP Switch Mode	Function	
VLAN	This mode makes the FNSW-1601 operate as a **VLAN isolation** switch and 1. Port 1 to port 14 will isolate respectively. 2. Port 1 to port 14 can only communicate with port 15 and port 16 (uplink port).	This mode makes the FNSW-2401 operate as a **VLAN isolation** switch and 1. Port 1 to port 22 will isolate respectively. 2. Port 1 to port 22 can only communicate with port 23 and port 24 (uplink port).
Extend	This mode makes the FNSW-1601 operate as a distance extension switch and port 1 to port 8 can only transmit distance of 200m at speed of 10Mbps.	This mode makes the FNSW-2401 operate as a distance extension switch and port 1 to port 8 can only transmit distance of 200m at speed of 10Mbps.

Change the DIP switch setting and the Fast Ethernet switch will reset automatically to take effect.

5. Switch Rear Panel

Figure **3** shows the rear panel of the FNSW-1601/FNSW-2401.

Figure 3: FNSW-1601/FNSW-2401 Rear Panel

Power Note

1. The device is a power-required device, meaning it will not work till it is powered. If your network should be active all the time, please consider using UPS (Uninterrupted Power Supply) for your device. It will prevent you from network data loss or network downtime.
2. In some areas, installing a surge suppression device may also help to protect your Fast Ethernet Switch from being damaged by unregulated surge or current to the Switch.

6. Installing the Switch

This part describes how to install your Fast Ethernet Switch and make connections to it. Please follow the procedure below:

This Fast Ethernet Switch does not need software configuration.

Desktop Installation

To install the Fast Ethernet Switch on the desktop, simply follow these steps:

Step 1: Attach the rubber feet to the recessed areas on the bottom of the Fast Ethernet Switch.

Step 2: Place the Fast Ethernet Switch on the desktop near an AC power source.

Step 3: Keep enough ventilation space between the Fast Ethernet Switch and the surrounding objects.

When choosing a location, please keep in mind the environmental restrictions discussed in Section 3 under Product Specifications.

Step 4: Connect your Fast Ethernet Switch to network devices.

A. Connect one end of a standard network cable to the 10/100 RJ45 ports on the front of the Fast Ethernet Switch.

B. Connect the other end of the cable to the network devices such as printer servers, workstations or routers, etc.

Step 5: Supply power to the Fast Ethernet Switch.

A. Connect one end of the power cable to the Fast Ethernet Switch.

B. Connect the power plug of the power cable to a standard wall outlet.

When the Fast Ethernet Switch receives power, the Power LED should remain solid Green.

Rack Mounting

To install the Fast Ethernet Switch in a 19-inch standard rack, follow the instructions described below:

Step 1: Place your Fast Ethernet Switch on a hard flat surface, with the front panel positioned towards your front side.

Step 2: Attach a rack-mount bracket to each side of the Switch with supplied screws attached to the package. Figure **4** shows how to attach brackets to one side of the Fast Ethernet Switch.

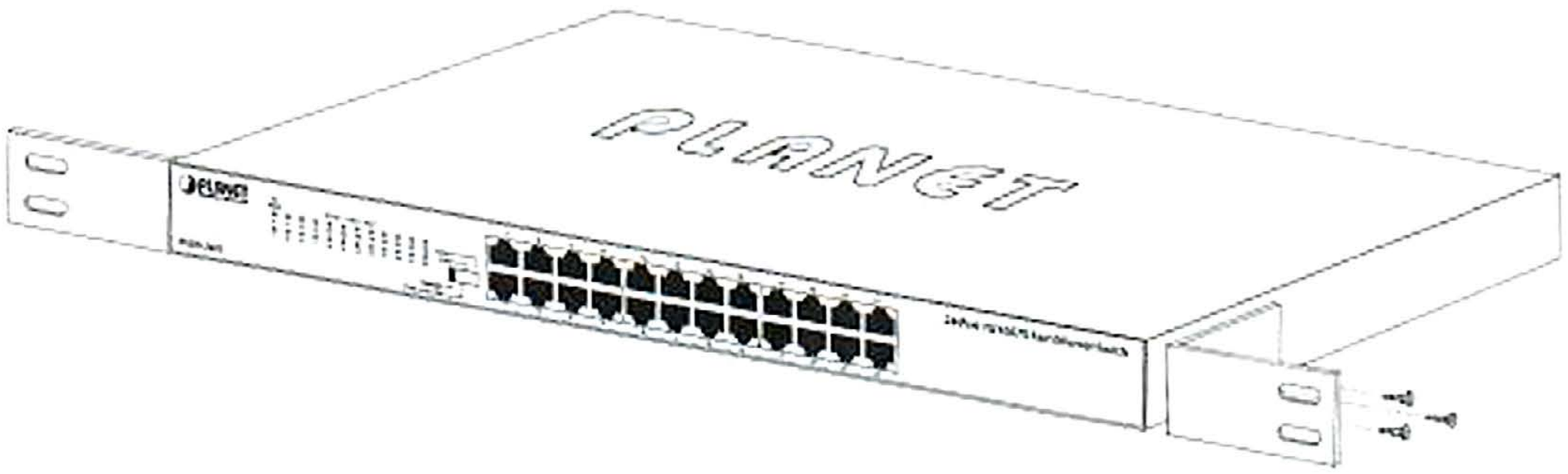

Figure 4: Attaching the brackets to the Fast Ethernet Switch

Caution

You must use the screws supplied with the mounting brackets. Damage caused to the parts by using incorrect screws would invalidate your warranty.

Step 3: Secure the brackets tightly.

Step 4: Follow the same steps to attach the second bracket to the opposite side.

Step 5: After the brackets are attached to the Fast Ethernet Switch, use suitable screws to securely attach the brackets to the rack, as shown in Figure **5**.

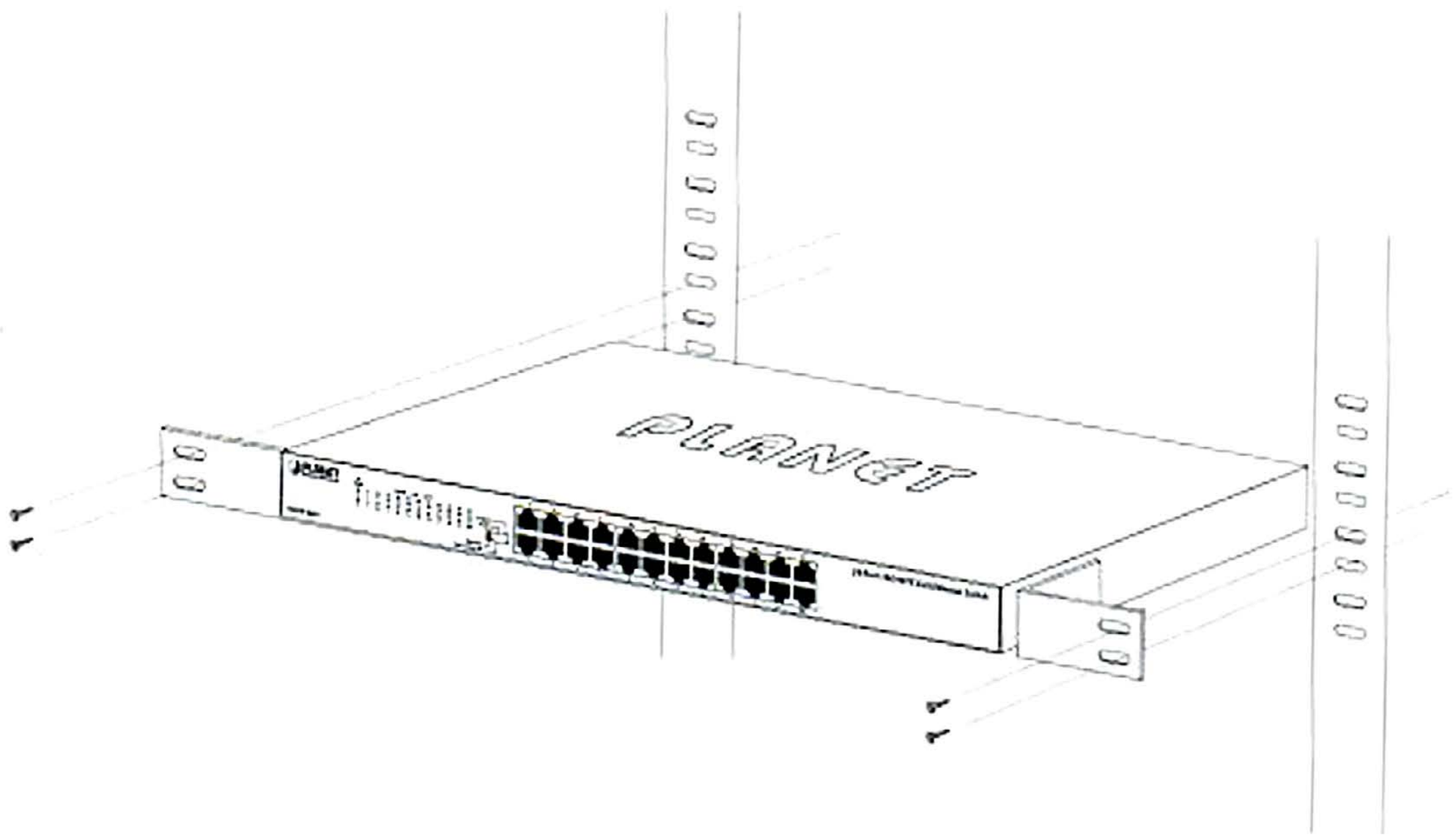

Figure 5: Mounting the Fast Ethernet Switch in a Rack

Step 6: Proceed with Steps 4 and 5 of **Desktop Installation** to connect the network cabling and supply power to your Fast Ethernet Switch.

7. Customer Support

Thank you for purchasing PLANET products. You can browse our online FAQ resource on PLANET Web site first to check if it could solve your issue. If you need more support information, please contact PLANET switch support team.

PLANET online FAQs:
http://www.planet.com.tw/en/support/faq

Switch support team mail address:
support@planet.com.tw