PARADYNE®

Hotwire® TDM SDSL Termination Units Models 8775 and 8785

Installation Instructions

Document Number 8700-A2-GN15-20

February 2001

Product Documentation Online

Complete documentation for this product, including configuration options and cable pin assignments, is available at **www.paradyne.com**. Select *Library* → *Technical Manuals* → *Hotwire DSL & MVL Systems.*

Select the following document:

8700-A2-GB25
Hotwire TDM SDSL Termination Units, Models 8775 and 8785, User's Guide

For information about the DSLAM or MCC, select from the following documents:

8000-A2-GB22
Hotwire Management Communications Controller (MCC) Card, IP Conservative, User's Guide

8000-A2-GB29
Hotwire Management Communications Controller (MCC) Card User's Guide

8610-A2-GN10
Hotwire 8610 DSLAM Installation Instructions

8810-A2-GN11
Hotwire 8810 DSLAM Installation Instructions

8820-A2-GN10
Hotwire 8820 GranDSLAM Installation Instructions

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Hotwire TDM SDSL Termination Units

Hotwire® 8775 and 8785 TDM SDSL Termination Units are circuit card assemblies comprising four Time Division Multiplexer Symmetric Digital Subscriber Line (TDM SDSL) ports and four synchronous ports. When the Hotwire 87*xx* TDM SDSL Termination Unit is used in a Hotwire 8600 or 8800 Series Digital Subscriber Line Access Multiplexer (DSLAM), it transports up to 2048 kbps signals over traditional twisted-pair telephone wiring.

Installation Overview

Installation and configuration of the Hotwire 87*xx* TDM SDSL Termination Unit consists of:

- Installing the unit in the DSLAM.
- Connecting to the Data Terminal Equipment (DTE).
- Connecting to a Main Distribution Frame (MDF).
- Providing initial unit identity information or changing existing identity information.
- Configuring the unit using the Configuration Edit menus.

Before you install the unit, read the *Important Safety Instructions* in the appropriate DSLAM manual.

Planning the Installation

Review the following list to help plan for the installation.

- ❏ Obtain the applicable cables; refer to *Cables You Need*.
- ❏ Make sure the Hotwire DSLAM is installed and power is supplied to the chassis.
- ❏ After the unit is installed, there are configuration procedures that must be performed before you can begin to use it. Refer to the User's Guide if you require detailed configuration procedures.

Cables You Need

The following customer-provided cables are used with this product.

For the network connection:

- Plug-ended 50-position Telco cable for connection from the Hotwire DSLAM to the Main Distribution Frame (MDF) or other demarcation point.

For the DTE connection, one of the following:

- V.35: 100-position plug-to-four MS34
  (like Paradyne Feature No. 8700-F1-501)
- X.21: 100-position plug-to-four DB15
  (like Paradyne Feature No. 8700-F1-502)
- RS-449: 100-position plug-to-four DB37
  (like Paradyne Feature No. 8700-F1-503)
- EIA-530-A: 100-position plug-to-four DB25
  (like Paradyne Feature No. 8700-F1-504)
- V.35: 100-position plug-to-four MS34 crossover
  (like Paradyne Feature No. 8700-F1-506)
- EIA-530-A: 100-position plug-to-four DB25 crossover
  (like Paradyne Feature No. 8700-F1-507)

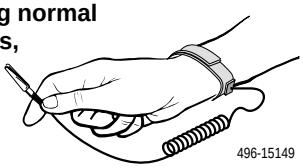
For more information refer to *Cables and Pin Assignments* in the User's Guide, and the appropriate DSLAM installation document.

Installing TDM SDSL Cards

A Hotwire TDM SDSL Termination Unit can be installed, removed, and replaced without disrupting service to other cards in the chassis.

⚠ HANDLING PRECAUTIONS FOR STATIC-SENSITIVE DEVICES

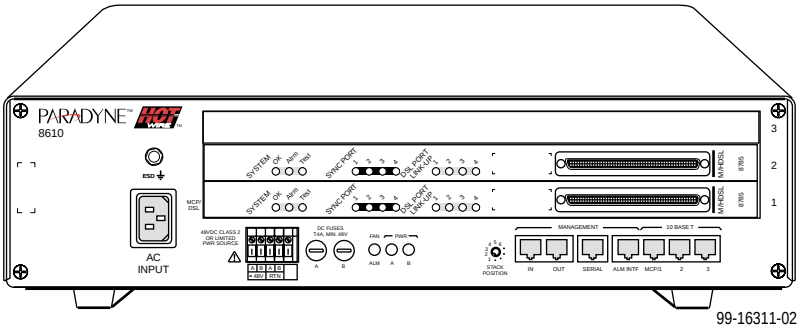
This product is designed to protect sensitive components from damage due to electrostatic discharge (ESD) during normal operation. When performing installation procedures, however, take proper static control precautions to prevent damage to equipment. If you are not sure of the proper static control precautions, contact your nearest sales or service representative.



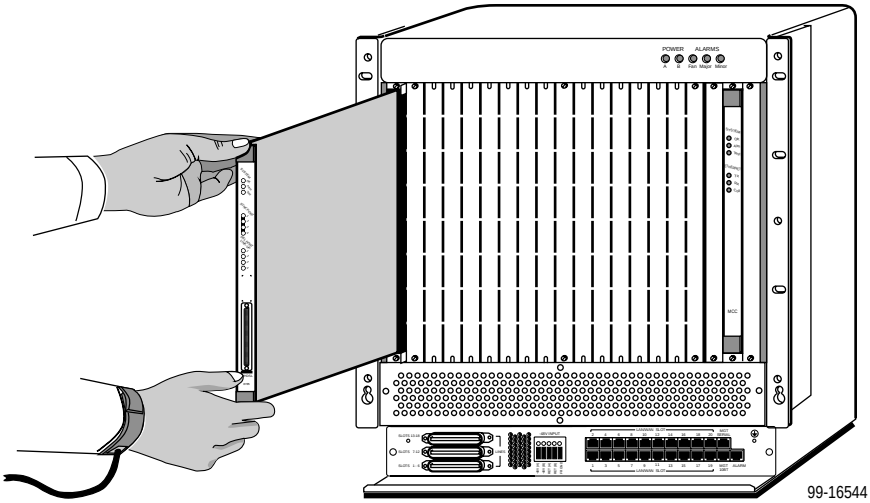
▶ Procedure

To install the unit:

1. Determine in which slot the unit will be installed. Verify that cards in adjacent slots have been fastened using the screws at each end of their front panels.
2. Remove the filler plate from the installation slot.
3. Insert the unit into the DSLAM:
   — For a **Hotwire 8600 Series DSLAM –** Hold the unit horizontally, with the component side facing up, and insert it into the left and right card guides.



— For a **Hotwire 8800 Series DSLAM –** Hold the unit vertically, with the component side facing right, and insert it into the top and bottom card guides.



4. Slide the unit into the slot until the power and network connectors seat firmly in the mating connectors on the backplane.

CAUTION:

Do not force the unit into the slot. This could damage the backplane connectors. If the card does not seat properly, remove the card and reinstall it. If it still does not seat properly, call your service representative.

The unit performs a power-on self-test. All of the LEDs turn ON and OFF briefly. When the self-test is completed successfully, the SYSTEM OK LED begins to pulse.

5. If the LED is not pulsing, refer to *Messages and Troubleshooting* in the User's Guide.

6. Secure the unit by fastening the screws at each end of the faceplate.

Connecting to the DTE

Connection to the four ports of the unit is through the 100-pin connector on its faceplate. Use one of the DTE cables listed under *Cables You Need* on page 3.

▶ Procedure

To connect the Hotwire 87*xx* TDM SDSL Termination Unit to your DTE:

1. Connect the 100-position connector of the cable to the connector on the faceplate of the unit. Align one end of the cable connector with the card connector, then push on the cable connector until it seats.

   The end of the cable connector has two release buttons. To remove the connector, press the release buttons simultaneously and pull the connector away from the card.

2. Feed the cable through the Cable Guide if it is installed. When all cables are installed, anchor them with cable ties to the rack, DSLAM, or Cable Guide.

3. Connect the four terminating connectors to your DTE.

Connecting to an MDF

You can connect the Hotwire DSLAM containing the Hotwire 87*xx* TDM SDSL Termination Unit to an MDF or other demarcation point. Do not connect it to a POTS splitter.

▶ Procedure

To connect the Hotwire DSLAM containing the unit to an MDF:

1. Plug the 50-position Telco cable into the appropriate connector on the DSLAM using the following table.

DSLAM	**For Model 8775 . . .** **Use the DSLAM Connectors Labeled . . .**	**For Model 8785 . . .**
8600	LINE (Front of chassis)	Not Applicable
8610	1–3 (Rear of chassis)	1–3 (Rear of chassis)
8800	SLOTS 1–6, SLOTS 7–12, SLOTS 13–18 (Front of chassis)	Not Applicable
8810	SLOTS 1–6, SLOTS 7–12, SLOTS 13–18 (Front of chassis)	1–18 (Rear of chassis)
8820	1–18 (Rear of chassis)	1–18 (Rear of chassis)

2. If necessary to attach the cable connector firmly in place, replace the longer Telco cable captive screw with a shorter one. Fasten the connector.
3. Insert a cable tie (provided with Hotwire DSLAM) through the tie mount to hold the 50-position Telco connector in place.
4. Make sure the other end is connected to the appropriate MDF or demarcation point.

NOTE:

If connecting the Telco 25-pair, 50-position cable to an MDF, a converter may be necessary for terminating the other end of the cable on a punchdown block before cross-connecting to an MDF.

Ferrite Choke (Installation in Hotwire 8820 GranDSLAM Only)

CAUTION:

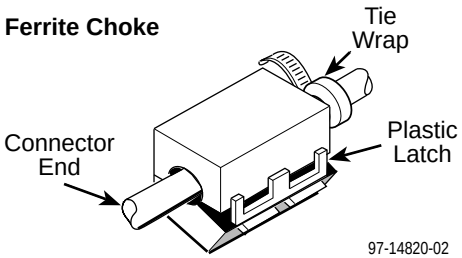
All ferrite chokes that are supplied must be installed following these instructions to ensure compliance with FCC Part 15, VCCI, and CISPR22 rules.

▶ Procedure

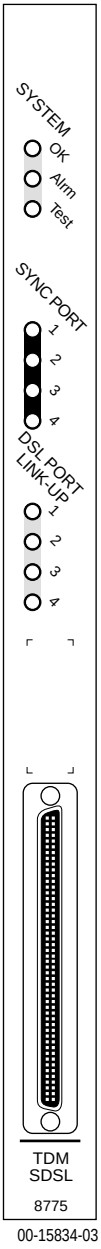
A ferrite choke is included with all Hotwire 8775 and 8785 TDM SDSL Termination Units. The ferrite choke is only required if you install the termination unit in a Hotwire 8820 GranDSLAM; otherwise, it can be discarded.

To install the ferrite choke onto the 50-pin DSL cable:

1. Open the ferrite choke and place it around the cable as close to the Hotwire 8820 GranDSLAM as possible.
2. Close the two halves around the cable and snap the choke shut, pressing down on the plastic latch to secure it.
3. Add a tie wrap if necessary to prevent the ferrite choke from slipping down the cable.



Front Panel LEDs



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The following table describes the meaning and states of the LEDs on the Hotwire 8775 or 8785 TDM SDSL Termination Unit's faceplate.

Type	LED	LED is . . .*	Indicating . . .
SYSTEM	OK (Green)	On	Unit failure; system processing has stopped.
		Off	No power to card.
		Slow Cycling	Unit is in minimum mode and a download is required.
		Pulsing	Normal operation.
	Alrm (Amber)	On	Unit failure, or Power-On Self-Test (POST) has failed.
		Off	No alarms.
	Test (Amber)	On	Loopback test or 511 test pattern in progress.
		Slow cycling	POST in progress.
		Off	No tests.
SYNC PORT	1, 2, 3, 4 (Green)	On	The port is operational.
		Off	No signal on the port, or DTR or RTS is off.
DSL PORT LINK-UP	1, 2, 3, 4 (Green)	On	DSL link is up.
		Slow cycling	DSL training in progress.
		Fast cycling	OOF condition.
		Off	DSL link is down.

* Slow Cycling: LED turns off and on in equal duration once per second.
Fast Cycling: LED turns off and on in equal duration 5 times per second.
Pulsing: LED turns off momentarily once per second.

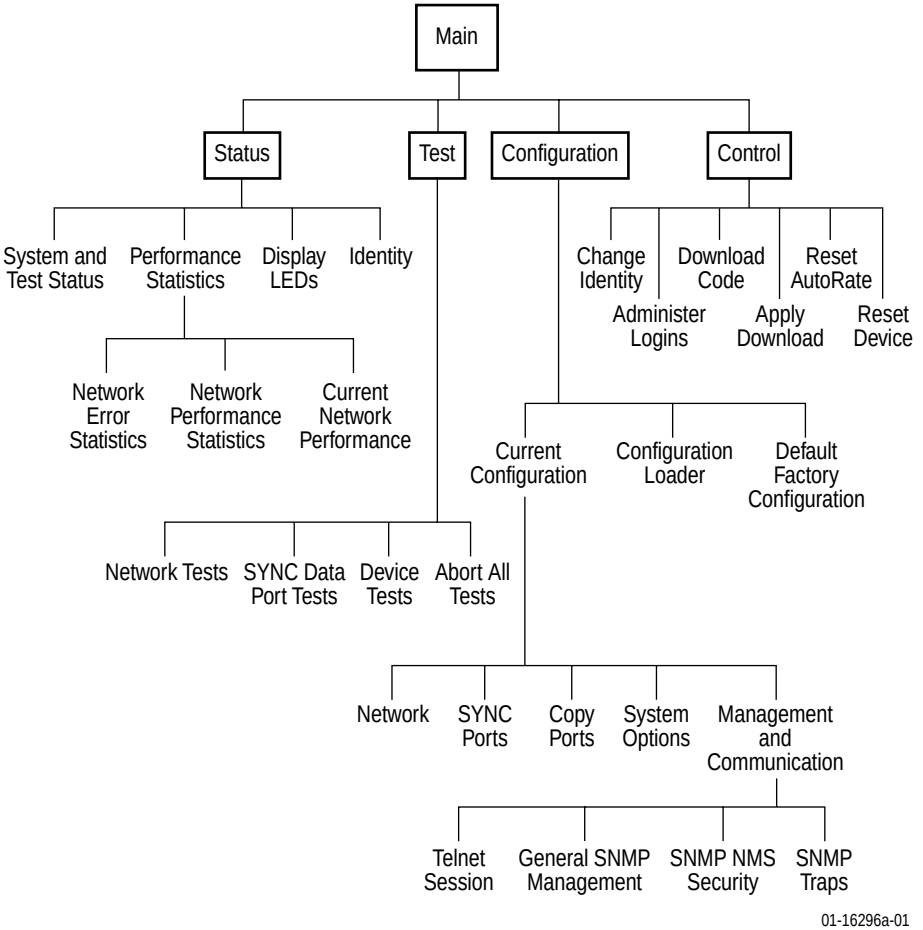
Logging In to the Hotwire DSLAM

You can log in to the Hotwire DSLAM system using either a local VT100-compatible terminal or a remote Telnet connection.

After you enter your user ID and password, the system displays the Hotwire Chassis Main Menu. See your management card documentation for information about selecting the unit from the card selection screen.

Asynchronous Terminal Interface Menu

The following illustration shows the paths to the Hotwire 8775 or 8785 TDM SDSL Termination Unit's various ATI screens.



Entering Identity Information

After accessing your unit for the first time, use the Change Identity screen to determine SNMP administrative system information that will be displayed on the Identity screen of the Status branch. To access the Card Identity screen, follow this menu selection sequence:

Main Menu → Control → Change Identity

Configuring the Unit

Configuration option settings determine how the unit operates. Use the Configuration menu branch to display or change configuration option settings.

The unit is shipped with factory settings in the Default Factory Configuration area. If the factory default settings do not support your network's configuration, customize the configuration options for your application.

A DSLAM-to-DSLAM configuration requires that the unit at one end of the link be set to NTU mode. DSLAM-mounted Hotwire termination units default to LTU mode.

Accessing and Displaying Configuration Options

To display the configuration options, you must first load a configuration option set into the edit area.

To load a configuration option set into the configuration edit area, follow this menu selection sequence:

Main Menu → Configuration (Load Configuration From)

Make a selection by placing the cursor at your choice and pressing Enter.

If you select . . .	**Then . . .**
Current Configuration	The selected configuration option set is loaded and the Configuration Edit/Display menu screen appears.
Configuration Loader	The Configuration Loader screen is displayed allowing you to upload or download configurations from a TFTP server.
Default Factory Configuration	The selected configuration option set is loaded and the Configuration Edit/Display menu screen appears.

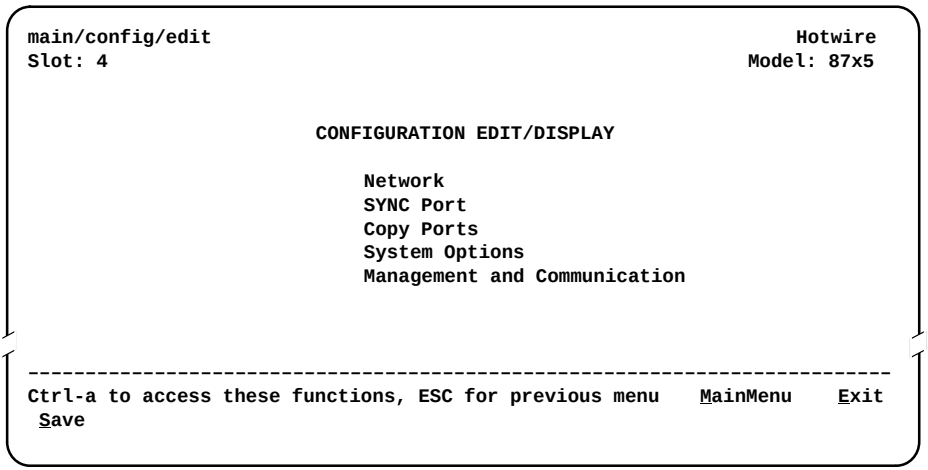
Configuration Edit/Display

The Configuration Edit/Display screen is displayed when the current, customer, or default configuration is loaded and allows groups of configuration options to be displayed. To access the Configuration Edit/Display screen, follow this menu selection sequence:

Main Menu →*Configuration* →*Current Configuration*

– or –

Main Menu →*Configuration* →*Default Factory Configuration*



Select . . .	To Access the . . .	To Configure the . . .
Network	Network Interface Options	DSL network interface Ports 1–4.
SYNC Port	Synchronous Data Port Options	Synchronous DTE interface, Ports 1–4.
Copy Ports	Copy Ports Options	DSL network and synchronous DTE interface ports by copying options from port to port.
System Options	System Options	General system options of the unit.
Management and Communication	■ Telnet Session Options ■ General SNMP Management Options ■ SNMP NMS Security Options ■ SNMP Traps Options	Management support of the unit through SNMP and Telnet. **NOTE:** The SNMP NMS Security Options screen is not available in IP Conservative mode.

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- **Internet:** Visit the Paradyne World Wide Web site at **www.paradyne.com**. (Be sure to register your warranty at **www.paradyne.com/warranty**.)
- **Telephone:** Call our automated system to receive current information by fax or to speak with a company representative.
  - Within the U.S.A., call 1-800-870-2221
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