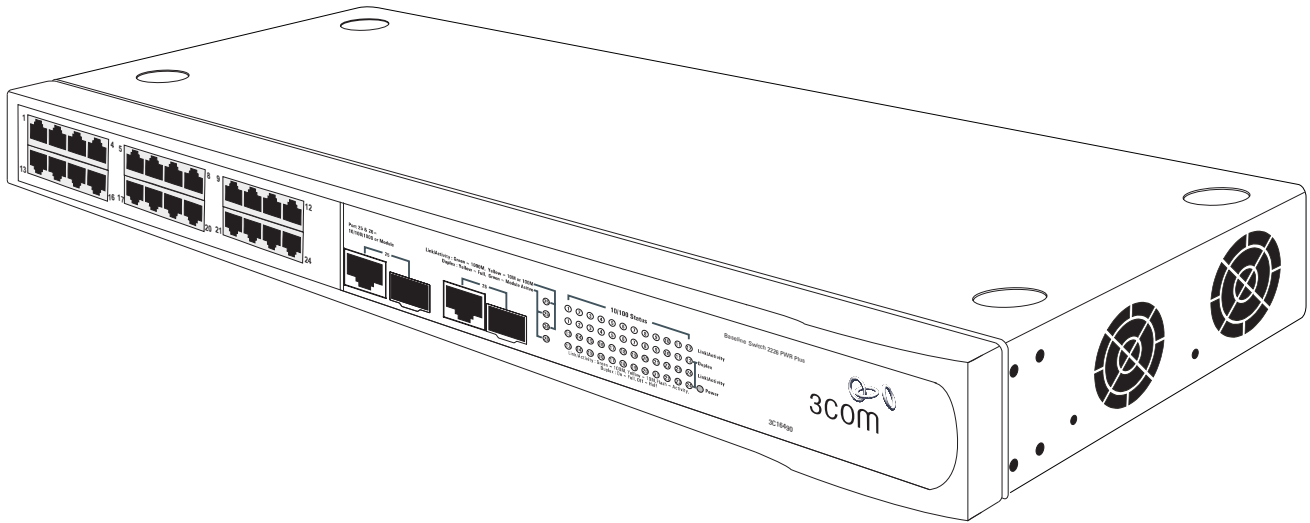


3Com® Baseline Switch 2226-PWR Plus (3C16490) Quick Start Guide

DUA1649-0AAA01



INTRODUCTION

The 3Com® Baseline Switch 2226-PWR Plus is a versatile, easy-to-use 10/100 layer 2 switch with full Power over Ethernet (PoE) capabilities. It is ideal for small-to-medium businesses that want to:

- Simplify convergence of data, voice, and wireless networks today, using existing wiring infrastructure.
- Prepare their networks for future expansion from existing wired LAN to wireless and Voice over IP (VoIP).

The Switch can be used as any other 10/100 L2 switch. But unlike other switches, its PoE support on all ports enables it to supply power to IP phones and access points and, at the same time, connect them to other wired network devices. This PoE capability removes the need for additional power supplies for your IP phones and access points.

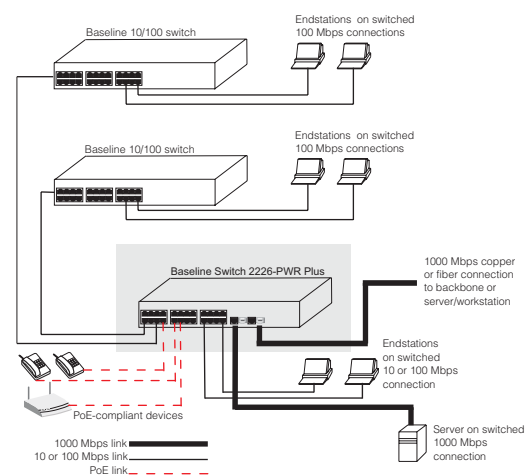
The Switch has 24 shielded RJ-45, 10/100 Mbps auto-negotiating ports and two 10/100/1000BASE-T ports. These ports operate in conjunction with two Small Form Factor Pluggable (SFP) transceiver slots on the front panel for easy, flexible connection to fiber-based Gigabit media. All 10/100 Mbps ports are PoE-ready and IEEE 802.3af compliant. Each port is capable of providing up to 15.4 watts.

The 10/100 Mbps ports can automatically determine the speed and duplex mode of the connected equipment and provide a suitable switched connection. The 1000BASE-T ports also support automatic 10/100/1000 Mbps speed detection. The 10/100 Mbps connections on these 1000BASE-T ports operate in half-duplex or full-duplex mode, while the 1000 Mbps connections operate in

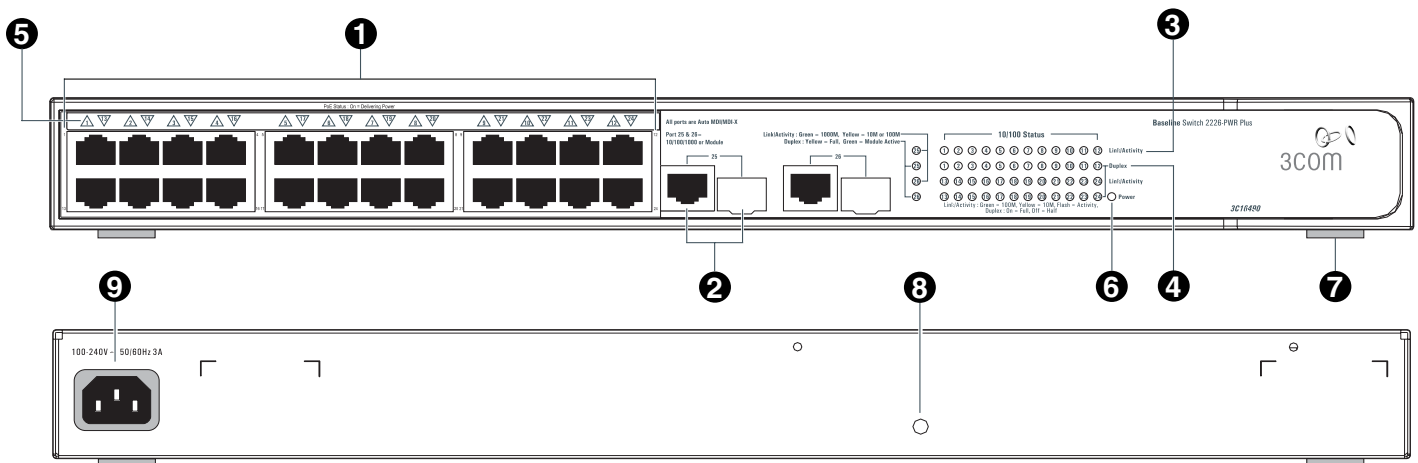
full-duplex mode. The two SFP ports support fiber Gigabit Ethernet shortwave (SX) and longwave (LX) SFP transceivers in any combination. This offers you the flexibility of using SFP transceivers to provide connectivity between the Switch and a 1000 Mbps core network. When an SFP port is in operation, the corresponding 10/100/1000BASE-T port is disabled.

The Switch is suitable for office use where it can be free-standing or rack-mounted (in a wiring closet or equipment room).

Figure 1 Connecting Devices to the Switch



PHYSICAL FEATURES



The numbers in this diagram refer to numbered sections in the text.

Front Panel

1 24 RJ-45 10/100 Ports

WARNING: These are shielded RJ-45 data sockets. They cannot be used as standard traditional telephone sockets, or to connect the unit to a traditional PBX or public telephone network. Only RJ-45 data connectors, network telephony systems, or network telephones should be connected to these sockets. Either shielded or unshielded data cables with shielded or unshielded jacks can be connected to these data sockets.

AVERTISSEMENT: Ceux-ci sont protégés par des prises de données. Ils ne peuvent pas être utilisés comme prises de téléphone conventionnelles standard, ni pour la connection de l'unité à un réseau téléphonique central privé ou public. Raccorder seulement connecteurs de données RJ-45, systèmes de réseaux de téléphonie ou téléphones de réseaux à ces prises. Il est possible de raccorder des câbles protégés ou non protégés avec des jacks protégés ou non protégés à ces prises de données.

WARNHINWEIS: Diese Ports sind geschützte Datensteckdosen. Sie dürfen weder wie normale traditionelle Telefonsteckdosen noch für die Verbindung der Einheit mit einem traditionellem privatem oder öffentlichem Telefonnetzwerk gebraucht werden. Nur RJ-45-Datenanschlüsse, Telefonnetzsysteme or Netztelefone an diese Steckdosen anschließen. Entweder geschützte oder ungeschützte Buchsen dürfen an diese Datensteckdosen angeschlossen werden.

The Switch has 24 10/100 Mbps auto-negotiating ports. Each port supports automatic MDI/MDI-X detection and can be connected to either a 10BASE-T or a 100BASE-TX device.

Ports 1 to 24 are auto-negotiating; their speed and duplex mode (half-duplex or full-duplex) are automatically determined by the capabilities of the connected device.

You can also use ports 1 to 24 to deliver Power over Ethernet. The Switch can automatically detect PoE devices connected to these ports, and, if sufficient power is available (see the *Power Management* Section), supply power to these devices. To see if power is being supplied to the connected device, check the

relevant PoE LED. For PoE troubleshooting, refer to "Troubleshooting" on page 7.

2 10/100/1000BASE-T/SFP Ports

Ports 25 and 26 are combination Gigabit RJ-45 ports with shared SFP (Small Form Factor Pluggable) transceiver slots. If an SFP transceiver (purchased separately) is installed in a slot and is active, the associated RJ-45 port is disabled.

The 1000BASE-T RJ-45 ports support automatic MDI/MDI-X operation, so you can use either straight-through or crossover cables for all network connections to workstations or servers, or to other switches or hubs.

Ports 25 and 26 are not configured to provide Power over Ethernet.

The two SFP ports support fiber Gigabit Ethernet shortwave (SX) and longwave (LX) SFP transceivers in any combination. This offers you the flexibility of using SFP transceivers to provide connectivity between the Switch and remote 1000 Mbps workgroups or to create a high capacity aggregated link backbone connection.

i SFP ports are numbered 25-26 on the Switch. When an SFP port is active, it has priority over the 10/100/1000 port of the same number. The corresponding 10/100/1000 port is disabled when an SFP port is active.

Traffic Prioritization

Support for NBX phone system

The Switch can recognize when an NBX phone is connected to any of the ports 1 to 24. The Switch will automatically detect the NBX phone when the phone starts up, and will ensure that traffic to and from the phone is given the highest priority.

i To ensure that the NBX phone is recognized by the Switch during its initialization, do not connect any data source through the phone until the phone has finished its startup sequence. Once the phone is available for use, any data source (for example, a computer) can then be connected to the phone's pass-through port. This only applies if you use a single wall jack for your network connection and use the pass-through LAN port on the NBX phone.

The Switch also offers priority queuing. It examines each packet that it receives to determine if it is priority-encoded. If a packet is

priority-encoded, the Switch reads the priority level and determines whether the packet should be directed through the normal or high priority channel. This feature is useful, for example, during periods of excessive network load, when one type of traffic may require priority over another. The Switch is configured to comply with 802.1p, VLAN tagged frames.

Traffic prioritization ensures that high priority data is forwarded through the Switch without being delayed by lower priority data. It differentiates traffic into classes and prioritizes those classes automatically.

Traffic prioritization uses multiple traffic queues that are present in the hardware of the Switch to ensure that high priority traffic is forwarded on a different queue from lower priority traffic, and is given preference over that traffic. This ensures that time-sensitive traffic gets the highest level of service. The 802.1D standard specifies eight distinct levels of priority (0 to 7), each of which relates to a particular type of traffic. The priority levels and their traffic types are shown in the following table.

Priority Level	Traffic Type
0	Best Effort
1	Background
2	Standard (spare)
3	Excellent Effort (business critical)
4	Controlled Load (streaming multimedia)
5	Video (interactive media), less than 100 milliseconds latency and jitter
6	Voice (interactive voice), less than 10 milliseconds latency and jitter
7	Network Control Reserved traffic



The traffic prioritization feature supported by the Switch is compatible with the relevant sections of the IEEE 802.1D standard (incorporating IEEE 802.1p).



CAUTION: The Switch supports full-duplex auto-negotiation. If the connected device does not support auto-negotiation, the Switch will operate in half-duplex mode (even if the device is operating in full-duplex mode). In such a configuration, you may notice some degradation of network performance (see "Troubleshooting" on page 6).

3Com recommends that you use devices that are capable of auto-negotiation (and that you ensure that auto-negotiation is enabled, if it is a configurable option).

3 Link/Activity Status LEDs

The first (top) and third row of LEDs, which are colored yellow or green, show the link, activity, and speed status of the related ports.

10BASE-T/100BASE-TX Ports

Status	Meaning
On	The link has been established.
Flashing	Packets are being received or transmitted on the port.
Off	If the link has not been established, either nothing is connected to the port, or there is a problem: <ul style="list-style-type: none"> Verify that the attached device is powered on. Verify that the cable is the correct type and is not faulty. If these checks do not identify the cause of the problem, it may be that the unit or the device connected to the port is faulty. Contact your supplier for assistance.
Green	The link is operating at 100 Mbps.

Yellow	The link is operating at 10 Mbps.
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10BASE-T/100BASE-TX/1000BASE-T Ports

Status	Meaning
Green	The link is operating at 1000 Mbps.
Yellow	The link is operating at 10 or 100 Mbps.
Flashing	Packets are being received or transmitted on the port.
Off	The link has not been established. Either no cable or fiber is connected to the port or the connection has a problem. Do the following: <ul style="list-style-type: none"> Verify that the attached device is powered on. Verify that the cable or fiber is the correct type and is not faulty. For fiber connections, ensure that the receive (RX) and transmit (TX) cable connectors are not swapped. If these checks do not identify the cause of the problem, it may be that the unit or the device connected to the port is faulty. Contact your supplier for assistance.

4 Duplex Status LEDs

The second and fourth (bottom) row of Status LEDs, which are colored yellow (for duplex) or green (for module active), show the duplex status of the related ports.

10BASE-T/100BASE-TX/1000BASE-T Ports

Status	Meaning
Yellow	The port is operating in full-duplex mode.
Off	The port is operating in half-duplex mode.



1000BASE-T only operates in full-duplex mode. 10BASE-T/100BASE-TX can be in half-duplex or full-duplex mode.

Module Active LEDs

Status	Meaning
Green	Fiber SFP transceiver is inserted in the slot.
Off	No fiber SFP transceiver in the slot.

5 PoE Status LEDs

These LEDs show whether individual ports are providing power to the connected PoE devices.

Status	Meaning
Green	Power is being delivered.
Off	No power is being delivered.

6 Power LED

The Power LED shows the power status of the Switch:

Status	Meaning
Green	The unit is powered on and ready for use.
Off	The unit is not receiving power. <ul style="list-style-type: none"> Verify that the power cord is connected correctly. If the unit still does not operate, contact your supplier.

7 Self-Adhesive Pads

The unit is supplied with four self-adhesive rubber pads.



If you intend to rack-mount the unit, you do not need to apply the pads.

If the unit is to be part of a free-standing stack, apply the pads to each marked corner area on the underside of the unit. Place the unit on top of the lower unit, ensuring that the pads locate with the recesses of the lower unit.

Rear Panel

8 Recovery Button

This button has no function on this Switch.

POWER MANAGEMENT

This section outlines the use of Power over Ethernet (802.3af), explains its benefits, and gives examples of how you can use it on your network.

What is Power over Ethernet?

A Power over Ethernet switch such as the Switch 2226-PWR Plus can supply power to compliant devices over a Category 5 or better Ethernet cable. The same cable connects the device to the network.

Power over Ethernet is a self-configuring protocol. When you plug a PoE-compliant device into one of the ports on the Switch, the Switch will supply the power required by the device, providing that the total power budget for the Switch would not be exceeded by doing so.

Benefits of PoE

A PoE switch combines the functionality of a standard Ethernet switch with a single power supply that can provide power to multiple devices. Using a PoE switch helps reduce cabling on the network.

A PoE-compliant device that has its power supplied over its Ethernet cable no longer requires a separate power supply. If, for example, the Switch is used to connect the 3Com 11 Mbps Wireless LAN Access Point 8500 to the network, then only a network cable is required to provide both power and network connectivity. Since the Access Point is frequently wall-mounted, this can significantly reduce its installation costs.

Planning Power Budgets

The Switch 2226-PWR Plus can supply a maximum of 15.4 watts to any of its 24 10/100 ports, provided that the total power delivered does not exceed 180 watts.

When you plan your network, you need to calculate the maximum power that you will need to make sure the Switch is not expected to supply more than its maximum capacity.

To calculate the power budget for the Switch, add together the power requirements of the devices that will be connected at any one time. The power requirements of the PoE-compliant devices can be found in the documentation supplied with the device.

If the maximum power for the Switch is exceeded, the Switch follows the following rule:

- Any device connected to a lower port number will take priority over a device connected to a higher port number.

UPGRADING

This Switch has been designed to be upgradeable to a smart managed switch when the software is available. When the software is released on the 3Com Web site (www.3com.com), you can download it and upgrade the Switch.

9 Power Supply

The Baseline Switch 2226-PWR Plus automatically adjusts to the supply voltage. Use only the power cord that is supplied with the unit.



If the Switch needs to remove power from a device, it will remove power from the highest numbered port.



When the Switch is power-cycled, it will supply power to the ports starting with the lowest numbered port first.

Implementing a Power Plan

If the total power required by PoE-compliant devices is less than the Switch's power budget, then you can guarantee power to every port.

If the power required by PoE-compliant devices is more than the Switch's power budget, then you will not be able to guarantee power to all devices. If this is the case, you may choose to:

- Add additional PoE switches – This will enable you to guarantee power to every port on the Switch that powers a PoE-compliant device. The remaining ports can be used to supply networking to those devices that are powered by other means.
- Prioritize PoE-compliant devices – Since the Switch supplies power to the lowest numbered port first, you should connect PoE-compliant devices based on their order of importance, the most important device being connected to the lowest numbered port. By monitoring power consumption and checking if any devices have been refused power, you can decide whether you need additional PoE switches.

Monitoring the PoE LEDs

The Switch's PoE LEDs show Power over Ethernet information. When the PoE LED is green, it means that port is supplying power to the PoE-compliant device on that port and there are no PoE-related problems.

If a PoE-compliant device is plugged into a port but the PoE Status LED remains off, this means:

- Either there is insufficient power available to provide power to this device, or
- There is a problem with either the device or the cable. Refer to the "Troubleshooting" section of this guide.

PoE Devices

The Switch is designed to operate with both IEEE 802.3af compliant and pre-standard devices.

To upgrade the device on the software, follow the instructions provided with the software.

INSTALLATION RECOMMENDATIONS

Checking the Package Contents

The Baseline Switch 2226-PWR Plus package includes the following items:

- One Baseline Switch 2226-PWR Plus unit
- One power cord
- Four standard height, self-adhesive rubber pads
- One mounting kit
- One CD-ROM, which contains this *Quick Start Guide*, the 3Com Discovery application, and 3CServer (3Com TFTP server application)
- One warranty flyer

If any of the above items are damaged or missing, please contact your network supplier immediately.

Positioning the Switch

When deciding where to position the Switch, ensure that:

- It is accessible and cables can be connected easily.
- Cabling is away from sources of electrical noise. These include lift shafts, microwave ovens, and air conditioning units. Electromagnetic fields can interfere with the signals on copper cabling and introduce errors, and, consequently, slow down your network.
- Water or moisture cannot enter the case of the unit.
- Air flow around the unit and through the vents on the side of the case is not restricted. 3Com recommends that you provide a minimum of 25 mm (1 in.) clearance.
- The air is as free of dust as possible.
- Temperature operating limits are not likely to be exceeded. 3Com recommends that you install the Switch in a clean, air conditioned environment.



When installing network equipment, it is always good practice to wear an antistatic wrist strap that is connected to a ground point. If one is not available, try to keep in contact with a grounded rack and avoid touching the unit's ports and connectors. Static discharge can cause reliability problems in your equipment.

Rack-Mounting or Free-Standing

The unit can be mounted in a 19-inch equipment rack using the Mounting Kit (refer to *Mounting Kit Instructions*), or it can be free-standing. Do not place objects on top of the unit or stack.



CAUTION: *If you are installing the Switch in a free-standing stack with Baseline or SuperStack 3 units of different sizes, install the smaller units above the larger ones. Do not have a free-standing stack of more than six units.*

Power Supply

Power problems can cause serious failures and downtime on your network. Ensure that the power input to your system is clean and free from sags and surges to avoid unforeseen network outages. 3Com recommends that you install power conditioning, especially in areas prone to blackouts, power dips, and electrical storms.

The unit is intended to be grounded. Ensure it is connected to earth ground during normal use. Installing proper grounding helps to avoid damage from lightning and power surges.

Powering On

To power on the Switch:

- 1 Check the network connections and cables.
- 2 Connect the power supply cable to the appropriate power socket on the rear panel of the unit; refer to *"9 Power Supply"* on page 4.
- 3 Connect the plug to the power supply outlet socket, and then switch on the power supply at the socket.

When the switch is powered on, the Power LED should be on. If it is not, refer to *"6 Power LED"* on page 3.

Spot Checks

At frequent intervals, you should visually check the Switch. Regular spot checks can give you an early warning of a potential failure; any problems can then be attended to when there will be least effect on users. Check the following:

Cabling	Verify that all external cabling connections are secure and that no cables are pulled taut.
Cooling fan	Where possible, verify that the cooling fan is operating by listening to the unit. The fan is fitted on right side panel (when viewed from the front) of the unit.

If you experience any problems operating the Switch, refer to *"Troubleshooting"* on page 7.

Connecting to a Network Device

To connect a device to the Switch, use Category 5 unshielded or shielded (screened) 100 ohm TP cable (or Category 3 cable for a 10 Mbps connection). The maximum length of cable for each connection is 100 m (328 ft). Connect one end of the cable to an RJ-45 port on the Switch and the other end to the appropriate RJ-45 port on the connecting device.

3Com recommends the use of Category 5e cables for 1000BASE-T operation.

SFP Operation

The following sections describe how to insert an SFP transceiver into an SFP slot.



SFP transceivers are hot-insertable and hot-swappable. You can remove them from and insert them into any SFP port without having to power off the Switch.

Approved SFP Transceivers

The following list of approved SFP transceivers is correct at the time of publication:

- 3CSFP91 SFP (SX)
- 3CSFP92 SFP (LX)


To access the latest list of approved SFP transceivers for the Switch on the 3Com Web site, enter this URL into your Internet browser:


<http://www.3com.com>

Inserting an SFP Transceiver

To be recognized as valid, the SFP transceiver must have the following characteristics:


- 1000BASE-SX or 1000BASE-LX media type:
 - 1000BASE-SX SFP transceiver – Use this transceiver to connect the Switch directly to a multimode fiber-optic cable.
 - 1000BASE-LX SFP transceiver – Use this transceiver to connect the Switch directly to a single-mode fiber-optic cable or to a multimode fiber using a conditioned launch cable.

 If the SFP transceiver is faulty, it will not operate within the Switch. See “Troubleshooting” on page 6.

 Use of non-3Com SFPs is not recommended. If the SFP transceiver is invalid, it will not be recognized by the Switch.

Use the following sequence of steps to activate the SFP ports:

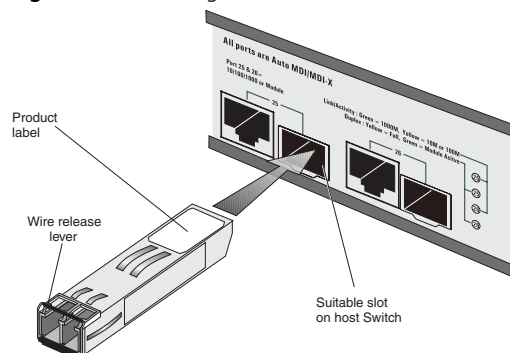
- 1 Hold the transceiver so that the fiber connector is toward you and the product label is visible, as shown in Figure 2. Ensure the wire release lever is closed (in the upright position).
- 2 Gently slide the transceiver into the SFP slot until it snaps into place.

 **CAUTION:** SFP transceivers are keyed and can be properly inserted only one way. If the transceiver does not snap in when you insert it, remove it, turn it over, and then reinsert it.

- 3 Remove the plastic protective cover if fitted.

- 4 Connect the fiber cable.
- 5 Attach a male duplex LC connector on the network cable into the duplex LC connector on the transceiver. The transceiver connects to the network using a duplex LC connector.
- 6 Connect the other end of the cable to a device fitted with an appropriate Gigabit Ethernet connection.
- 7 Check the Module Active LEDs on the front panel of the Switch to ensure that it is operating correctly.

Figure 2 Activating an SFP Port



Removing an SFP Transceiver

To remove the transceiver (it is not necessary to power off your Switch):

- 1 Disconnect the cable from the transceiver.
- 2 Move the wire release lever downwards until it is pointing toward you.
- 3 Pull the wire release lever toward you to release the catch mechanism; the transceiver will then easily slide out.


MOUNTING KIT INSTRUCTIONS

Introduction

The Switch is supplied with two mounting brackets and four screws. These are used for rack-mounting the unit. When mounting the unit, you should take note of the guidelines given in “Positioning the Switch”.

Rack-Mounting the Unit

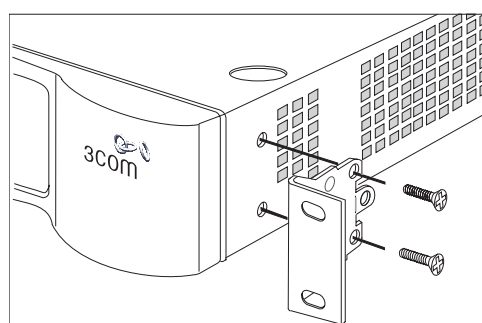
The Switch is 1U (1.75 in.) high and will fit in a standard 19-inch rack.

 **CAUTION:** Disconnect all cables from the unit before continuing. Remove the self-adhesive pads from the underside of unit, if already fitted.

- 1 Place the unit the right way up on a hard, flat surface with the front facing towards you.
- 2 Locate a mounting bracket over the mounting holes on one side of the unit.

- 3 Insert the two screws supplied in the mounting kit and fully tighten with a suitable screwdriver.
- 4 Repeat the two previous steps for the other side of the unit.
- 5 Insert the unit into the 19-inch rack and secure with suitable screws (not provided).
- 6 Reconnect all cables.

Figure 3 Inserting the Screws



TROUBLESHOOTING

Refer to the information about LEDs given earlier in this guide to see if the problem can be identified and rectified. Here are some common problems that can occur.

A link is already connected, but the Link/Activity Status LED for the port is off

There is a problem with this connection. Verify that:

- The connected device is powered on and operating correctly.

- The cable is connected at both ends.
- The cable is not damaged.
- If the connection is to a workstation, that the workstation's network interface card is installed and configured correctly.
- The correct category of cable is being used for the required link speed. Category 3 cables can be used for 10BASE-T operation only. Category 5 cables are required for

100BASE-TX or 1000BASE-T. 3Com recommends using 2Category 5e cables for 1000BASE-T operation.

An SFP transceiver is connected, but the Module Active LED for the port is off

Verify that:

- The fiber cable is in good condition.
- The SFP transceiver is correctly inserted.
- A 3Com SFP transceiver is being used. Refer to "Approved SFP Transceivers" on page 5 for details.
- The equipment at the other end is installed and correctly configured.

A PoE-compliant device is plugged in, but the corresponding PoE LED is off

If a PoE device is not supplied power after you have connected it to the Switch, verify that:

- The power budget for the Switch (180 watts) has not been exceeded.
- The cable used to connect the device is in good condition and is a Category 5 (or higher grade) cable.
- The device is PoE-compliant and is configured to receive Power over Ethernet. See the documentation supplied with the PoE-compliant device.
- The device is connected to one of the ports numbered 1 to 24.

The Link/Activity LED is on, but the network performance of the Switch is poor

The Switch supports full-duplex auto-negotiation. If the connected device does not support auto-negotiation, ensure that

it is configured for half-duplex operation only. If the connected device has auto-negotiation disabled or overridden, and is configured as full-duplex, the Switch will configure the link as half-duplex. This will cause a mismatch that will reduce network performance when the same link is used for transmitting and receiving data simultaneously.

Ensure that the connected device has either:

- Auto-negotiation enabled, or
- Its ports configured for half-duplex operation

Use the Duplex Status LEDs on the Switch to monitor the configuration of the link.

All ports appear to show continual activity

There may be broadcast storms on the network. Remove port connections one at a time, waiting a few seconds between each port. If the LEDs go off after removing a port connection, the device that was connected to that port is introducing an excessive amount of broadcast frames to the network (some pieces of network equipment operate by sending out broadcast frames regularly). Refer to the documentation that accompanies the device for information on disabling the broadcast operation.

If the problem persists

If the problem persists and the unit still does not operate correctly, get help from your 3Com network supplier by contacting them and providing the following information:

- Product number and serial number (printed on a label supplied with the unit)
- A brief description of the problem

SAFETY INFORMATION

Please read the following safety information carefully before installing the Baseline Switch 2226-PWR Plus.



WARNING: Installation and removal of the unit must be carried out by qualified personnel only.

- If installing the Switch unit in a stack with other units, the Baseline Switch 2226-PWR Plus unit must be installed below the narrower units and above the deeper units.
- The unit must be connected to an earthed (grounded) outlet to comply with international safety standards.
- Do not connect the unit to an A.C. outlet (power supply) without an earth (ground) connection.
- The appliance coupler (the connector to the unit and not the wall plug) must have a configuration for mating with an EN60320/IEC320 appliance inlet.
- The socket outlet must be near to the unit and easily accessible. You can only remove power from the unit by disconnecting the power cord from the outlet.
- This unit operates under SELV (Safety Extra Low Voltage) conditions according to IEC 60950. The conditions are only maintained if the equipment to which it is connected also operates under SELV conditions.

France and Peru only

This unit cannot be powered from IT[†] supplies. If your supplies are of IT type, this unit must be powered by 230 V (2P+T) via an isolation transformer ratio 1:1, with the secondary connection point labeled Neutral, connected directly to earth (ground).

[†] Impédance à la terre

Power Cord Set

This must be approved for the country where it will be used.

- | | |
|-------------------|---|
| U.S.A. and Canada | <ul style="list-style-type: none">■ The cord set must be UL-approved and CSA certified.■ The minimum specifications for the flexible cord are:
No. 18 AWG
Type SV or SJ
3-conductor■ The cord set must have a rated current capacity of at least 10 A.■ The attachment plug must be an earth-grounding type with a NEMA 5-15P (15 A, 125 V) or NEMA 6-15P (15 A, 250 V) configuration. |
| Denmark | <ul style="list-style-type: none">■ The supply plug must comply with Section 107-2-D1, Standard DK2-1a or DK2-5a. |
| Switzerland | <ul style="list-style-type: none">■ The supply plug must comply with SEV/A5E 1011. |
| UK | <ul style="list-style-type: none">■ The supply plug must comply with BS1363 (3-pin 13-amp) and be fitted with a 5 A fuse which complies with BS1362.■ The mains cord must be <HAR> or <BASEC> marked and be of type HO3VVF3GO.75 (minimum). |
| Europe | <ul style="list-style-type: none">■ The supply plug must comply with CEE7/7 ("SCHUKO")■ The mains cord must be <HAR> or <BASEC> marked and be of type HO3VVF3GO.75 (minimum). |



WARNING: Fiber Optic ports - Optical Safety



Never look at the transmit laser while it is powered on. Never look directly at the fiber ports and fiber cable ends when they are powered on.



WARNING: Use of controls or adjustments of performance or procedures other than those specified herein may result in hazardous laser emissions.

L'INFORMATION DE SÉCURITÉ IMPORTANTE

Veuillez lire à fond l'information de la sécurité suivante avant d'installer le Baseline Switch 2226-PWR Plus.



AVERTISSEMENT: L'installation et la dépose de ce groupe doivent être confiés à un personnel qualifié.

- Si vous entassez l'unité Switch avec les unités SuperStack 3 Hub, l'unité Baseline Switch 2226-PWR Plus doit être installée en dessous des unités Hub plus étroites.
- Ne branchez pas votre appareil sur une prise secteur (alimentation électrique) lorsqu'il n'y a pas de connexion de mise à la terre (mise à la masse).
- Vous devez raccorder ce groupe à une sortie mise à la terre (mise à la masse) afin de respecter les normes internationales de sécurité.
- Le coupleur d'appareil (le connecteur du groupe et non pas la prise murale) doit respecter une configuration qui permet un branchement sur une entrée d'appareil EN60320/IEC 320.
- La prise secteur doit se trouver à proximité de l'appareil et son accès doit être facile. Vous ne pouvez mettre l'appareil hors circuit qu'en débranchant son cordon électrique au niveau de cette prise.
- L'appareil fonctionne à une tension extrêmement basse de sécurité qui est conforme à la norme IEC60950. Ces conditions ne sont maintenues que si l'équipement auquel il est raccordé fonctionne dans les mêmes conditions.

France et Pérou uniquement:

Ce groupe ne peut pas être alimenté par un dispositif à impédance à la terre. Si vos alimentations sont du type impédance à la terre, ce groupe doit être alimenté par une tension de 230 V (2 P+T) par le biais d'un transformateur d'isolement à rapport 1:1, avec un point secondaire de connexion portant l'appellation Neutre et avec raccordement direct à la terre (masse).

Cordon électrique

Il doit être agréé dans le pays d'utilisation.

- | | |
|-----------------------|---|
| Etats-Unis et Canada: | <ul style="list-style-type: none"> ■ Le cordon doit avoir reçu l'homologation des UL et un certificat de la CSA. ■ Le cordon souple doit respecter, à titre minimum, les spécifications suivantes:
calibre 18 AWG
type SV ou SJ
à 3 conducteurs ■ Le cordon doit être en mesure d'acheminer un courant nominal d'au moins 10 A. ■ La prise femelle de branchement doit être du type à mise à la terre (mise à la masse) et respecter la configuration NEMA 5-15P (15 A, 125 V) ou NEMA 6-15P (15 A, 250 V). |
| Danemark: | <ul style="list-style-type: none"> ■ La prise mâle d'alimentation doit respecter la section 107-2 D1 de la norme DK2 1a ou DK2 5a. |
| Suisse: | <ul style="list-style-type: none"> ■ La prise mâle d'alimentation doit respecter la norme SEV/ASE 1011. |
| Europe | <ul style="list-style-type: none"> ■ La prise secteur doit être conforme aux normes CEE 7/7 ("SCHUKO") ■ LE cordon secteur doit porter la mention <HAR> ou <BASEC> et doit être de type HO3VVF3GO.75 (minimum). |



AVERTISSEMENT: Ports pour fibres optiques – sécurité sur le plan optique



Ne regardez jamais le laser tant qu'il est sous tension. Ne regardez jamais directement le port à fibres optiques et les embouts de câbles à fibres optiques tant qu'ils sont sous tension.



AVERTISSEMENT: L'utilisation de contrôles, de réglages de performances ou de procédures autres que ceux qui sont spécifiés au sein du présent document risquent d'entraîner l'exposition à des rayonnements laser dangereux.

WICHTIGE SICHERHEITSINFORMATIONEN

Bitte unbedingt vor dem Einbauen des Baseline Switch 2226 PWR Plus die folgenden Sicherheitsanweisungen durchlesen.



WARNUNG: Die Installation und der Ausbau des Geräts darf nur durch Fachpersonal erfolgen.

- Wenn der Baseline Switch 2226 PWR Plus mit anderen 3Com Hubs oder Switche gestapelt werden soll, müssen grössere Geräte unter den schmalen Hubs eingebaut werden.
- Das Gerät sollte nicht an eine ungeerdete Wechselstromsteckdose angeschlossen werden.
- Das Gerät muß an eine geerdete Steckdose angeschlossen werden, welche die internationalen Sicherheitsnormen erfüllt.
- Der Gerätestecker (der Anschluß an das Gerät, nicht der Wandsteckdosenstecker) muß einen gemäß EN 60320/IEC 320 konfigurierten Geräteeingang haben. Die Netzsteckdose muß in der Nähe des Geräts und leicht zugänglich sein. Die Stromversorgung des Geräts kann nur durch Herausziehen des GeräteNetzkabels aus der Netzsteckdose unterbrochen werden.
- Der Betrieb dieses Geräts erfolgt unter den SELV-Bedingungen (Sicherheitskleinstspannung) gemäß IEC 60950. Diese Bedingungen sind nur gegeben, wenn auch die an das Gerät angeschlossenen Geräte unter SELV-Bedingungen betrieben werden.

Stromkabel. Dies muss von dem Land, in dem es benutzt wird geprüft werden:

- | | |
|---------|---|
| Schweiz | <ul style="list-style-type: none"> ■ Dieser Stromstecker muß die SEV/ASE 1011 Bestimmungen einhalten. |
| Europe | <ul style="list-style-type: none"> ■ Das Netzkabel muß vom Typ HO3VVF3GO.75 (Mindestanforderung) sein und die Aufschrift <HAR> oder <BASEC> tragen. ■ Der Netzstecker muß die Norm CEE 7/7 erfüllen ("SCHUKO"). |



WARNUNG: Die Installation und der Ausbau des Geräts darf nur durch Fachpersonal erfolgen.



Niemals ein Übertragungslaser betrachten, während dieses eingeschaltet ist. Niemals direkt auf die Faseranschlüsse und auf die Faserkabelenden schauen, während diese eingeschaltet sind.



WARNUNG: Die Verwendung von Steuerelementen oder die Anpassung von Leistungen und Verfahren in anderer als der hierin genannten Weise kann zu gefährlichen Laseremissionen führen.

TECHNICAL INFORMATION

Related Standards

The Baseline Switch 2226-PWR Plus has been designed to the following standards:

Functional	ISO 8802-3, IEEE 802.3 (Ethernet), IEEE 802.3u (Fast Ethernet), IEEE 802.3ab and IEEE 802.3z (Gigabit Ethernet), IEEE 802.3x (Flow Control), IEEE 802.1D 1998 (Bridging)
MAC Address	8192
Safety	UL 60950-1 & CAS 60950-1 (CSA/CUS), IEC 60950-1(CE), EN 60950-1 (TÜV/GS)
EMC Emissions	EN 55022 Class A, FCC Part 15 Subpart B Class A, ICES-003 Class A, VCCI Class A
Immunity	EN 55024

Environmental

Operating Temperature	0–45 °C (32–113 °F)
Humidity	10–95% (non-condensing)
Standard	EN 60068 (IEC 68)—various parts

Physical

Width	440 mm (17.3 in.)
Length	235 mm (9.2 in.)

Height	43.6 mm (1.75 in.) or 1U.
Weight	3.2 kg (7.6 lb)
Mounting	Free-standing, or 19 in. rack-mounted using the supplied mounting kit

Electrical

Power Inlet	IEC 320
AC Line Frequency	50/60 Hz
Input Voltage	100–240 VAC
Current Rating	3 ampere (maximum)
Maximum Power Consumption	196 watts
Maximum Power Dissipation	668.95 BTU/hr
PoE Maximum Output Power per Port	15.4 watts



Power can also be provided by the Switch through any of its 24 Ethernet ports based on the IEEE 802.3af Power over Ethernet (PoE) specifications. For PoE to work, the receiving device must be PoE-compliant.

REGULATORY NOTICES

FCC Statement

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the 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 the instructions, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference to radio communications, in which case the user will be required to correct the interference at their own expense.

Information to the User

If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient the receiving antenna.
- Relocate the equipment with respect to the receiver.
- Move the equipment away from the receiver.
- Plug the equipment into a different outlet so that equipment and receiver are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful:

How to Identify and Resolve Radio-TV Interference Problems

This booklet is available from the U.S. Government Printing Office, Washington, DC 20402, Stock No. 004-000-00345-4.

In order to meet FCC emissions limits, this equipment must be used only with cables which comply with IEEE 802.3.

CE Statement (Europe)

This product complies with the European Low Voltage Directive 73/23/EEC and EMC Directive 89/336/EEC as amended by European Directive 93/68/EEC.

CSA Statement

This Class A digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la classe A respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

VCCI Statement

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TECHNICAL SUPPORT

Where to Go for Help

Contact your authorized 3Com reseller or 3Com for additional product and support information. You will find support tools posted on the 3Com Web site at www.3com.com.

Register Your Product to Gain Service Benefits

Warranty and other service benefits start from the date of purchase, so it is important to register your product quickly. Warranty and other service benefits are enabled through product registration at <http://eSupport.3com.com/>. Services on eSupport are based on accounts that you create or have authorization to access. First time users must apply for a user name and password that provide access to a number of eSupport features, including product registration, repair services, and service request.

Telephone Technical Support and Repair

To obtain telephone support as part of your warranty and other service benefits, you must first register your product at <http://eSupport.3com.com/>

When you contact 3Com for assistance, please have the following information ready:

- Product model name, part number, and serial number
- A list of system hardware and software, including rev level
- Proof of purchase, if you have not pre-registered your product
- Diagnostic error messages
- Details about recent configuration changes, if applicable

Before you send a product directly to 3Com for repair, you must first obtain an authorization number. Products sent to 3Com without authorization numbers will be returned to the sender unopened, at the sender's expense.

If your product is registered and under warranty, you can obtain an RMA number online at <http://eSupport.3com.com/>.

Contact Us

3Com offers telephone, e-mail and internet access to technical support and repair services. To access these services for your region, use the appropriate telephone number, URL, or e-mail address from the list below.

Telephone numbers are correct at the time of publication. Find a current directory of contact information posted on the 3Com Web site at <http://csoweb4.3com.com/contactus/>.

Country	Telephone Number	Country	Telephone Number	Country	Telephone Number
Asia, Pacific Rim Telephone Technical Support and Repair					
Australia	1 800 678 515	New Zealand	0800 446 398	Thailand	001 800 611 2000
Hong Kong	800 933 486	Pakistan	+61 2 9937 5083		
India	+61 2 9424 5179 or 000800 650 1111	Philippines	1235 61 266 2602 or 1 800 1888 9469		
Indonesia	001 803 61009	P.R. of China	800 810 3033		
Japan	00531 616 439 or 03 3507 5984	Singapore	800 6161 463		
Malaysia	1 800 801 777	S. Korea	080 333 3308		
		Taiwan	00801 611 261		

You can also obtain support for this region using the following e-mail: apr_technical_support_@3com.com
Or request a repair authorization number (RMA) by fax using this number: +65 543 6348

Country	Telephone Number	Country	Telephone Number	Country	Telephone Number
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Europe, Middle East and Africa Telephone Technical Support and Repair

From anywhere in these regions, call: +44 (0)1442 435529
 From the following countries, you may use the numbers shown:

Austria	01 7956 7124	Ireland	1407 3387	Portugal	707 200 123
Belgium	070 700 770	Israel	1800 945 3794	South Africa	0800 995 014
Denmark	7010 7289	Italy	199 161346	Spain	9 021 60455
Finland	01080 2783	Luxembourg	342 0808128	Sweden	07711 14453
France	0825 809 622	Netherlands	0900 777 7737	Switzerland	08488 50112
Germany	01805 404 747	Norway	815 33 047	U.K.	0870 909 3266
Hungary	06800 12813	Poland	00800 441 1357		

You can also obtain support for this region from the following URL: <http://emea.3com.com/support/email.html>

Latin America Telephone Technical Support and Repair

Antigua	1 800 988 2112	Chile	AT&T +800 998 2112	Mexico	01 800 849CARE
Argentina	0 810 444 3COM	Colombia	AT&T +800 998 2112	Nicaragua	AT&T +800 998 2112
Aruba	1 800 998 2112	Costa Rica	AT&T +800 998 2112	Panama	AT&T +800 998 2112
Bahamas	1 800 998 2112	Curacao	1 800 998 2112	Paraguay	AT&T +800 998 2112
Barbados	1 800 998 2112	Ecuador	AT&T +800 998 2112	Peru	AT&T +800 998 2112
Belize	52 5 201 0010	Dominican Republic	AT&T +800 998 2112	Puerto Rico	1 800 998 2112
Bermuda	1 800 998 2112	Guatemala	AT&T +800 998 2112	Salvador	AT&T +800 998 2112
Bonaire	1 800 998 2112	Haiti	57 1 657 0888	Trinidad and Tobago	1 800 998 2112
Brazil	0800 13 3COM	Honduras	AT&T +800 998 2112	Uruguay	AT&T +800 998 2112
Cayman	1 800 998 2112	Jamaica	1 800 998 2112	Venezuela	AT&T +800 998 2112
		Martinique	571 657 0888	Virgin Islands	57 1 657 0888

Spanish speakers can also obtain support for this region from the following URL: <http://lat.3com.com/lat/support/form.html>
 Portuguese speakers can also obtain support for this region from the following URL: <http://lat.3com.com/br/support/form.html>
 English speakers in Latin America should send e-mail for support to: lat_support_anc@3com.com

North America Telephone Technical Support and Repair

1 800 876 3266

PRODUCTS

The Baseline Switch 2226-PWR Plus is part of the extensive Baseline range of 3Com products. This range includes hubs, switches, power systems and other networking equipment, and is continually being developed. Contact your supplier for the latest product information and to order these products.

Product Registration

You can now register your Baseline Switch on the 3Com Web site to receive up-to-date information on your product:

<http://esupport.3com.com>

Feedback

Your suggestions are very important to us. They will help make our documentation more useful to you. Please e-mail comments about this document to 3Com at:

pddtechpubs_comments@3Com.com

Please include the following information when commenting: the document title, part number (shown at the bottom of this page), and page number, if appropriate.

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It is the policy of 3Com Corporation to be environmentally-friendly in all operations. To uphold our policy, we are committed to:

- Establishing environmental performance standards that comply with national legislation and regulations.
- Conserving energy, materials and natural resources in all operations.
- Reducing the waste generated by all operations.
- Ensuring that all waste conforms to recognized environmental standards.
- Maximizing the recyclable and reusable content of all products.
- Ensuring that all products can be recycled, reused and disposed of safely.
- Ensuring that all products are labeled according to recognized environmental standards.
- Improving our environmental record on a continual basis.