

Meridian 1 PC Console Interface Unit Installation Guide

This document describes the Meridian 1 PC Console Interface Unit (PCCIU) installation procedures. It also provides basic troubleshooting information for use during installation, and for future problem-solving by the system administrator. Do not discard this document.

IMPORTANT

The PC must have compatible PC-based Console application software installed before the Meridian 1 PC Console Interface Unit is installed.

Hardware

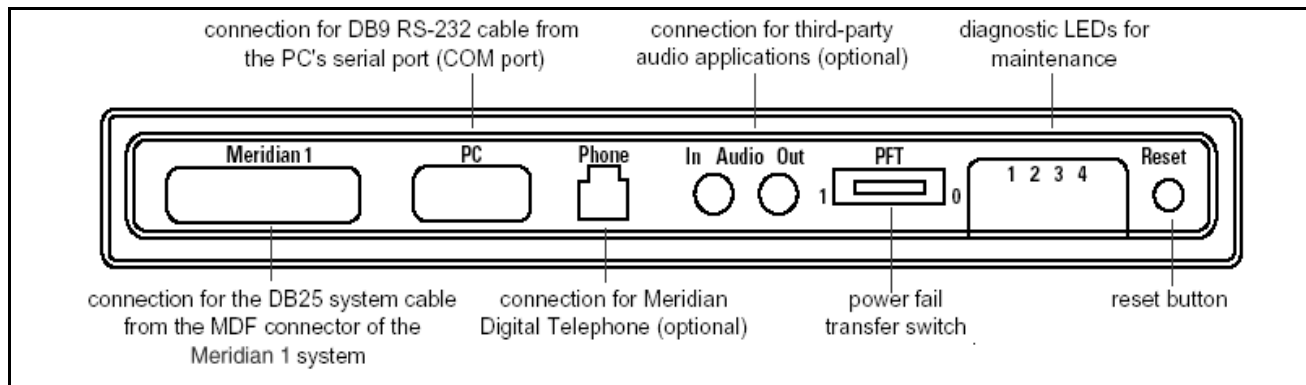
- PC Console Interface Unit (PCCIU)
- 1 – DB25 system cable, which connects the PCCIU to the Meridian 1 for CS 1000 Main Distribution Frame (MDF)
- 1 – DB9 RS-232 serial cable, which connects the PCCIU to a PC
- Handset
- Headset (optional; can be ordered separately)

Installing the Meridian 1 PC Console Interface Unit

1. Nortel recommends that you place the PCCIU flat under the PC monitor with the front panel facing forward.
2. Connect one end of the DB25 system cable to the Meridian 1 connector on the back panel of the PC.
3. Connect the other end of the DB25 system cable to the MDF connector.
4. Attach the DB9 connector from the DB9 RS-232 serial cable to the PC port on the PC.
5. Connect the other end of the DB9 RS-232 serial cable from the PCCIU to the PC.
See Figure 1 on [page 1](#).

Note: An adapter may be required to connect the RS-232 serial cable from the PCCIU to the PC.

Figure 1: Back panel of the PC Console Interface Unit

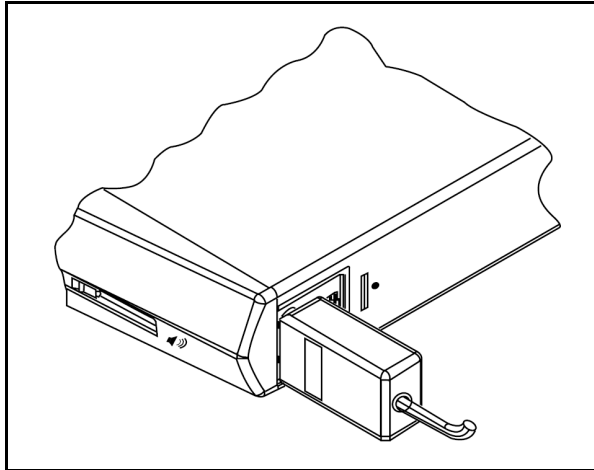


6. Attach a headset to the RJ32 jack or a handset to the PJ327 two-prong connector jack on either side of the PCCIU. Ensure that the brandline plate faces outward. See Figure 2 for correct PJ327 insertion.

Note 1: The PCCIU supports both amplified and non-amplified headsets.

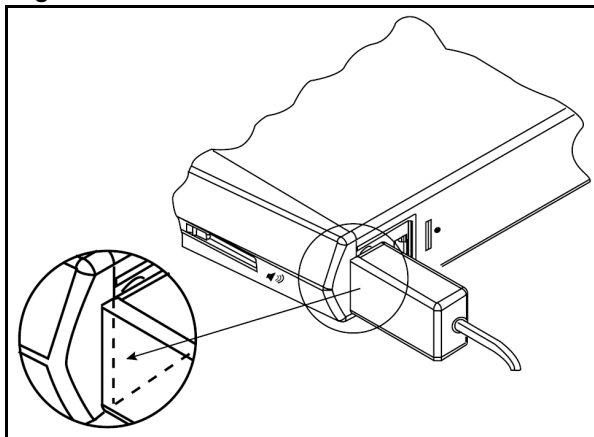
Note 2: The PCCIU does not support carbon-type headsets or handsets. Contact your Nortel distributor for further information on headsets and handsets.

Figure 2: Correct PJ327 insertion



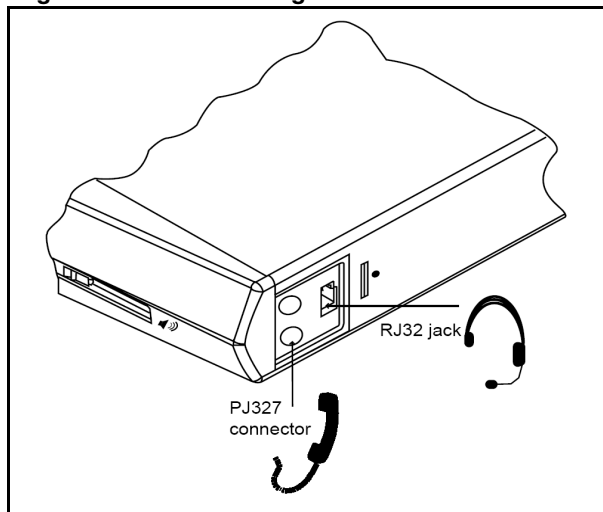
The jack fits snugly with the PCCIU case.

Figure 3: Incorrect PJ327 insertion



The jack is not flush with the PCCIU case.

Figure 4: Connector usage



7. If a Power Fail Transfer Unit (PFTU) is available, connect the Power Fail Transfer pair (11 and 36 in Figure 5 on [page 4](#)) from the MDF block to the PFTU.
8. If desired, install an M3900 Series Digital Telephone through teledapt PHONE connector at the back of the PCCIU using a two-wire pair on the MDF block (BACK_UP and BACK_UP 2 in Figure 5 on [page 4](#)).

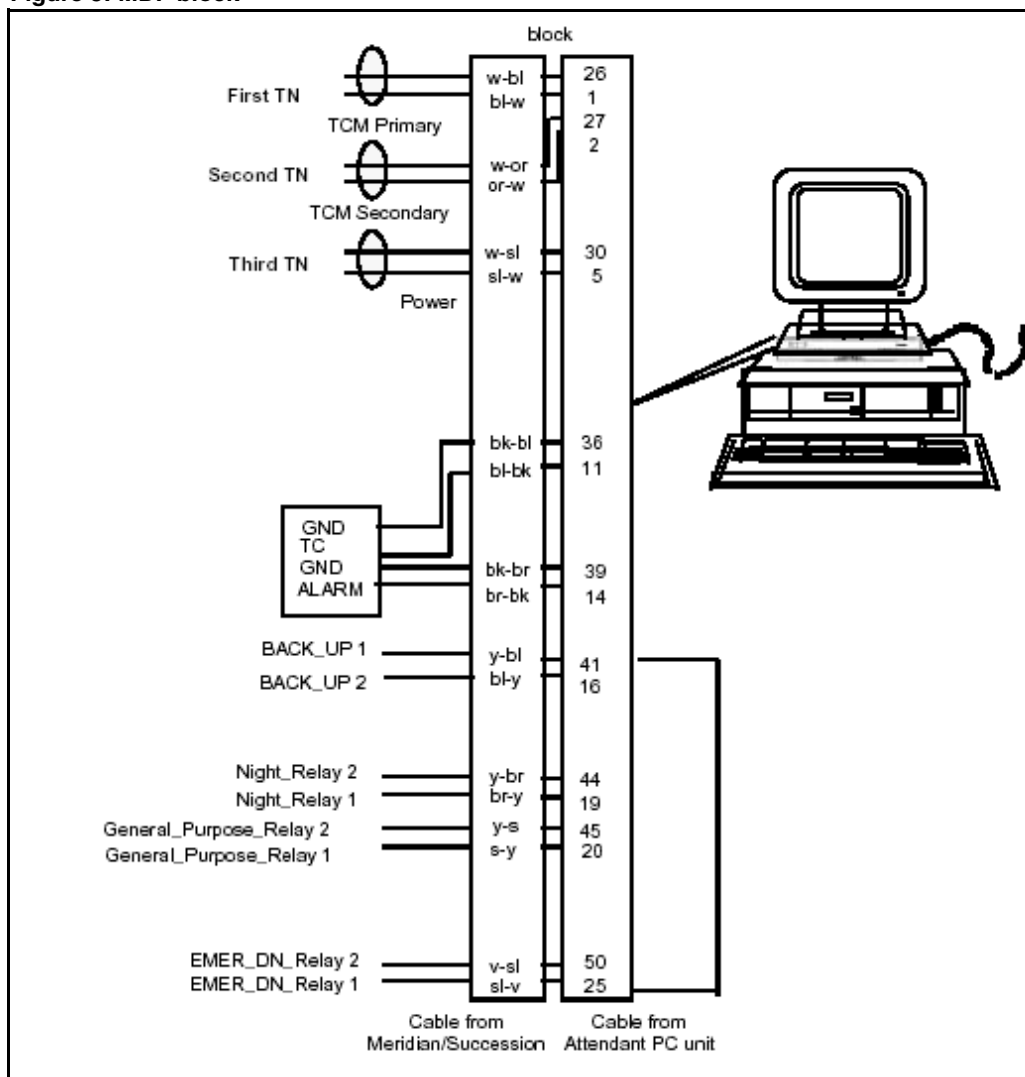
Note: The M3900 Series Digital Telephone can be used as a Night DN or as a backup telephone if the PC fails.

9. Connect the Night, General_Purpose, and EMER_DN relays to the MDF block. See Figure 5 on [page 4](#).

Note: LDN0 must be configured with EMER_DN for this relay to work properly.

10. Use the Audio Input/Output jacks to connect third-party audio applications, if any. Refer to the third-party audio applications user manuals for instructions.

Figure 5: MDF block



Configuring the PCCIU

1. Ensure that there are three free ports on the digital line card (or four free units if you installed an M3900 Series Digital Telephone in Step 8 on [page 3](#)).
2. In LD 12, configure the first two units as the primary and secondary Terminal Numbers (TN) using the same setup as the M2250. Refer to *Software Input/Output: Administration* (553-3001-311) to configure the TN with the exception that you enter 2250 at the **TYPE** prompt to configure the PCCIU. Then configure the third unit as a power unit.
3. In LD 11, configure the fourth unit as a NIGHT_DN (if you installed an M3900 Series Digital Telephone in Step 8 on [page 3](#)).
4. If you are using a PFTU, do the following:
 - Make sure that there is one free port on an analog line card.
 - In LD 10, configure the TN using the same setup as the analog (500/2500-type) telephone. Refer to *Software Input/Output: Administration* (553-3001-311) to configure the TN using LD 10.

Configuring the installation

1. Make sure the PFT is in the Off position (1 for On, 0 for Off).
2. Make sure all cross-connects to the PCCIU are wired at the MDF block (see Figure 5 on [page 4](#)).
3. Make sure the DB25 system cable is connected to the MDF block.
4. Make sure the DB9 RS-232 serial cable is connected to the PC serial port (COM port).
5. Launch the PC-based Console application software. The PC-based Console application software must be installed before the PCCIU is installed.

Note: If you experience a one-way speech path, check all cross-connections, and make sure all connections are secure.

Self-test and diagnostics

When the PCCIU powers up, it performs a self-test diagnostic routine. The Status LED on the front of the PCCIU turns red for two seconds and then turns solid green. The Diagnostics LEDs on the back panel of the PCCIU flashes once and then turns off. If a failure occurs during the PCCIU self-test diagnostic routine, the Status LED changes to yellow and the error is indicated by the illuminated Diagnostics LEDs. Contact your Nortel distributor to report the problem.

Note: Only one error is indicated at a time, in priority order from highest (1) to lowest (7). For further information, refer to Table 1 on [page 6](#).

Meridian 1 PC Console Interface Unit Installation Guide

Table 1: LED number, description, and priority

1	2	3	4	Description	Priority
Off	Off	Off	Off	Self-test passed	
On	Off	Off	Off	EEPROM failure	7
Off	On	Off	Off	Alerter micro failure	6
On	On	Off	Off	Port expander failure	5
Off	Off	On	Off	Loopback test failure	4
On	Off	On	Off	Secondary codec failure	3
Off	On	On	Off	Primary codec failure	2
On	On	On	Off	RAM failure	1

Troubleshooting the Status LED

The **Status LED** indicates the following current operating status of the PCCIU:

- **Solid green** indicates that the PCCIU is working properly.
- **Off** indicates that there is no power going to the PCCIU. Check the DB25 system cable and the cross-connect wiring at the MDF.
- **Flashing red** is a major alarm indicating that one of the system-related error has occurred at the Meridian 1 system. Contact your system administrator.
- **Flashing green** indicates one of the following:
 - a. PC Console Interface Unit is in Night Service or Position Busy
 - b. Power Fail Transfer (PFT) switch is in the incorrect position (Off)
 - c. handset or headset is not connected properly
- **Solid red** indicates that the PC Console Interface Unit is not communicating with the PC properly. Ensure that the DB9 RS-232 serial cable is connected to the correct port. If the cable is connected properly but the Status LED remains red, run the "Stand-alone test procedure" described on [page 7](#).
- **Solid yellow** indicates that a failure occurred during the PC Console Interface Unit self-test diagnostic routine. Contact your Nortel distributor.

Stand-alone test procedure

1. Disconnect the DB25 system cable to power down the PCCIU and then disconnect the DB9 RS-232 serial cable.
2. Make a connection between pins 2 and 3 on the PC port at the back of the PCCIU unit. Nortel recommends you use a DB9 connector with pins 2 and 3 jumpered (shorted).
3. Power up the PCCIU by reconnecting the DB25 system cable. Press the reset button at the back of the unit.
4. Disconnect the DB25 system cable to power down the PCCIU. Reconnect the DB9 RS-232 serial cable, and then reconnect the DB25 system cable.
5. If the PCCIU still fails to communicate with the PC, check the DB9 RS-232 serial cable and the PC communication port settings.

IMPORTANT

The Reset button should only be used when performing this stand-alone test procedure with a connection between pins 2 and 3 on the PC port. See Step 2 in "Stand-alone test procedure". The PCCIU runs its self-test diagnostics and goes into run mode. (If the PCCIU fails the self-test, the Status LED turns yellow and the Diagnostics LEDs indicates what is wrong.) Refer to "Self-test and diagnostics" on [page 5](#).

Audio In/Out

The audio input/output jacks (3.5 mm) are located on the back panel. The input and output impedances are 600 Ω . These ports can be used to connect the PCCIU audio paths to external audio applications, under control of the PC-based Console application software.

In event of PC failure

In the event of PC failure, or loss of synchronization/communication between the PC or PC-based Console application software and the PCCIU, there is no alarm or event indication. The PCCIU Status LED will still show solid green and calls will still present to the console.

To remove the console from service until the PC function is restored, activate the Power Fail Transfer (PFT) switch or remove the headset or handset. For further information, refer to the *Meridian 1 PC Console Interface Unit Quick Reference Guide*.

