PARADYNE®

Hotwire® 8300 Endpoint
Installation Instructions

Document Number 8300-A2-GN10-00

April 2003

Contents

Product Documentation Online

Complete documentation for this product is available at **www.paradyne.com**. Select *Support* → *Technical Manuals* → *Hotwire DSL Systems*.

Select the following documents:

8300-A2-GB20
Hotwire 8300 Endpoint User's Guide

8335-A2-GB20
Hotwire ATM Line Cards, Models 8335, 8355, 8365, and 8385, User's Guide

To order a paper copy of a Paradyne document, or to speak with a sales representative, please call 1-727-530-2000.

Package Checklist

Verify that your package contains the following:

- ❑ 8300 Endpoint
- ❑ Power cord
- ❑ 8-pin modular cable for connection to the DSL network
- ❑ Ferrite choke for the Ethernet cable

A DB9-to-DB9 cable for connection to an asynchronous terminal or PC (personal computer) is included with some models.

Preparation

Make sure you have:

- ❑ A dedicated, grounded power outlet that is protected by a circuit breaker within 6 feet of the 8300 Endpoint
- ❑ A clean, well-lit, and ventilated site that is free from environmental extremes
- ❑ One to two feet of clearance for cable connections
- ❑ An asynchronous terminal or PC
- ❑ A physical connection to the G.shdsl line
- ❑ A physical connection to an Ethernet LAN, if used, and an 8-pin modular cable
- ❑ A physical connection to a router, if used, and an appropriate shielded serial cable
- ❑ A physical connection to a PBX, if used, and an RJ48C modular cable

For additional information, see the *8300 User's Guide*.

Before you install the unit, please refer to the *Important Safety Instructions* on page 12.

Be sure to register your warranty at **www.paradyne.com/warranty**.

Installing the Power Cord

The POWER port on the unit is a standard, grounded, three-prong connector. The unit has no power switch.

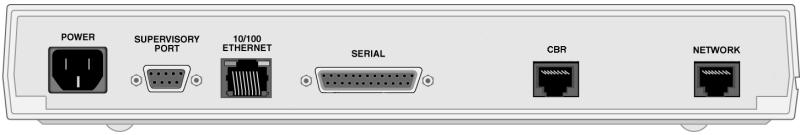


Figure 1. Hotwire 8300 Endpoint Back Panel

▶ Procedure

1. Insert the power cord's receptacle into the POWER jack.
2. Plug the other end of the power cord into a grounded power outlet.
3. Check the LEDs.

When power is applied to the unit, the front panel indicators flash for approximately 10 to 15 seconds as the unit initializes itself. The green POWER LED on the front panel remains on as long as the unit receives power. If the indicator does not light up, check the power connections and the primary circuit breaker.

Figure 2. Hotwire 8300 Endpoint Front Panel

Front Panel LEDs and Switches

The front panel's LED status indicators are described below:

Indicator	Description
MODE	Normally, this indicator lights ***green***. The indicator lights ***amber*** while configuration is being set by the front panel buttons or when the configuration is changed by SNMP or through the web interface. The indicator will remain amber until the changed configuration is saved; it will revert to green when the new configuration has been saved.
CBR	The indicator is off (not illuminated) when the CBR port has not been configured. The indicator lights ***green*** when the CBR port link is up and is receiving AAL1 cells. The indicator lights ***red*** when the CBR port has been configured and no AAL1 cells are received. The indicator lights ***amber*** when the CBR port link is up but AAL1 cells are not being received.
NET	The indicator is off (not illuminated) when the Network port has not been configured. The indicator lights ***green*** when the Network port link is up and the ATM protocol is established. The indicator lights ***red*** when the Network port link is down and the ATM protocol is not established. The indicator lights ***amber*** when the Network port link is up, but the ATM protocol is not established.
ALARM	The indicator lights ***red*** if an alarm condition exists. The indicator lights ***amber*** if a "yellow" alarm condition exists.
POWER	The indicator lights ***green*** when power is applied to the unit. The indicator lights ***amber*** when the unit is in a test mode loopback.

The user-activated input control buttons are described below:

Button	Description
RESET	Provides a hardware reset to the unit.
CONFIG	Sets the unit back to its factory default Ethernet or HDLC configuration; this is the same as a maintenance reset. To initiate this function, you must press and hold the **CONFIG** button during a power-up sequence. The **CONFIG** button must be held until the **MODE** LED lights amber and remains illuminated for the default configuration to take effect.

Connecting the Supervisory Port

The SUPERVISORY port is a DB9 female DCE connector configured for 8 bits, no parity, and 1 stop bit. Bit rates are configured through the Web server interface. The initial default rate of the Supervisory port is 19200 bps.

On power-up, the Supervisory port sends out diagnostic messages at the bit rate of 115.2 kbps until the Supervisory service acquires the Supervisory port, after which the port speed is changed to the setting in the Supervisory interface screen.

A VT100 terminal or a PC providing VT100 terminal emulation must be used to set up access to and management of the unit.

▶ Procedure

1. Configure the PC so it is compatible with the Hotwire 8300 unit:
   - — Baud Rate set to 19.2 kbps.
   - — Character length set to 8 data bits.
   - — Parity set to none.
   - — Stop bit set to 1.
   - — Flow Control set to None.
2. Insert one end of the DB9-to-DB9 cable into the SUPERVISORY port.
3. Insert the other end of the cable into a COM port on the PC. If there is more than one COM port, make note of which one you use.
4. Press Enter on the keyboard to display the Main Menu of the VT100 interface. See the User's Guide for information about its use.

Connecting the Ethernet Port

The unit provides a single Ethernet interface port for IP Gateway, SNMP, and Web browser access. This interface is an eight-pin modular jack that complies with standard twisted-pair, 10/100BaseT requirements.

▶ Procedure

1. Insert one 8-pin connector of your Ethernet cable (not provided) into the 10/100_ETHERNET port.
2. Open the supplied ferrite choke and place it around the Ethernet cable as close to the 8300 Endpoint as possible. Close the choke and lock it by pressing on the latch.
3. Insert the other end of the cable into the Ethernet interface of your LAN.

Ethernet LED Indicators

There are two unlabeled indicator LEDs on either side of the 10/100 ETHERNET jack. The LED on the left side of the jack pulses amber to indicate data activity (either transmit or receive). The LED on the right side of the jack lights green to indicate that the link layer is operational.

Connecting the Serial Port

The SERIAL interface port is a multi-protocol interface presented physically as a DB25 connection. The protocols supported by this interface are RS-232, V.35, EIA-530, X.21, and RS-449. Refer to the user's guide for pin assignments.

▶ Procedure

1. Connect the DB25 end of your shielded serial cable to the SERIAL port. Secure it with its captive screws.
2. Attach and secure to the cable any required adapters, such as for a 34-pin V.35 interface.
3. Plug the other end of the cable into your router and fasten it in place.

Connecting the CBR Port

The CBR (Constant Bit Rate) port is an RJ48C, eight-pin modular jack that is software-selectable for T1 or E1. As a T1 port, it terminates as 100 ohms, and as an E1 port at 120 ohms. This port is used to transport TDM traffic using a T1/E1 framer to provide ATM adaptation Layer 1 with Circuit Emulation Services (AAL1-CES). It must not be connected to outside plant wiring.

▶ Procedure

1. Plug an RJ48-to-RJ48 cable (not provided) into the CBR port.
2. Plug the other end of the cable into your T1 or E1 equipment.

Connecting the Network Port

The NETWORK port is a standard RJ49C, eight -pin modular jack that terminates as 135 ohms.

▶ Procedure

1. Plug the 8-pin modular cable (provided) into the NETWORK port.
2. Plug the other end of the cable into your DSL interface.

Web Interface

If you will use the Ethernet port for the web interface, you must set the IP address of the port, or use the default address of 192.168.6.1. The IP address of the 8300 Endpoint must be on the same subnet as the PC accessing the web interface.

Setting the Ethernet Port Address

To set the Ethernet port address:

▶ Procedure

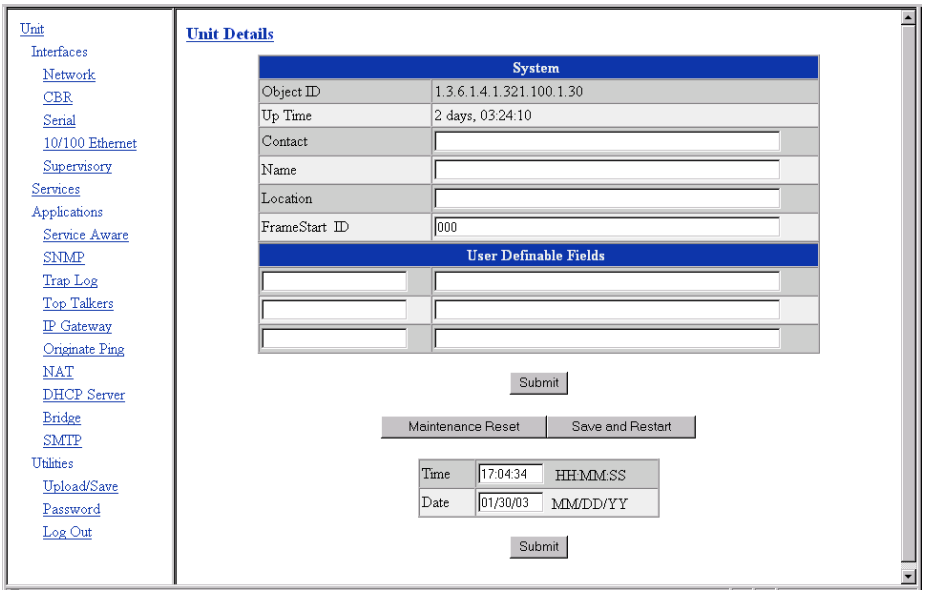
1. Access the Main Menu as described in *Connecting the Supervisory Port* on page 5.
2. Tab to the Interfaces selection and press Enter. The Interfaces menu appears.
3. Tab to the 10/100 Ethernet selection and press Enter. The IP Details screen appears.
4. Enter an IP Address, Subnet Mask, and Gateway Address.
5. Tab to Save & Restart and press Enter. When the verification screen appears, select Yes.

Accessing the Web Interface

To access the web interface:

▶ Procedure

1. Start your web browser. Microsoft Internet Explorer version 5.0 or higher is recommended.
2. Type the IP address of the 8300 Endpoint's Ethernet port into the Address field of the browser and press Enter. The Unit Screen appears.



Click on the selections in the navigation frame on the left side of the screen to configure and monitor the unit. See the User's Guide for more information.

⚠UNITED STATES – EMI NOTICE:

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 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 own expense.

The authority to operate this equipment is conditioned by the requirements that no modifications will be made to the equipment unless the changes or modifications are expressly approved by Paradyne Corporation.

If the equipment includes a ferrite choke or chokes, they must be installed per the installation instructions.

Notice to Users of the United States Telephone Network

This equipment complies with Part 68 of the FCC rules and the requirements adopted by the Administrative Council for Terminal Attachment (ACTA). On the bottom side of this equipment is a label that contains, among other information, a product identifier in the format US:AAAEQ##TXXXX. If requested, this number must be provided to the Telephone Company.

This equipment is intended to connect to the Telephone Network through a Universal Service Order Code (USOC) type RJ49C. A plug and jack used to connect this equipment to the premises wiring and telephone network must comply with the applicable FCC Part 68 rules and requirements adopted by the ACTA. A compliant telephone cord and modular plug is provided with this product. It has been designed to be connected to a compatible modular jack that is also compliant.

The Ringer Equivalence Number (or REN) is used to determine the number of devices that may be connected to a telephone line. Excessive RENs on a telephone line may result in the devices not ringing in response to an incoming call. In most but not all areas, the sum of RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to a line, as determined by the total RENs, contact the local Telephone Company. The REN for this product is part of the product identifier that has the format US:AAAEQ##TXXXX. The digits represented by ## are the REN without a decimal point. For example, 03 represents a REN of 0.3. The characters NAN mean that the REN is not applicable since the equipment may not be used on a telephone line that provides dial up service.

If the 8300 Endpoint causes harm to the telephone network, the Telephone Company will notify you in advance that temporary discontinuance of service may be required. But if advance notice is not practical, the Telephone Company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

The Telephone Company may make changes in its facilities, equipment, operations or procedures that could affect the operation of the equipment. If this happens, the Telephone Company will provide advance notice in order for you to make necessary modifications to maintain uninterrupted service.

If trouble is experienced with the 8300 Endpoint, refer to the repair and warranty information in this document.

If the equipment is causing harm to the telephone network, the Telephone Company may request that you disconnect the equipment until the problem is resolved.

The user may make no repairs to the equipment.

Connection to party line service is subject to state tariffs. Contact the state public utility commission, public service commission or corporation commission for information.

If the site has specially wired alarm equipment connected to the telephone line, ensure the installation of the 8300 Endpoint does not disable the alarm equipment. If you have questions about what will disable alarm equipment, consult your Telephone Company or a qualified installer.

⚠CANADA – EMI NOTICE:

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 réglement sur le matérial brouilleur du Canada.

Notices to Users of the Canadian Telephone Network

NOTICE: This equipment meets the applicable Industry Canada Terminal Equipment Technical Specifications. This is confirmed by the registration number. The abbreviation IC before the registration number signifies that registration was performed based on a Declaration of Conformity indicating that Industry Canada technical specifications were met. It does not imply that Industry Canada approved the equipment.

NOTICE: The Ringer Equivalence Number (REN) for this terminal equipment is labeled on the equipment and includes the effect of the POTS splitter. The REN assigned to each terminal equipment provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Numbers of all the devices does not exceed five.

CE Marking

When the product is marked with the CE mark on the equipment label, a supporting Declaration of Conformity may be downloaded from the Paradyne World Wide Web site at **www.paradyne.com**. Select *Library* → *Technical Manuals* → *CE Declarations of Conformity*.

⚠ Important Safety Instructions

1. Read and follow all warning notices and instructions marked on the product or included in the manual.
2. This product is intended to be used with a 3-wire grounding type plug — a plug which has a grounding pin. This is a safety feature. Equipment grounding is vital to ensure safe operation. Do not defeat the purpose of the grounding type plug by modifying the plug or using an adapter.

   Prior to installation, use an outlet tester or a voltmeter to check the AC receptacle for the presence of earth ground. If the receptacle is not properly grounded, the installation must not continue until a qualified electrician has corrected the problem.

   If a 3-wire grounding type power source is not available, consult a qualified electrician to determine another method of grounding the equipment.
3. Slots and openings in the cabinet are provided for ventilation. To ensure reliable operation of the product and to protect it from overheating, these slots and openings must not be blocked or covered.
4. Do not allow anything to rest on the power cord and do not locate the product where persons will walk on the power cord.
5. Do not attempt to service this product yourself, as opening or removing covers may expose you to dangerous high voltage points or other risks. Refer all servicing to qualified service personnel.
6. General purpose cables are described for use with this product. Special cables, which may be required by the regulatory inspection authority for the installation site, are the responsibility of the customer. To reduce the risk of fire, use a UL Listed or CSA Certified, minimum 26 AWG (0.129 mm^2) telecommunication cable.
7. When installed in the final configuration, the product must comply with the applicable Safety Standards and regulatory requirements of the country in which it is installed. If necessary, consult with the appropriate regulatory agencies and inspection authorities to ensure compliance.
8. A rare phenomenon can create a voltage potential between the earth grounds of two or more buildings. If products installed in separate buildings are **interconnected**, the voltage potential may cause a hazardous condition. Consult a qualified electrical consultant to determine whether or not this phenomenon exists and, if necessary, implement corrective action prior to interconnecting the products.
9. In addition, if the equipment is to be used with telecommunications circuits, take the following precautions:
   - — Never install telephone wiring during a lightning storm.
   - — Never install telephone jacks in wet locations unless the jack is specifically designed for wet locations.
   - — Never touch uninsulated telephone wires or terminals unless the telephone line has been disconnected at the network interface.
   - — Use caution when installing or modifying telephone lines.
   - — Avoid using a telephone (other than a cordless type) during an electrical storm. There may be a remote risk of electric shock from lightning.
   - — Do not use the telephone to report a gas leak in the vicinity of the leak.

10. This unit is provided with a replaceable lithium battery. Replace the battery only with the same type recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.

Supplier's Declaration of Conformity

Place of Issue: Paradyne Corporation
8545 126th Avenue North
Largo, FL 33773-1502
USA

Date of Issue: 4/4/2003

Paradyne Corporation, located at the above address, hereby certifies that the Hotwire® Model Number 8300-AX-400, bearing labeling identification number US:AW2DLNAN8300-AX complies with: the Federal Communications Commission's ("FCC") Rules and Regulations 47 CFR Part 68, the Administrative Council on Terminal Attachments ("ACTA")-adopted technical criteria: TIA-968-A, "Telecommunications - Telephone Terminal Equipment -Technical Requirements for Connection of Terminal Equipment To the Telephone Network, October 2002" and T1.TRQ.6-2001, "Technical Requirements for SHDSL, HDSL2, HDSL4 Digital Subscriber Line Terminal Equipment to Prevent Harm to the Telephone Network."

Patrick Murphy

Senior Vice President, Chief Financial Officer

Warranty, Sales, Service, and Training Information

Contact your local sales representative, service representative, or distributor directly for any help needed. For additional information concerning warranty, sales, service, repair, installation, documentation, training, distributor locations, or Paradyne worldwide office locations, use one of the following methods:

- **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
  - — Outside the U.S.A., call 1-727-530-2340

Document Feedback

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