



# FDDI Module Installation Guide

For the CoreBuilder™ 3500 System

## Module Description

Your system connects to FDDI networks using one of these modules:

- **FDDI MMF (Part Number: 3C35410)** — Connects to multimode fiber-optic cable, providing a transmission distance of up to 2 km (1.2 mi) using 62.5 micron fiber.
- **FDDI SMF (Part Number: 3C35420)** — Connects to single-mode fiber-optic cable, providing a transmission distance of approximately 14.4 km (8.9 mi) using 9 micron fiber.

Each FDDI module contains six FDDI ports that use fiber (SC) connectors. Each port provides a 100 Mbps FDDI connection over fiber-optic cable. The ports support both SAS (single-attached station) and DAS (dual-attached station) modes, for a maximum of six SAS connections or three DAS connections. You can remove and replace the modules with the system on.

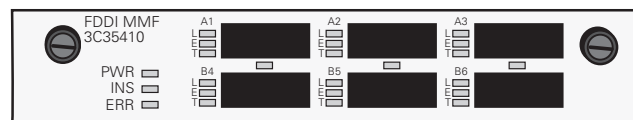


**CAUTION:** The FDDI module requires release 2.0.0 or higher of the CoreBuilder 3500 system software. Download this software from the following 3Com Web site:

<http://support.3Com.com/index.htm>

Figure 1 shows the FDDI MMF module. The FDDI SMF module is similar.

**Figure 1** FDDI MMF Module



Each DAS connection consists of both an A port and a B port. Table 1 shows the DAS connections that you can configure and the associated ports for each connection.

**Table 1** DAS Connections

DAS Connection	Port A	Port B
1	A1	B4
2	A2	B5
3	A3	B6



*For a description of how to configure these modules into your network, see the CoreBuilder 3500 Getting Started Guide.*

### Status LEDs

The modules contain one **PWR** (Power) LED, one **INS** (Board Inserted) LED, and one **ERR** (Error) LED. Each port has one **L** (Link Status) LED, one **E** (Error) LED, and one **T** (Traffic) LED. Each possible DAS connection has one DAS LED between Port A and Port B, which indicates DAS status. This table describes the LEDs:

Status	LED	Name	Color	Description
Module Status	<b>PWR</b>	Power	Green	The module is receiving power.
	<b>INS</b>	Board Inserted	Yellow	The module is partially inserted.
	<b>ERR</b>	Board Error	Yellow	The module did not successfully complete the power-up diagnostics. A hardware/software incompatibility has occurred.
Port Status	<b>L</b>	Link	Green	A valid link has been established and the port is active.
			Blinking Green	The port is part of a dual-homed DAS connection in standby mode.
	<b>E</b>	Error	Blinking Yellow	Indicates one or both of the following: <ul style="list-style-type: none"> <li>■ The port has failed link diagnostics and an error condition has occurred.</li> <li>■ Noise Threshold Event error has occurred due to excessive noise.</li> </ul>
	<b>T</b>	Traffic	Blinking Green	The port is receiving or transmitting data.
DAS Status	–	DAS Configured	Green	The associated ports (directly above and below the LED) are configured in DAS mode.

**Audience** This guide is intended for **trained technical personnel** only. Do not attempt to remove or replace an FDDI module if you do not have the proper training from 3Com. For training information, call 1-800-NET-3COM.



**WARNING:** Hazardous energy exists within the system. Use extreme caution when you remove or replace an FDDI MMF or SMF module. Always be careful to avoid electric shock or equipment damage. See "Safety Precautions" next.

### Safety Precautions

Be sure to follow all safety precautions when you replace components in the system. To avoid electric shocks, burns, or equipment damage, read and follow these warnings:



**WARNING:** When the system is on, never insert a metal object, such as a screwdriver or a finger with jewelry, into open module slots.



**WARNING:** When the system is on, do not touch any connections inside the chassis with your hands or fingers.

### ESD Safety Information

Electrostatic discharge (ESD) can damage components on the module. ESD, which occurs when the module is improperly handled, can cause complete or intermittent failures. To prevent ESD-related damage:

- Always wear an ESD wrist strap connected to proper ground. Ensure that the wrist strap makes good skin contact.
- Keep the module in its antistatic shielded bag until you are ready to install it.
- Always handle the module by its edges.
- Do not touch the components, pins, leads, or solder connections.

### Fiber Safety Precautions

The FDDI MMF module uses light-emitting diodes (LEDs) in its fiber-optic ports; the FDDI SMF module uses lasers. To ensure your safety when you install or work with these modules, read and comply with the precautions in this section.



**WARNING:** The LEDs and lasers used in these modules meet the regulatory requirements for casual exposure to the eye. As with any source of bright light, however, 3Com recommends that you do not look into the LED or laser light source.

*IEC 825, Class 1 LED devices are for connection only to Class 1 LED devices. Multimode fiber-optic interfaces use LEDs. IEC 825, Class 1 laser devices are for connection only to Class 1 laser devices. Single-mode fiber-optic interfaces use lasers.*

CLASS 1  
LED PRODUCT

CLASS 1  
LASER PRODUCT

## Before You Install

Before you install your new module, follow the appropriate preinstallation instructions in this section, depending on whether you are installing the initial FDDI module or replacing one.



**CAUTION:** *The FDDI module requires release 2.0.0 or higher of the CoreBuilder 3500 system software.*

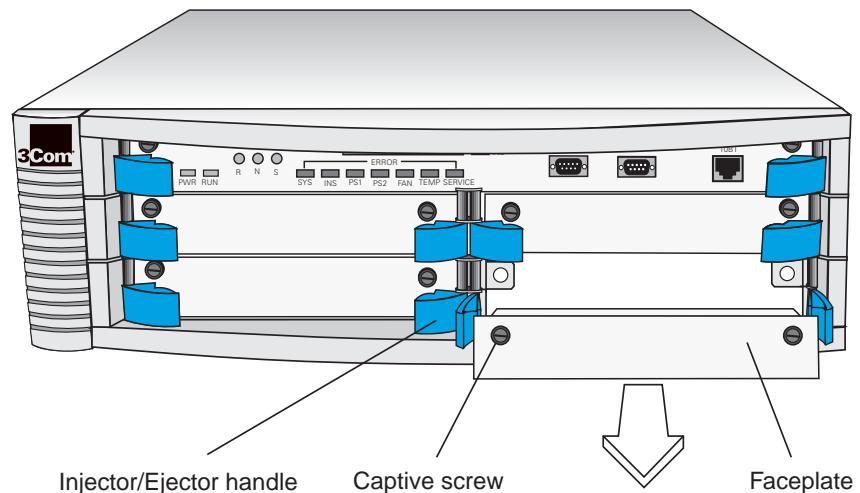
*Read before  
installing in an  
empty slot*

Your system is shipped with no modules installed and with protective faceplates covering the installation slots. Before you install the module, remove the protective faceplate that covers the selected installation slot.

To remove a faceplate:

- 1 Loosen the two captive screws that secure the faceplate to the chassis.
- 2 Move the injector/ejector handles to the outward position.
- 3 Pull the faceplate away from the system. See Figure 2.

**Figure 2** Removing the Faceplate



*Read before  
removing a module*

You can remove a module while the system is on.

To remove a module:

- 1 Record the cabling scheme so that you can correctly recable the new module, and then disconnect the cables from the module's ports.
- 2 Loosen the two captive screws that secure the module to the chassis.
- 3 Move the injector/ejector handles to the outward position.
- 4 Gently slide the module out of the chassis.

## Installing the Module

To install the new MMF or SMF module into the system, follow the steps in this section.



**CAUTION:** *When you handle a module, 3Com recommends that you always use a wrist strap that is connected to a proper ground. This precaution helps prevent electrostatic discharge from damaging the module. Also, when you are not using the module, store it in an antistatic bag.*

- 1 Put on the ESD wrist strap and ensure that you are properly grounded.
- 2 Remove the module from its antistatic bag.



**WARNING:** *If the system is on when you are installing the module, do not insert any metal objects into the open slot (for example, a screwdriver or a finger with jewelry). Doing so can cause burns or other bodily harm, as well as system damage.*

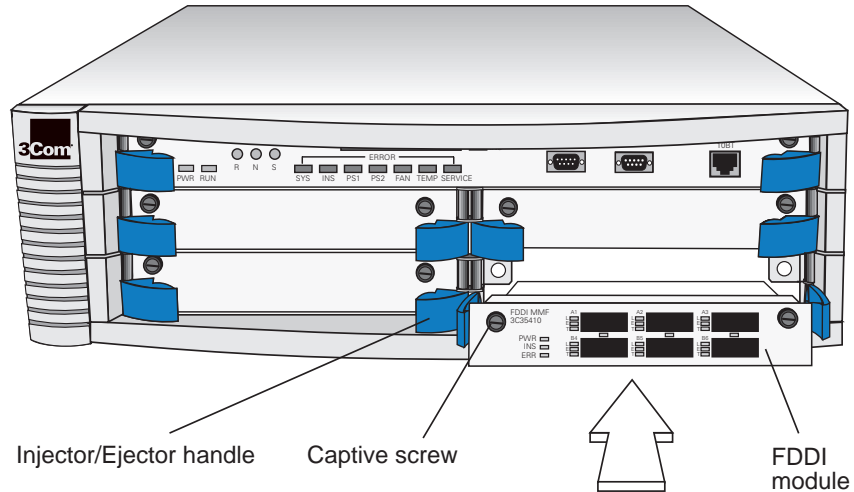
- 3 With the injector/ejector handles in the outward position, place the module between the guides of the selected slot and gently slide it into the chassis, as shown in Figure 3.
- 4 To engage the module and backplane connectors, move the injector handles to the inward position. You will feel a slight resistance as the connectors engage.



**CAUTION:** *If the resistance is too great, the module and backplane connectors may not be aligned. Forcing the module inward can damage the board or backplane connectors. If necessary, remove and reinsert the module, ensuring that the connectors are properly aligned. Do not tighten the captive screws to seat the module.*

- 5 Tighten the captive screws to secure the module in the chassis.

**Figure 3** Installing the FDDI Module



After you have installed the module, see Chapter 4: *Cabling the System* in your *Getting Started Guide* for information about cabling your module to the network.



*The system resets itself when you install a module with the power on or when you remove and reinstall the power cord.*



*If you physically change the configuration of the system after you have defined an IP interface, the port designated for that interface may no longer be valid. You may need to redefine the interface using the **ip interface define** command. For details about this command, see the Command Reference Guide. For additional information about defining IP interfaces, see your system's Implementation Guide. These documents are on the Software and Documentation CD.*

## Module Diagnostics

The system runs diagnostics tests at power up or when you replace a module with the power on. During diagnostics tests, the module's **Error** LED lights yellow. When the diagnostics tests are successfully completed, the **Error** LED turns off and the port status **L** (Link Status) LED lights green. If a port status **E** (Error) LED remains yellow, the port is not operational. If the module's **Error** LED lights yellow, the module has failed a diagnostic test. To troubleshoot module failures, see Chapter 7: *Troubleshooting the System* in your *Getting Started Guide*.

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