# 10-Port 100BASE-FX and 20-Port 10/100BASE-TX Fast Ethernet Layer 2 Switching Modules Quick Start Guide 

For the CoreBuilder ${ }^{\circledR} 9000$ Enterprise Switch

## Module Descriptions

This guide describes key installation information for two CoreBuilder® 9000 Fast Ethernet (FEN) Switching Modules:

- The 10-port 100BASE-FX Fast Ethernet Layer 2 Switching Module (Model Number 3CB9LF10MC) has ten 100 Mbps Ethernet fiber-optic ports with SC connectors on its front panel and two 1-Gigabit ports on the back for connection to the chassis backplane.
- The 20-port 10/100BASE-TX Fast Ethernet Layer 2 Switching Module (Model Number 3CB9LF20R) has twenty 10/100 Mbps RJ-45 ports on its front panel and two 1-Gigabit ports on the back for connection to the chassis backplane.

Each of these FEN Switching Modules operates as a Layer 2 switch and occupies a single switching module slot in the CoreBuilder 90007 -slot chassis, 8 -slot chassis, or 16 -slot chassis.

Key Features The 10/100BASE-TX and 100BASE-FX FEN Switching Modules support the following key features:

- Hot-swapping of modules
- Management using the Administration Console (a command line interface), the Web Management suite of applications with an Internet browser, or SNMP-based applications

For information about the software features that these modules support, see the:

- CoreBuilder 9000 Implementation Guide
- Command Reference Guide
- CoreBuilder 9000 Release Notes for the Fast Ethernet and Gigabit Ethernet Layer 2 Switching Modules

Front Panel On the 10-port 100BASE-FX FEN Switching Module, the front panel ports are numbered 1 through 10, as shown in Figure 1. The two 1-Gigabit ports on the back of the module (not shown in Figure 1) are numbered 11 and 12.

On the 20-port 10/100BASE-TX FEN Switching Module, the front panel ports are numbered 1 through 20, as shown in Figure 1. The two 1-Gigabit ports on the back of the module (not shown in Figure 1) are numbered 21 and 22.

Figure 1 Front Panels for the 10/100BASE-TX and 100BASE-FX FEN Modules


In the 7-slot chassis, you install the modules horizontally with the LEDs at the left. In the 8-slot chassis and the16-slot chassis, you install the modules vertically with the LEDs at the top.

## Audience Description <br> This guide is intended for trained technical personnel only. Do not attempt to install, remove, or replace the 10/100BASE-TX or 100BASE-FX FEN Switching Modules if you have not had the proper training from 3Com. For training information in the United States and Canada, call 1-800-NET-3COM. For the numbers to call in other locations, visit the Com Web site: <br> www. 3Com.com/support/

Safety Precautions When you handle components in a CoreBuilder 9000 system, be sure that you follow all safety precautions. To avoid electric shocks, burns, or equipment damage, read and follow these warnings:

WARNING: Allow only trained service personnel to install, remove, or replace any module in the chassis.


WARNING: Hazardous energy exists within the system. Use extreme caution when you install, remove, or replace any module in the chassis. When the system is on:

- Never insert metal objects such as a screwdriver or a finger with jewelry into open module slots.
- Do not touch any connections within the chassis with your hands or fingers.


WARNING: To ensure optical safety when installing a FEN Switching Module, comply with the following precaution:

Although the data communication LED used in this product meet the regulatory requirements for casual exposure to the eye, as with any source of bright light, it is advised that you do not look into the light source.

LED Safety Information: IEC 825 and EN60825, Class 1 LED Device. For connection only to Class 1 LED Devices.

## ESD Safety Information

Electrostatic discharge (ESD) can damage components of the module. ESD, which occurs when a module is improperly handled, can cause complete or intermittent failures.


CAUTION: To prevent ESD-related damage:

- Always wear an ESD wrist strap (not provided) when you handle a module, ensuring that the strap makes good skin contact and is properly grounded.
- Keep the module in its antistatic bag until you are ready to install it.

Handling Precautions
When you handle a module, follow these precautions:

- Always handle the module by the front panel only.
- Do not touch the components, pins, leads, or solder connections.
- Do not twist or otherwise force the module into the chassis when you insert it into the module guides.
- Before you push the module into the chassis, verify that the module ejector handles are open.
- When you slide the module into the 7 -slot chassis, match the left and right module guides. In the 8 -slot chassis or 16 -slot chassis, match the upper and lower module guides.

For details, see "Installation Prerequisites" and "Installing the Module" later in this guide.

## Unpacking Use the following procedure when you unpack a FEN Switching Module: Instructions

1 Verify that the module is the correct product by matching the 3C number that is listed on the shipping box label to the 3 C number that you ordered (Model Number 3CB9LF10MC for the 10-port 100BASE-FX Fast Ethernet Layer 2 Switching Module or Model Number 3CB9LF20R for the 20-port 10/100BASE-TX Fast Ethernet Layer 2 Switching Module).
2 Remove the module, in its antistatic bag, from the shipping box.
3 Observing the caution instructions, remove the module from its antistatic bag and inspect it for physical damage.

CAUTION: Handle the module only by the front panel. Do not touch any components, pins, leads, or solder connections.

If the module appears to be damaged, replace it in the antistatic bag, put it back in the shipping box, and contact your network supplier.
4 Verify that the box also contains:

- CoreBuilder 9000 Release Notes for the Fast Ethernet and Gigabit Ethernet Layer 2 Switching Modules
- 10-Port 100BASE-FX and 20-Port 10/100BASE-TX Fast Ethernet

Layer 2 Switching Modules Quick Start Guide for the CoreBuilder 9000 Enterprise Switch (this guide)
If the listed contents are not in your shipping box, contact your network supplier.

All shipping boxes are reusable. After you remove the contents, replace the packing materials in the box and store it for future use.

## Installation Prerequisites

Before you install a module, make the following preparations:

- Verify that the chassis is properly installed in a rack, on a table, or on a shelf, according to the instructions in either of these guides:
- 7-Slot Chassis Quick Installation Guide for the CoreBuilder 9000 Enterprise Switch
- Chassis Quick Installation Guide for the CoreBuilder 9000 Enterprise Switch 8-slot Chassis and 16-slot Chassis.
- Have a flat-blade torque screwdriver available to secure the module to the chassis after you install it.
- Read the CoreBuilder 9000 Release Notes for the Fast Ethernet and Gigabit Ethernet Layer 2 Switching Modules for important information about installing and upgrading modules in an existing chassis or a new chassis.

CAUTION: All modules in a CoreBuilder 9000 chassis must operate at compatible software levels. You must verify the software release on all new and existing modules in your chassis and upgrade as necessary. See the CoreBuilder 9000 Release Notes for the Fast Ethernet and Gigabit Ethernet Layer 2 Switching Modules for a module software compatibility requirements table, mandatory upgrade procedures, and other important information.

## Module Placement

 in the ChassisNote the following chassis slot restrictions and recommendations when you choose a chassis slot for the 10-port 100BASE-FX Fast Ethernet Switching Module or the 20-port 10/100BASE-TX Fast Ethernet Switching Module:

- In the 7-slot chassis:
- Do not install the module in slot 7. This slot is reserved for a Gigabit Ethernet (GEN) Switch Fabric Module.
- Install the module in slot $1,2,3,4,5$, or 6.
- In the 8-slot chassis:
- Do not install the module in slot 7 or slot 8 . These slots are reserved for GEN Switch Fabric Modules.
- Install the FEN Switching Module in slot 1, 2, 3, 4, 5, or 6.
- In the 16-slot chassis:
- Do not install the module in slot 8 or slot 9. These slots are reserved for GEN Switch Fabric Modules.
- Install the module in slot $1,2,3,4,5,6,7,10,11$, or 12 .
- 3Com recommends that you do not install the module in slot 13, 14,15 , or 16 because these slots have only one connection to the GEN Switch Fabric Module.
- Table 1, Table 2, and Table 3 list the relationship between the following:
- 24-port GEN Switch Fabric Module (SFM) (Model Number 3CB9FG24 or Model Number 3CB9FG24T)
- 10-port 100BASE-FX FEN Switching Module
- Switching module slots in the 7 -slot chassis, 8 -slot chassis, and 16 -slot chassis, respectively

Table 4, Table 5, and Table 6 list the relationship between the following:

- 24-port GEN Switch Fabric Module (SFM)
- 20-port 10/100BASE-TX FEN Switching Module
- Switching module slots in the 7 -slot chassis, 8 -slot chassis, and 16 -slot chassis, respectively

Table 7 and Table 8 list the relationship between the following:

- 9-port GEN Switch Fabric Module (SFM) (Model Number 3CB9FG9)
- 10-port 100BASE-FX FEN Switching Module
- Switching module slots in the 7 -slot chassis and 8 -slot chassis, respectively

Table 9 and Table 10 list the relationship between the following:

- 9-port GEN Switch Fabric Module (SFM)
- 20-port 10/100BASE-TX FEN Switching Module
- Switching module slots in the 7 -slot chassis and 8 -slot chassis, respectively

Use the table information to help select a slot for your module, as well as administer the system after you have completed the installation.

Table 1 Mapping the 24-port GEN SFM and the 10-port FEN Switching Module to the 7-slot Chassis

| Chassis <br> Slot <br> Number | Number of SFM Backplane Ports Allocated to Slot | 10-port Switching Module Backplane Port Numbers | SFM Backplane Port Numbers Assigned to Chassis Slot | SFM LED Numbers Assigned to Backplane Port Numbers |
| :---: | :---: | :---: | :---: | :---: |
| 1 | 4; up to 2 can be accessed by this module | 11 | 1 | 1 |
|  |  | 12 | 2 | 2 |
| 2 | 4; up to 2 can be accessed by this module | 11 | 5 | 3 |
|  |  | 12 | 6 | 4 |
| 3 | 4; up to 2 can be accessed by this module | 11 | 9 | 5 |
|  |  | 12 | 10 | 6 |
| 4 | 4; up to 2 can be accessed by this module | 11 | 13 | 7 |
|  |  | 12 | 14 | 8 |
| 5 | 4; up to 2 can be accessed by this module | 11 | 17 | 9 |
|  |  | 12 | 18 | 10 |
| 6 | 4; up to 2 can be accessed by this module | 11 | 21 | 11 |
|  |  | 12 | 22 | 12 |
| 7 | Reserved for an SFM | Not applicable | Not applicable | Not applicable |

Table 2 Mapping the 24-port GEN SFM and the 10-port FEN Switching Module to the 8-slot Chassis

| Chassis Slot Number | Number of SFM Backplane Ports Allocated to Slot | 10-port Switching Module Backplane Port Numbers | SFM Backplane Port Numbers Assigned to Chassis Slot | SFM LED Numbers <br> Assigned to Backplane Port Numbers |
| :---: | :---: | :---: | :---: | :---: |
| 1 | 4; up to 2 can be accessed by this module | 11 | 1 | 1 |
|  |  | 12 | 2 | 2 |
| 2 | 4; up to 2 can be accessed by this module | 11 | 5 | 3 |
|  |  | 12 | 6 | 4 |
| 3 | 4; up to 2 can be accessed by this module | 11 | 9 | 5 |
|  |  | 12 | 10 | 6 |
| 4 | 4; up to 2 can be accessed by this module | 11 | 13 | 7 |
|  |  | 12 | 14 | 8 |
| 5 | 4; up to 2 can be accessed by this module | 11 | 17 | 9 |
|  |  | 12 | 18 | 10 |
| 6 | 4; up to 2 can be accessed by this module | 11 | 21 | 11 |
|  |  | 12 | 22 | 12 |
| 7 | Reserved for an SFM | Not applicable | Not applicable | Not applicable |
| 8 | Reserved for an SFM | Not applicable | Not applicable | Not applicable |

$\begin{array}{ll}10 \\ \cdots . . . & \text { 10-Port 100BASE-FX and 20-Port 10/100BASE-TX Fast Ethernet Layer } 2 \text { Switching Modules Quick Start Guide }\end{array}$

Table 3 Mapping the 24-port GEN SFM and the 10-port FEN Switching Module to the 16 -slot Chassis

| Chassis Slot Number | Number of SFM Backplane Ports Allocated to Slot | 10-port Switching Module Backplane Port Numbers | SFM Backplane Port Numbers Assigned to Chassis Slot | SFM LED Numbers Assigned to Backplane Port Numbers |
| :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | 11 | 1 | 1 |
|  |  | 12 | 2 | 2 |
| 2 | 2 | 11 | 3 | 3 |
|  |  | 12 | 4 | 4 |
| 3 | 2 | 11 | 5 | 5 |
|  |  | 12 | 6 | 6 |
| 4 | 2 | 11 | 7 | 7 |
|  |  | 12 | 8 | 8 |
| 5 | 2 | 11 | 9 | 9 |
|  |  | 12 | 10 | 10 |
| 6 | 2 | 11 | 11 | 11 |
|  |  | 12 | 12 | 12 |
| 7 | 2 | 11 | 13 | 13 |
|  |  | 12 | 14 | 14 |
| 8 | Reserved for an SFM | Not applicable | Not applicable | Not applicable |
| 9 | Reserved for an SFM | Not applicable | Not applicable | Not applicable |
| 10 | 2 | 11 | 15 | 15 |
|  |  | 12 | 16 | 16 |
| 11 | 2 | 11 | 17 | 17 |
|  |  | 12 | 18 | 18 |
| 12 | 2 | 11 | 19 | 19 |
|  |  | 12 | 20 | 20 |
| 13 | 1 | 11 | 21 | 21 |
| 14 | 1 | 11 | 22 | 22 |
| 15 | 1 | 11 | 23 | 23 |
| 16 | 1 | 11 | 24 | 24 |

Table 4 Mapping the 24-port GEN SFM and the 20-port FEN Switching Module to the 7-slot Chassis

| Chassis <br> Slot <br> Number | Number of SFM Backplane Ports Allocated to Slot | 20-port Switching Module Backplane Port Numbers | SFM Backplane Port Numbers Assigned to Chassis Slot | SFM LED Numbers <br> Assigned to Backplane Port Numbers |
| :---: | :---: | :---: | :---: | :---: |
| 1 | 4; up to 2 can be accessed by this module | 21 | 1 | 1 |
|  |  | 22 | 2 | 2 |
| 2 | 4; up to 2 can be accessed by this module | 21 | 5 | 3 |
|  |  | 22 | 6 | 4 |
| 3 | 4; up to 2 can be accessed by this module | 21 | 9 | 5 |
|  |  | 22 | 10 | 6 |
| 4 | 4; up to 2 can be accessed by this module | 21 | 13 | 7 |
|  |  | 22 | 14 | 8 |
| 5 | 4; up to 2 can be accessed by this module | 21 | 17 | 9 |
|  |  | 22 | 18 | 10 |
| 6 | 4; up to 2 can be accessed by this module | 21 | 21 | 11 |
|  |  | 22 | 22 | 12 |
| 7 | Reserved for an SFM | Not applicable | Not applicable | Not applicable |

Table 5 Mapping the 24-port GEN SFM and the 20-port FEN Switching Module to the 8-slot Chassis

| Chassis <br> Slot <br> Number | Number of SFM Backplane Ports Allocated to Slot | 20-port Switching Module Backplane Port Numbers | SFM Backplane Port Numbers Assigned to Chassis Slot | SFM LED Numbers Assigned to Backplane Port Numbers |
| :---: | :---: | :---: | :---: | :---: |
| 1 | 4; up to 2 can be accessed by this module | 21 | 1 | 1 |
|  |  | 22 | 2 | 2 |
| 2 | 4; up to 2 can be accessed by this module | 21 | 5 | 3 |
|  |  | 22 | 6 | 4 |
| 3 | 4; up to 2 can be accessed by this module | 21 | 9 | 5 |
|  |  | 22 | 10 | 6 |
| 4 | 4; up to 2 can be accessed by this module | 21 | 13 | 7 |
|  |  | 22 | 14 | 8 |
| 5 | 4; up to 2 can be accessed by this module | 21 | 17 | 9 |
|  |  | 22 | 18 | 10 |
| 6 | 4; up to 2 can be accessed by this module | 21 | 21 | 11 |
|  |  | 22 | 22 | 12 |
| 7 | Reserved for an SFM | Not applicable | Not applicable | Not applicable |
| 8 | Reserved for an SFM | Not applicable | Not applicable | Not applicable |

Table 6 Mapping the 24-port GEN SFM and the 20-port FEN Switching Module to the 16-slot Chassis

| Chassis Slot Number | Number of SFM Backplane Ports Allocated to Slot | 20-port Switching Module Backplane Port Numbers | SFM Backplane Port Numbers Assigned to Chassis Slot | SFM LED Numbers <br> Assigned to Backplane <br> Port Numbers |
| :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | 21 | 1 | 1 |
|  |  | 22 | 2 | 2 |
| 2 | 2 | 21 | 3 | 3 |
|  |  | 22 | 4 | 4 |
| 3 | 2 | 21 | 5 | 5 |
|  |  | 22 | 6 | 6 |
| 4 | 2 | 21 | 7 | 7 |
|  |  | 22 | 8 | 8 |
| 5 | 2 | 21 | 9 | 9 |
|  |  | 22 | 10 | 10 |
| 6 | 2 | 21 | 11 | 11 |
|  |  | 22 | 12 | 12 |
| 7 | 2 | 21 | 13 | 13 |
|  |  | 22 | 14 | 14 |
| 8 | Reserved for an SFM | Not applicable | Not applicable | Not applicable |
| 9 | Reserved for an SFM | Not applicable | Not applicable | Not applicable |
| 10 | 2 | 21 | 15 | 15 |
|  |  | 22 | 16 | 16 |
| 11 | 2 | 21 | 17 | 17 |
|  |  | 22 | 18 | 18 |
| 12 | 2 | 21 | 19 | 19 |
|  |  | 22 | 20 | 20 |
| 13 | 1 | 21 | 21 | 21 |
| 14 | 1 | 21 | 22 | 22 |
| 15 | 1 | 21 | 23 | 23 |
| 16 | 1 | 21 | 24 | 24 |

Table 7 Mapping the 9-port GEN SFM and the 10-port FEN Switching Module to the 7-slot Chassis

| Chassis <br> Slot <br> Number | Number of SFM <br> Backplane Ports <br> Allocated to Slot | 10-port Switching <br> Module Backplane <br> Port Numbers | SFM Backplane Port <br> Numbers Assigned to <br> Chassis Slot | SFM LED Numbers <br> Assigned to Backplane <br> Port Numbers |
| :--- | :--- | :--- | :--- | :--- |
| 1 | 1 | 11 | 1 | 1 |
| 2 | 1 | 11 | 2 | 2 |
| 3 | 1 | 11 | 3 | 3 |
| 4 | 1 | 11 | 4 | 4 |
| 5 | 1 | 11 | 5 | 5 |
| 6 | 1 | 11 | 6 | 6 |
| 7 | Reserved for an SFM | Not applicable | Not applicable | Not applicable |

Table 8 Mapping the 9-port GEN SFM and the 10-port FEN Switching Module to the 8-slot Chassis

| Chassis <br> Slot <br> Number | Number of SFM <br> Backplane Ports <br> Allocated to Slot | 10-port Switching <br> Module Backplane <br> Port Numbers | SFM Backplane Port <br> Numbers Assigned to <br> Chassis Slot | SFM LED Numbers <br> Assigned to Backplane <br> Port Numbers |
| :--- | :--- | :--- | :--- | :--- |
| 1 | 1 | 11 | 1 | 1 |
| 2 | 1 | 11 | 2 | 2 |
| 3 | 1 | 11 | 3 | 3 |
| 4 | 1 | 11 | 4 | 4 |
| 5 | 1 | 11 | 5 | 5 |
| 6 | 1 | 11 | 6 | 6 |
| 7 | Reserved for an SFM | Not applicable | Not applicable | Not applicable |
| 8 | Reserved for an SFM | Not applicable | Not applicable | Not applicable |

Table 9 Mapping the 9-port GEN SFM and the 20-port FEN Switching Module to in the 7-slot Chassis

| Chassis <br> Slot <br> Number | Number of SFM <br> Backplane Ports <br> Allocated to Slot | 20-port Switching <br> Module Backplane <br> Port Numbers | SFM Backplane Port <br> Numbers Assigned to <br> Chassis Slot | SFM LED Numbers <br> Assigned to Backplane <br> Port Numbers |
| :--- | :--- | :--- | :--- | :--- |
| 1 | 1 | 21 | 1 | 1 |
| 2 | 1 | 21 | 2 | 2 |
| 3 | 1 | 21 | 3 | 3 |
| 4 | 1 | 21 | 4 | 4 |
| 5 | 1 | 21 | 5 | 5 |
| 6 | 1 | 21 | 6 | 6 |
| 7 | Reserved for an SFM | Not applicable | Not applicable | Not applicable |

Table 10 Mapping the 9-port GEN SFM and the 20-port FEN Switching Module to the 8 -slot Chassis

| Chassis | Number of SFM <br> Slot <br> Number | 20-port Switching <br> Allocated to Slot | SFM Backplane Port <br> Module Backplane <br> Port Numbers | SFM LED Numbers <br> Chassis Slot |
| :--- | :--- | :--- | :--- | :--- |
| 1 | 1 | 21 | 1 | 1 |
| 2 | 1 | 21 | 2 | 2 |
| 3 | 1 | 21 | 3 | 3 |
| 4 | 1 | 21 | 4 | 4 |
| 5 | 1 | 21 | 5 | 5 |
| 6 | 1 | 21 | 6 | 6 |
| 7 | Reserved Numbers |  |  |  |

Installing the Module To install a FEN Switching Module:
1 Before you start the installation process, read and follow the instructions in "Safety Precautions," "Handling Precautions," and "Installation Prerequisites" earlier in this guide.
2 Select a chassis slot for your module, following the restrictions and recommendations in "Module Placement in the Chassis" earlier in this guide.
3 To expose a slot for the module, remove the blank faceplate.
Save this faceplate in case you need it in the future. Empty slots must be covered to ensure proper airflow and cooling in the chassis.
i.

3Com recommends that you remove the faceplate only for the slot where you intend to install an individual module; leave the remaining faceplates in the chassis.

4 Open the module ejector handles.
5 Begin to insert the module:

- In the 7 -slot chassis, hold the module horizontally with the LED s to the left and begin to insert the module using the guides on the left and the right of the slot. Figure 2 shows the module position in a 7 -slot chassis.
- In the 8 -slot chassis and 16 -slot chassis, hold the module vertically with the LED at the top and begin to insert the module using the guides on the top and the bottom of the slot. Figure 3 shows the module position in a 16 -slot chassis. The module position is the same in an 8 -slot chassis.


CAUTION: Do not twist or bend the module when you insert it.
6 Slide the module into the chassis by pushing firmly on the two ends of the front panel near the ejector handles.


WARNING: Hazardous energy exists inside the chassis. Do not place hands or objects into the chassis or touch any components on an inserted module.

Figure 2 Installing a FEN Switching Module into a 7-Slot Chassis


Figure 3 Installing a FEN Switching Module into a 16-Slot Chassis


7 To engage the module with the backplane, use both hands to perform the following steps:
a Push firmly at the two ends of the front panel near the ejector handles until you feel the module connectors make firm contact with the backplane connectors.
b Put your left thumb on the left or top ejector handle and your right thumb on the right or bottom ejector handle. Simultaneously, push the ejector handles in towards the front panel until each handle is parallel with the front panel.
You feel a slight resistance as the connectors fully engage.
CAUTION: If there is too much resistance when you try to close the ejector handles, the module backplane connector may not be aligned. Forcing the module into place can damage the module connectors and backplane connectors. If necessary, remove and reinsert the module, ensuring that the connectors are properly aligned. Do not tighten the spring-loaded screws to seat the module.
8 To secure the module in the chassis, tighten the spring-loaded screws to a torque specification of 3 to 5 inch-pounds.

CAUTION: Verify that the module screws are properly aligned with the threaded holes in the chassis. If the screws are not aligned when you tighten them, you may strip the threads and make it impossible to secure the module.

To ensure that you tighten screws to torque specification, use a torque screwdriver.

WARNING: To ensure adequate cooling airflow and continued product safety agency compliance, install blank faceplates over all empty slots.
If the chassis is powered on, the module initialization process begins.

## Verifying Module Operation

The 10-port 100BASE-FX FEN Switching Module has 10 Port Status LEDs and the 20-port 10/100BASE-TX FEN Switching Module has 20 Port Status LEDs. Each module has one Module Status LED.

Watch the LEDs during the system power-on diagnostics test to verify proper module operation:

- On the Module Status LED, the normal power-on test sequence is Green - Yellow - Green - Flashing Green (while running the diagnostic test) - Green
If the Module Status LED is Yellow after the diagnostics run, the module has failed.
- The Port Status LEDs are tested during the diagnostic test. The normal test sequence is Yellow - Green - Off

Table 11 describes LED colors and definitions.
Table 11 Module and Port Status LED Indicators

| LED | State or Color | Definition |
| :--- | :--- | :--- |
| Module Status | Green | Power is on (normal operation). |
|  | Flashing Green | Diagnostics or software download is in <br> progress. |
|  | Yellow | Diagnostic failure. <br> Off |
|  | After initial insertion or module reset, the <br> LED remains unlit for approximately 3 <br> seconds. Otherwise, an unlit LED <br> indicates that the module is not receiving <br> power. |  |
| Port Status | Green | Port is enabled and link is up. |
|  | Flashing Green | Port is receiving or transmitting packets. |
| Yellow | Module or port is malfunctioning. |  |
| Off | Port is disabled or link is down. |  |

Managing the You configure and manage a FEN Switching Module using several Module interfaces. The following sections describe two of the interfaces.

## Administration Console

The Administration Console is the embedded menu-driven command line interface that you access from a terminal or through terminal emulation software.

To manage the module from the Administration Console:
1 Log in to the EME.
For information about how to log in to the EME, see the CoreBuilder 9000 Enterprise Management Engine User Guide.
2 At the EME prompt, enter:
connect <slot>. 1
where <slot> is the chassis slot number of the module that you want to manage, and the number after the decimal point is a subslot number, which is always 1.
The top level of the Administration Console menu for the module appears.

3 Enter command strings to manage the module. For example, to display a module baseline, enter:
module baseline display
For information about the Administration Console module commands, see the Command Reference Guide.

## Web Management

Web Management applications are an embedded part of the system. They include WebConsole, DeviceView, and Performance monitoring tools. Additional installable applications include online Help.

After you have set up the IP address for your system, you can access the Web Management applications directly in your Web browser by entering the IP address.

For information about setting up your IP address, see the Enterprise Management Engine Quick Start Guide for the CoreBuilder 9000 Enterprise Switch. For additional information about Web Management, see the Web Management User Guide for the CoreBuilder 9000 Enterprise Switch.

## Module The following tables list specifications for the 10-port 100BASE-FX and Specifications 20-port 10/100BASE-TX Fast Ethernet Layer 2 Switching Modules:

## Cabling Requirements

| Module | Required Cable Type | Maximum Segment Length |
| :--- | :--- | :--- |
| 100BASE-FX | Multimode fiber | Half-duplex mode: $400 \mathrm{~m}(1312 \mathrm{ft}$ |
| (3CB9LF10MC) | $62.5 / 125$ micron | Full-duplex mode: $2 \mathrm{~km}(1.2 \mathrm{mi})$ |
| 10/100BASE-TX | UTP Category 5 | Up to $100 \mathrm{~m}(328 \mathrm{ft})$ |
| (3CB9LF20R) |  |  |

## Environmental Requirements

| Operating temperature | 0 to $50^{\circ} \mathrm{C}\left(32\right.$ to $\left.122^{\circ} \mathrm{F}\right)$ |
| :--- | :--- |
| Operating humidity | $10 \%$ to $90 \%$ relative humidity, noncondensing |
| Storage temperature | -40 to $66^{\circ} \mathrm{C}\left(-40\right.$ to $\left.151^{\circ} \mathrm{F}\right)$ |
| Storage humidity | $5 \%$ to $95 \%$ relative humidity, noncondensing |

## Physical Specifications

| Module | Dimensions | Weight |
| :--- | :--- | :--- |
| 100BASE-FX | $25.4 \mathrm{~mm} \times 340.36 \mathrm{~mm} \times 388.112 \mathrm{~mm}$ | 1.135 kg |
| (3CB9LF10MC) | $(1 \mathrm{in} . \times 13.4 \mathrm{in} . \times 15.28 \mathrm{in})$. | $(2.5 \mathrm{lb})$ |
| 10/100BASE-TX | $25.4 \mathrm{~mm} \times 340.36 \mathrm{~mm} \times 388.112 \mathrm{~mm}$ | 1.1804 kg |
| $(3 C B 9 L F 20 R)$ | $(1 \mathrm{in} . \times 13.4 \mathrm{in} . \times 15.28 \mathrm{in})$. | $(2.6 \mathrm{lb})$ |

## Power Specifications

| Module | Voltage | Wattage |
| :--- | :--- | :--- |
| 100BASE-FX | +5.2 V | 25 W |
| (3CB9LF10MC) |  |  |
|  | +3.5 V | 33 W |
|  | +12 V | 2 W |
|  | Total Wattage $=60$ |  |
| 10/100BASE-TX | +5.2 V | 28 W |
| (3CB9LF20R) | +3.5 V | 41 W |
|  | +12 V | 2 W |
|  | Total Wattage $=71$ |  |

## Regulatory Compliance

## Safety

- CSA 22.2 No. 950
- EN 60950
- IEC 60950 (formerly IEC 950)
- UL 1950
- EN 60825-1, -2
- CE Mark


## Emissions

- FCC Part 15 Class A
- ICESOO3 Class A
- VCCI Class A
- EN 55022 Class A
- EN 50082-1
- AS3548 (C-Tick Mark)
- CISPR 22 Class A
- CE Mark

Related For detailed information about using and managing the FEN Switching

## CoreBuilder 9000

 DocumentsModules, see the following documents:

- CoreBuilder 9000 Implementation Guide
- Command Reference Guide
- CoreBuilder 9000 Enterprise Management Engine User Guide
- Web Management User Guide for the CoreBuilder 9000 Enterprise Switch

For the software code installation procedure as well as known problem information for this module, see the CoreBuilder 9000 Release Notes for the Fast Ethernet and Gigabit Ethernet Layer 2 Switching Modules.

For information about installing and powering on the system, see the following documents:

- CoreBuilder 9000 Enterprise Switch Getting Started Guide
- 7-Slot Chassis Quick Installation Guide for the CoreBuilder 9000 Enterprise Switch
- Chassis Quick Installation Guide for the CoreBuilder 9000 Enterprise Switch 8-slot Chassis and 16-slot Chassis
- 7-Slot Chassis Power Supply Installation Guide for the CoreBuilder 9000 Enterprise Switch
- Power Supply Installation Guide for the CoreBuilder 9000 Enterprise Switch 8-slot Chassis and 16-slot Chassis

You can view and print these and other current CoreBuilder 9000 documents from the following sources:

- 3Com Web site
http://support.3com.com/nav/switches.htm
- CoreBuilder 9000 Documentation CD-ROM

This CD-ROM is included in the chassis shipping box. You can also order the CD-ROM separately (Order Number 3CB9DB).

## 3Com Corporation Limited Warranty

## 10-Port 100BASE-FX Fast Ethernet Layer 2 Switching Module (Model Number 3CB9LF10MC) and 20-Port 10/100BASE-TX Fast Ethernet Layer 2 Switching Module (Model Number 3CB9LF20R) for the CoreBuilder ${ }^{\circledR} 9000$ Enterprise Switch

## HardWARE

3Com warrants to the end user ("Customer") that this hardware product will be free from defects in workmanship and materials, under normal use and service, for one (1) year from the date of purchase from 3Com or its authorized reseller.

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Any software update or replaced or repaired product will carry a Year 2000 Warranty for ninety (90) days after purchase or until April 1, 2000, whichever is later.

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Customer must contact a 3Com Corporate Service Center or an Authorized 3Com Service Center within the applicable warranty period to obtain warranty service authorization. Dated proof of purchase from 3Com or its authorized reseller may be required. Products returned to 3Com's Corporate Service Center must be preauthorized by 3Com with a Return Material Authorization (RMA) number or User Service Order (USO) number marked on the outside of the package, and sent prepaid and packaged appropriately for safe shipment, and it is recommended that they be insured or sent by a method that provides for tracking of the package. Responsibility for loss or damage does not transfer to 3Com until the returned item is received by 3Com. The repaired or replaced item will be shipped to Customer, at 3Com's expense, not later than thirty (30) days after 3Com receives the defective product.
3Com shall not be responsible for any software, firmware, information, or memory data of Customer contained in, stored on, or integrated with any products returned to 3Com for repair, whether under warranty or not.
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## Governing LAW

This Limited Warranty shall be governed by the laws of the State of California, U.S.A., excluding its conflicts of laws principles and excluding the United Nations Convention on Contracts for the International Sale of Goods.

3Com Corporation, 5400 Bayfront Plaza, P.O. Box 58145, Santa Clara, CA 95052-8145 (408) 326-5000

## Emissions Compliance <br> Statements for Class A <br> Products

Federal Communications
Commission Notice 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 instruction manual，may cause harmful interference to radio communications．Operation of this equipment in a residential area is likely to cause harmful interference，in which case the user will be required to correct the interference at his or her own expense．
Canadian Emissions Requirements 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 Class A Compliance

##  妨吉を引ぎ起こすことがあります。この場合には使用者が適切な対策を講ず るよう要求されることがあります。

This is a Class A product based on the standard of the Voluntary Control Council for Interference by Information Technology Equipment（VCCI）．If this equipment is used in a domestic environment，radio disturbance may arise． When such trouble occurs，the user may be required to take corrective actions．

## EMC Directive

## Statement

EMC Directive Compliance
This equipment was tested and found to conform to the Council Directive 89／336／EEC for electromagnetic compatibility．Conformity with this Directive is based upon compliance with the following harmonized standards：
$\begin{array}{ll}\text { EN 55022 } & \text { Limits and Methods of Measurement of Radio Interference } \\ \text { EN 50082－1 } & \text { Electromagnetic Compatibility Generic Immunity Standard：} \\ & \text { Residential，Commercial，and Light Industry }\end{array}$

Warning：This is a Class A product．In a domestic environment，this product may cause radio interference，in which case you may be required to take adequate measures．

## Low Voltage Directive

## Statement

Low Voltage Directive Compliance

This equipment was tested and found to conform to the Council Directive 72／23／EEC for safety of electrical equipment．Conformity with this Directive is based upon compliance with the following harmonized standard：

$$
\text { EN } 60950 \quad \text { Safety of Information Technology Equipment }
$$

## General Approval

## Statement for UK

UK General Approval Statement This equipment is manufactured to the international Safety Standard EN60950 and is approved in the UK under the General Approval Number NS／G／12345／J／100003 for indirect connection to the public telecommunication network．

## Australian EMC

## Frameworks Statement

Australian EMC Frameworks This product conforms to the EMC Frameworks and meets the Class A limits of AS3548． Compliance

## 3Com Corporation 5400 Bayfront Plaza Santa Clara, California 95052-8145

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