PARADYNE®

iMarc® 9550 DS3 Probe
Installation Instructions

Document Number 9550-A2-GN10-00

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Contents

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10. This Agreement shall be governed by the laws of the State of Florida, without regard to its provisions concerning conflicts of laws.

Product Documentation Online

Complete documentation for Paradyne products is available at **www.paradyne.com**. Select *Support → Technical Manuals*. Select:

■ *iMarc SLV Technical Description* (9000-A2-GB30-10) – Describes the features, interfaces, and cables for iMarc SLV CSU/DSUs and routers.

■ *iMarc SLV Configuration Reference* (9000-A2-GB31-30) – Lists and describes the configuration options available for iMarc SLV CSU/DSUs and routers.

■ *iMarc SLV SNMP Reference* (9000-A2-GB32-20) – Describes support for MIBs, SNMP traps, and RMON in iMarc SLV CSU/DSUs and routers.

■ *iMarc SLV Operations Guide* (9000-A2-GB33-30) – Explains how to operate and troubleshoot iMarc SLV CSU/DSUs and routers.

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

Unpacking and Inspecting the Equipment

⚠ **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.

The following components should be included in your package:

- 1 – iMarc® 9550 DS3 Probe

- 2 – Brackets for use in a 19-inch rack

- 2 – Brackets for use in a 23-inch rack

- 4 – Right-angle BNC adapters

- 2 – BNC Cables, 18 inches long

- 2 – BNC Cables, 30 inches long

- 2 – BNC Cables, 25 feet long

If there is visible damage, do not attempt to connect the device. Contact your sales representative.

Installing the Brackets for Rack Mounting

The Probe can be installed in a rack using mounting brackets. Two brackets suitable for a 19-inch (48.3 cm) rack and two brackets suitable for a 23-inch (58.4 cm) Bay Networks or Nortel rack are shipped with the unit.

▶ **Procedure**

To install the mounting brackets for rack mounting:

1. Locate the black screw nearest the front panel on each side of the unit.

2. Remove these two black screws (one from each side) before attempting to install the mounting brackets.

3. Identify six flat-head screws (for 19-inch racks) or six machine screws (for 23-inch racks) provided with the mounting brackets in the hardware kit.

4. Attach the brackets appropriate to your rack size. Tighten all screws firmly.

19-inch (483 mm) Rack Mount   23-inch (584 mm) EIA and Bay Networks
                                               Rack Mount
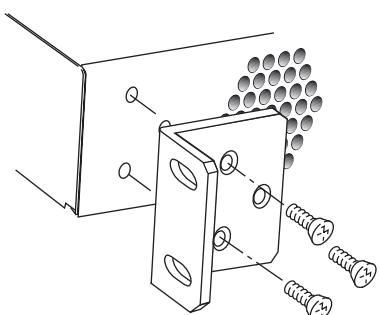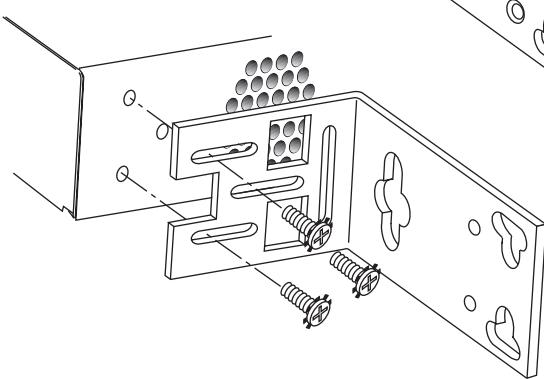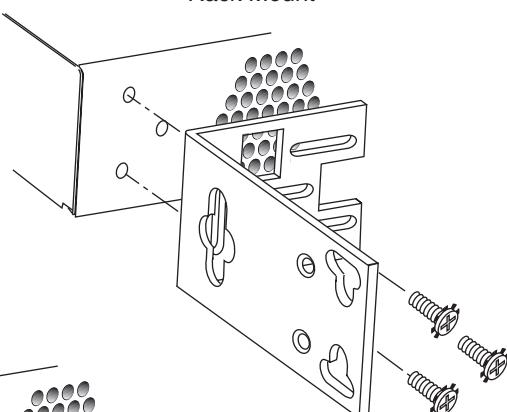
05-17709

23-inch (584 mm) Nortel
Rack Mount

Installing in a Rack

Two types of mounting screws are provided. Use:

- #10-32 mounting screws for rails with threaded screw holes
- #12-24 mounting screws and self-retaining nuts for rails with unthreaded screw holes

▶ Procedure

To install the Probe in a rack:

1. Determine where in the rack you will mount the Probe. If your rack does not have threaded screw holes, slip self-retaining nuts onto the rails where the Probe will be fastened.

2. Place the unit so that the brackets rest against the front of the rails. Insert screws in the bottom screw positions and hand-tighten them.

3. Insert and tighten the screws in the top screw positions, then tighten the bottom screws.

Connecting to Power

The Probe requires a 120 VAC, 60 Hz power source.

▶ Procedure

To connect the 9550 DS3 Probe to power:

1. Connect a ground wire to the grounding screw on the front of the Probe.

Ground

05-17707
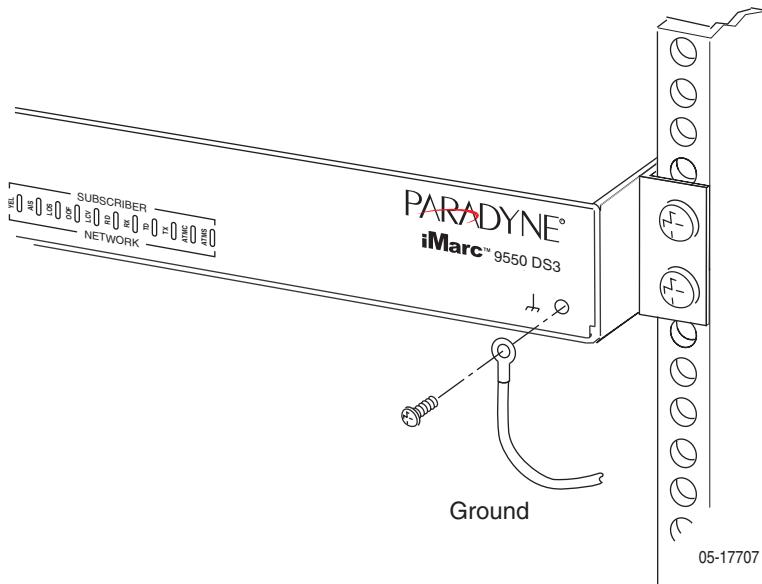
2. Connect the other end of the wire to an earth ground.

3. Plug the socket end of the power cord into the power receptacle on the back of the Probe.

4. Plug the power cable into a 120 VAC, 60 Hz outlet.


05-17708
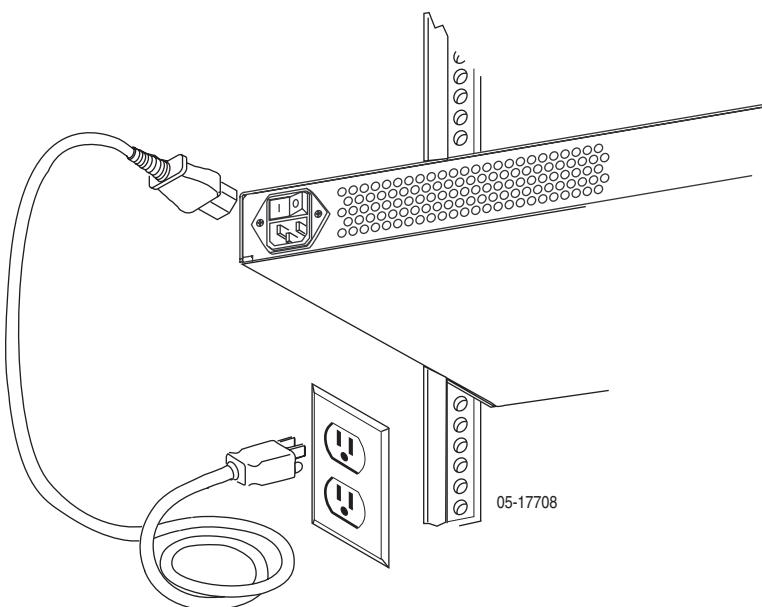
Connecting the Subscriber Port

The Subscriber port connects to your DTE, such as a router.

▶ Procedure

To connect the Subscriber port:

1. If clearance at the front of the Probe is limited, attach right-angle BNC adapters to the ends of two BNC cables.

2. Take the end of the receive cable and push it onto the SUBSCRIBER RX (Receive) connector. Turn the cable connector clockwise to lock it.

3. Take the end of the transmit cable and push it onto the SUBSCRIBER TX (Transmit) connector. Turn the cable connector clockwise to lock it.

4. Fix the cables to the rail with a cable tie or other strain relief device.

5. Connect the receive and transmit cables to the output and input connectors, respectively, of the DTE.

DS3 Router

05-17702
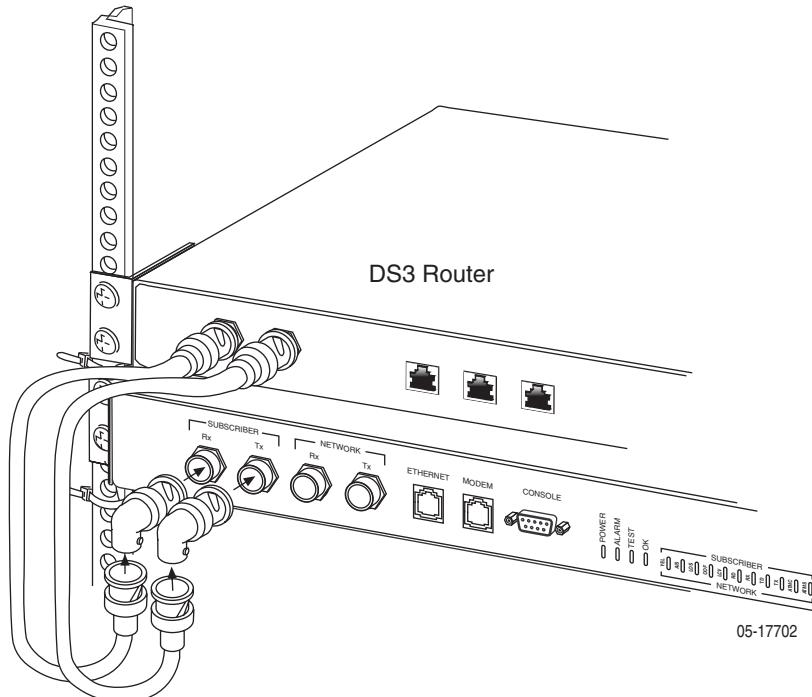
6. If the DTE has a variable line build out (LBO) setting, ensure that it is matched to the cable length.

7. If the cable length is longer than 100 feet (30 meters), set the LBO on the T3 User Port Interface Options configuration screen to Long. The default is Short. See the *iMarc SLV Configuration Reference*.

Connecting to the DS3 Network

The Network port connects to the packet network .

▶ **Procedure**

To connect the Network port:

1. If clearance at the front of the Probe is limited, attach right-angle BNC adapters to the ends of two BNC cables.

2. Take the end of the receive cable and push it onto the NETWORK RX (Receive) connector. Turn the cable connector clockwise to lock it.

3. Take the end of the transmit cable and push it onto the NETWORK TX (Transmit) connector. Turn the cable connector clockwise to lock it.

4. Fix the cables to the rail with a cable tie or other strain relief device.

5. Connect the receive and transmit cables to the output and input connectors, respectively, of the DS3 source.

DS3
Network
Interface

05-17703
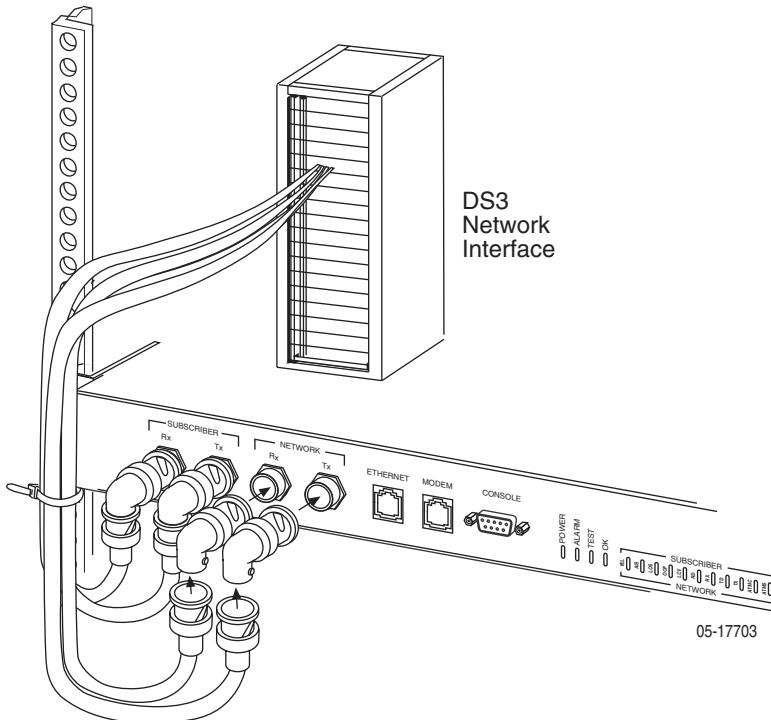
6. If the DS3 source device has a variable line build out (LBO) setting, ensure that it is matched to the cable length.

7. If the cable length is longer than 100 feet (30 meters), set the LBO on the T3 Network Interface Options configuration screen to Long. The default is Short. See the *iMarc SLV Configuration Reference*.

Connecting the Ethernet Port

The Ethernet port provides a 10/100BaseT connection that can be used for Telnet, FTP, and SNMP access to the Probe.

▶ Procedure

To connect the Probe to an Ethernet hub, switch, or NIC:

1. Select the correct cable:

   — To connect the LAN port to a hub, use a standard Ethernet MDI cable

   — To connect the LAN port to a NIC, use an Ethernet MDIX (crossover) cable

2. Insert the 8-pin modular connector of the cable into the Ethernet jack on the Probe. It locks in place when it is fully seated.

3. Fix the cable to the rail with a cable tie or other strain relief device.

4. Connect the other end of the cable to your LAN or NIC.
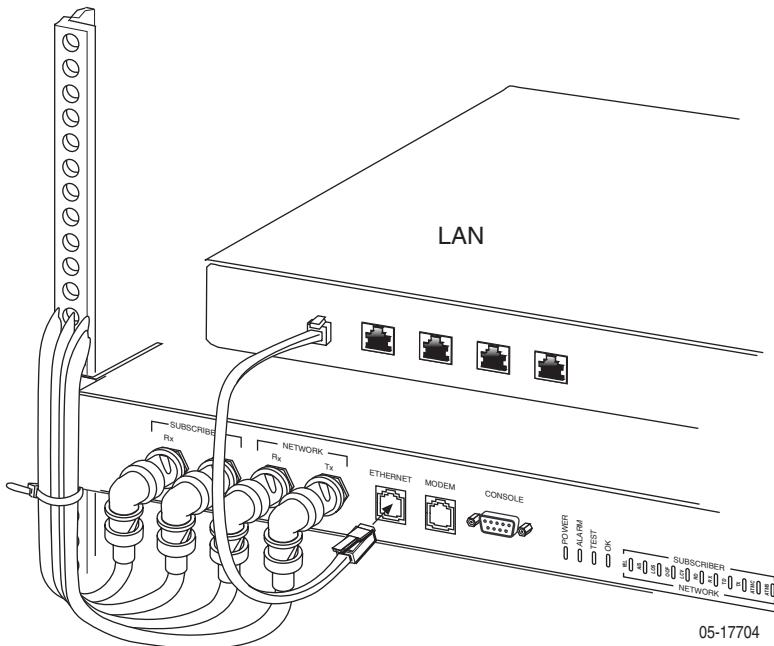
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Connecting the Modem Port

The Probe supports asynchronous terminal interface sessions over its integral modem.

▶ Procedure

To connect the Modem port:

1. Plug one end of an RJ11 telephone cable into the Modem port.

2. Plug the other end of the cable into an RJ11 telephone jack.

05-17705

RJ11
Telephone
Jack
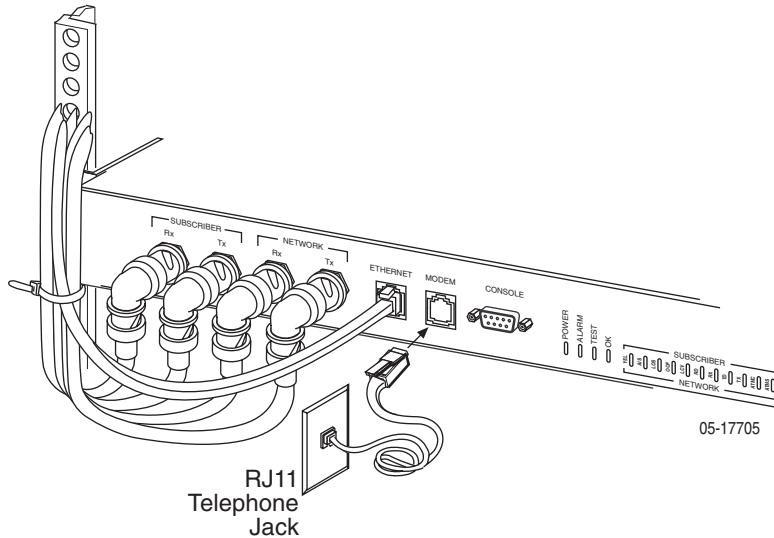
Connecting the Console Port

The Console port can be used to connect a VT100-compatible terminal or a PC with terminal emulation software, providing direct access to the asynchronous terminal interface.

▶ Procedure

To connect the Console port to a terminal or PC:

1. Press the 9-pin connector of a terminal cable onto the Console port socket. If the terminal will be permanently attached, fasten the connector and fix the cable to the rail with a cable tie or other strain relief device.

2. Connect the other end of the cable to your terminal or PC.
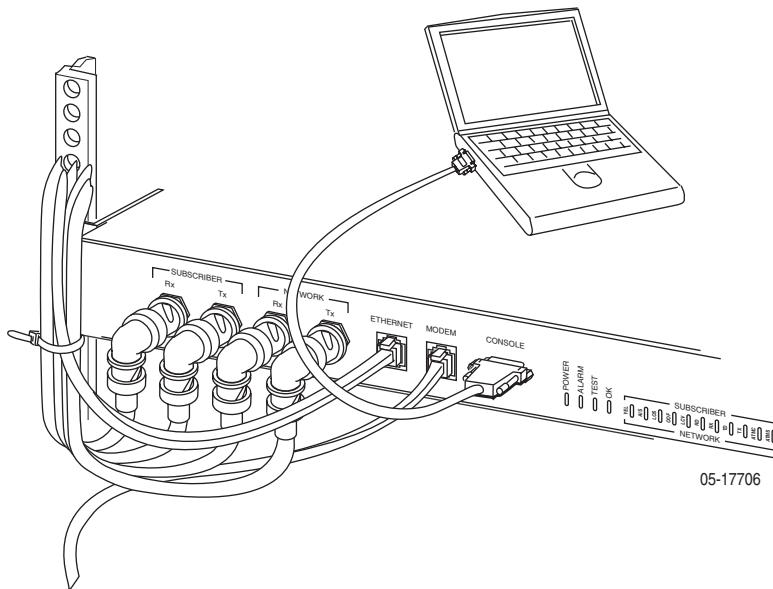
05-17706

3. Verify that the terminal or emulation software is set to:

   — 19200 bps

   — 8 data bits

   — No parity bit

   — 1 stop bit

   Any flow control type can be used. See *Communication Port Options* in the *iMarc SLV Configuration Reference* to change these settings.

Using the Asynchronous Terminal Interface

The Probe should operate using the default (factory-set) configuration options, with exception to the changes specified in these installation instructions. Refer to the following table for help in navigating through the menus.

Press the . . .	To . . .
Esc key	Go back one screen or menu level. See *Menu Hierarchy* on page 14.
Tab key, or Up ($\uparrow$), Down ($\downarrow$), Left ($\leftarrow$), and Right ($\rightarrow$) Arrow keys	Move the cursor from one menu item to the next.
Enter or Return key	Complete the menu or option selection.
Spacebar	Display the next available setting when changing a configuration option. All the available settings for an option appears at the bottom of the screen.

Follow these steps to go to the Configuration Edit/Display menu so you can start setting up the unit.

▶ Procedure

To load a configuration for editing:

1. From the Main Menu, press the down arrow key twice so the cursor is on Configuration.

2. Press Enter to display the Configuration menu. The Load Configuration From menu appears.

3. Press Enter to select Current Configuration (the cursor is already on this selection). The Configuration Edit/Display menu appears.

This sequence of steps would be shown as the menu selection sequence:

Main Menu $\rightarrow$ *Configuration*

Menu Hierarchy

The Menu Hierarchy shows the organization of the Probe's asynchronous terminal interface screens.

Status		
	System and Test Status	Self-Test Results Last System Reset Health and Status Test Status
	IP Path ConnectionStatus	Device Name IP Address Status Discovery Source
	PVC Connection Status	Source and Destination ATM Link, VPI, VCI, Management Type, Status
	IPRoutingTable	Destination Mask Gateway Hop Type Interface TTL
	Performance Statistics	Service Level Verification ATM VCC T3 User Line T3 Network Line Ethernet Clear All Statistics
	Trap Event Log	Number of Trap Events Time of Day Event
	Display LEDs and Control Leads	
	Identity	System NAM

Test		
	Network Physical Tests	Local Loopbacks Remote Loopbacks
	T3 User Port Physical Tests	Local Loopbacks Remote Loopbacks
	IP Ping	
	Lamp Test	
	Abort All Tests	

Configuration	**System**	Class of Service Definitions
		Monitored Protocol Definitions
		Service Level Verification
		General
	Network	Physical
		ATM
		VPI, VCI Records
	T3 User Ports	Physical
		ATM
		VPI, VCI Records
	PVC Connections	Source and Destination Link, VPI, VCI, Management Type
	IP Subnet List	Add and Display Local Subnets
	IP Path List	Add and Display Static Paths
	Management and Communication	Node IP
		Management PVCs
		General SNMP Management
		Telnet and FTP Session
		SNMP NMS Security
		SNMP Traps
		Ethernet Management
		Communication Port
		Modem Port
Control	**System Information**	Device Name
		System Name, Location, Contact
		ATM Location ID
		Date
		Time
	Administer Logins	Login ID
		Password
		Access Level
	Select Software Release	Current Release
		Alternate Release
		Switch & Reset
	Telnet	
	Disconnect Modem	
	Reset Device	

Saving Configuration Options

▶ Procedure

To save a configuration option change:

1. Press Ctrl-a to switch to the function keys area at the bottom of the screen.

2. Type **s** or **S** (<u>S</u>ave) and press Enter. The Save Configuration To menu appears.

3. Press Enter again to save your changes to the Current Configuration.

4. Press Esc until the Configuration Edit/Display menu reappears to continue configuring the unit.

   Press Ctrl-a, type **m** (<u>M</u>ainMenu), and press Enter to return to the Main Menu.

EMI Notices

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 as described in the installation instructions.

Canada – EMI Notice

This Class A digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

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*.

Japan Notice

Class A ITE

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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.

⚠ Important Safety Instructions

1. Read and follow all warning notices and instructions marked on the product or included in the manual.

2. 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.

3. Do not allow anything to rest on the power cord and do not locate the product where persons will walk on the power cord.

4. Do not attempt to service this product yourself, as opening or removing covers may expose you to hazardous voltage or to other risks. Refer all servicing to qualified service personnel.

5. General purpose cables are used with this product for connection to the network. Special cables, which may be required by the regulatory inspection authority for the installation site, are the responsibility of the customer. Use a UL Listed, CSA certified, minimum No. 26 AWG line cord for connection to the Digital Subscriber Line (DSL) network.

6. When installed, 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.

7. 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.

8. Input power to this product must be provided by one of the following: (1) a UL Listed/CSA certified power source with a Class 2 or Limited Power Source (LPS) output for use in North America, or (2) a certified power source, with a Safety Extra Low Voltage (SELV) output having a maximum of 240 VA available, for use in the country of installation.

9. In addition, since 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.

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 1-800-795-8004

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