Lucent Technologies
Bell Labs Innovations

GuestWorks®

Issue 5
Technician Handbook

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Comcode 108436551
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January 2000

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The "CE" mark affixed to the equipment described in this book indicates that the equipment conforms to the following European Union (EU) Directives:

- Electromagnetic Compatibility (89/336/EEC)
- Low Voltage (73/23/EEC)
- Telecommunications Terminal Equipment (TTE) i-CTR3 BRI and i-CTR4 PRI

For more information on standards compliance, contact your local distributor.

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Acknowledgment
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Contents

About This Handbook

This handbook provides instructions for installing the GuestWorks® switch and all adjuncts offered as part of the GuestWorks Issue 5 solution. The information provided in this handbook includes information about preparing the site, unpacking and installing the cabinets, connecting cabling and adjuncts, translating the switch and adjuncts, and activating and testing the switch.

Suggested Training

It is suggested that technicians installing this equipment receive training on GuestWorks and the DEFINITY® Enterprise Communications Server (ECS) Release 7 (R7), before installing this equipment. Except for connectivity of hospitality adjuncts and translations of those adjuncts, this handbook contains high-level reminders of the tasks required to install the switch, and is not intended to replace normal training or standard installation documents.

Reasons for Reissue

This document replaces the *GuestWorks Issue 5 Technician Handbook* (555-231-108, Issue 1). This document is reissued for the following reasons:

- To update all information related to Issue 5 of the GuestWorks product. GuestWorks Issue 5 is based on the latest DEFINITY ECS R7 software.

  NOTE:
  Beginning in December of 1999, GuestWorks Issue 5 systems began shipping with DEFINITY R8 software. With R8 software, some of the administration forms have changed. These changes have been noted in this document.

- To add information about new INTUITY™ AUDIX® Release 4.4/5.0 and INTUITY Lodging Release 2.0/2.1.
- To add information about the new TCP/IP messaging connectivity between the switch and the INTUITY voice messaging system.
- To update and rearrange the translations section.
- To add information about the Homisco call record format.

Conventions

The following conventions are followed in this handbook:

- The GuestWorks system can consist of the switch, the INTUITY platform (usually the MAP/5P), and a Property Management System (PMS). In this handbook, the term “switch” refers to the telephone switching equipment, the term “INTUITY” refers to the voice messaging or call accounting platform, and the term “PMS” refers to the property management system provided by the customer.
- All screens shown in this handbook are approximations of how the actual screens appear. Depending on the system options, the screens may vary.
- The terms “attendant console” and “backup telephone” are used in this document. The attendant console is the model 302B, 302C, or PC console that is usually found at the front desk. The preferred backup telephone is the model 6424 or 8434 telephone with attendant-type feature buttons. The model 6408 or 8410 can be used as a secondary backup to the model 6424 or 8434.
- For most GuestWorks installations, the MAP/5P is the voice messaging platform of choice. For very large installations that require more voice ports or message storage, the MAP/40P or MAP/100 may be used. Unless otherwise noted, the term “MAP” refers to any of the different platforms. Any differences between the platforms (other than capacities) will be noted in this handbook.
- With GuestWorks Issue 5, two versions of the INTUITY system will be available; Release 4.4 (R4.4) and Release 5 (R5). Unless otherwise specified, all connectivity and administration applies to either release.
- Administration command paths and options you enter in the administration fields are shown as follows:

  change system-parameters hospitality

  Some administration command paths have additional actions available (such as **change**, **list**, **add**, and **display**). In this document, only the suggested action is shown in the administration sections.
- Field names referring to the administration screens are shown as follows:

  `Queue Length`
- On the cabling diagrams, the << and >> symbols are used to show the plug-receptacle relationship. If this relationship is not known, the diagrams show a rectangular box.

- GuestWorks hardware is offered on the compact modular cabinet (CMC), the single-carrier cabinet (SCC), or the multi-carrier cabinet (MCC) platforms. Specific cabinet models will not be mentioned except when necessary. Refer to the installation document for the cabinet type you are installing.
- Switch software is packaged for *csi*, *si*, or *r* systems. The *csi* system uses CMC hardware, the *si* system uses SCC or MCC hardware, and the *r* system uses MCC hardware.

Related Documents

The following documents may come in handy when installing the GuestWorks system. Most of these documents are included on the GuestWorks Documentation Library CD and the INTUITY AUDIX Documentation Library CD.

- 555-015-201 — *DEFINITY® Terminals and Adjuncts Reference*
- 555-020-706 — *7400A Data Module User Guide*
- 555-020-709 — *8400B Plus Data Module User's Guide*
- 555-025-600 — *BCS Products Security Handbook*
- 555-230-112 — *DEFINITY® ECS Release 7 Installation and Test for Multi-Carrier Cabinets*
- 555-230-121 — *DEFINITY® ECS Release 7 Upgrades and Additions for R7r*
- 555-230-125 — *DEFINITY® ECS Release 7 Installation for Adjuncts and Peripherals*
- 555-230-126 — *DEFINITY® ECS Release 7 Maintenance for R7r*
- 555-230-128 — *DEFINITY® ECS Release 7 Installation, Upgrades and Additions for Compact Modular Cabinets*
- 555-230-129 — *DEFINITY® ECS Release 7 Maintenance for R7csi*
- 555-230-211 — *DEFINITY® ECS Release 7 System Description*
- 555-230-405 — *DEFINITY® ECS Release 7.1 Change Description*
- 555-230-700 — *DEFINITY® ECS Release 7 Console Operations*
- 555-230-723 — *DEFINITY® ECS Release 7 and GuestWorks® Hospitality Operations*
- 555-230-727 — *DEFINITY® System's Little Instruction Book for Basic Administration*
- 555-230-742 — *GuideBuilder™ Software for DEFINITY® Telephones (international version)*

- 555-230-755 — *GuideBuilder™ Software for DEFINITY® Telephones*
- 555-230-890 — *DEFINITY® ECS Release 7 Console Operations Quick Reference*
- 555-230-894 — *DEFINITY® ECS Release 7 Installation and Test for Single-Carrier Cabinets*
- 555-231-001 — *DEFINITY® Business Communications System and GuestWorks® Issue 5 Overview*
- 555-231-104 — *GuestWorks® server Technician Connectivity Training* (video tape)
- 555-231-107 — *DEFINITY® Business Communications System and GuestWorks® Call Vectoring Guide*
- 555-231-205 — *GuestWorks® server INTUITY™ Lodging Call Accounting User's Guide*
- 555-231-601 — *DEFINITY® ECS, GuestWorks® server, and System 75 PBX Property Management System Interface Specifications*
- 555-231-803 — *DEFINITY® Business Communications System and GuestWorks® Issue 5 Documentation Library* (CD)
- 555-233-104 — *DEFINITY® ECS Release 7 Upgrades and Additions for R7si*
- 555-233-105 — *DEFINITY® ECS Release 7 Maintenance for R7si*
- 555-233-502 — *DEFINITY® ECS Release 7 Administrator's Guide*
- 555-233-705 — *Using the New Abbreviated Dialing Program Feature*
- 555-233-712 — *DEFINITY® System's Little Instruction Book for Advanced Administration*
- 555-233-713 — *DEFINITY® System's Little Instruction Book for Basic Diagnostics*
- 585-310-169 — *INTUITY™ Messaging Solutions Release 4 MAP/40 and MAP/40s System Installation*
- 585-310-170 — *INTUITY™ Messaging Solutions Release 4 System Installation Worksheets*
- 585-310-171 — *INTUITY™ Messaging Solutions Release 4 MAP/40 Maintenance*
- 585-310-173 — *INTUITY™ Messaging Solutions Release 4 MAP/100 System Installation*
- 585-310-174 — *INTUITY™ Messaging Solutions Release 4 MAP/100 Maintenance*

- 585-310-185 — *INTUITY™ Messaging Solutions Release 4 MAP/5P System Installation*
- 585-310-186 — *INTUITY™ Messaging Solutions Release 4 MAP/5P Maintenance*
- 585-310-196 — *INTUITY™ Messaging Solutions Release 4 MAP/40P System Installation*
- 585-310-197 — *INTUITY™ Messaging Solutions Release 4 MAP/40P Maintenance*
- 585-310-234 — *INTUITY™ Lodging Property Management Specifications*
- 585-310-257 — *INTUITY™ Messaging Solutions Integration with System 75, DEFINITY® Generics 1 & 3, and R5/6*
- 585-310-564 — *INTUITY™ Messaging Solutions Release 4 Administration*
- 585-310-577 — *INTUITY™ Lodging Release 4 Administration*
- 585-310-745 — *GuideBuilder™ Software for AUDIX System*
- 585-313-401 — *INTUITY™ Messaging Solutions Release 4 Supplement for Technicians*
- 585-313-602 — *INTUITY™ Messaging Solutions Release 4 Using a LAN to Integrate with DEFINITY® ECS*
- 585-313-604 — *INTUITY™ Messaging Solutions Release 5 Using a LAN to Integrate with DEFINITY® ECS*
- 585-313-803 — *INTUITY™ Messaging Solutions Release 5 Documentation (CD)*

GuestWorks Features

DEFINITY now allows different offer categories for customers. Offer Category A contains all possible DEFINITY features and is used by the DEFINITY ECS and ProLogix® products. Offer Category B contains a subset of Offer Category A features used by the GuestWorks and DEFINITY Business Communications System (BCS) products. The following is an abbreviated list of the GuestWorks features most related to hospitality:

- Answer Detection
- ASCII Data Over the Switch-to-Property Management System (PMS) Link
- Attendant Backup
- Attendant Split Swap
- Authorization Codes
- Automated Attendant
- Automatic Alternate Routing (AAR)
- Automatic Route Selection (ARS)
- Attendant-activated Automatic Wakeup Service
- Attendant-activated Do Not Disturb
- Basic Call Management System (BCMS)
- Busy Verification
- Call Vectoring (requires the TN750C circuit pack when using Call Vectoring for the Automated Attendant feature)
- Check-in/check-out
- Controlled Restrictions (the Toll Restriction option requires activation by Lucent Technologies technical support)
- Crisis Alert (to attendant console or display station)
- Daily Wakeup
- Dial by Name (activation controlled by Lucent Technologies technical support)
- Dual Wakeup
- Emergency Access to the Attendant
- Guest-activated Automatic Wakeup (requires the TN725B speech synthesizer circuit pack)
- Guest-activated Do Not Disturb (requires the TN725B speech synthesizer circuit pack)

- Integrated Services Digital Network (ISDN) access using Primary Rate Interface (PRI) and Basic Rate Interface (BRI) telephones and adjuncts
- Maid Status
- Message Waiting Lamps, either light-emitting diode (LED) or neon on guest room telephones
- Names Registration
- PMS Interface
- Recorded Announcements (requires the TN750C circuit pack)
- Room Status
- Switch/INTUITY/PMS Link Integration

> **NOTE:**
> If your installation is using the Mode Code Integration feature, the Switch/INTUITY/PMS Link Integration feature is not an option.

- Terminal Translation Initialization
- Trunk Identification
- VIP Wakeup
- Wakeup Activation via Tones

> **NOTE:**
> If Wakeup Activation via Tones is enabled, the wakeup feature provided by the Speech Synthesizer circuit pack (TN725B) is disabled from service.

- World Class Routing (WCR).

Installing the System

This section describes the procedures you must use to install the components used with a GuestWorks system.

Overview

Before you connect the switch to the hospitality adjuncts (see "Connecting the Hospitality Adjuncts" on Page 21), you must first install the basic switch equipment and, if purchased, install the INTUITY voice messaging system. Use the following documents when installing the switch and voice messaging equipment:

- *DEFINITY® ECS Release 7 Installation, Upgrades and Additions for Compact Modular Cabinets*
- *DEFINITY® ECS Release 7 Installation and Test for Single-Carrier Cabinets*
- *DEFINITY® ECS Release 7 Installation and Test for Multi-Carrier Cabinets*
- *DEFINITY® ECS Release 7.1 Change Description*
- *DEFINITY® ECS Release 7 Installation for Adjuncts and Peripherals*
- *INTUITY™ Messaging Solutions Release 4 MAP/5P System Installation*
- *INTUITY™ Messaging Solutions Release 4 MAP/40P System Installation*
- *INTUITY™ Messaging Solutions Release 4 MAP/40 and MAP/40s System Installation*
- *INTUITY™ Messaging Solutions Release 4 MAP/100 System Installation*
- *INTUITY™ Messaging Solutions Release 5 Documentation (CD).*

Installation Checklist

The following is a brief checklist of the tasks required to install and translate a GuestWorks system.

Table 1. Installation Checklist

✔	Description	Reference
	Determine upgrade issues	Page 11
	Verify parts and test equipment	Page 11
	Plan and prepare the site	Page 12
	Unpack the equipment	Page 15
	Install and connect the equipment	Page 16
	Install telecommunications cabling	Page 16
	Install the management interface	Page 17
	Activate the systems	Page 18
	Set up the initial options	Page 19
	Connect and test the hospitality adjuncts	Page 21 to Page 69
	Miscellaneous translations and testing	Page 73 to Page 125
	Switch-to-INTUITY translations and testing	Page 126 to Page 170
	INTUITY Lodging-to-PMS translations and testing	Page 171 to Page 178
	Switch-to-Call Accounting translations and testing	Page 180 to Page 181
	INTUITY Lodging Call Accounting-to-PMS translations and testing	Page 182
	Switch-to-PMS link translations and testing	Page 183 to Page 200
	Printer translations and testing	Page 201 to Page 203
	Logins, security, and backups	Page 205 to Page 207
	General switch testing	Page 209
	Install and wire telephones and other equipment	Page 209
	Test telephones and other equipment	Page 210
	Turn the switch over to the customer	Page 210

Upgrade Issues

Upgrades are treated differently depending on the release the system is upgraded from.

If you are upgrading a GuestWorks Issue 1, 2, or 3 system to Issue 5, you must record all of the existing switch translations, perform the upgrade, and re-translate the switch. Adjunct translations may not have to change, but you should check them for accuracy. Contact your project manager for more information.

If you are upgrading a GuestWorks Issue 4 system to Issue 5, certain preliminary translation work must be done before you can upgrade the switch. Contact your project manager to confirm that all upgrade issues have been resolved before you begin the upgrade. In many cases, you will not need to reinstall any of the cabling between the switch and the adjuncts. However, you will have to verify that the connections are still required. Similarly, you will not need to readminister all of the switch and adjunct translations, but you will have to verify that the translations are still accurate.

Additional Parts and Test Equipment

Other than the tools and test equipment noted in the installation manuals, you should also have the following items available on-site:

- RS232 mini-tester (comcode 407515139)

NOTE:
The mini-tester shows positive voltage with a green LED and negative voltage with a red LED. This can be verified by connecting the mini-tester to a printer's EIA port, adding power to the printer, and then putting the printer on-line. The Data Terminal Ready (DTR) lamp should then light with a positive (green) voltage. You may already have your own mini-tester that shows positive voltage as red and negative voltage as green. If this is true at your installation, the mini-tester result diagrams shown in this handbook must be read from an "opposite" perspective; that is, if the book shows that DTR should be green, and you have a mini-tester that operates in an "opposite" mode, your mini-tester will show DTR being red. This change in perspective should be true for all data leads.

- RS232 gender changers and M25A/M25B RS232 cables
- Analog line used to place test calls.

See "Appendix A — Parts List" on Page 214 for a listing of the parts used in this installation. Part numbers are provided if replacements must be ordered.

Planning and Preparing the Site

See Chapter 1 in the DEFINITY ECS installation documents and Chapter 1 in the INTUITY installation documents for more information about the tasks in this section.

1. Inventory the equipment delivered to the customer site and verify that it matches the customer's order. If the equipment does not match the customer's order, follow the appropriate claims process or report the discrepancies to your Lucent Technologies representative. If this is a dealer-installed site, report the discrepancies to the dealer.

   The equipment may include the following:

   - Switch cabinets and circuit packs

     DANGER:
     Check your system for TN793 and TN2793 analog line circuit packs. If the TN793 is vintage 5 or earlier, or if the TN2793 is vintage 3 or earlier, do not use these circuit packs with telephones requiring neon message waiting lamps. Request a remediation update for those circuit packs. Contact your Lucent representative and request information about replacing these older circuit packs via QPPCN 1126D (TN793) and QPPCN 1127B (TN2793).

   - Default translation card

     Unless instructed otherwise, always use the default translation card.

   - DEFINITY Site Administration software for a PC, or a 715 management terminal
   - Multi-Application Platform (MAP) for INTUITY Lodging Voice Messaging, INTUITY AUDIX Voice Messaging, and INTUITY Lodging Call Accounting

     When using the INTUITY Lodging Call Accounting from Homisco, share "Appendix D — Homisco Call Record Format" on Page 220 with the PMS vendor before or during the switch integration.

   - Xiox* call accounting equipment, which could be software, a buffer box, a PC, or all three items

     Call Xiox technical support at +1-480-970-9015 if any issues arise about their call accounting equipment or installation support.

   - Attendant console (Model 302B, 302C, or a PC console)

* Trademark of Xiox Corporation.

- Multiappearance telephones (usually the 6400-series or 8400-series; a 6424 or 8434 is recommended as the primary attendant backup telephone)
- Guest room telephones

  If custom room telephones and faceplates are being ordered, coordinate the translations on the switch with any special feature access buttons being programmed by the vendor. If programming is done ahead of time, this could save time at installation.
- Modems
- Printers

  The Okidata* Models 320 and 321 are often used for GuestWorks, but be aware that other printers may be delivered on site.
- Customer documentation

  All customer documentation must be delivered to the customer's representative so they can distribute it to their employees.
- Miscellaneous equipment.

NOTE:
If the INTUITY Lodging Call Accounting co-resident application from Homisco has been ordered, part of the miscellaneous equipment is a set of adapters, cables, and user documentation used with the INTUITY system. This equipment is packaged in a separate box with the INTUITY equipment and is labeled "Hold for Homisco Technicians - Do Not Discard!" Save this equipment for the Homisco technicians.

* Registered trademark of OKI Electric Co., LTD.

2. Locate the equipment room and lay out the equipment room floor plan. If possible, use standard floor plans as described in *DEFINITY ECS Release 7 System Description*. When laying out the equipment locations, consider the following:

   - The MAP hardware must be within 50 feet of the PMS. This distance can be extended using a pair of Digital Communications Protocol (DCP) data modules connected through the switch.
   - The switch-to-MAP link limitations depend on whether you are using Transmission Control Protocol/Internet Protocol (TCP/IP), X.25, or Mode Code signaling:
     - — The TCP/IP link using the crossover cable is 328 feet. This is the default configuration for GuestWorks.
     - — The TCP/IP link using a 10base-T hub or router is 656 feet (328 feet on either side of the hub or router).
     - — The Isolating Data Interface (IDI) X.25 link must be 200 feet or less. This link is used only on upgrades to Issue 5 when TCP/IP is not used. Duplicated *si* systems must use data modules instead of IDI, so the distance limit is not an issue.
     - — The Mode Code link is done over the same analog voice ports connected between the switch and the voice messaging adjunct. The analog ports have a distance limit of 20000 feet. This connection is limited to upgraded systems; the default configuration for Issue 5 is TCP/IP.
   - The link between the switch and the INTUITY Lodging Call Accounting on the MAP is limited to 50 feet unless you use DCP data modules to extend the distance. When using a standalone call accounting system, there is still the 50 foot limit that can be extended with DCP data modules.

   Figure 2 on Page 23 illustrates an overall view of the GuestWorks connections.

   Additional equipment that you must consider when laying out the floor plan include the following:

   - A customer-provided PC with DEFINITY Site Administration, or a 715 management terminal
   - Cross-connect fields
   - Space requirements and room layout
   - Cable slack manager.

3. Lay out and ensure appropriate power for the switch and the management terminal in the equipment room, and arrange for an electrician to install.

4. Lay out and ensure appropriate grounding in the equipment room, including provisions for a coupled bonding conductor (CBC).
5. Determine the location of equipment closets where feeder cables can be terminated.
6. Determine where external trunk lines come into the building and where external trunk converters and adapters will be installed.
7. Determine an appropriate available port circuit on the switch for each telephone, trunk, and peripheral connection needed and create a provisioning plan based on standard procedures.
8. Have the customer contact the PMS vendor and, if not using the INTUITY Lodging Call Accounting, the call accounting system vendor to find out if there are any special connections required to interface with their equipment. It is highly recommended that the customer schedule the vendors to be on-site when the connections are made and the testing is done for the PMS and the call accounting. If the vendors cannot be on-site, they should at least be available by telephone.
9. If this is an upgrade from an existing system, remind the customer that during the cutover all Automatic Wakeup requests and Do Not Disturb requests must be noted manually. After the cutover is complete, the customer must manually input these requests.

Unpacking the Equipment

CAUTION:
Lifting and moving the switch cabinets may require two people. The average weight of a CMC is 50 pounds (23 kilograms), an SCC is 125 pounds (60 kilograms), and the MCC is 800 pounds (268 kilograms). Use caution to avoid injury.

See Chapter 1 in the DEFINITY ECS installation documents and Chapter 2 in the INTUITY installation documents for more information about the tasks in this section.

1. Unpack the equipment.
2. Inspect the equipment for any damage. Report any damages according to local shipping instructions.
3. Ensure that all circuit packs are fully inserted into the proper slots according to the Customer Service Document (CSD). Report any discrepancies to your Lucent Technologies representative or authorized dealer.

Installing and Connecting the Equipment

See the appropriate installation document for information about installing and connecting the equipment:

- For CMC installations, see Chapter 1 of *DEFINITY ECS Release 7 Installation, Upgrades and Additions for Compact Modular Cabinets.*
- For SCC installations, see Chapter 1 of *DEFINITY ECS Release 7 Installation and Test for Single-Carrier Cabinets.*
- For MCC installations, see Chapter 1 of *DEFINITY ECS Release 7 Installation and Test for Multi-Carrier Cabinets.*
- For installations with an INTUITY system, see Chapters 2 through 4 in the INTUITY installation documents.

Installing Telecommunications Cabling

See the appropriate installation document for information about installing telecommunications cabling:

- For CMC installations, see Chapter 1 of *DEFINITY ECS Release 7 Installation, Upgrades and Additions for Compact Modular Cabinets.*
- For SCC installations, see Chapter 2 of *DEFINITY ECS Release 7 Installation and Test for Single-Carrier Cabinets.*
- For MCC installations, see Chapter 2 of *DEFINITY ECS Release 7 Installation and Test for Multi-Carrier Cabinets*.

Installing the Management Terminal

The management terminal for administration on either the switch or the INTUITY system can be either a PC loaded with the DEFINITY Site Administration software, or a dedicated management terminal (must be purchased separately). The customer is supposed to set up his or her own PC with DEFINITY Site Administration, but technicians are responsible for connecting and setting up the 715 management terminal if it was purchased for the system. Use the customer's PC or your own laptop PC to access the switch for administration during the installation.

See the appropriate installation document for information about installing the management terminal:

- For CMC installations, see Chapter 1 of *DEFINITY ECS Release 7 Installation, Upgrades and Additions for Compact Modular Cabinets.*
- For SCC installations, see Chapter 3 of *DEFINITY ECS Release 7 Installation and Test for Single-Carrier Cabinets.*
- For MCC installations, see Chapter 3 of *DEFINITY ECS Release 7 Installation and Test for Multi-Carrier Cabinets.*
- For installations with an INTUITY system, see Chapter 4 in the INTUITY installation documents.

The following section shows how to connect a PC to the switch.

Connecting a PC to the Switch

Use the on-line help for DEFINITY Site Administration to set the communication options on the PC.

Parts List

- PC with keyboard and monitor
- One M25A or M25B RS232 cable (or equivalent 25-pin straight-through cable); see Table 13 on Page 214
- One 9-pin to 25-pin transition cable (if using a 9-pin COM port) (comcode 847106945)
- Gender changers, as needed.

Cabling Diagram

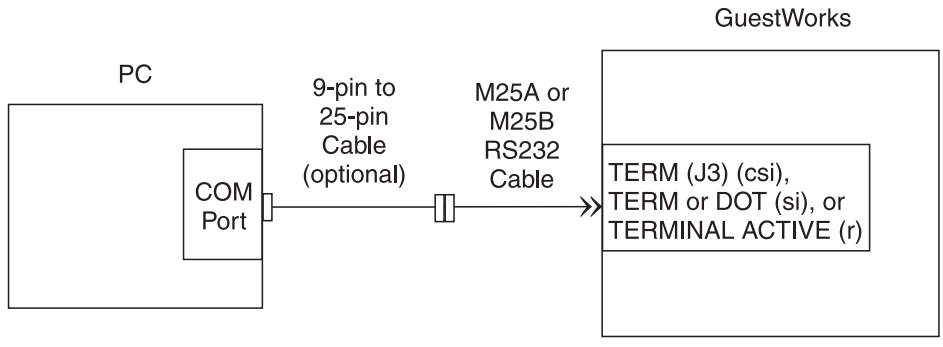


Figure 1. PC Direct Connection to the Switch

Activating the Systems

See the appropriate installation document for information about activating the switch and the INTUITY system:

- For CMC installations, see Chapter 1 of *DEFINITY ECS Release 7 Installation, Upgrades and Additions for Compact Modular Cabinets.*
- For SCC installations, see Chapter 3 of *DEFINITY ECS Release 7 Installation and Test for Single-Carrier Cabinets.*
- For MCC installations, see Chapter 3 of *DEFINITY ECS Release 7 Installation and Test for Multi-Carrier Cabinets.*
- For installations with an INTUITY system, see Chapter 4 in the INTUITY installation documents.

NOTE:
Unless instructed otherwise, activate your system using the default translation card.

Setting Up the Initial Options

After activating the systems, there are some initial administration options you must set up. In addition to the procedures given in this section, see the appropriate installation document for information about setting up the initial options:

- For CMC installations, see Chapter 1 of *DEFINITY ECS Release 7 Installation, Upgrades and Additions for Compact Modular Cabinets.*
- For SCC installations, see Chapter 3 of *DEFINITY ECS Release 7 Installation and Test for Single-Carrier Cabinets.*
- For MCC installations, see Chapter 3 of *DEFINITY ECS Release 7 Installation and Test for Multi-Carrier Cabinets.*
- For installations with an INTUITY system, see Chapter 5 in the INTUITY installation documents.

Do the following to set up the initial options:

1. After the switch powers up, log into the switch using the `craft` login id and the `crftpw` password.
2. Before you do any administration, you must verify that the default translation card is activated for Offer Category B (GuestWorks and DEFINITY BCS offers). Check this by using the **display system-parameters offer-options** command.

   NOTE:
   If the Offer Category is not set to B and activated, contact the technical support group or your regional Center of Excellence (COE). Someone must set the Offer Category to **B**, save the translations, and reset the switch before you can do any more translations.

3. Set the required country options using the **change system-parameters country-options** command.
4. Set the daylight savings time rules using the **change daylight-savings-rules** command.
5. Set the date and the time using the **set time** command. This includes applying the daylight savings time rules set up in Step 4.

6. Set the switch maintenance parameters using the **change system-parameters maintenance** command. For *csi* systems that have a C-LAN (TN799) circuit pack, use Page 2 of this screen to verify that the Bus Bridge Packet Interface 2 has been enabled for the C-LAN circuit pack. If it is not already assigned, enter the C-LAN circuit pack equipment location, and use the defaults for the Timeslot Port fields as shown below.

```
change system-parameter maintenance                          Page 2 of 3
                      MAINTENANCE-RELATED SYSTEM PARAMETERS

MINIMUM MAINTENANCE THRESHOLDS ( Before Notification )
        TTRs: 4        CPTRs: 1        Call Classifier Ports:
        MMIs: 0          VCs:

TERMINATING TRUNK TRANSMISSION TEST (Extension)
  Test Type 100:        Test Type 102:         Test Type 105:

ISDN MAINTENANCE
   ISDN-PRI TEST CALL Extension:         ISDN BRI Service SPID:

DS1 MAINTENANCE
   DSO Loop-Around Test Call Extension:

LOSS PLAN (Leave Blank if no Extra Loss is Required)
   Minimum Number of Parties in a Conference Before Adding Extra Loss:

SPE OPTIONAL BOARDS
              Packet Intf1? y     Packet Intf2? y
   Bus Bridge: 03C05   Inter-Board Link Timeslots  Pt0: 6  Pt1: 1  Pt2: 1
```

7. Verify that the hospitality customer options have been enabled by checking the **display system-parameters customer-options** screen. On Page 1, the following options must be enabled:

   - Hospitality (Basic)
   - Hospitality (G3V3 Enhancements)

   These options can only be enabled with the *init* login ID. Contact technical support or your COE if you do not have permission to make this change.

8. Change the craft password using the **change password craft** command.

   CAUTION:
   After the craft password is changed, the new password must be safeguarded to prevent unauthorized administration changes. This password MUST NOT BE REVEALED to the customer.

9. Save these initial translations. Use the **save translation** command. Label the translation card with the current date and switch name.

   CAUTION:
   It is recommended that you save your translations regularly during the installation process. If a power failure occurs, all translations since the last save are lost and must be readministered.

Connecting the Hospitality Adjuncts

The hospitality adjuncts include the following:

- INTUITY Lodging Voice Messaging

  INTUITY Lodging Voice Messaging is an optional adjunct that resides on the MAP. INTUITY Lodging is used for the guest access to voice messages, and INTUITY AUDIX is used for the office staff to access voice messaging.

- INTUITY Lodging Call Accounting

  INTUITY Lodging Call Accounting is a co-resident application from Homisco that resides on the MAP. It is based on a product from the Homisco Corporation. At most installations, you can expect a technician from Homisco to be on site to install the software and hardware for the call accounting portion of the product. The Homisco technician will assist you in making the call accounting system interface to the switch.

  For installations that include INTUITY Lodging Voice Messaging and INTUITY Lodging Call Accounting, all connections are shown in complete detail.

- Standalone Call Accounting

  Standalone call accounting systems (such as Xiox) can be installed if the call record format is compatible with GuestWorks. Two typical formats are *Teleseer* and *printer*.

  For installations that include voice mail or call accounting from another vendor, the connections are shown up to a definable demarcation point. Connections beyond that demarcation point must be coordinated with the vendor.

- Property Management System (PMS)

  The PMS is a vendor-provided product that interfaces to GuestWorks according to the *DEFINITY Enterprise Communications Server (ECS), GuestWorks server, and System 75 Property Management System Interface Specifications*. If the PMS follows this specification, the PMS will interface to the switch when the correct cabling is installed. The PMS connections are shown up to a definable demarcation point. Connections beyond that demarcation point must be coordinated with the vendor.

- Printers

  Two serial printers can be installed to print hospitality reports and keep a log of events as they occur on the switch. Each printer connects to the switch using a DCP data module. The printers are designated as either a “journal/schedule” printer or a “log” printer. The journal/schedule printer records Emergency Access to Attendant calls and Automatic Wakeup calls.

The log printer records housekeeping updates when the PMS link is down, in addition to recording any other PMS-related events. These PMS events are shown in "Appendix C — List PMS Down Events" on Page 217.

NOTE:
In most cases, only one printer is provided to perform both the journal/schedule and log printer functions.

A parallel printer may be connected to the INTUITY system to run call accounting reports or reports from the INTUITY messaging system.

Overall GuestWorks Connectivity

Figure 2 shows the overall connectivity for GuestWorks when using the MAP for INTUITY Lodging Voice Messaging, INTUITY Lodging Call Accounting, plus connections to a PMS. References to the detailed connectivity drawings are shown in this figure. Table 2 also gives references to the detailed connectivity drawings based on the equipment you are installing.

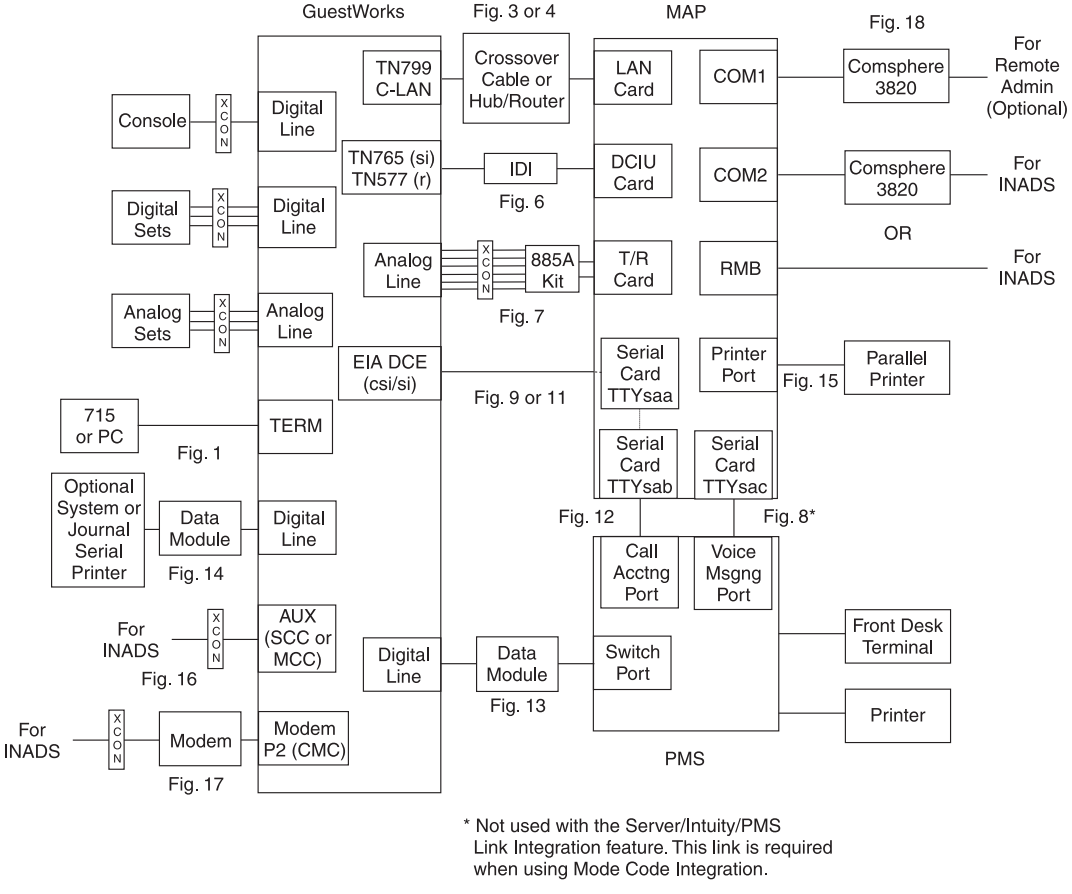


Figure 2. Overall GuestWorks Connectivity

Table 2. Matrix for Cabling Diagrams

From...	To...					
	Switch	**INTUITY Lodging Voice Messaging**	**INTUITY Voice Ports**	**INTUITY Lodging Call Accounting**	**Standalone Call Accounting**	**PMS**
Switch		Figure 3, Figure 4. Figure 6, or Figure 7	Figure 7	Figure 9 or Figure 11	Figure 10 or Figure 11	Figure 13
INTUITY Lodging Voice Messaging	Figure 3, Figure 4. Figure 6, or Figure 7					Figure 8*
INTUITY Lodging Call Accounting	Figure 9 or Figure 11					Figure 12

* This connection is not required when using the Switch/INTUITY/Link Integration feature.

In Figure 2, there are a variety of digital line circuit packs and telephones/data modules that can be used. Table 3 shows which circuit packs should be used to support the different digital telephones and data modules.

Table 3. Digital Line Circuit Packs and Telephone Equipment Compatibility

Equipment	Circuit Packs			
	TN754B (4-wire)	**TN2181 (2-wire)**	**TN2214 (2-wire)**	**TN2224 (2-wire)**
302B Console (2-wire/4-wire)	Yes	Yes	Yes	Yes
302C Console (2-wire/4-wire)	Yes	Yes	Yes	Yes
6400-Series terminals (2-wire)	No	Yes	Yes	Yes
7400-Series terminals (4-wire)	Yes	No	No	No
8400-Series terminals (2-wire)	No	Yes	Yes	Yes

Switch-to-INTUITY Admin Link (TCP/IP)

This data link transfers information to support the INTUITY AUDIX service for office staff voice messaging. For GuestWorks Issue 5, this connection is the recommended way to connect the switch to the MAP for voice messaging administrative messages. If the system is an upgrade, you may be reusing the X.25 hardware for this connection; see "Switch-to-INTUITY Admin Link (X.25)" on Page 28. For installations using Mode Code integration, see "Switch-to-INTUITY Admin Link (Mode Code Integration)" on Page 30.

Parts List

- An ethernet port on the C-LAN circuit pack (TN799)
- One 356A adapter (comcode 104158829), or

  Standard cross-connect hardware and a 103A connecting block (comcode 105164818)
- One 6-inch RJ45 crossover cable (comcode 846943306), or

  One 10Base-T LAN hub or customer router (optional)
- One or two D8W modular cords or equivalent (UTP Category 3 or better)
- One LAN card on the MAP (for INTUITY R4.4, model 8412; for INTUITY R5, model 8416).

Distance Limits

Using the standard crossover cable (or alternate crossover wiring arrangement in Figure 5), the distance limit between the switch and the MAP is 328 feet (100 meters).

Using a hub or customer router, the distance limit between the switch and the MAP is 656 feet (200 meters) total (328 feet [100 meters] from the switch to the hub or router, and 328 feet [100 meters] from the hub or router to the MAP).

NOTE:
If you do locate the switch more than 50 feet from the MAP and are using the coresident INTUITY Lodging Call Accounting system on the MAP, the call accounting link limit (50 feet) must be taken into account. Figure 11 shows how the call accounting link can be extended beyond 50 feet.

Cabling Diagram

Figure 3 shows a detailed connection between the C-LAN circuit pack and the LAN card on the MAP when using the default crossover cable.

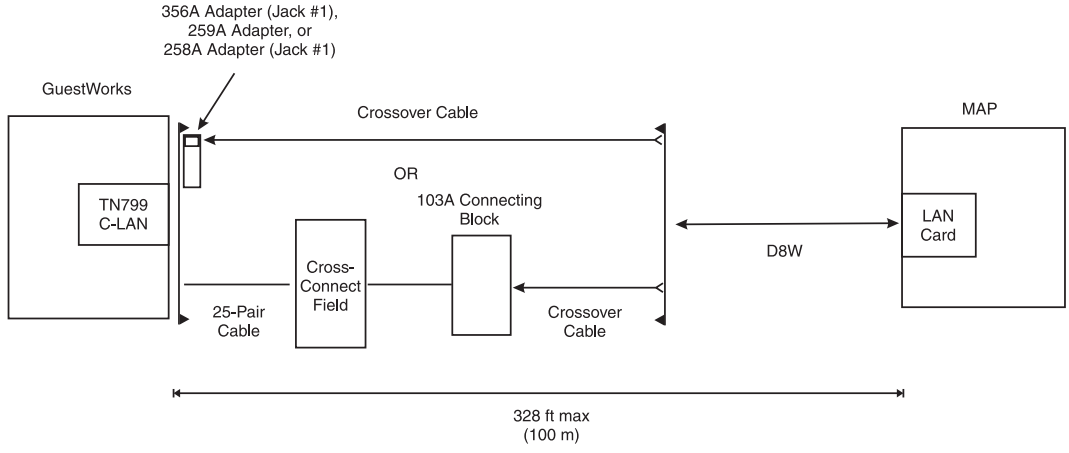


Figure 3. Switch-to-INTUITY Admin Link (TCP/IP) with Crossover Cable

Figure 4 shows a detailed connection between the C-LAN circuit pack and the LAN card on the MAP when using the optional hub or customer router.

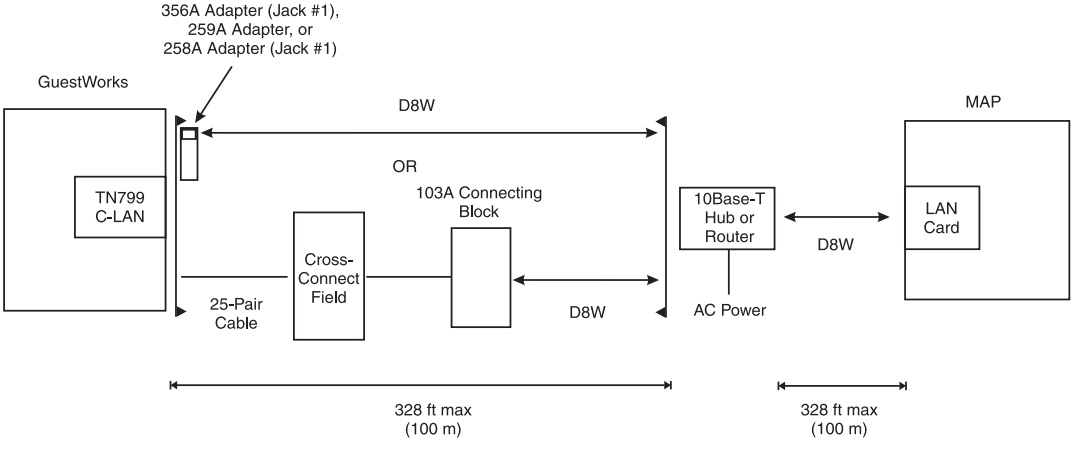


Figure 4. Switch-to-INTUITY Admin Link (TCP/IP) with Hub or Router

The TN799 C-LAN circuit pack ethernet lead designations are as follows:

Lead Name	25-Pair Cable Wire Color	25-Pair Cable Connector Pin-out	RJ45 Jack Pin-out	Terminal Block Pin-out on Connecting Block
TD+	white/orange	27	1	3
TD-	orange/white	2	2	4
RD+	white/green	28	3	5
RD-	green/white	3	6	6

Use this information when making connections from the TN799 using a 356A adapter (8-port harmonica), a 259A adapter (single-port), a 258A adapter (6-port harmonica), or standard cross-connect wiring. When using the 356A or 258A adapters, you must always connect to jack #1 of the adapter.

Alternate Crossover Wiring

If the standard crossover cable or the optional hub/router is not available, you can use an alternate crossover wiring arrangement to flip the transmit and receive leads 3/5 and 4/6 for the LAN connection. Figure 5 shows how this can be done with a 104A connecting block (comcode 105164859). When using this device, the distance limit from the switch to the INTUITY system is 328 feet (100 meters). Using this device, you would connect one D8W modular cord to the switch C-LAN circuit pack, and another D8W modular cord to the INTUITY LAN card.

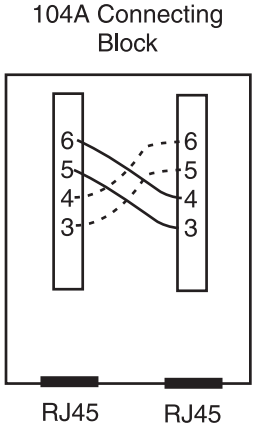


Figure 5. Alternate Crossover Wiring

Switch-to-INTUITY Admin Link (X.25)

This data link transfers information to support the INTUITY AUDIX service for office staff voice messaging. This connection will be used only if your system has been upgraded from an Issue 4 or earlier system to Issue 5 and the customer chooses to retain their X.25 hardware (a PI circuit pack on the *si* system, or a Packet Gateway circuit pack on an *r* system) instead of the TCP/IP C-LAN hardware. See "Switch-to-INTUITY Admin Link (TCP/IP)" on Page 25. For installations using Mode Code integration, see "Switch-to-INTUITY Admin Link (Mode Code Integration)" on Page 30.

NOTE:
The connectivity shown in this section will not work on an *si* system with duplication. For a duplicated system, the connection between the switch and the INTUITY is done with DCP data modules. See your project manager for more information.

Parts List

- A PI port (TN765) on an *si* system, or a Packet Gateway port (TN577) on an *r* system
- One H600-347 cable (*r* system only)
- One H600-210 Group 3 cable (50 feet)
- One 105C IDI unit (comcode 107422735) or 105D IDI unit (comcode 108367376)

  An IDI provides electrical isolation and protection between the switch and the INTUITY hardware. The dip switch settings must be set for "Direct Connect."
- One ED1E434-11 Group 175 cable (4.5 feet)
- One DCIU card (comcode 406801647, J1P260AA, L31) installed in the MAP, usually located in slot 1.

Distance Limits

The distance limit between the switch and the 105C Isolating Data Interface (IDI) is 200 feet. If you need a cable longer than the default 50 foot cable provided, order a Group 4 cable (100 feet) or a Group 5 cable (200 feet). See "Appendix A — Parts List" on Page 214 for a list of cables.

NOTE:
If you do locate the switch more than 50 feet from the MAP and are using the coresident INTUITY Lodging Call Accounting system on the MAP, the call accounting link limit (50 feet) must be taken into account. Figure 11 shows how the call accounting link can be extended beyond 50 feet.

Cabling Diagram

Figure 6 shows a detailed connection between a Processor Interface (PI) switch port (*si* system) or Packet Gateway (PGATE) switch port (*r* system) and the DCIU card on the MAP.

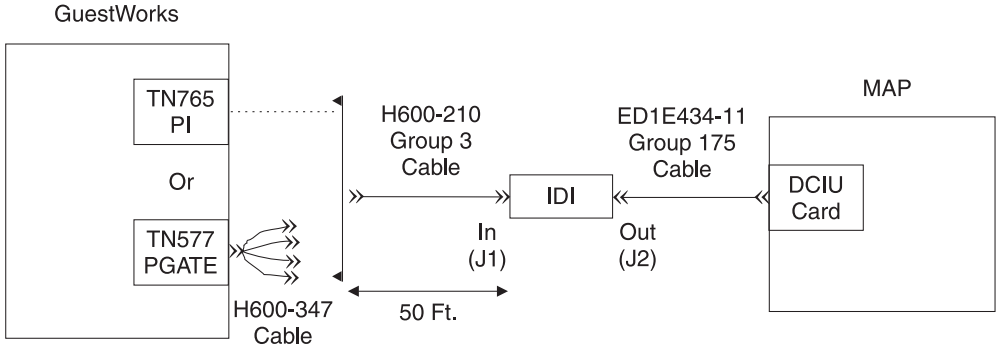


Figure 6. Switch-to-INTUITY Admin Link (X.25)

Switch-to-INTUITY Admin Link (Mode Code Integration)

When using Mode Code Integration, the administrative link between the switch and the MAP (the link that transfers information to support the INTUITY AUDIX service for office staff voice messaging) connects by way of an analog port on the switch and a voice port on the MAP. This connection is the same as the voice port connections shown in "Switch-to-INTUITY Voice Port Connections" on Page 31 and Figure 7.

In other words, the voice ports used for leaving and retrieving messages on the INTUITY system are the same voice ports used for Mode Code Integration. This means that the ports will be in use for the amount of time it takes to leave a message plus the amount of time it takes for the Mode Codes to exchange messages between the switch and INTUITY. This will affect the traffic-handling of the voice messaging system.

Mode Code Integration should not be used if TCP/IP or X.25 link integration is available. See "Switch-to-INTUITY Admin Link (TCP/IP)" on Page 25 or "Switch-to-INTUITY Admin Link (X.25)" on Page 28 for more information.

NOTE:
When using Mode Code Integration, you cannot take advantage of the Switch/INTUITY/PMS Link Integration feature. This means that you must install the link shown in "INTUITY Lodging-to-PMS Link" on Page 34.

Mode Code Integration between the switch and the MAP is described in more detail in the following documents:

- *DEFINITY Release 7 Administrator's Guide*
- *INTUITY Messaging Solutions Release 4 MAP/5P System Installation*
- *INTUITY Messaging Solutions Integration with System 75, DEFINITY Generics 1 & 3, and R5/6*
- *INTUITY Messaging Solutions Release 5 Documentation (CD).*

Switch-to-INTUITY Voice Port Connections

This connection can be used for two purposes:

- For guests and office staff to call the INTUITY system to retrieve their voice messages
- For the administrative link between the switch and the MAP when using Mode Code Integration (see Page 30).

Parts List

- One or more Tip/Ring cards in the MAP (different cards are required within different regions of the world)
  - IVC6 (AYC-10) Analog Voice Card (comcode 106406580)
  - IVC6A (AYC-29) Tip/Ring Card (comcode 107213944)
  - NGTR (AYC-30) Next Generation Tip/Ring Card (comcode 107224586)

  Each Tip/Ring card supports six voice ports. You can have up to three Tip/Ring cards to support 18 ports for voice messaging. If you have 18 voice ports, you must install three 885A connector kits. This figure shows connections for one kit using all six voice ports. Depending on the customer's order, you will install voice ports in pairs up to 18 ports.
- Two or more ED5P208-30 Group 16 modular cords

  You need two cords for each Tip/Ring card.
- One 885A connector kit for each Tip/Ring card installed in the MAP (ED-5P907-70, Group 1, comcode 601419666)

  These kits come with one 885A connecting block (comcode 106079270), six RJ11C 4-wire modular cords (comcode 103732582), and two RJ25 6-wire modular cords.

  CAUTION:
  The two RJ25 6-wire modular cords that come with the 885A connector kits are not used in this application. Do not use the RJ25 cords for any GuestWorks connections; the wiring in the RJ25 cords will not work in this application.

  Use the 885A connecting block label to record the extension numbers of the voice ports connected to the MAP.

- Ferrites (one for each voice line) (comcode 407616846)

  Ferrites are required for installation in some countries. See *INTUITY Messaging Solution Release 4 Supplement for Technicians* for more information.

- 103A modular connecting blocks (one for each voice port) (comcode 105164818)
- Standard cross-connect hardware
- Ports on an analog circuit pack.

DANGER:
Check your system for TN793 and TN2793 analog line circuit packs. If the TN793 is vintage 5 or earlier, or if the TN2793 is vintage 3 or earlier, do not use these circuit packs with telephones requiring neon message waiting lamps. Request a remediation update for those circuit packs. Contact your Lucent representative and request information about replacing these older circuit packs via QPPCN 1126D (TN793) and QPPCN 1127B (TN2793).

Each analog circuit pack supports 8, 16, or 24 analog voice connections. Depending on the circuit pack and the required number of voice ports, you may need to spread out the voice port assignments over more than one circuit pack. For example, if you are using a 16-port circuit pack, use no more than four ports of circuits 1-8 and four ports of circuits 9-16 on that circuit pack. If you still need more INTUITY voice ports, select a circuit pack that is at least one-quarter carrier distance away from the first circuit pack. For example, if your system has 12 voice ports and you assign the first eight ports to the circuit pack in slot 3, assign the other four voice ports to a circuit pack in slot 7 or higher. See more about circuit pack characteristics in the *DEFINITY ECS R7 System Description*.

Cabling Diagram

Figure 7 shows the connections between analog circuit pack ports on the switch and the Tip/Ring card on the MAP.

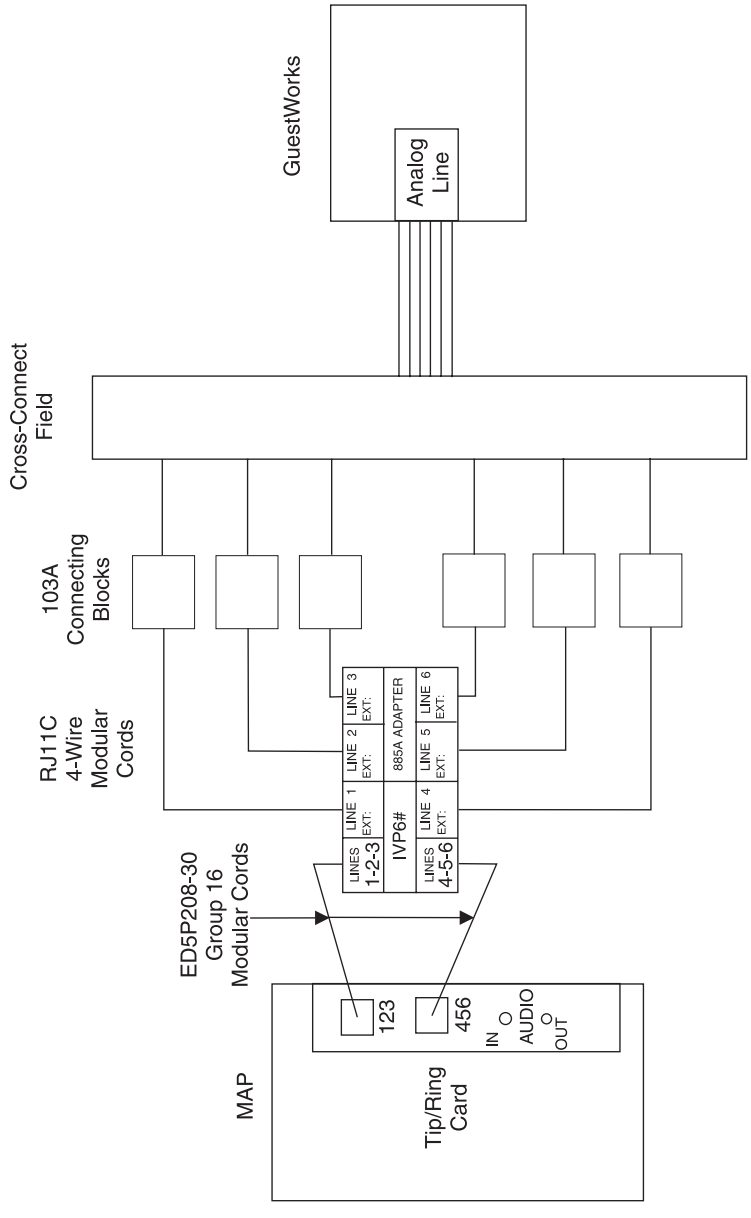


Figure 7. Switch-to-INTUITY Voice Port Connections

INTUITY Lodging-to-PMS Link

This connection is used to activate and deactivate guest voice messaging mailboxes when guests check-in and check-out.

NOTE:
If the Switch/INTUITY/PMS Link Integration feature is used, this connection is not required. See "INTUITY Lodging-to-PMS Translations" on Page 171 for more information about this feature. If Mode Code Integration is used, this link is required and cannot be removed.

Parts List

- One Multi-Port Serial card on the MAP (comcode 407009406; J1P260AA1, List 12)

  For this connection, use the third port on the card. This port is not marked on the card, but is administered in software as port TTYsac.
- One D6AP modular cord (comcode 102937604)
- One Equinox P/N:210068 DTE 10/10 adapter (DB25 DTE, comcode 406983155); see "Appendix B — Connector Pinouts"
- One null modem with transmit/receive swapped (all other leads are straight-through) (comcode 407122043)
- One RS232 cable (use gender changers as needed).

Cabling Diagram

Figure 8 shows the connection used for controlling guest mailboxes between the MAP and the PMS.

NOTE:
For some installations, this connection at the MAP is made to COM1 instead of the Multi-Port Serial Card. If this is the case at your site, do not use the D6AP modular cord or Equinox adapter. Plug the Null Modem directly into COM1.

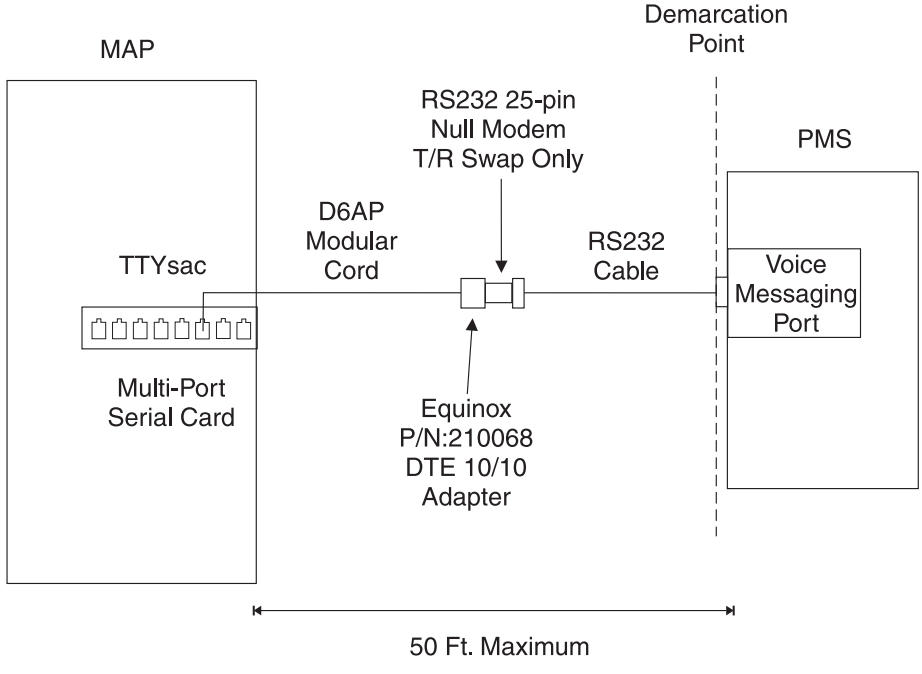
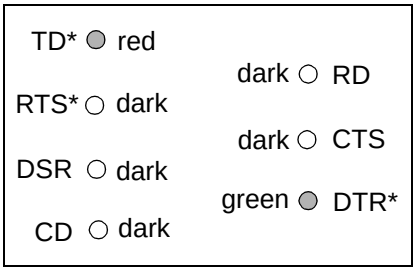


Figure 8. INTUITY Lodging-to-PMS Link

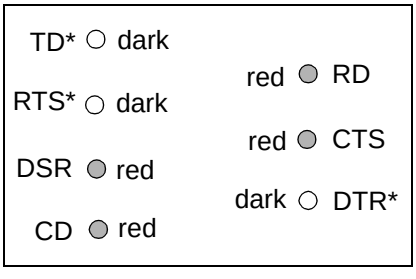
Test Procedure

Using the RS232 Mini-Tester (see the Note on Page 11), check the status of the link where the Equinox adapter connects to the null modem as shown in Figure 8. The leads marked with an asterisk are controlled by the INTUITY system, and the PMS controls the other leads. Translations for this connection begin on Page 171.

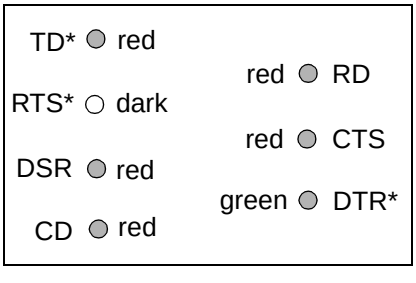
With the mini-tester connected to only the Equinox adapter coming from the MAP, the mini-tester should show the following:



With the mini-tester connected to only the PMS at the null modem, the mini-tester should show the following:



After the connection is complete but in an idle state, the mini-tester should show the following:



Switch-to-Call Accounting Link (with Co-Resident INTUITY Lodging Call Accounting)

This connection is used to transfer Call Detail Recording (CDR) information to the co-resident INTUITY Lodging Call Accounting software (Homisco). This connection is valid for a *csi* or *si* system.

NOTE:
If the distance from the switch and the MAP is farther than 50 feet, or if the switch is an *r* system, see "Switch-to-Call Accounting Link using DCP Data Modules" on Page 42.

Parts List

- The DCE port on the switch (this port is found on the Processor Interface Cable of a *csi* system labeled as J2)
- One M25A RS232 cable (or equivalent straight-through cable) (comcode 105193668)
- One Equinox P/N:210068 DTE 10/10 adapter (DB25 DTE, comcode 406983155); see "Appendix B — Connector Pinouts"
- One D6AP modular cord (comcode 102937604)
- One Multi-Port Serial card on the MAP (comcode 407009406; J1P260AA1, List 12).

  For this connection, use the first port on the card. This port is not marked on the card, but is administered in software as port TTYsaa.

Cabling Diagram

Figure 9 shows the connection used to transfer CDR information between the DCE port on a *csi* or *si* system and the MAP.

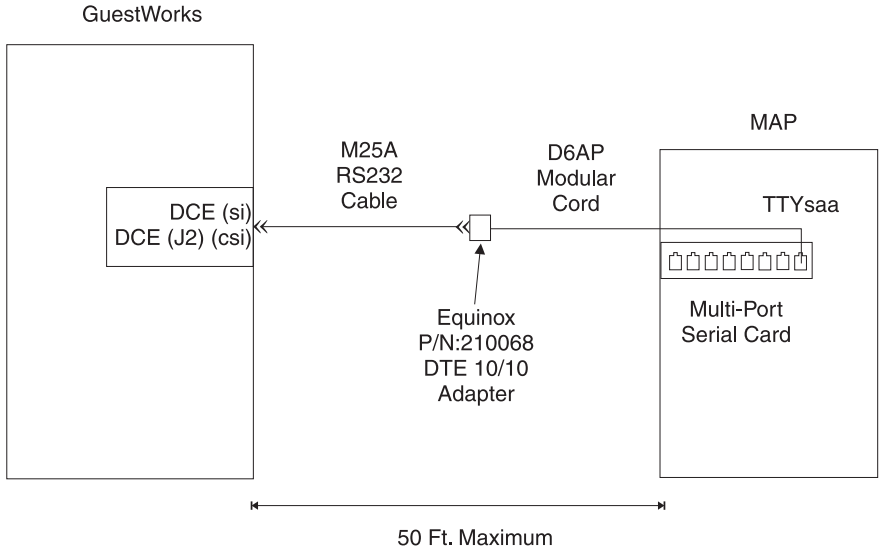
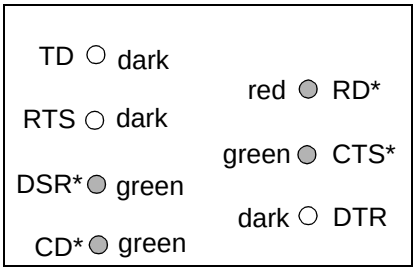


Figure 9. Switch-to-Call Accounting Link (with Co-Resident INTUITY Lodging Call Accounting)

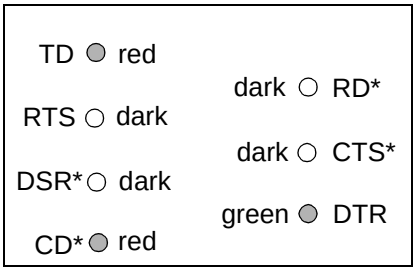
Test Procedure

Using the RS232 Mini-Tester (see the Note on Page 11), check the status of the link where the Equinox adapter connects to the M25A cable as shown in Figure 9. The leads marked with an asterisk are controlled by the switch, and the INTUITY Lodging Call Accounting system controls the other leads. Translations for this begin on Page 180.

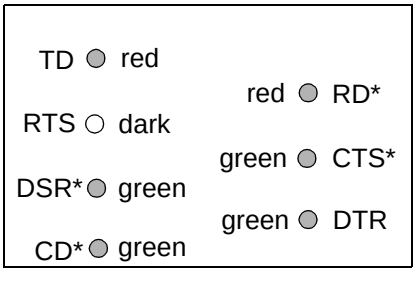
With the mini-tester connected to only the M25A cable, the mini-tester should show the following:



With the mini-tester connected to only the Equinox adapter, the mini-tester should show the following:



After the connection is complete, the mini-tester should show the following (if any of the switch leads are dark on an end-to-end connection, the processor pack should be replaced):



Another way to test this connection is to connect a dumb terminal to the DCE port on the switch, make some test calls, and look for call records being displayed on the terminal.

Switch-to-Call Accounting Link (Xiox or Other Standalone Call Accounting System)

This connection is used to transfer CDR information to a call accounting system such as Xiox. This connection is valid for a *csi* or *si* system.

NOTE:
If the distance from the switch and the standalone call accounting system is farther than 50 feet, or if the switch is an *r* system, see "Switch-to-Call Accounting Link using DCP Data Modules" on Page 42.

Parts List

- The DCE port on the switch (this port is found on the Processor Interface Cable of a *csi* system labeled as J2)
- One M25A or M25B cable plus gender changers as needed (or equivalent 25-pin straight-through cable)
- One cable to connect from the M25 cable and the interface port on the call accounting system (customer- or vendor-supplied).

Cabling Diagram

Figure 10 shows the connection between the DCE port on a *csi* or *si* system and a standalone call accounting system.

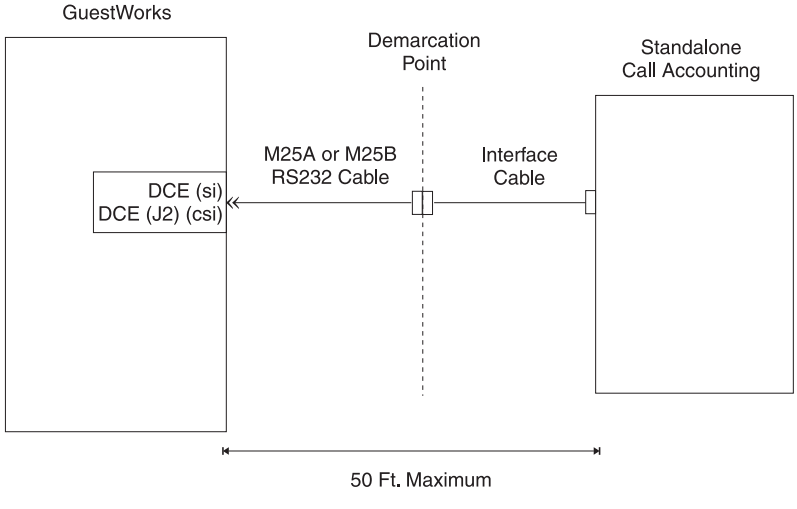
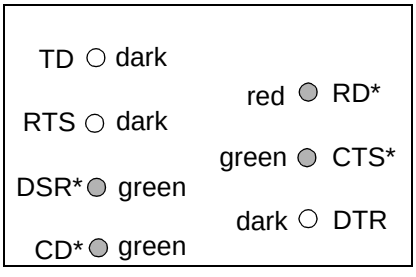


Figure 10. Switch-to-Call Accounting Link (Xiox or Other Standalone Call Accounting System)

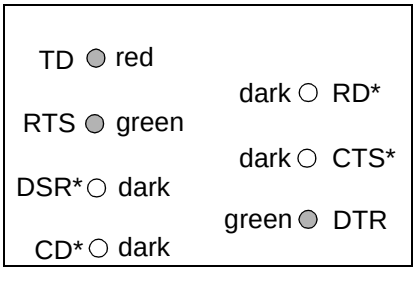
Test Procedure

Using the RS232 Mini-Tester (see the Note on Page 11), check the status of the link at the demarcation point as shown in Figure 10. The leads marked with an asterisk are controlled by the switch, and the call accounting system controls the other leads. Translations for this connection begin on Page 180.

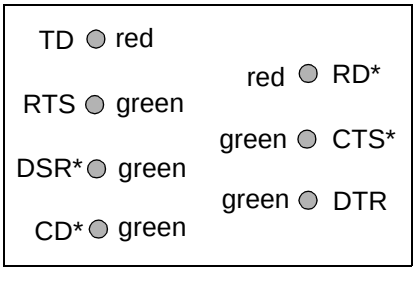
With the mini-tester connected to only the M25 cable from the switch, the mini-tester should show the following:



With the mini-tester connected to only the interface cable to the standalone call accounting, the mini-tester should show the following:



After the connection is complete, the mini-tester should show the following (if any of the switch leads are dark in an end-to-end connection, the processor pack should be replaced):



Another way to test this connection is to connect a dumb terminal to the DCE port on the switch, make some test calls, and look for call records being displayed on the terminal.

Switch-to-Call Accounting Link using DCP Data Modules

This connection is used when the distance between the switch and the call accounting system is greater than 50 feet, or when using an *r* system.

Parts List

Co-Resident INTUITY Lodging Call Accounting (Homisco)

- One digital communications protocol (DCP) port on the switch; the 8400B data module uses a TN2214 or TN2224 2-wire digital port, and the 7400A data module uses a TN754B 4-wire digital port
- Standard cross-connect hardware
- One D8W modular cord
- One 8400B data module optioned as shown on Page 44 or a 7400A data module optioned as shown in Table 4
- One DB9-to-DB25 transition cable when using the 8400B data module
- One Equinox P/N:210068 DTE 10/10 adapter (DB25 DTE, comcode 406983155); see “Appendix B — Connector Pinouts”
- One D6AP modular cord (comcode 102937604).

Xiox or other standalone call accounting system

- One digital communications protocol (DCP) port on the switch; the 8400B data module uses a TN2214 or TN2224 2-wire digital port, and the 7400A data module uses a TN754B 4-wire digital port
- Standard cross-connect hardware
- One D8W modular cord
- One 8400B data module optioned as shown on Page 44 or a 7400A data module optioned as shown in Table 4
- One DB9-to-DB25 transition cable when using the 8400B data module
- One M25A or M25B cable (or equivalent 25-pin straight-through cable); see Table 13.

Cabling Diagram

Figure 11 shows the connection between the switch and the call accounting system (INTUITY Lodging Call Accounting or standalone call accounting) when using a DCP data module. Use these connections for *r* systems.

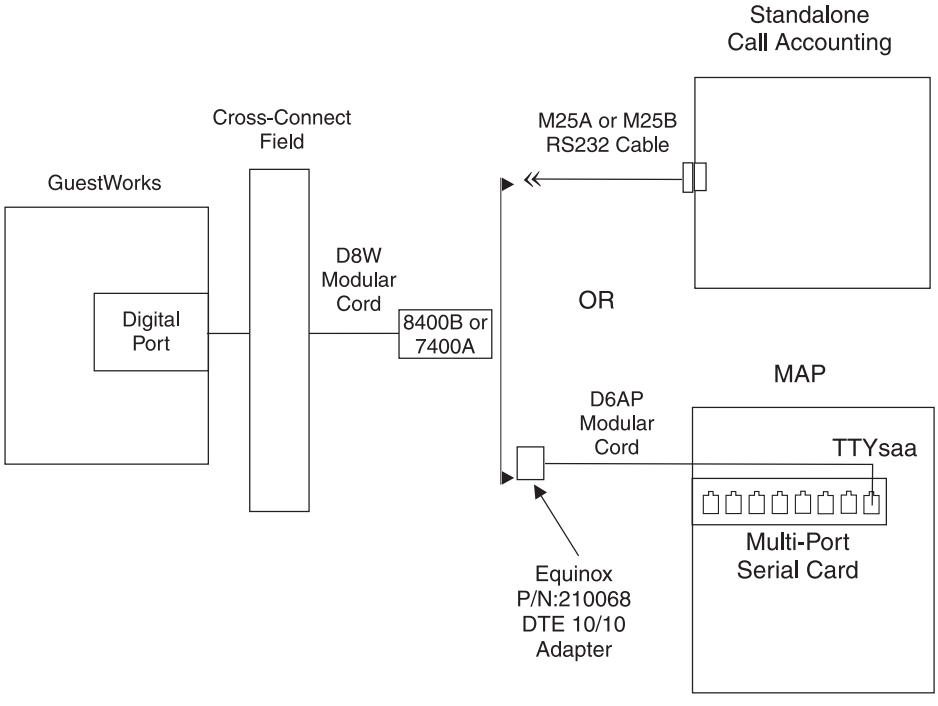


Figure 11. Switch-to-Call Accounting Link using DCP Data Modules

8400B Options

The options on the 8400B must be set using an ASCII data terminal or a PC using a terminal emulation package. You must connect the data terminal or PC to the EIA interface connector on the back of the 8400B. For the switch-to-PMS link, only a subset of options must be changed. These options are changed using the AT command set. Use the following steps to set the options on the 8400B:

1. Set the speed on the data terminal or terminal emulation package to match the speed of the call accounting system. By doing this, the speed on the 8400B will autobaud to match the correct speed.
2. From the data terminal or PC, type **at** Enter. This automatically sets the speed and parity for the connection. The OK prompt should display.
3. Type the following commands as shown. (The character **0** is the number zero.) Before you press Enter for each command, make sure that the command has been entered correctly. The **e0** option on the last command turns off keyboard echo, which means that after you enter this command, any future keyboard entries will not be displayed and the OK prompt is not displayed.

   at&f Enter (the OK prompt displays)
   ats24=1 Enter (the OK prompt displays)
   at&c1&d2&s1s0=1 Enter (the OK prompt displays)
   ate0q1&w0&y0 Enter (the cursor goes to the beginning of the line)
4. Disconnect the data terminal or PC from the 8400B.
5. Reconnect the unit as shown in Figure 11.
6. Cycle power on the 8400B (disconnect the line cord momentarily).

If your call accounting system requires a different set of options, consult the *8400B Plus Data Module User's Guide*.

7400A Options

The options for the 7400A used for the switch-to-call accounting connection are given in Table 4. These options must match the call accounting system communication parameters, which are usually 9600 bps, 8 data bits, 1 stop bit, and no parity.

The data module interface board must be positioned at the DCE location, and the interface option must be set for Answer-Only mode.

Table 4. 7400A Options for Switch-to-Call Accounting Link

Set Interface	**Set Values**
Option	Answer-only mode
Set Option Displays	**Set Values**
*Set 300 speed	OFF
*Set 1200 speed	OFF
*Set 2400 speed	OFF
*Set 4800 speed	OFF
*Set 9600 speed	ON
*Set 19200 speed	OFF
Set Answer	AUTO
Set Break DISC	LONG
Set CI Lead	OFF
Set CH Lead	OFF
Set CTS Lead	NORMAL
Set DCD Lead	NORMAL
Set DSR Lead	NORMAL
Set DTR Detect	50
Set DTR Lead	FOLLOW
Set LL Lead	OFF
Set Remote Loop	GRANT
Set RI Lead	ON
Set RL Lead	OFF
Set SIGLS DISC	ON
Set TM Lead	OFF

* Verify the speed setting with the call accounting vendor. Enable other speeds as needed.

INTUITY Lodging Call Accounting-to-PMS Link

This connection is used to transmit the call accounting information from the MAP to the PMS. This call detail information has been reformatted from its format on the switch for use by the PMS.

NOTE:
This link between the MAP and the PMS is required to transmit call detail records between the call accounting system and the PMS. This link is separate from the Switch/INTUITY/PMS Link Integration feature that allows you to remove one of the links in the integrated solution. See "INTUITY Lodging-to-PMS Link" on Page 34 for more information.

Parts List

- One Multi-Port Serial card on the MAP (comcode 407009406; J1P260AA1, List 12)

  For this connection, use the second port on the card. This port is not marked on the card, but is administered in software as port TTYsab.
- One D6AP modular cord (comcode 102937604)
- One Equinox P/N:210068 DTE 10/10 adapter (DB25 DTE, comcode 406983155); see "Appendix B — Connector Pinouts"
- One cable used to connect to the PMS (customer- or vendor-supplied).

Cabling Diagram

Figure 12 shows the INTUITY Lodging Call Accounting connection between the MAP and a PMS.

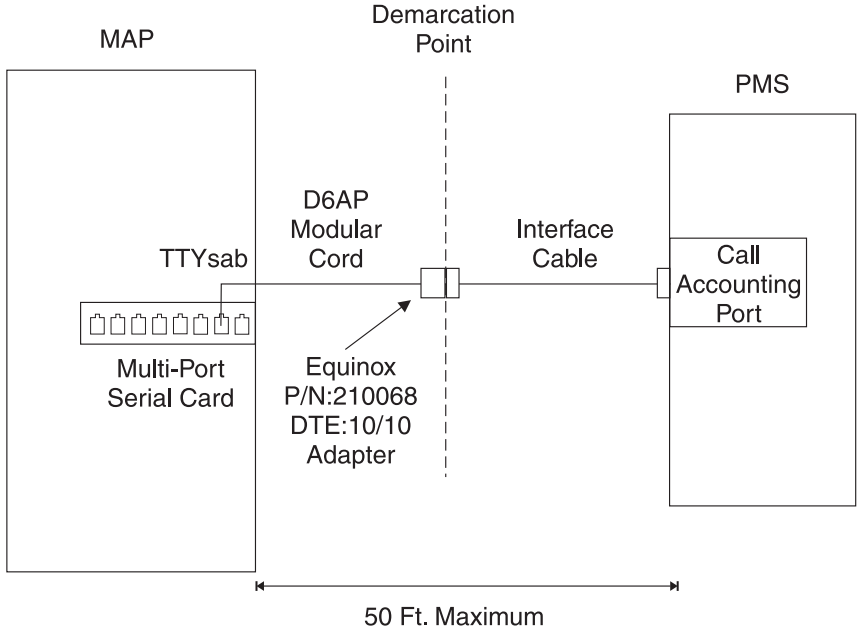


Figure 12. INTUITY Lodging Call Accounting-to-PMS Link

Switch-to-PMS Link

This connection is used to transfer the normal hospitality information such as names registration, check-in, check-out, and so on.

Parts List

- One digital communications protocol (DCP) port on the switch; the 8400B data module uses a TN2214 or TN2224 2-wire digital port, and the 7400A data module uses a TN754B 4-wire digital port
- Standard cross-connect hardware
- One D8W modular cord
- One 8400B data module optioned as shown on Page 50 or a 7400A DCP data module optioned as shown in Table 5
- One DB9-to-DB25 transition cable when using the 8400B data module
- One M25A or M25B cable (or equivalent 25-pin straight-through cable); see Table 13.

Cabling Diagram

Figure 13 shows the connection between the switch and the PMS.

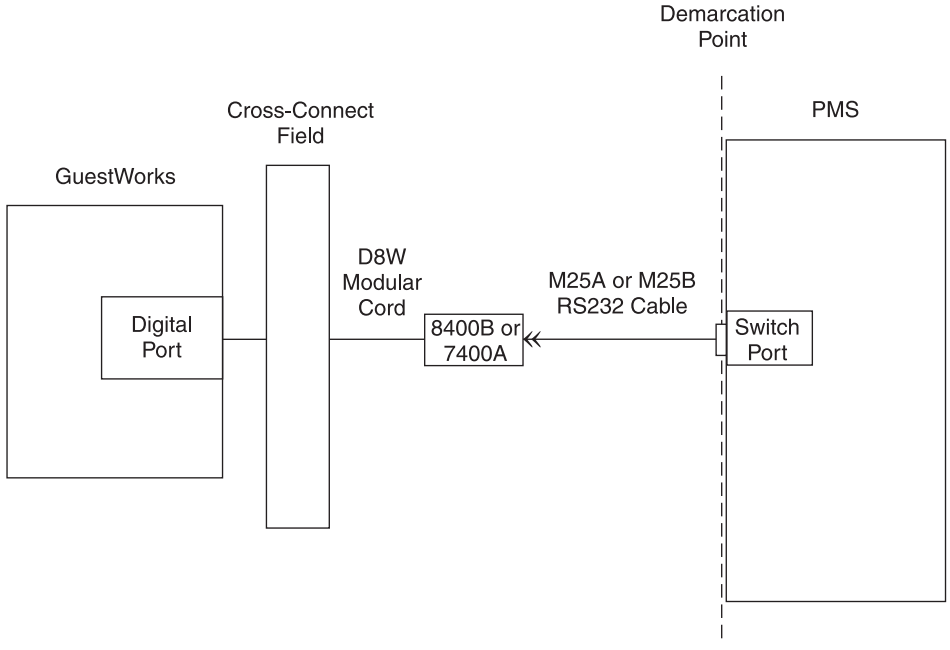


Figure 13. Switch-to-PMS Link

8400B Options

The options on the 8400B must be set using an ASCII data terminal or a PC using a terminal emulation package. You must connect the data terminal or PC to the EIA interface connector on the back of the 8400B. For the switch-to-PMS link, only a subset of options must be changed. These options are changed using the AT command set. Use the following steps to set the options on the 8400B:

1. Set the speed on the data terminal or terminal emulation package to match the speed of the PMS link. By doing this, the speed on the 8400B will auto-baud to match the correct speed.
2. From the data terminal or PC, type **at** Enter. This automatically sets the speed and parity for the connection. The OK prompt should display.
3. Type the following commands as shown. (The character **0** is the number zero.) Before you press Enter for each command, make sure that the command has been entered correctly. The **e0** option on the last command turns off keyboard echo, which means that after you enter this command, any future keyboard entries will not be displayed and the OK prompt is not displayed.

   at&f Enter (the OK prompt displays)
   ats24=1 Enter (the OK prompt displays)
   at&c1&d2&s1s0=1 Enter (the OK prompt displays)
   ate0q1&w0&y0 Enter (the cursor goes to the beginning of the line)
4. Disconnect the data terminal or PC from the 8400B.
5. Reconnect the unit as shown in Figure 13.
6. Cycle power on the 8400B (disconnect the line cord momentarily).

If your PMS requires a different set of options, consult the *8400B Plus Data Module User's Guide*.

7400A Options

The options for the 7400A used for the switch-to-PMS connection are given in Table 5. These options must match the PMS communication parameters, which are usually 9600 bps, 8 data bits, 1 stop bit, and no parity.

The data module interface board must be positioned at the DCE location, and the interface option must be set for Answer-Only mode.

Table 5. 7400A Options for Switch-to-PMS Link

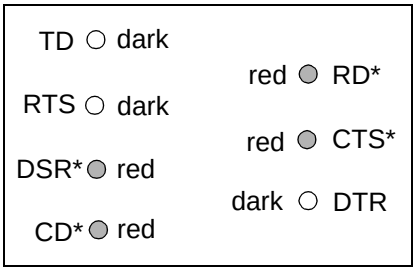
Set Interface	**Set Values**
Option	Answer-only mode
Set Option Displays	**Set Values**
*Set 300 speed	OFF
*Set 1200 speed	OFF
*Set 2400 speed	OFF
*Set 4800 speed	OFF
*Set 9600 speed	ON
*Set 19200 speed	OFF
Set Answer	AUTO
Set Break DISC	LONG
Set CI Lead	OFF
Set CH Lead	OFF
Set CTS Lead	NORMAL
Set DCD Lead	NORMAL
Set DSR Lead	NORMAL
Set DTR Detect	50
Set DTR Lead	FOLLOW
Set LL Lead	OFF
Set Remote Loop	GRANT
Set RI Lead	ON
Set RL Lead	OFF
Set SIGLS DISC	ON
Set TM Lead	OFF

* The speed is typically set to 9600 for Transparent mode and 1200 for Normal mode. Verify the speed setting with the PMS vendor. Enable other speeds as needed.

Test Procedure

Using the RS232 Mini-Tester (see the Note on Page 11), check the status of the link at the 8400B or 7400A as shown in Figure 13 before you connect to the PMS. The leads marked with an asterisk are controlled by the switch, and the PMS controls the other leads. Translations for this connection begin on Page 183.

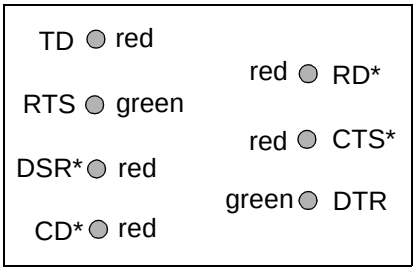
When the mini-tester is connected to only the 8400B or 7400A, the mini-tester should show the following:



NOTE:
The CTS lead shows green when used with an 8400B. RTS will be lit on the front panel of the 7400A.

With the mini-tester connected to only the PMS, the mini-tester should show the following:

After the connection is complete, the link will be idle, but the mini-tester should show the following (if any of the switch leads are dark in an end-to-end connection, the processor circuit pack should be replaced):



NOTE:
The CTS lead shows green when used with an 8400B. RTS will be lit on the front panel of the 7400A.

Journal/PMS Log or System Printer Connections on the Switch

These printers are used to run hospitality service reports, to report failed Automatic Wakeup calls and Do Not Disturb requests, or to run Basic Call Management System (BCMS) reports.

NOTE:
In most cases, only one printer is provided to perform both the journal/schedule and PMS log printer functions. The system printer is usually a separate printer.

Parts List

Each printer connection requires the following parts:

- One DCP port on the switch; the 8400B data module uses a TN2214 or TN2224 2-wire digital port, and the 7400A data module uses a TN754B 4-wire digital port
- Standard cross-connect hardware
- One D8W modular cord
- One 8400B DCP data module optioned as shown on Page 56, or one 7400A DCP data module optioned as shown in Table 6
- One DB9-to-DB25 transition cable when using the 8400B data module
- One M25B cables (or equivalent 25-pin straight-through cables); see Table 13
- One Okidata Model ML321T printer (or equivalent).

Cabling Diagram

Figure 14 shows how to connect either a journal/schedule printer, a PMS log printer, or a system printer to the switch.

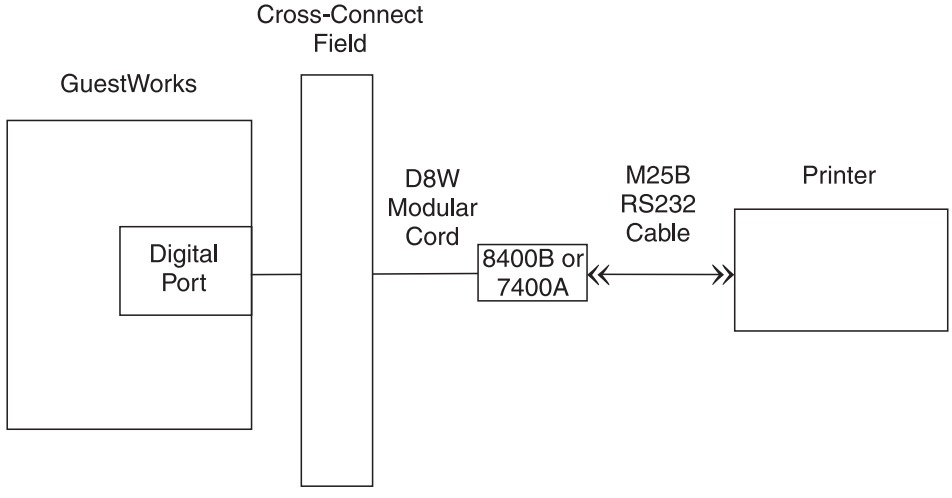


Figure 14. Printer Connections on the Switch

8400B Options

The options on the 8400B must be set using an ASCII data terminal or a PC using a terminal emulation package. You must connect the data terminal or PC to the EIA interface connector on the back of the 8400B. For the journal/log printers, only a subset of options must be changed. These options are changed using the AT command set. Use the following steps to set the options on the 8400B:

1. Set the speed on the data terminal or terminal emulation package to match the speed of the printer. By doing this, the speed on the 8400B will auto-baud to match the correct speed.
2. From the data terminal or PC, type **at** Enter. This automatically sets the speed and parity for the connection. The OK prompt should display.
3. Type the following commands as shown. (The character **0** is the number zero.) Before you press Enter for each command, make sure that the command has been entered correctly. The **e0** option on the last command turns off keyboard echo, which means that after you enter this command, any future keyboard entries will not be displayed and the OK prompt is not displayed.

   at&f Enter (the OK prompt displays)
   ats24=1 Enter (the OK prompt displays)
   at&c1&d2&s1s0=1 Enter (the OK prompt displays)
   ate0q1&w0&y0 Enter (the cursor goes to the beginning of the line)
4. Disconnect the data terminal or PC from the 8400B.
5. Reconnect the unit as shown in Figure 14.
6. Cycle power on the 8400B (disconnect the line cord momentarily).

If your printer requires a different set of options, consult the *8400B Plus Data Module User's Guide*.

7400A Options

Table 6. 7400A Options for Printers

Set Interface	**Set Values**
Option	Answer-only mode
Set Option Displays	**Set Values**
* Set 300 speed	OFF
* Set 1200 speed	OFF
* Set 2400 speed	OFF
* Set 4800 speed	OFF
* Set 9600 speed	ON
* Set 19200 speed	OFF
Set Answer	AUTO
Set Break DISC	LONG
Set CI Lead	OFF
Set CH Lead	OFF
Set CTS Lead	NORMAL
Set DCD Lead	NORMAL
Set DSR Lead	NORMAL
Set DTR Detect	50
Set DTR Lead	FOLLOW
Set LL Lead	OFF
Set Remote Loop	GRANT
Set RI Lead	ON
Set RL Lead	OFF
Set SIGLS DISC	ON
Set TM Lead	OFF
* Match the speed based on the printer settings.	

Okidata Model ML321T Journal/PMS Log Printer Options

Using the serial interface card (comcode 406940577), option the printer as follows for a journal or PMS log printer:

1. Press SHIFT + SEL to enter the Menu Mode.
2. Press Print (Park) to print out the Groups and Items. The first Group/Item to come up will be Printer Control/Emulation Control.
3. Press SET to option the emulation to ML.
4. Press GROUP (LF) repeatedly until you come to Serial I/F.
5. Press ITEM to advance to the next item in this group (Serial I/F) or SET to change it.
6. After changing defaults of an item, press ITEM to advance to the next one. Set the Serial I/F options for the printer as shown in Table 7.

Table 7. Okidata Model ML321T Journal/PMS Log Printer Options

Item	Setting
Parity	None
Serial Data 7/8 Bits	8 (if data module) 7 (if DCE port)
Protocol	X-ON/X-OFF
Diagnostic Test	No
Busy Line	DTR
Baud Rate	9600 (match speed of data module or DCE port)
DSR Signal	Invalid
DTR Signal	Ready on Power UP
Busy Time	200 ms

7. After setting the options, press SHIFT + SEL to save the settings.

Okidata Model ML321T System Printer Options

Using the serial interface card (comcode 406940577), option the printer as follows for a system printer:

1. Press SHIFT + SEL to enter the Menu Mode.
2. Use the GROUP, ITEM, and SET keys to make changes:
   - Press GROUP until the group you wish to change appears in the first column.
   - Press ITEM until the item you wish to change appears in the second column.
   - Press SET until the setting you want appears in the third column.
3. Set the options for the printer as shown in Table 8.

Table 8. Okidata Model ML321T System Printer Options

Group	Item	Setting
Printer Control	Emulation Mode	ML
Font	Print Mode	Utility
	DRAFT Mode	HSD
	Pitch	12 CPI
	Proportional	No
	Style	Normal
	Size	Single
Symbol Sets	Character Set	Standard
	Language Set	American
	Zero Character	Slashed
	Code Page	USA
Clear Feed	Line Spacing	8 LPI
	Form Tear-Off	Off
	Skip Over Perforation	No
	Page Width	13.6”
	Page Length	11”
Bottom Feed	Line Spacing	6 LPI
	Form Tear-Off	Off
	Skip Over Perforation	No
	Page Width	13.6”
	Page Length	11”

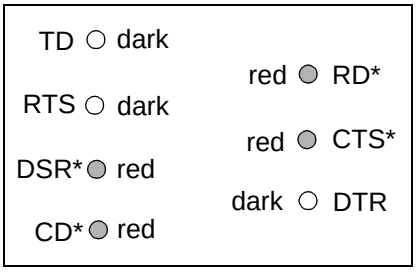
Group	Item	Setting
Top Feed	Line Spacing	6 LPI
	Bottom Margin	Valid
	Page Width	13.6”
	Page Length	11”
	Wait Time	1 sec
	Page Length Control	by Actual Page Length
Set-Up	Graphics	Uni-directional
	7 or 8 Bits Graphics	7
	Receive Buffer Size	16K
	Paper Out Override	No
	Print Registration	0
	7 or 8 Bits Data Word	7
	Operator Panel Function	Full Operation
	Reset Inhibit	No
	Print Suppress Effective	Yes
	Auto LF	Yes
	Print DEL Code	No
	Time Out Print	Valid
	Auto Select	No
	Centering Position	DEFAULT
	CSF Type	Wide
Parallel I/F	I-Prime	Buffer Print
	Pin 18	+5v
Serial I/F	Parity	None
	Serial Data 7/8 Bits	8 Bits
	Protocol	X-ON/X-OFF
	Diagnostic Test	No
	Busy Line	DTR
	Baud Rate	9600 BPS
	DSR Signal	Invalid
	DTR Signal	Ready on Power UP
	Busy Time	200 ms

4. After setting the options, press SHIFT + SEL to save the settings.

Test Procedure

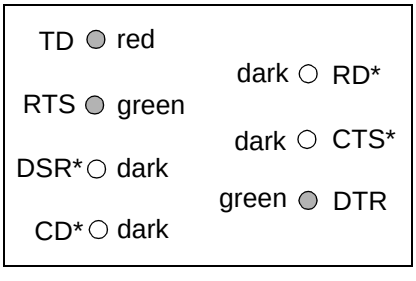
Using the RS232 Mini-Tester (see the Note on Page 11), check the status of the connection at the 7400A or 8400B as shown in Figure 14. The leads marked with an asterisk are controlled by the switch, and the printer controls the other leads. Translations for this connection begin on Page 201.

With the mini-tester connected to only the 7400A or 8400B, the mini-tester should show the following:

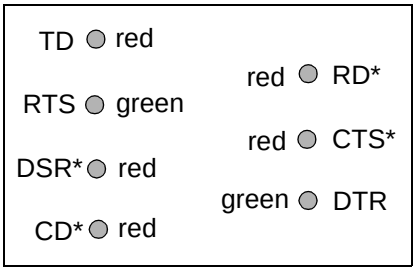


NOTE:
RTS will be lit on the front panel of the 7400A. The CTS lead shows green when used with an 8400B.

With the mini-tester connected to only the printer, the mini-tester should show the following:



After the connection is complete, the link is idle and no software is running, but the mini-tester should show the following:



NOTE:
RTS will be lit on the front panel of the 7400A. The CTS lead shows green when used with an 8400B.

Printer Connection on the INTUITY

This is an optional printer that the customer may purchase to print INTUITY Lodging Call Accounting reports.

Parts List

- One Centronics parallel printer cable (customer-provided)
- One parallel printer (customer-provided; the Okidata Model 320 is used often).

Cabling Diagram

Figure 15 shows how to connect a printer to the MAP.

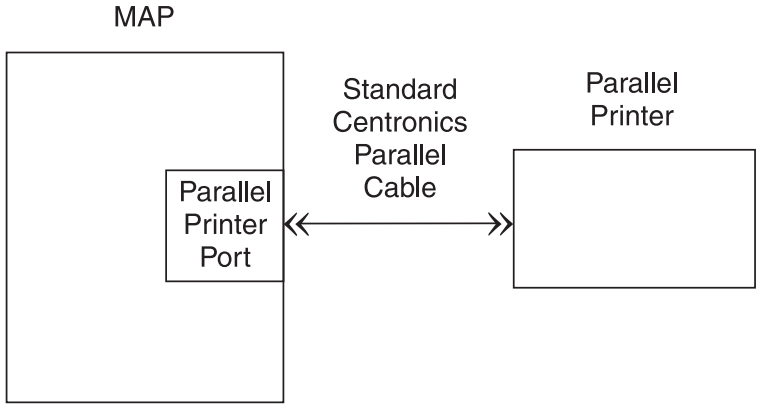


Figure 15. Printer Connection on the INTUITY

Switch-to-INADS Connections

This connection is used for remote maintenance access to the switch. The connectivity is different for the CMC switch compared to the SCC or MCC switch.

NOTE:
This INADS connection is typically installed only for installations in the United States. Contact your local support organization to see if INADS is required in your service area.

Parts List

SCC and MCC

- The AUX connector on the SCC or MCC switch
- One B25A 25-pair cable for cross-connections [connect the central office (CO) trunk to the last wire pair on this cable]
- Standard cross-connect hardware
- One CO trunk for dedicated access.

CMC

- The Modem connector on the switch (this port is found on the Processor Interface Cable of the CMC hardware labeled as P2)
- One M25A cable (or equivalent 25-pin straight-through cable)
- One modem
- One RJ11 modular cord
- One 103A connecting block
- Standard cross-connect hardware
- One CO trunk for dedicated access.

Cabling Diagram

Figure 16 shows how the INADS port is connected to an SCC or MCC switch.

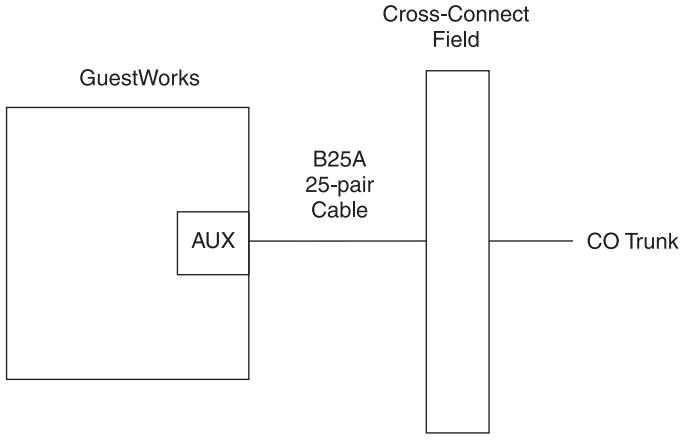


Figure 16. INADS Connection for Remote Access to SCC or MCC Switch

Figure 17 shows how the INADS port is connected to a CMC switch.

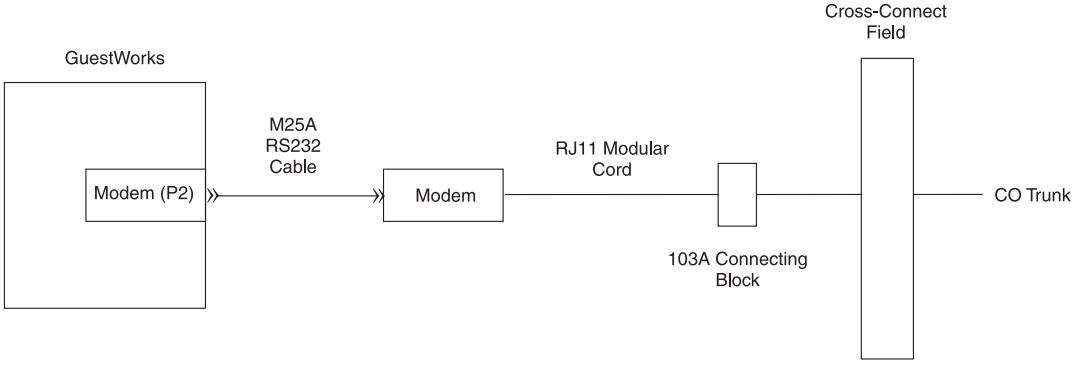


Figure 17. INADS Connection for Remote Access to CMC Switch

INADS Registration

After connecting the CO trunk for INADS access, call the INADS hotline at 1-800-248-1111 in the United States. If the installation is outside of the United States, contact your Center of Excellence (COE) for information about registering the switch. You will be instructed to give them the dial-up number, the customer identification number, serial number, and other information. You will also be instructed to add some information to the maintenance-related system parameters screen. If the customer needs a login assigned, have the INADS personnel create a customer login ID when they connect to the switch.

```
change system-parameters maintenance                          Page   1 of   3
                  MAINTENANCE-RELATED SYSTEM PARAMETERS

OPERATIONS SUPPORT PARAMETERS
           Product Identification: 1000000000
        First OSS Telephone Number:                  Abbrev Alarm Report: y
       Second OSS Telephone Number:                  Abbrev Alarm Report: n
  Alarm Origination to OSS Numbers: neither
        Cleared Alarm Notification? n               Suspension Threshold: 5
             Restart Notification? n
          Test Remote Access Port? n
        CPE Alarm Activation Level: none

     Customer Access to INADS Port? n
       Repeat Dial Interval (mins): 7

SCHEDULED MAINTENANCE
                 Start Time: 01 : 00                  Stop Time: 06 : 00
           Daily Maintenance: daily             Save Translation: daily
 Control Channel Interchange: no        System Clocks Interchange: no
             SPE Interchange: no             EXP-LINK Interchange: no
```

For a CMC switch, you must also set up the modem options on Page 3 before a connection can be made. See Chapter 1 of *DEFINITY ECS Release 7 Installation, Upgrades and Additions for Compact Modular Cabinets* for more information on modem setup.

MAP Remote Access Connections

The INADS access is required, but the remote administration is optional. See the INTUITY documentation for more information about this remote access connection.

NOTE:
If the INTUITY Remote Maintenance Board (RMB) is used, an external modem is not used. See the INTUITY documentation for more information about using the Remote Maintenance Board.

Parts List

- One or two Comsphere* 3820 modems (comcode 107560534) or locally-provided modems
- One or two straight-through 9-pin to 25-pin transition cable (comcode 847106945)
- One or two D25F cables (or equivalent straight-through cable) (comcode 105193668)
- One or two D8W modular cords
- Standard cross-connect hardware
- One or two CO or DID trunks.

* Registered trademark of Paradyne Corporation.

Cabling Diagram

Figure 18 shows how to connect the Paradyne Comsphere 3820 modems to the MAP for remote access. This diagram also shows how the RMB is connected. If the RMB is used, the COM2 port cannot be used for any other application.

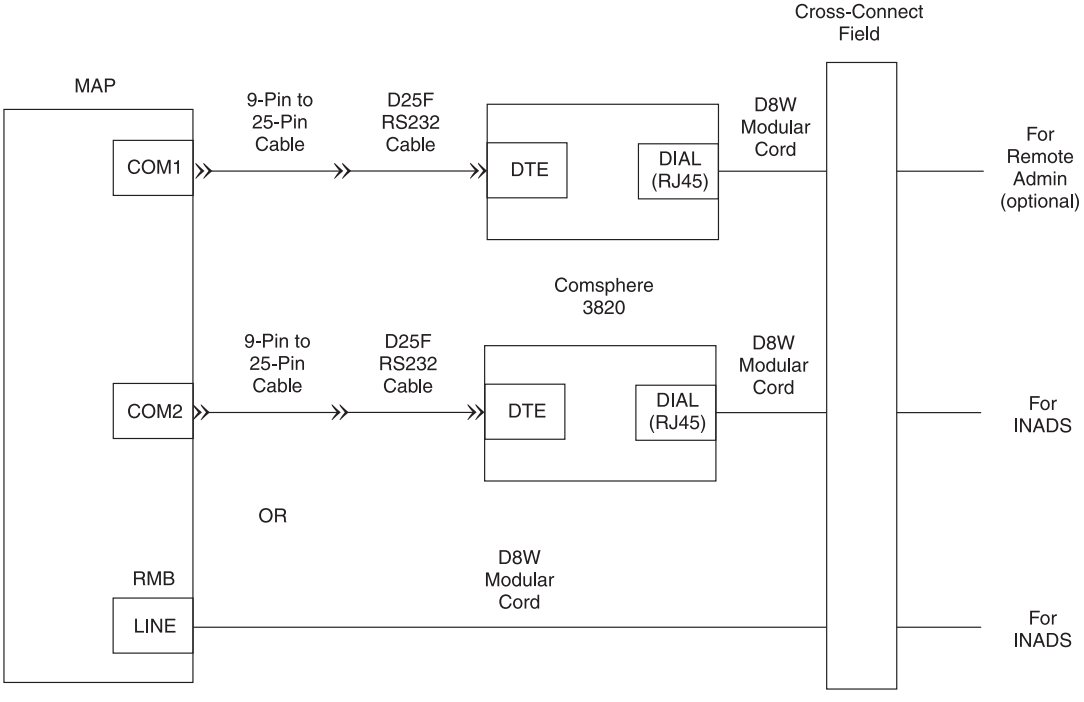


Figure 18. MAP Remote Access Connections

INADS Alarm Origination Download

You can have the Comsphere 3820 or the RMB automatically configured by doing an alarm origination download. To start this download, do the following:

1. Use the **Customer/Services Administration**, **Alarm Management** command to display the following screen:

```
+-----------------------------------------------+
+              Alarm  Management                +
+-----------------------------------------------+
|Product ID                      2200000000     |
|                                               |
|Alarm Destination               18005353573    |
|                                               |
|Alarm Origination               ACTIVE         |
|                                               |
|Alarm Level                     MAJOR          |
|                                               |
|Alarm Suppression               INACTIVE       |
|                                               |
|Clear Alarm Notification        ACTIVE         |
+-----------------------------------------------+
```

2. Enter the information as shown in the screen, using your actual `Product ID` and `Alarm Destination` phone number (the INADS number).
3. Once the options are correct, press F3 to save the options. Press Enter to continue.
4. Press F8 to select the `Chg Keys` function.
5. Press F1 to select the `Test Alrm` function.
6. Select the **Execute Alarm Origination Test** menu item.
7. Press **y** to start the test. The alarm origination download takes 2 to 5 minutes to complete.
8. After the download is complete, select the **Review Latest Test Results** menu item. The result message should say `Alarm origination test successful`.

For more details on this procedure, see the appropriate MAP installation document.

Translations and Testing

The following sections contain translations and testing required to successfully administer the GuestWorks, the INTUITY Lodging Voice Messaging, and the INTUITY Lodging Call Accounting. Only the most important fields are highlighted with either required or suggested translations. Unless specified otherwise, the defaults provided are acceptable.

Most INTUITY Lodging installations will involve the MAP/5P hardware platform. In some cases, though, customers will have the MAP/40P or MAP/100P. The screens shown in this section apply for all of these platforms.

NOTE:
The screens shown in this section are examples only. Do not use the example equipment locations, extension numbers, access codes, and so on in your system. Use the translations provided by your software specialist or design specialist.

CAUTION:
While you are doing these translations on the switch, you should save your translations regularly using the ***save translation*** *command. This could save you time retranslating if you lose power during installation. It takes about 10 minutes to process each translation save.*

Translation Checklist

Table 9 is a high-level checklist of the tasks required to translate a GuestWorks system including the switch and the INTUITY system.

Table 9. Translation Checklist

✔	Description	Reference
	Miscellaneous translations and testing	Page 73 to Page 125
	Switch-to-INTUITY translations and testing	Page 126 to Page 170
	INTUITY Lodging-to-PMS translations and testing	Page 171 to Page 178
	Switch-to-Call Accounting translations and testing	Page 180 to Page 181
	INTUITY Lodging Call Accounting-to-PMS translations and testing	Page 182
	Switch-to-PMS link translations and testing	Page 183 to Page 200
	Journal/PMS Log and System printer translations and testing	Page 201 to Page 203
	Parallel printer translations	Page 205
	Logins, passwords, security, and backups	Page 205 to Page 207

CAUTION:
Before doing any translations, make sure that the default translation card is in the system. Unless instructed otherwise, you must always use the default translation card.

Miscellaneous Translations

Table 10 is a checklist of the miscellaneous translations that must be done before you administer the links to the GuestWorks adjuncts.

Table 10. Checklist for Miscellaneous Translations

✔	Description	Reference
	Time of day and date on the INTUITY system	Page 74
	Switch special applications	Page 75
	Dial plan on the switch	Page 76
	Dial plan on the INTUITY system	Page 77
	Feature access codes on the switch	Page 78
	Class of service (COS) on the switch	Page 80
	Class of restriction (COR) on the switch	Page 82
	COS on the INTUITY system	Page 89
	System parameters on the INTUITY system	Page 90
	FAX parameters on the switch and INTUITY system	Page 92
	Abbreviated Dialing Lists on the switch	Page 94
	Listed Directory Numbers on the switch	Page 95
	Attendant console on the switch	Page 96
	Attendant console button layouts on the switch	Page 97
	Attendant Backup on the switch	Page 100
	Office staff telephones on the switch	Page 103
	Backup telephone button layouts on the switch	Page 106
	AUDIX subscribers on the INTUITY system	Page 109
	Guest room telephones on the switch	Page 110
	Guest room mailboxes on the INTUITY system	Page 111
	Recorded Announcements on the switch	Page 112
	Emergency Access to Attendant on the switch	Page 114
	Crisis Alert on the switch	Page 115
	Trunk groups on the switch	Page 118
	Automatic Wakeup options on the switch	Page 119
	Call Vectoring on the switch	Page 120
	Dial by Name on the switch	Page 122
	Trunk-to-Trunk Transfer on the switch	Page 125

Time of Day and Date (INTUITY)

For R4.4, use the **Customer/Services Administration**, **System Management**, **UNIX*** **Management**, **UNIX Date and Time** command to set the time and date on the INTUITY. For R5, use the **UNIX Management**, **UNIX Date and Time** command.

```
+-------------------------------------------------------+
+                  UNIX Date and Time                   +
+-------------------------------------------------------+
| Date:                          April 22, 1997         |
|                                                       |
| Time:                           3:39                  |
|                                                       |
| AM/PM:                         PM                     |
|                                                       |
| Time Zone:                     US/Mountain            |
|                                                       |
| Is Daylight Savings Time used: YES                    |
+-------------------------------------------------------+
```

The switch time of day and date should already be set. See Page 19 for information about setting the time of day and date on the switch if it is not correct. It is important that the switch and INTUITY time are set as close as possible.

* Registered trademark in the United States and other countries, licensed exclusively through X/Open Company Limited.

Dial by Name Special Application (Switch)

Use the **display system-parameters special-applications** command to verify that the Dial by Name feature, if paid for by the customer, has been enabled. The default is **n**. If it has not been enabled, call the technical support organization (or your COE) and have them dial in and enable the feature.

```
display system-parameters special-applications                    Page   2 of   3
                            SPECIAL APPLICATIONS

                      (SA7666) - COS Conference Tone Check? n
                  (SA7880) - ASAI Internally Measured Data? n
                        (SA7779) - Enhanced DID Routing? n
              (SA7777) - Night Service on DID Trunk Groups? n
                        (SA7778) - Display UUI Information? n
  (SA7776) - Display Incoming Digits for ISDN Trunk Groups? n
                 (SA7852) - # and * in Vector Collect Step? none
 (SA7933) - Busy Tone with SAC and No Available Cvg Points? n
              (SA7844) - Station Used as Virtual Extension? n
                                  (SA7963) - Dial by Name? y
                    (SA7990) - Service Observe Physical Set? n
                    (SA7991) - Variable Length Account Code? n
  (SA7710) - Enhanced Display for 8434 on Redirected Calls? n
                        (SA8052) - ISDN Redirecting Number? n
                  (SA8077) - Russian Power Industry Feature? n
                   (SA7992) - ISDN Presentation Restriction? n
           (SA7161) - NORTEL SL1 PRI and DMS Names Display? n
          (SA7578) - Integrated Directory Service over DCS? n
```

Dial Plan (Switch)

Use the **change dialplan** commend to administer the switch dial plan based on the customer's requirements. The `Local Node Number` must be set to **1**. For more information about the Dial Plan feature, see *DEFINITY ECS Release 7 Administrator's Guide*.

NOTE:
The PMS interface supports 3-, 4-, or 5-digit extensions, but be aware that prefixed extensions do not send the entire number across the interface. Only the assigned extension number is sent. Therefore, you should not use prefixed extensions for numbers that are also going to use the Insert/Delete Digit function (see "Hospitality Parameters" on Page 184).

```
change dialplan                                              Page   1 of   1
                            DIAL PLAN RECORD

                                                 Local Node Number: 1
                                                   ETA Node Number:
       Uniform Dialing Plan: none                ETA Routing Pattern:

FIRST DIGIT TABLE
First                                 Length
Digit  - 1 -       - 2 -       - 3 -       - 4 -       - 5 -       - 6 -
  1:                                    extension
  2:                                    extension
  3:                                    extension
  4:                                    extension
  5:                                    extension
  6:                                    extension
  7: misc
  8: fac
  9: fac
  0: attd
  *:                          fac
  #:             fac
```

The **add second-digit** command is used when a first digit is defined as **misc** in the Dial Plan. In this example, first digit 7 is used in several ways (70, 72x, 73x, and 74x are feature access codes, and 71x, 78xx, and 79xx are extensions).

```
add second-digit 7                                           Page   1 of   1
                      SECOND DIGIT TABLE FOR DIGIT 7


SECOND DIGIT TABLE

Digit  Identification   Number of       Digit  Identification   Number of
                        Digits                                  Digits

    0: fac                2                5:                    0
    1: extension          3                6:                    0
    2: fac                3                7:                    0
    3: fac                3                8: extension          4
    4: fac                3                9: extension          4
```

Dial Plan (INTUITY)

The **change machine** command identifies the range of mailboxes that can be activated by the INTUITY. This is part of the INTUITY **AUDIX Administration** and must be administered to match the switch's dial plan.

```
change machine                                              Page 1 of 2
                          MACHINE PROFILE

Machine Name: local       Type: local          Location: local

 Voiced Name? n                               Extension Length: 3
    Voice ID: 0                              Default Community: 1

ADDRESS RANGES
    Prefix                 Start Ext.   End Ext.       Warnings
 1:                        1000         7999
 2:
 3:
 4:
 5:
 6:
 7:
 8:
 9:
10:
```

If you change the `Extension Length` field, you must stop and restart the voice system. To stop the voice system, use the path **Customer/Services Administration**, **System Management**, **System Control**, **Stop Voice System**. To start the voice system, use the path **Customer/Services Administration**, **System Management**, **System Control**, **Start Voice System**.

Feature Access Codes (Switch)

The **change feature-access-codes** command is used to assign the switch feature access codes. Unless the customer requests a feature or a feature is needed for maintenance personnel, do not assign a feature access code for features not being used. There are no default feature access codes.

```
change feature-access-codes                                    Page   1 of   5
                            FEATURE ACCESS CODE (FAC)
         Abbreviated Dialing List1 Access Code:
         Abbreviated Dialing List2 Access Code:
         Abbreviated Dialing List3 Access Code:
Abbreviated Dial - Prgm Group List Access Code:
                     Announcement Access Code:
                      Answer Back Access Code:
      Auto Alternate Routing (AAR) Access Code:
    Auto Route Selection (ARS) - Access Code 1:       Access Code 2:
                Automatic Callback Activation:        Deactivation:
Call Forwarding Activation Busy/DA:        All:       Deactivation:
                        Call Park Access Code:
                      Call Pickup Access Code:
CAS Remote Hold/Answer Hold-Unhold Access Code:
                  CDR Account Code Access Code:
                   Change Coverage Access Code:
                  Data Origination Access Code:
                      Data Privacy Access Code:
              Directed Call Pickup Access Code:
     Emergency Access to Attendant Access Code:
 Extended Call Fwd Activate Busy D/A       All:       Deactivation
```

```
change feature-access-codes                                    Page   2 of   5
                            FEATURE ACCESS CODE (FAC)
               Facility Test Calls Access Code:
                           Flash Access Code:
            Group Control Restrict Activation:        Deactivation:
                  Hunt Group Busy Activation:        Deactivation:
                           ISDN Access Code:
              Last Number Dialed Access Code:
    Leave Word Calling Message Retrieval Lock:
  Leave Word Calling Message Retrieval Unlock:
           Leave Word Calling Send A Message:
         Leave Word Calling Cancel A Message:
             Malicious Call Trace Activation:        Deactivation:
PASTE (Display PBX data on Phone) Access Code:
 Personal Station Access (PSA) Associate Code:        Dissociate Code:
       Per Call CPN Blocking Code Access Code:
     Per Call CPN Unblocking Code Access Code:
                  Print Messages Access Code:
                Priority Calling Access Code:
                        Program Access Code:
      Refresh Terminal Parameters Access Code:
                  Send All Calls Activation:           Deactivation:
```

```
change feature-access-codes                                    Page   3 of   5
                            FEATURE ACCESS CODE (FAC)
     Station Security Code Change Access Code:
            Terminal Dial-Up Test Access Code:
Terminal Translation Initialization Merge Code:          Separation Code:
                Transfer to AUDIX Access Code:
          Trunk Answer Any Station Access Code:
              User Control Restrict Activation:             Deactivation:
  Voice Coverage Message Retrieval Access Code:
 Voice Principal Message Retrieval Access Code:
           Whisper Page Activation Access Code:
```

```
change feature-access-codes                                    Page   4 of   5
                            FEATURE ACCESS CODE (FAC)

                        Automatic Call Distribution Features

                   After Call Work Access Code:
                             Assist Access Code:
                           Auto-In Access Code:
                          Aux Work Access Code:
                             Login Access Code:
                            Logout Access Code:
                         Manual-in Access Code:

      Service Observing Listen Only Access Code:
      Service Observing Listen/Talk Access Code:



                         Call Vectoring/Prompting Features

                     Converse Data Return Code:
```

```
change feature-access-codes                                    Page   5 of   5
                            FEATURE ACCESS CODE (FAC)
                              Hospitality Features

              Automatic Wakeup Call Access Code:
   Housekeeping Status (Client Room) Access Code:
   Housekeeping Status (Client Room) Access Code:
   Housekeeping Status (Client Room) Access Code:
   Housekeeping Status (Client Room) Access Code:
   Housekeeping Status (Client Room) Access Code:
   Housekeeping Status (Client Room) Access Code:
       Housekeeping Status (Station) Access Code:
       Housekeeping Status (Station) Access Code:
       Housekeeping Status (Station) Access Code:
       Housekeeping Status (Station) Access Code:
          Verify Wakeup Announcement Access Code:
                Voice Do Not Disturb Access Code:
```

Class of Service (Switch)

You must assign the Class of Service (COS) on the switch. A unique COS must be assigned to each of the following groups of users and equipment types on the switch:

CAUTION:
Do not assign the Client Room feature to the front desk, housekeeping, office staff, and guest services COS. If assigned as a Client Room COS, the name field on the station screen will not be saved in translations. In addition, do not assign Console Permissions to any Class of Service except for the attendant consoles, backup telephones, and guest services telephones.

- Front desk, attendant console, and housekeeping (COS 0)

  Telephones and attendant consoles used for check-in/check-out and Message Waiting Notification must have Console Permissions enabled in the COS. Designated stations used for housekeeping updates must have Console Permissions enabled in the COS.

- Guest rooms (COS 1)

  Guest rooms where Message Waiting Notification is used to light message lamps must have Client Room enabled in the COS.

- Office staff (COS 2)
- Guest services (COS 3)
- AUDIX voice ports (4)
- Data modules (COS 15).

Use the **change cos** command to administer the COS. The following screen shows an example COS using the COS numbers given in the previous list. Features assigned with the COS must be approved by the customer.

```
change cos                                                Page   1 of   1
                          CLASS OF SERVICE

                          0  1  2  3  4  5  6  7  8  9 10 11 12 13 14 15

 Auto Callback            y  n  y  y  n  n  n  n  n  n  n  n  n  n  n  n
 Call Fwd-All Calls       y  n  y  y  n  y  n  n  n  n  n  n  n  n  n  n
 Data Privacy             n  y  n  n  y  n  n  n  n  n  n  n  n  n  n  y
 Priority Calling         y  n  y  y  n  n  n  n  n  n  n  n  n  n  n  n
 Console Permissions      y  n  y  n  n  n  n  n  n  n  n  n  n  n  n  n
 Off-hook Alert           n  y  n  n  n  n  n  n  n  n  n  n  n  n  n  n
 Client Room              n  y  n  n  n  n  n  n  n  n  n  n  n  n  n  n
 Restrict Call Fwd-Off Net y  y  y  y  y  y  y  y  y  y  y  y  y  y  y  n
 Call Forwarding Busy/DA  y  n  y  y  n  n  n  n  n  n  n  n  n  n  n  n
 Personal Station Access (PSA) n  n  n  n  n  n  n  n  n  n  n  n  n  n  n  n
 Extended Forwarding All  n  n  n  n  n  n  n  n  n  n  n  n  n  n  n  n
 Extended Forwarding B/DA n  n  n  n  n  n  n  n  n  n  n  n  n  n  n  n
 Trk-to-Trk Transfer Override n  n  n  n  n  n  n  n  n  n  n  n  n  n  n  n
 QSIG Call Offer Originations n  n  n  n  n  n  n  n  n  n  n  n  n  n  n  n
```

Class of Restriction (Switch)

You must create several Classes of Restriction (COR) to separate features and services among the different groups of users and equipment. The COR also controls calling permissions between CORs. That is, you can restrict one group of users from calling another group through the COR. The following is a list of these general COR groups (and the COR number used in the screen examples):

- Guest rooms (COR 1)
- Front desk, attendant console, and housekeeping (COR 2; similar setup as COR 1)
- Office staff (COR 3; similar setup as COR 1)
- Guest services (room service, kitchen, etc) (COR 4)
- Trunk groups (COR 20 and COR 21)
- Vectors (COR 30)
- INTUITY AUDIX voice ports and hunt groups (COR 35; similar setup as COR 30)
- Netcon, processor interface, and data modules (COR 50).

The following screens show typical COR assignments for each of the groupings. Use the **change cor** command to administer the CORs. All levels of restriction must be agreed upon by the customer. The most significant options are set on Pages 1 and 3. Use Pages 2 and 4 as needed.

This is an example COR for the guest rooms, front desk and housekeeping, and the office staff.

```
change cor 1                                                  Page   1 of   4
                              CLASS OF RESTRICTION

               COR Number: 1
          COR Description: GUEST ROOMS

                      FRL: 7                               APLT? y
  Can Be Service Observed? n           Calling Party Restriction: none
Can Be A Service Observer? n            Called Party Restriction: none
 Partitioned Group Number: 1       Forced Entry of Account Codes? n
         Priority Queuing? n                Direct Agent Calling? n
     Restriction Override: all        Facility Access Trunk Test? n
     Restricted Call List? n                  Can Change Coverage? n

            Access to MCT? y             Fully Restricted Service? n
     Category For MFC ANI: 7
         Send ANI for MFE? n
            MF ANI Prefix:               Automatic Charge Display? n
Hear System Music on Hold? y   PASTE (Display PBX Data on Phone)? n
                         Can Be Picked Up By Directed Call Pickup? n
                                    Can Use Directed Call Pickup? n
                                    Group Controlled Restriction: inactive
```

```
change cor 1                                                  Page   3 of   4
                              CLASS OF RESTRICTION


CALLING PERMISSION (Enter "y" to grant permission to call specified COR)

  0? y     12? y     24? y     36? y     48? y     60? y     72? y     84? y
  1? y     13? y     25? y     37? y     49? y     61? y     73? y     85? y
  2? y     14? y     26? y     38? y     50? n     62? y     74? y     86? y
  3? y     15? y     27? y     39? y     51? y     63? y     75? y     87? y
  4? y     16? y     28? y     40? y     52? y     64? y     76? y     88? y
  5? y     17? y     29? y     41? y     53? y     65? y     77? y     89? y
  6? y     18? y     30? y     42? y     54? y     66? y     78? y     90? y
  7? y     19? y     31? y     43? y     55? y     67? y     79? y     91? y
  8? y     20? y     32? y     44? y     56? y     68? y     80? y     92? y
  9? y     21? y     33? y     45? y     57? y     69? y     81? y     93? y
 10? y     22? y     34? y     46? y     58? y     70? y     82? y     94? y
 11? y     23? y     35? y     47? y     59? y     71? y     83? y     95? y
```

This is an example COR for the guest services.

```
change cor 4                                                  Page   1 of   4
                              CLASS OF RESTRICTION

               COR Number: 4
          COR Description: GUEST SERVICES

                      FRL: 3                               APLT? y
  Can Be Service Observed? n           Calling Party Restriction: none
Can Be A Service Observer? n            Called Party Restriction: none
 Partitioned Group Number: 1       Forced Entry of Account Codes? n
         Priority Queuing? n                Direct Agent Calling? n
     Restriction Override: all        Facility Access Trunk Test? n
     Restricted Call List? n                  Can Change Coverage? n

            Access to MCT? y             Fully Restricted Service? n
     Category For MFC ANI: 7
Send ANI for MFE? n
            MF ANI Prefix:               Automatic Charge Display? n
Hear System Music on Hold? y   PASTE (Display PBX Data on Phone)? n
                         Can Be Picked Up By Directed Call Pickup? n
                                     Can Use Directed Call Pickup? n
                                     Group Controlled Restriction: inactive
```

```
change cor 4                                                  Page   3 of   4
                              CLASS OF RESTRICTION


CALLING PERMISSION (Enter "y" to grant permission to call specified COR)

  0? y     12? y     24? y     36? y     48? y     60? y     72? y     84? y
  1? y     13? y     25? y     37? y     49? y     61? y     73? y     85? y
  2? y     14? y     26? y     38? y     50? n     62? y     74? y     86? y
  3? y     15? y     27? y     39? y     51? y     63? y     75? y     87? y
  4? y     16? y     28? y     40? y     52? y     64? y     76? y     88? y
  5? y     17? y     29? y     41? y     53? y     65? y     77? y     89? y
  6? y     18? y     30? y     42? y     54? y     66? y     78? y     90? y
  7? y     19? y     31? y     43? y     55? y     67? y     79? y     91? y
  8? y     20? y     32? y     44? y     56? y     68? y     80? y     92? y
  9? y     21? y     33? y     45? y     57? y     69? y     81? y     93? y
 10? y     22? y     34? y     46? y     58? y     70? y     82? y     94? y
 11? y     23? y     35? y     47? y     59? y     71? y     83? y     95? y
```

This is an example COR for an outgoing trunk group.

```
change cor 20                                              Page   1 of   4
                            CLASS OF RESTRICTION

              COR Number: 20
         COR Description: OUTGOING TRUNK GROUP

                     FRL: 0                              APLT? y
  Can Be Service Observed? n           Calling Party Restriction: none
Can Be A Service Observer? n            Called Party Restriction: none
 Partitioned Group Number: 1       Forced Entry of Account Codes? n
         Priority Queuing? n                Direct Agent Calling? n
     Restriction Override: all        Facility Access Trunk Test? n
     Restricted Call List? n                  Can Change Coverage? n

            Access to MCT? y            Fully Restricted Service? n
     Category For MFC ANI: 7
         Send ANI for MFE? n
            MF ANI Prefix:              Automatic Charge Display? n
Hear System Music on Hold? y   PASTE (Display PBX Data on Phone)? n
                       Can Be Picked Up By Directed Call Pickup? n
                                    Can Use Directed Call Pickup? n
                                    Group Controlled Restriction: inactive
```

```
change cor 20                                              Page   3 of   4
                            CLASS OF RESTRICTION


CALLING PERMISSION (Enter "y" to grant permission to call specified COR)

  0? y     12? y     24? y     36? y     48? y     60? y     72? y     84? y
  1? y     13? y     25? y     37? y     49? y     61? y     73? y     85? y
  2? y     14? y     26? y     38? y     50? n     62? y     74? y     86? y
  3? y     15? y     27? y     39? y     51? y     63? y     75? y     87? y
  4? y     16? y     28? y     40? y     52? y     64? y     76? y     88? y
  5? y     17? y     29? y     41? y     53? y     65? y     77? y     89? y
  6? y     18? y     30? y     42? y     54? y     66? y     78? y     90? y
  7? y     19? y     31? y     43? y     55? y     67? y     79? y     91? y
  8? y     20? y     32? y     44? y     56? y     68? y     80? y     92? y
  9? y     21? y     33? y     45? y     57? y     69? y     81? y     93? y
 10? y     22? y     34? y     46? y     58? y     70? y     82? y     94? y
 11? y     23? y     35? y     47? y     59? y     71? y     83? y     95? y
```

This is an example COR for an incoming trunk group.

```
change cor 21                                              Page   1 of   4
                            CLASS OF RESTRICTION

              COR Number: 21
         COR Description: INCOMING TRUNK GROUP

                     FRL: 0                              APLT? y
  Can Be Service Observed? n           Calling Party Restriction: none
Can Be A Service Observer? n            Called Party Restriction: none
 Partitioned Group Number: 1       Forced Entry of Account Codes? n
         Priority Queuing? n                Direct Agent Calling? n
     Restriction Override: all        Facility Access Trunk Test? n
     Restricted Call List? n                  Can Change Coverage? n

            Access to MCT? y            Fully Restricted Service? n
     Category For MFC ANI: 7
         Send ANI for MFE? n
            MF ANI Prefix:              Automatic Charge Display? n
Hear System Music on Hold? y   PASTE (Display PBX Data on Phone)? n
                       Can Be Picked Up By Directed Call Pickup? n
                                    Can Use Directed Call Pickup? n
                                    Group Controlled Restriction: inactive
```

```
change cor 21                                              Page   3 of   4
                            CLASS OF RESTRICTION


CALLING PERMISSION (Enter "y" to grant permission to call specified COR)

  0? y     12? y     24? y     36? y     48? y     60? y     72? y     84? y
  1? y     13? y     25? y     37? y     49? y     61? y     73? y     85? y
  2? y     14? y     26? y     38? y     50? n     62? y     74? y     86? y
  3? y     15? y     27? y     39? y     51? y     63? y     75? y     87? y
  4? y     16? y     28? y     40? y     52? y     64? y     76? y     88? y
  5? y     17? y     29? y     41? y     53? y     65? y     77? y     89? y
  6? y     18? y     30? y     42? y     54? y     66? y     78? y     90? y
  7? y     19? y     31? y     43? y     55? y     67? y     79? y     91? y
  8? y     20? y     32? y     44? y     56? y     68? y     80? y     92? y
  9? y     21? y     33? y     45? y     57? y     69? y     81? y     93? y
 10? y     22? y     34? y     46? y     58? y     70? y     82? y     94? y
 11? y     23? y     35? y     47? y     59? y     71? y     83? y     95? y
```

This is an example COR for the Call Vectoring procedures, INTUITY AUDIX voice ports, and INTUITY AUDIX hunt groups. For the `Calling Party Restriction` field, use **outward** if outcalling and FAX are not being used.

```
change cor 30                                              Page   1 of   4
                            CLASS OF RESTRICTION

               COR Number: 30
          COR Description: CALL VECTORING

                      FRL: 1                                APLT? y
  Can Be Service Observed? n            Calling Party Restriction: none
Can Be A Service Observer? n             Called Party Restriction: none
 Partitioned Group Number: 1         Forced Entry of Account Codes? n
         Priority Queuing? n                  Direct Agent Calling? n
     Restriction Override: all          Facility Access Trunk Test? n
     Restricted Call List? n                  Can Change Coverage? n

            Access to MCT? y              Fully Restricted Service? n
     Category For MFC ANI: 7
          end ANI for MFE? n
            MF ANI Prefix:                Automatic Charge Display? n
Hear System Music on Hold? y   PASTE (Display PBX Data on Phone)? n
                         Can Be Picked Up By Directed Call Pickup? n
                                     Can Use Directed Call Pickup? n
                                     Group Controlled Restriction: inactive
```

```
change cor 30                                              Page   3 of   4
                            CLASS OF RESTRICTION


CALLING PERMISSION (Enter "y" to grant permission to call specified COR)

  0? y     12? y     24? y     36? y     48? y     60? y     72? y     84? y
  1? y     13? y     25? y     37? y     49? y     61? y     73? y     85? y
  2? y     14? y     26? y     38? y     50? n     62? y     74? y     86? y
  3? y     15? y     27? y     39? y     51? y     63? y     75? y     87? y
  4? y     16? y     28? y     40? y     52? y     64? y     76? y     88? y
  5? y     17? y     29? y     41? y     53? y     65? y     77? y     89? y
  6? y     18? y     30? y     42? y     54? y     66? y     78? y     90? y
  7? y     19? y     31? y     43? y     55? y     67? y     79? y     91? y
  8? y     20? n     32? y     44? y     56? y     68? y     80? y     92? y
  9? y     21? n     33? y     45? y     57? y     69? y     81? y     93? y
 10? y     22? y     34? y     46? y     58? y     70? y     82? y     94? y
 11? y     23? y     35? y     47? y     59? y     71? y     83? y     95? y
```

This is an example COR for the netcon, processor interface link, and data modules.

```
change cor 50                                              Page   1 of   4
                            CLASS OF RESTRICTION

               COR Number: 50
          COR Description: NETCON/PROC LINK/DATA MODULES

                     FRL: 7                              APLT? y
  Can Be Service Observed? n           Calling Party Restriction: none
Can Be A Service Observer? n            Called Party Restriction: none
 Partitioned Group Number: 1       Forced Entry of Account Codes? n
         Priority Queuing? n                Direct Agent Calling? n
     Restriction Override: all        Facility Access Trunk Test? n
     Restricted Call List? n                 Can Change Coverage? n

            Access to MCT? y             Fully Restricted Service? n
     Category For MFC ANI: 7
Send ANI for MFE? n
            MF ANI Prefix:               Automatic Charge Display? n
Hear System Music on Hold? y   PASTE (Display PBX Data on Phone)? n
                        Can Be Picked Up By Directed Call Pickup? n
                                    Can Use Directed Call Pickup? n
                                    Group Controlled Restriction: inactive
```

```
change cor 50                                              Page   3 of   4
                            CLASS OF RESTRICTION


CALLING PERMISSION (Enter "y" to grant permission to call specified COR)

  0? y     12? y     24? y     36? y     48? y     60? y     72? y     84? y
  1? y     13? y     25? y     37? y     49? y     61? y     73? y     85? y
  2? y     14? y     26? y     38? y     50? y     62? y     74? y     86? y
  3? y     15? y     27? y     39? y     51? y     63? y     75? y     87? y
  4? y     16? y     28? y     40? y     52? y     64? y     76? y     88? y
  5? y     17? y     29? y     41? y     53? y     65? y     77? y     89? y
  6? y     18? y     30? y     42? y     54? y     66? y     78? y     90? y
  7? y     19? y     31? y     43? y     55? y     67? y     79? y     91? y
  8? y     20? y     32? y     44? y     56? y     68? y     80? y     92? y
  9? y     21? y     33? y     45? y     57? y     69? y     81? y     93? y
 10? y     22? y     34? y     46? y     58? y     70? y     82? y     94? y
 11? y     23? y     35? y     47? y     59? y     71? y     83? y     95? y
```

Class of Service (INTUITY)

Use the following screens to administer the INTUITY COS for the guest rooms and the office staff INTUITY AUDIX subscribers. To access the INTUITY COS screens, use the **AUDIX Administration** command, and then the **change cos** command. On Page 1, the Type field must be set to **call-answer**. See *INTUITY Messaging Solutions Administration* for more information about the other options on these screens.

```
change cos 0                                                    Page 1 of 2
                            CLASS OF SERVICE


             Name: class00       COS Number: 0            Modified? y
Addressing Format: extension


                                      Login Announcement Set: System
System Multilingual is ON          Call Answer Primary Annc. Set: System
Call Answer Language Choice? n   Call Answer Secondary Annc. Set: System


PERMISSIONS
      Type: call-answer       Announcement Control? y               Outcalling? n
      Priority Messages? n              Broadcast: none           IMAPI Access? y
 IMAPI Message Transfer? n           Fax Creation? n     Trusted Server Access? y
```

If `Fax Creation` was **y** on Page 1, change the following on Page 2:

- `Voice Mail Message, Maximum Length` — Enter **1200**.
- `Call Answer Message, Maximum Length` — Enter **1200**.
- `Mailbox Size, Maximum` — Enter **4800**.

```
change cos 0                                                    Page 2 of 2
                            CLASS OF SERVICE


INCOMING MAILBOX          Order: fifo              Category Order: nuo
  Retention Times (days),   New: 10       Old: 10         Unopened: 10

OUTGOING MAILBOX          Order: fifo              Category Order: unfda
 Retention Times(days),File Cab: 10       Delivered/Nondeliverable: 5


Voice Mail Message (seconds),  Maximum Length: 300  Minimum Needed: 32
Call Answer Message (seconds), Maximum Length: 120  Minimum Needed: 8

        End of Message Warning Time (seconds):

          Maximum Mailing Lists: 25     Total Entries in all Lists: 250
Mailbox Size (seconds), Maximum: 1200            Minimum Guarantee: 0
```

System Parameters (INTUITY)

While in AUDIX Administration, use the **change system-parameters** features command to assign the INTUITY system parameters. The parameters will vary according to the customer's needs. See *INTUITY Messaging Solutions Administration* for more information about other options on these screens.

```
change system-parameters features                                  Page 1 of 3
                        SYSTEM-PARAMETERS FEATURES

LOG-IN PARAMETERS
         Login Retries: 3              Consecutive Invalid Attempts: 18
 System Guest Password:                     Minimum Password Length: 6

SUBSCRIBER PASSWORD AGING LIMITS (DAYS)
   Password Expiration Interval: 0   (0 for no password aging)
     Minimum Age Before Changes: 0
             Expiration Warning: 0   (0 for no warning)

INPUT TIME LIMITS (SECONDS)
        Normal: 60     Full Mailbox Timeout: 5     Wait (*W): 180
        Between Digits at Auto-attendent or Standalone Menu: 3  (3-12)

DISCONNECT OPTIONS
        Quick Silence Disconnect? n         Silence Limit? 30 (5-30 seconds)
```

```
change system-parameters features                                  Page 2 of 3
                        SYSTEM-PARAMETERS FEATURES

MISCELLANEOUS PARAMETETERS
         Broadcast Mailbox Extension:
            System Prime Time, Start: 08:00      End: 17:00d Length: 6
              Increment(l/s), Rewind: s      Advance: s

FEATURE ACTIVATION
                 Traffic Collection? y
           Name Record by Subscriber? y
         Multiple Personal Greetings? y
              End of Message Warning? y      Warning Time (seconds): 15
             Priority on Call Answer? n
                 Call Answer Disable? n
               Address Before Record? n

MULTIMEDIA PARAMETERS
    Fax Print Destination Prefix:
       Text to Speech Conversion: none
```

On Page 3:

- `Transfer Type` — Enter **enhanced_cover_0**. This will restrict the voice ports from calling trunk access codes assigned to the trunk groups.
- `Transfer Restriction` — It is recommended that you enter **subscribers** to allow call transfers out of INTUITY AUDIX for calls to office staff subscribers only, and not calls to guest room telephones. Only TSC personnel can change this field to **digits**, and only when the customer has signed a letter to that effect.
- `Covering Extension` — Enter the Listed Director Number extension used for attendant-seeking calls (See Page 95). If the `Covering Extension` is not administered, callers that "zero out" from the voice messaging system will hear "Operator not assigned," and the caller cannot receive assistance.

```
change system-parameters features                                Page 3 of 3
                        SYSTEM-PARAMETERS FEATURES

CALL TRANSFER OUT OF AUDIX
 Transfer Type: enhanced_cover_0            Transfer Restriction: subscribers
 Covering Extension: 2000

ANNOUNCEMENT SETS
             System: us-eng                     Administrative:

RESCHEDULING INCREMENTS FOR UNSUCCESSFUL MESSAGE DELIVERY
 Incr 1: 0  days  0  hrs 5  mins      Incr 2: 0  days 0  hrs 15 mins
 Incr 3: 0  days  0  hrs 30 mins      Incr 4: 0  days 1  hrs 0  mins
 Incr 5: 0  days  2  hrs 0  mins      Incr 6: 0  days 6  hrs 0  mins
 Incr 7: 1  days  0  hrs 0  mins      Incr 8: 2  days 0  hrs 0  mins
 Incr 9: 7  days  0  hrs 0  mins      Incr10: 14 days 0  hrs 0  mins
```

FAX Parameters (Switch and INTUITY)

Integrating FAX machines with the INTUITY system requires special setup on the switch. Many properties have their FAX machines connected to a dedicated central office (CO) trunk. To integrate the FAX machine with the functionality of the INTUITY FAX services, you should do the following to aid you in setting up the best solution possible:

- Connect the dedicated CO FAX line to a CO trunk circuit on the switch.
- Translate the CO trunk to have an Incoming Destination of some previously-unassigned extension. See "Trunk Groups (Switch)" on Page 118 for more information.
- Route calls intended for the CO trunk and the extension to the INTUITY hunt group. See "Hunt Groups for INTUITY AUDIX Voice Ports (Switch)" on Page 162 for more information.
- On the INTUITY, the incoming destination extension must be set up as DNIS service `LGfax`. See "Services to Phone Number Mapping (INTUITY)" on Page 166 for more information.
- The FAX machine must be connected to an analog port on the switch.
- To send a FAX from the FAX machine, hotel staff and guests must remember to dial a prefix (typically 9) to gain access to a CO line. All preprogrammed numbers must be updated with this new dialing plan.

On the INTUITY, the FAX machine extension must be administered as the Guest Services FAX Machine number. If FAX messaging is installed on the INTUITY system, use the following screens to enable FAX messaging options. See *INTUITY Lodging Administration* and *INTUITY Messaging Solutions Administration* for more information about using the options on these screens.

- Use the **Lodging Administration**, **FAX Add-on Administration**, **FAX System Parameters Administration** command to enable the system FAX messaging options.

```
+------------------------------------------------------------+
+            FAX System Parameter Administration             +
+------------------------------------------------------------+
|              Allow delivery of FAX to any number?: Yes     |
|Maximum number of digits allowed in the FAX number:15       |
|          Naximum number of tries to deliver a FAX:5        |
|Maximum number of channels to use for FAX delivery:2        |
|                        First retry inverval (min):5        |
|                       Second retry interval (min):10       |
|                  Subsequent retries interval (min):30      |
|      String of digits to prefix to the FAX number:*99      |
| Use prefix only if entered number is greater than:6  digits|
|                        Guest services FAX machine:810      |
+------------------------------------------------------------+
```

- Use the **Lodging Administration**, **FAX Add-on Administration**, **Guest FAX Profile Administration** command to enable the system FAX messaging options.

```
+-------------------------------------------------------------+
+               Guest FAX Profile Administration              +
+-------------------------------------------------------------+
|                                          Extension:733      |
|                                FAX mailbox for guest ON?:Yes|
|                           Naximum number of FAX messages:3  |
|                Deliver FAX messages to any phone number?:Yes|
|Keep FAX messages active in the mailbox after delivery?:No   |
|                     Extension of the in-room FAX machine:345|
+-------------------------------------------------------------+
```

Billing Considerations When Forwarding Faxes

Guests that have faxes in their mailboxes may wish to forward them to an external destination, often to a location that requires a toll call. In order for the customer to bill the guest for the cost of this call, there are some translations you can do on the switch and the INTUITY to make this work. This process is not completely automated, but it could help the customer recover some call revenue.

1. Administer a feature access code for the CDR Account Code feature (for example, *49) and a feature access code for the ARS feature (usually 9).
2. Use the **change system-parameters cdr** command to set the CDR Account Code Length field to match the number of digits for extensions in the dial plan. See "CDR Parameters (Switch)" on Page 180 for more information.
3. In the FAX System Parameter Administration screen on the INTUITY, enter the CDR Account Code feature access code, the letter "e" (represents the guest room extension number), and the ARS feature access code in the `String of digits to prefix to the FAX number` field.

   For this example, you would enter ***49e9** in that field.
4. When the guest forwards a FAX from their mailbox, they would simply dial the destination telephone number (9 for outside access is not needed).
5. The call generates a call record where the guest room number appears in the account code field of the call record.
6. The customer can now run call accounting reports based on the account code field to see if there may be billing required for outgoing faxes. If the call is a toll call, the guest can be billed for the call.

For assistance setting this up, contact the Lucent Technologies support center or your COE. See *INTUITY Lodging Release 4 Administration* or *INTUITY Messaging Solutions Release 5 Documentation (CD)* for more information about FAX administration.

Abbreviated Dialing Lists (Switch)

For access to a common set of telephone numbers, it is good to set up an Abbreviated Dialing system list. You can then program several telephones to use the system list, and if the extensions ever change for those services, you only have to change the extension in the system list. The following example shows a five-member system list with entries for the AUDIX extension and the Guest Voice Mail extension.

```
add abbreviated-dialing system                                  Page   1 of   1
                       ABBREVIATED DIALING LIST

                                System List
                 Size (multiple of 5): 5                     Privileged? n
DIAL CODE
     11: 699
     12: 710
     13:
     14:
     15:
```

You can also set up a group list to use with fixed access buttons on the guest room telephones. When you want to change the same button for all telephones, you change the assignment in the group list.

```
add abbreviated-dialing group 1                                 Page   1 of   1
                       ABBREVIATED DIALING LIST

                              Group List: 1
    Size (multiple of 5): 10          Program Ext: 195       Privileged? n
DIAL CODE
     11: 710
     12: 195
     13: 196
     14: 204
     15:
     16:
     17:
     18:
     19:
     20:
```

Listed Directory Numbers (Switch)

Use the **change listed-directory-number** command to assign Listed Directory Numbers (LDNs) to the switch. These LDNs are usually the published numbers for the property and terminate at the attendant console.

```
change listed-directory-number                              Page   1 of   2
                        LISTED DIRECTORY NUMBERS

                         Night Destination: 195

          Ext     Name                            TN
      1: 2000                                    1
      2:                                         1
      3:                                         1
      4:                                         1
      5:                                         1
      6:                                         1
      7:                                         1
      8:                                         1
```

Attendant Console (Switch)

Use the **add attendant** command to administer an attendant console. For most GuestWorks installations, there will only be one attendant console.

On Page 1:

- `Type` — Enter **console**.
- `Extension` — Enter a valid extension in the dial plan.
- `Console Type` — Enter **principal**.
- `Port` — Enter the equipment location of the digital port connected to the console.
- `Name` — Enter **Attendant**.
- `COR` — Use an appropriate COR.
- `COS` — Use a COS that has Console Permissions.
- `Select Buttons` — Administer trunk group and hundreds group select buttons as needed.

```
add attendant 1                                              Page   1 of   3
                            ATTENDANT CONSOLE 1

        Type: console           Name: Attendant
   Extension: 3000             Group: 1               Auto Answer: none
Console Type: principal           TN: 1               Data Module? n
        Port: 01A0301             COR: 2          Disp Client Redir? y
                                  COS: 0           Display Language: english

DIRECT TRUNK GROUP SELECT BUTTON ASSIGNMENTS (Trunk Access Codes)
Local Remote Local Remote Local Remote
 1:                    5:                    9:
 2:                    6:                   10:
 3:                    7:                   11:
 4:                    8:                   12:

HUNDREDS SELECT BUTTON ASSIGNMENTS
 1:           5:           9:           13:          17:
 2:           6:          10:           14:          18:
 3:           7:          11:           15:          19:
 4:           8:          12:           16:          20:
```

See the following sections for assigning feature buttons on Pages 2 and 3.

Attendant Console Recommended Button Layout (Switch)

The attendant console feature buttons are assigned using the **change attendant 1** command. The recommended button layout differs depending on whether or not the property has voice messaging, a PMS, or call accounting.

NOTE:
The examples in this section are based on punch-out button labels used with older consoles that are no longer available. Administer the same buttons for the 302C console, but use the button label sheets that must be typed or hand-written. For a PC console, the electronic "button labels" should be similar to the labels shown in this section.

For information on installing the attendant console, see the appropriate installation document.

Figure 19 shows the recommended button layout if you have voice messaging. The shaded buttons are different from the ones suggested in Figure 20. Do not translate the PMS Alarm or Call Accounting System (CAS) Alarm buttons if there is no PMS or call accounting system.

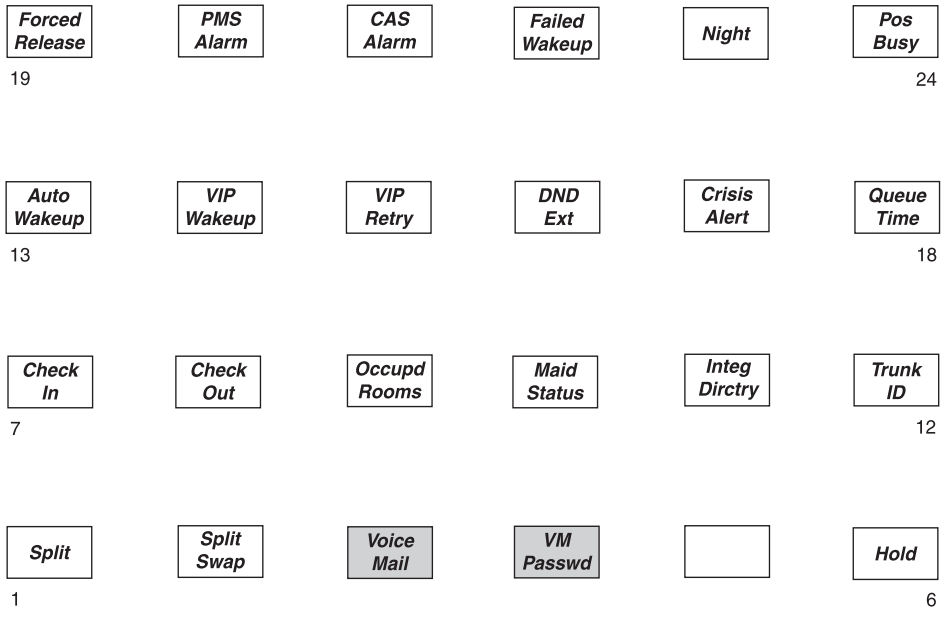


Figure 19. Console Buttons with Voice Messaging

Figure 20 shows the recommended button layout if you do not have voice messaging. The shaded buttons are different from the ones suggested in Figure 19. Do not translate the PMS Alarm or CAS Alarm buttons if there is no PMS or call accounting system.

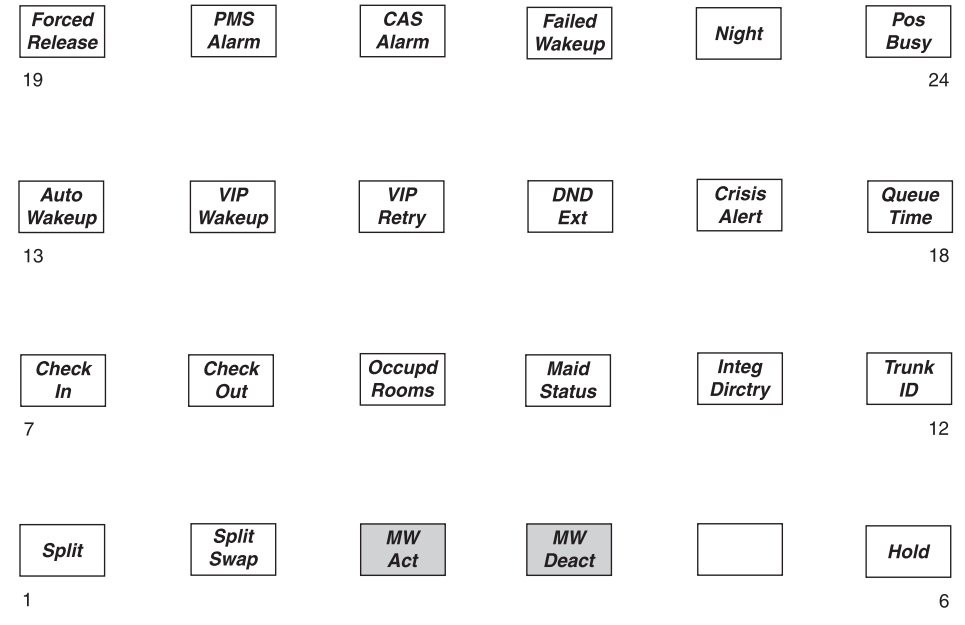


Figure 20. Console Buttons Without Voice Messaging

The buttons shown in Figure 19 and Figure 20 are administered on Page 2 of the Attendant Console screen using the following button types (button labels shown in parentheses):

- **split** (Split; this button assignment cannot be changed)
- **split-swap** (Split Swap)
- **busy-ind** or **abrv-dial** (Voice Mail; with the voice mail extension programmed)
- **busy-ind** or **abrv-dial** (VM Passwd; with the master voice mail password programmed)
- **mwn-act** (MW Act; if the system does not have voice mail)
- **mwn-deact** (MW Deact; if the system does not have voice mail)
- **hold** (Hold)
- **check-in** (Check In)

- **check-out** (Check Out)
- **occ-rooms** (Occupd Rooms)
- **maid-stat** (Maid Status)
- **directory** (Integ Dirctry)
- **trk-id** (Trunk ID)
- **auto-wkup** (Auto Wakeup)
- **vip-wakeup** (VIP Wakeup)
- **vip-retry** (VIP Retry)
- **ext-dn-dst** (DND Ext)
- **crss-alert** (Crisis Alert)
- **atd-qtime** (Queue Time)
- **forced-rel** (Forced Release; this button assignment cannot be changed)
- **pms-alarm** (PMS Alarm)
- **cdr1-alrm** (CAS Alarm)
- **aut-msg-wt** (Failed Wakeup; administer the extension where failed Automatic Wakeup Calls are reported)
- **night-serv** (Night)
- **pos-busy** (Pos Busy)

There are other buttons you may want to add to the attendant console. If preprinted labels are not available for these features, you must create them on-site. These other buttons include the following:

- Controlled Restrictions (assigned as an Abbreviated Dialing button, **abrv-dial**; the Abbreviated Dialing button emulates dialing the feature access code followed by the desired restriction code, such as Outward Restriction)

  For example, if the User Controlled Restriction Activate feature access code is *27, assign an Abbreviated Dialing button that dials *271. This automatically dials the feature access code and the code (1) for Outward Restriction. All the customer has to do now is enter the room number where the restriction is to be applied. Another button can be assigned for the deactivate code.

- Automatic Wakeup printer alarm (assigned as **pr-awu-alm**)
- PMS printer alarm (assigned as **pr-pms-alm**)
- System printer alarm (assigned as **pr-sys-alm**).

Figure 21 shows the recommended button layout for the eight display buttons. These buttons are assigned on Page 3 of the Attendant Console screen.

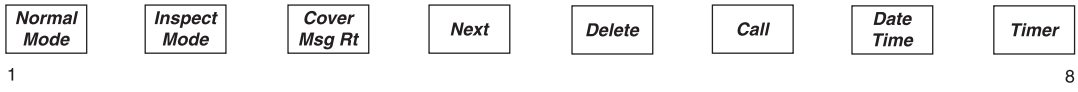


Figure 21. Console Buttons for Display Features

The display buttons are administered with the following button types (button labels shown in parentheses):

- **normal** (Normal Mode)
- **inspect** (Inspect Mode)
- **cov-msg-rt** (Cover Msg Rt)
- **next** (Next)
- **delete-msg** (Delete)
- **call-disp** (Call)
- **date-time** (Date Time)
- **timer** (Timer).

Attendant Backup (Switch)

Use the **change console-parameters** command to administer the Attendant Backup parameters. In addition, you must assign a Queue Calls button to the backup telephones. See Page 106 for more information.

- `Calls in Queue Warning` — This level should be set to **1** if the customer uses the backup telephones for most call handling. If the customer uses the attendant console for most call handling, you can set this level to a higher threshold. The customer may have to experiment with this setting to find a good working queue level.
- `Ext Alert Port (TAAS)` — This field must have an analog circuit equipment location administered even if you do not have external ringing equipment connected to the circuit. This is required to allow the Attendant Backup feature to work properly.

- `Backup Alerting` — Enter **y**.
- `No Answer Timeout` — This controls when ringing at the console will stop after a call is waiting in queue. When the timeout occurs, the console stops ringing, but the call can still be answered. A good value to begin with is **10**.
- `Alerting` — This controls the timeout limit before the console automatically goes into Night mode and Position Busy when calls are not answered. This is a good feature to administer in the situation where the attendant takes a break or leaves at the end of the day, and forgets to put the console into Night service. For example, if the `No Answer Timeout` field is set to **10** seconds and the `Alerting` field is set to **10** seconds, the following occurs: a call rings at the console, after 10 seconds the console ringing shuts off, the call continues to queue for 10 seconds, then the console goes into Night mode and Position Busy. The call can now be answered from a backup telephone.

```
change console-parameters                                    Page   1 of   3
                            CONSOLE PARAMETERS
         Attendant Group Name: OPERATOR
                          COS: 1                                  COR: 1
       Calls in Queue Warning: 1                    Attendant Lockout? y
        Ext Alert Port (TAAS): 01A1216
                          CAS: none
                                                Night Service Act. Ext.: 195
                 IAS (Branch)? n                IAS Tie Trunk Group No.:
         IAS Att. access Code:                    Alternate FRL Station:
              Backup Alerting? y          DID-LDN Only to LDN Night Ext? n
TIMING
  Time Reminder on Hold (sec): 30            Return Call Timeout (sec): 30
  Time in Queue Warning (sec): 15
  INCOMING CALL REMINDERS
      No Answer Timeout (sec): 10                        Alerting (sec): 10
                               Secondary Alert on Held Reminder Calls? y
ABBREVIATED DIALING
     List1:                   List2:                    List3: system

                          COMMON SHARED EXTENSIONS
             Starting Extension: 670              Count: 3
```

On Page 2 of the Console Parameters, set the console incoming call queue priority. This defines which types of calls receive priority over other calls. It is recommended that you set Emergency Access to the highest priority (**1** is the highest priority, to a low of **13**). After that, it is up to the customer to define how they want calls prioritized. The following screen shows the default settings.

```
change console-parameters                                  Page   2 of   3
                            CONSOLE PARAMETERS

QUEUE PRIORITIES

               Emergency Access: 1
                Assistance Call: 2
                        CO Call: 2
               DID to Attendant: 2
                       Tie Call: 2
           Redirected DID Call: 2
               Redirected Call: 2
                   Return Call: 2
                   Serial Call: 2
   Individual Attendant Access: 2
                Interpositional: 2
      VIP Wakeup Reminder Call: 2
             Miscellaneous Call: 2

      Call-Type Ordering Within Priority Levels? n
```

Office Staff Telephones (Switch)

You must assign the telephones for the office staff, the front desk, guest room services, and other telephones located on the property. Use the **add station** command to administer these telephones. Depending on the model of the telephone, the screens show different fields. This example shows the model 6424 used as an attendant backup telephone.

NOTE:
When the INTUITY Lodging Call Accounting package is first installed, the set of extensions and trunks administered on the switch is coordinated with Homisco. If extensions and trunks are added at a later date, Homisco must be notified so changes can be added to the call accounting package.

```
add station 195                                          Page   1 of   5
                                  STATION

Extension: 195                          Lock Messages? n          BCC: 0
     Type: 6424D+                       Security Code:             TN: 1
     Port: 01A0201                    Coverage Path 1: 1          COR: 2
     Name: FRONT DESK                 Coverage Path 2:            COS: 0
                                      Hunt-to Station:

STATION OPTIONS
             Data Module? n                Personalized Ringing Pattern: 1
           Speakerphone: 2-way                        Message Lamp Ext: 195
       Display Language: english                  Mute Button Enabled? y
                                                     Expansion Module? n
```

```
add station 195                                          Page   2 of   5
                                  STATION
FEATURE OPTIONS
          LWC Reception: audix           Auto Select Any Idle Appearance? n
         LWC Activation? n                     Coverage Msg Retrieval? y
           CDR Privacy? n                                Auto Answer: none
  Redirect Notification? y                         Data Restriction? n
Per Button Ring Control? n                   Idle Appearance Preference? n
  Bridged Call Alerting? n
 Active Station Ringing: single                Restrict Last Appearance? y

       H.320 Conversion? n
                                  Per Station CPN - Send Calling Number?

                                             Audible Message Waiting? n
   MWI Served User Type:                    Display Client Redirection? n
                                           Select Last Used Appearance? n
```

```
add station 195                                          Page   3 of   5
                                  STATION
 SITE DATA
       Room:                                          Headset? n
       Jack:                                          Speaker? n
      Cable:                                         Mounting: d
      Floor:                                     Cord Length: 0
   Building:                                       Set Color:



ABBREVIATED DIALING
     List1: personal 1         List2:                    List3: system


BUTTON ASSIGNMENTS
 1: call-appr                           5: autodial   Number:
 2: call-appr                           6: autodial   Number:
 3: call-appr                           7: autodial   Number:
 4: call-appr                           8: autodial   Number:
```

```
add station 195                                          Page   4 of   5
                                  STATION

FEATURE BUTTON ASSIGNMENTS

 9: atd-qcalls
10: atd-qtime
11: night-serv
12: aut-msg-wt Ext: 699
13: auto-wkup
14: ext-dn-dst
15: check-in
16: check-out
17: mwn-act
18: mwn-deact
19:
20: autodial   Number: #6
21: pms-alarm
22: cdr1-alrm
23: aut-msg-wt Ext: 399
24: autodial   Number: *271
```

```
add station 195                                          Page   5 of   5
                                    STATION

SOFTKEY BUTTON ASSIGNMENTS

 1: directory
 2: drop
 3: int-aut-an
 4: timer
 5: priority
 6: auto-cback
 7: abr-prog
 8: abr-spchar Char: ~p
 9: lwc-store
10: ringer-off
11: btn-view
12: admin
```

Backup Telephone Recommended Button Layouts (Switch)

The telephones used for the Attendant Backup feature should have several of the same buttons you would assign to the attendant console. These are assigned using the **change station XXXX** command, where the **XXXX** is the extension number. The following is a list of the recommended feature buttons:

- Attendant Queue Calls (**atd-qcalls**) (this button is required for the Attendant Backup feature)
- Attendant Call Pickup (this is an **autodial** button that is programmed with the TAAS feature access code; the TAAS code is used to answer the Attendant Backup calls)
- Attendant time in queue (**atd-qtime**)
- Do Not Disturb - Extension (**ext-dn-dst**)
- Automatic Wakeup (**auto-wkup**)
- **aut-msg-wt** (administer the extension where failed Automatic Wakeup Calls are reported)
- Night Service (**night-serv**) (only one backup telephone can have a Night Service button)
- Ringer Cutoff (**ringer-off**)
- Check-In (**check-in**)
- Check-Out (**check-out**)
- Message Waiting Activation (**mwn-act**; if the system does not have voice mail)
- Message Waiting Deactivation (**mwn-deact**; if the system does not have voice mail)
- Busy Indication for the attendant console extension and any other backup telephones (**busy-ind**)
- PMS Alarm (**pms-alarm**)
- CAS Alarm (**cdr1-alarm**).

In addition, make sure that the backup telephone's class of service has console permissions assigned (**change cos**).

Figure 22, Figure 23, and Figure 24 show a typical setup if you had three telephones used as backups to the attendant console. The recommended primary backup telephone is the model 6424. The second and third backup telephones could be a model 6408. In this example, actual extension numbers are not given. Extension 1 represents the published front desk telephone number. Extensions 2 and 3 are nonpublished numbers known only to the hotel office staff. In this example, there are call appearances or bridged appearances of Extension 1 on all telephones, plus each telephone has at least one other extension they can access as needed. With this arrangement, it makes it easy for front desk staff to answer a call at one telephone, put the call on hold, and pick up the call from another telephone.

If you are using the 8434 and 8410 telephones, adjust the recommended layouts to approximate the button layouts those telephones.

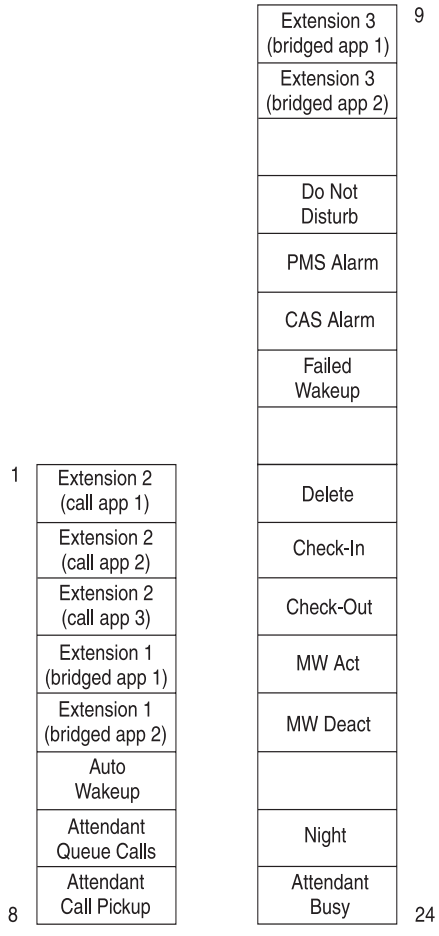


Figure 22. First Backup Telephone Button Layout (Model 6424)

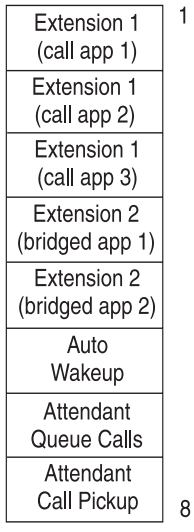


Figure 23. Second Backup Telephone Button Layout (Model 6408)

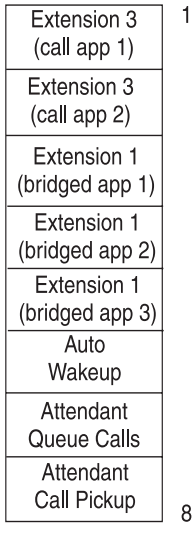


Figure 24. Third Backup Telephone Button Layout (Model 6408)

Mailboxes for AUDIX Subscribers (INTUITY)

The following screens show an example of how to administer mailboxes for office staff subscribers on the INTUITY. Access these screens using the **AUDIX Administration** command, and then the **add subscriber** command. The default class of service, **class00**, is a good option to use. See *INTUITY Messaging Solutions Administration* for more information about other options on these screens. These screens are different between INTUITY R4.4 and R5.

```
add subscriber 150                                              Page 1 of 2
                                SUBSCRIBER

         Name: Jean Collins                        Locked? n
    Extension: 150                               Password:
          COS: class00                       Miscellaneous:
Switch Number: 1                       Covering Extension: 161
 Community ID: 1                        Broadcast Mailbox? n
Secondary Ext:
 Account Code:
```

On Page 2:

- Type — Enter **call-answer**.
- If Fax Creation is **y**, then change the following fields:
  - — Voice Mail Message, Maximum Length — Enter **1200**.
  - — Call Answer Message, Maximum Length — Enter **1200**.
  - — Mailbox Size, Maximum — Enter **4800**.

```
add subscriber 150                                              Page 2 of 2
                     SUBSCRIBER CLASS OF SERVICE PARAMETERS
Addressing Format: extension            Login Announcement Set: System
System Multilingual is ON         Call Answer Primary Annc. Set: System
Call Answer Language Choice? n  Call Answer Secondary Annc. Set: System

PERMISSIONS
      Type: call-answer     Announcement Control? y             Outcalling? n
      Priority Messages? n             Broadcast: none        IMAPI Access? y
 IMAPI Message Transfer? n          Fax Creation? n  Trusted Server Access? y

INCOMING MAILBOX          Order: fifo               Category Order: nuo
  Retention Times (days),   New: 10       Old: 10         Unopened: 10
OUTGOING MAILBOX          Order: fifo               Category Order: unfda
Retention Times(days), File Cab: 10       Delivered/Nondeliverable: 5

Voice Mail Message (seconds),  Maximum Length: 300  Minimum Needed: 32
Call Answer Message (seconds), Maximum Length: 120  Minimum Needed: 8
        End of Message Warning Time (seconds):
          Maximum Mailing Lists: 25     Total Entries in all Lists: 250
Mailbox Size (seconds), Maximum: 3600            Minimum Guarantee: 0
```

Guest Room Telephones (Switch)

DANGER:
Check your system for TN793 and TN2793 analog line circuit packs. If the TN793 is vintage 5 or earlier, or if the TN2793 is vintage 3 or earlier, do not use these circuit packs with telephones requiring neon message waiting lamps. Request a remediation update for those circuit packs. Contact your Lucent representative and request information about replacing these older circuit packs via QPPCN 1126D (TN793) and QPPCN 1127B (TN2793).

Use the **add station** command to add guest room telephones. Once you have created one telephone, use the **duplicate** command to create the rest of the guest rooms since all rooms should have the same features, coverage path, COS, and COR. The `Message Waiting Indicator` is hardware-dependent and must match the type of message waiting lamps on the guest telephones. This can vary from room to room.

```
add station 107                                          Page   1 of   3
                                  STATION

Extension: 107                       Lock Messages? n          BCC: 0
     Type: 2500                      Security Code:             TN: 1
     Port: 01A0201                 Coverage Path 1: 1          COR: 1
     Name:                         Coverage Path 2:            COS: 1
                                   Hunt-to Station:          Tests? y

STATION OPTIONS
     Off Premise Station? n                 Message Waiting Indicator: led
                                                 Message Lamp Ext: 107
```

```
add station 107                                                Page   2 of   3
                                  STATION
FEATURE OPTIONS
           LWC Reception: audix
          LWC Activation? n                      Coverage Msg Retrieval? n
             CDR Privacy? n                                Auto Answer: none
   Redirect Notification? y                              Data Restriction? y
 Per Button Ring Control? n                     Call Waiting Indication? n
   Bridged Call Alerting? n                 Att. Call Waiting Indication? n
        Switchhook Flash? y                 Distinctive Audible Alerting? n
    Ignore Rotary Digits? n                          Adjunct Supervision? n
        H.320 Conversion? n
                                  Per Station CPN - Send Calling Number?

                                       Audible Message Waiting? n

   MWI Served User Type:
```

On Page 3:

- `Room` — Enter the room number.
- `List1` — You may want to populate an Abbreviated Dialing system list to be used for one-button access to guest services.
- `Line Appearance` — Enter **call-appr**.

```
add station 107                                          Page    3 of   3
                                  STATION
 SITE DATA
       Room: 107                                      Headset? n
       Jack:                                          Speaker? n
      Cable:                                         Mounting: d
      Floor:                                     Cord Length: 0
   Building:                                       Set Color:


ABBREVIATED DIALING
     List1: System   1         List2:                    List3:

HOT LINE DESTINATION
         Abbreviated Dialing List Number (From above 1, 2 or 3):
                                                    Dial Code:

     Line Appearance: call-appr
```

After you have administered the guest rooms, you can use the **list station** command to verify that all guest rooms have been translated.

Mailboxes for Guest Rooms (INTUITY)

Guest room mailboxes are handled differently depending on which type of messaging link is used between the switch and the INTUITY.

When using TCP/IP or X.25 signaling, messages are sent between the PMS and the INTUITY system to automatically create guest room mailboxes when the PMS checks in a guest. No manual intervention is required.

When using Mode Code signaling, you must manually create a mailbox for each guest room and leave the mailbox open at all times. This procedure is described in the *INTUITY Lodging Release 4 Administration* document or the *INTUITY Messaging Solutions Release 5 Documentation (CD)*. You must also use the **Lodging Administration, System Parameter Administration** command and set the `Lamps On For New Messages` field to **No**. This means that the customer must clear messages manually every time a guest checks out. Instructions for this are also found in these documents.

Recorded Announcements (Switch)

Use the **change announcements** command to assign extension numbers to be used for recorded announcements. You can have up to 16 different recordings per Integrated Announcements circuit pack. The maximum recording time per circuit pack is 256 seconds (TN750) or 512 seconds (TN750B or TN750C). The extensions used for recorded announcements must already be administered in the dialing plan but cannot be used for any other purpose (such as stations or directory numbers).

```
change announcements                                    Page   1 of   8
                          ANNOUNCEMENTS/AUDIO SOURCES
     Ext.    Type        COR  TN   Name              Q   QLen  Pro? Rate Port

  1: 380     integrated  1    1    Wakeup            n   N/A    n    32   01A14
  2: 381     integrated  1    1    1st Auto Atnd     n   N/A    n    32   01A14
  3: 382     integrated  1    1    Dial Extension    n   N/A    n    32   01A14
  4: 383     integrated  1    1    Directory         n   N/A    n    32   01A14
  5:                     1    1                      n
  6:                     1    1                      n
  7:                     1    1                      n
  8:                     1    1                      n
  9:                     1    1                      n
 10:                     1    1                      n
 11:                     1    1                      n
 12:                     1    1                      n
 13:                     1    1                      n
 14:                     1    1                      n
 15:                     1    1                      n
 16:                     1    1                      n
```

Once you have designated which extensions will be used for recorded announcements, use the following procedures to record and test the announcements. You must record the announcements from the attendant console or from a station that has console permissions. It is recommended that you have a hotel employee record the announcements so the same person can be used for later changes or additions.

To record each of the announcements, do the following:

1. Go off-hook and dial the Announcement FAC _____.
2. Dial the extension number of the announcement you want to record.

   If an announcement session is already in progress, or if a save or restore command is in progress, you will hear reorder tone. Try again later.
3. Press [1] and record after the tone.

   If the announcement already exists and is marked “protected” in the announcements screen, you will hear intercept tone.

4. Hang up when finished recording the message.

> **NOTE:**
> The system records the sound of the receiver returning to the station. Press the switchhook with your finger, press Drop, or hang up gently.

5. After waiting 15 seconds, dial the extension number of the announcement you just recorded.
6. Listen to the recording. If you need to record the message again, repeat this procedure. If the message is satisfactory, hang up and repeat this procedure to record the other announcements.

To delete a recorded announcement, do the following:

1. Go off-hook at a station and dial the Announcement FAC _____.
2. Dial the extension number of the announcement you want to delete.
3. Press 3.

   Confirmation tone is heard, and the announcement is deleted.
4. Hang up.
5. Use the **change announcements** command to delete the announcement extension.

If your system uses the TN750 or TN750B circuit packs, you must manually save the announcements recorded on those circuit packs. Use the **save announcements** command. If you do not save the announcements, all announcements recorded since the last save will be lost if the system loses power or if the TN750 or TN750B circuit packs are removed from the system.

If your system uses only the TN750C circuit pack, saving the announcements is not required. The TN750C has on-board memory for all announcements.

See Managing Announcements in the *DEFINITY ECS Administrator's Guide* for more information.

Emergency Access to Attendant (Switch)

Use the **change system-parameters features** command to administer parameters for the Emergency Access to Attendant feature.

- `Time before Off-hook Alert` — This is the system delay after a user goes off-hook before the attendant is notified of the condition.
- `Emergency Access Redirection Extension` — Enter a backup extension that can receive off-hook alert calls.
- `Number of Emergency Calls Allowed in Attendant Queue` — Enter the number of off-hook alert calls you wish to allow in the attendant queue.
- You must also administer the feature access code (see Page 78) and the Off-Hook Alert option for the appropriate COS (see Page 80).

```
change system-parameters features                              Page   3 of   9
                        FEATURE-RELATED SYSTEM PARAMETERS

                     Reserved Slots for Attendant Priority Queue: 5
                                    Time before Off-hook Alert: 10
                               Emergency Access Redirection Extension: 195
            Number of Emergency Calls Allowed in Attendant Queue: 5
                                         Call Pickup Alerting? n
                     Temporary Bridged Appearance on Call Pickup? y
                                   Call Pickup on Intercom Calls? y
                                         Directed Call Pickup? n
               Deluxe Paging and Call Park Timeout to Originator? y
    Controlled Outward Restriction Intercept Treatment: attendant
  Controlled Termination Restriction (Do Not Disturb): attendant
            Controlled Station to Station Restriction: attendant
AUTHORIZATION CODE PARAMETERS        Authorization Codes Enabled? y
                                       Authorization Code Length: 7
                           Authorization Code Cancellation Symbol: #
                                      Attendant Time Out Flag? n
                                   Display Authorization Code? y
                  Controlled Toll Restriction Replaces: none
```

Crisis Alert (Switch)

To ensure that the Crisis Alert feature operates properly, you must administer ARS patterns to accept any combination of digits that guests could possibly dial while trying to dial the emergency service agency, and route the call to the correct location. For example, some guests might dial 9 (for an outside line) and then 911. Other guests may only dial 911. Without the correct routing patterns, the call will not go through. These screens show two examples of how this routing can be administered.

Assign a routing pattern and the **alrt** Call Type to the desired emergency service access code. For example, if your emergency service access code is 911, assign the 911 digit string to a routing pattern and assign it the **alrt** Call Type. This takes care of the condition when the guest dials 9 (for local access) and then 911. If a guest only dials 911, you also want the call to route to the emergency service agency. You must assign a dialed string of 11 with a different routing pattern that removes the dialed digits 11 and inserts the dialed digit string 911. The following screens show these two examples administered as part of the ARS Digit Analysis Table.

```
change ars analysis 9                                    Page   1 of   1
                         ARS DIGIT ANALYSIS TABLE
                               Location: all            Percent Full:   6

          Dialed          Total     Route   Call    Node  ANI
          String         Min  Max  Pattern  Type    Num   Reqd
    911                  3    3    5        alrt          n
                                              n
                                              n
                                              n
                                              n
                                              n
                                              n
                                              n
```

```
change ars analysis 1                                    Page   1 of   1
                         ARS DIGIT ANALYSIS TABLE
                               Location: all            Percent Full:   6

          Dialed          Total     Route   Call    Node  ANI
          String         Min  Max  Pattern  Type    Num   Reqd
    11                   2    2    6        alrt          n
                                              n
                                              n
                                              n
                                              n
                                              n
                                              n
                                              n
```

Use the **change route-pattern** command to assign a routing pattern for the emergency service access code. In this first example, Preference 1 of Pattern 5 is used when guests dial 9911 (9 for the ARS access code, and 911 for the emergency service agency).

```
change route-pattern 5                                        Page   1 of   1
                          Pattern Number: 5

  Grp.  FRL NPA Pfx Hop Toll No. Del Inserted                        IXC
  No.           Mrk Lmt List Digits  Digits
1: 5     0
2:
3:
4:
5:
6:

    BCC VALUE   TSC  CA-TSC     ITC   BCIE Service/Feature          Numbering LAR
   0 1 2 3 4 W       Request                                       Format
1: y y y y y n   n              rest
2: y y y y y n   n              rest
3: y y y y y n   n              rest
4: y y y y y n   n              rest
5: y y y y y n   n              rest
6: y y y y y n   n              rest
```

In this second example, Preference 1 of Pattern 6 is used when guests dial 911. Pattern 6 deletes the two digits dialed (11) after the ARS access code (9) and inserts the caller's intended digit string (911).

```
change route-pattern 6                                        Page   1 of   1
                          Pattern Number: 6

  Grp.  FRL NPA Pfx Hop Toll No. Del Inserted                        IXC
  No.           Mrk Lmt List Digits  Digits
1: 5     0                    2     911
2:
3:
4:
5:
6:

    BCC VALUE   TSC  CA-TSC     ITC   BCIE Service/Feature          Numbering LAR
   0 1 2 3 4 W       Request                                       Format
1: y y y y y n   n              rest
2: y y y y y n   n              rest
3: y y y y y n   n              rest
4: y y y y y n   n              rest
5: y y y y y n   n              rest
6: y y y y y n   n              rest
```

Crisis Alert can notify attendant consoles or digital display telephones. If you are setting up Crisis Alert to notify one or more display telephones, use the **change system-parameters features** command to indicate whether every designated display telephone user must respond to the crisis notification, or whether only one user must respond.

```
change system-parameters features                              Page   4 of   9
                     FEATURE-RELATED SYSTEM PARAMETERS

SYSTEM PRINTER PARAMETERS
             System Printer Extension:                    Lines Per Page: 60
                  EIA Device Bit Rate: 9600

SYSTEM-WIDE PARAMETERS
                          Switch Name:

MALICIOUS CALL TRACE PARAMETERS
               Apply MCT Warning Tone? n    MCT Voice Recorder Trunk Group:

SEND ALL CALLS OPTIONS
            Send All Calls Applies to: station
       Auto Inspect on Send All Calls? n

UNIVERSAL CALL ID
      Create Universal Call ID (UCID)? n    UCID Network Node ID:

CRISIS ALERT: Every User Responds? y
```

Trunk Groups (Switch)

Use the **add trunk-group** command to assign each trunk group.

- `COR` — Each trunk group must have a COR.
- `CDR Reports` — Enter **y** for every trunk group that the customer wishes to record. Usually, only outgoing trunk groups are recorded.
- `Dial Access` — Enter **n**.

```
add trunk-group 1                                          Page   1 of  10
                              TRUNK GROUP

Group Number: 1                   Group Type: co            CDR Reports: y
  Group Name: Outside Call               COR: 20       TN: 1        TAC: 710
   Direction: two-way       Outgoing Display? n
 Dial Access? n               Busy Threshold: 10          Night Service:
Queue Length: 0          Country: 1                Incoming Destination: attd
   Comm Type: voice                Auth Code? n   Digit Absorption List:
    Prefix-1? y                  Trunk Flash? n         Toll Restricted? y

TRUNK PARAMETERS
           Trunk Type: ground-start
    Outgoing Dial Type: tone                              Cut-Through? n
     Trunk Termination: rc                    Disconnect Timing(msec): 500

           Auto Guard? n    Call Still Held? n     Sig Bit Inversion: none
     Terminal Balanced? n                             RA Trunk Loss: 0db
                                Trunk Gain: high

 Disconnect Supervision - In? y  Out? n                Cyclical Hunt? y
 Answer Supervision Timeout: 10            Receive Answer Supervision? n
```

NOTE:
When the INTUITY Lodging Call Accounting package is first installed, the set of extensions and trunks administered on the switch is coordinated with Homisco. If extensions and trunks are added at a later date, Homisco must be notified so changes can be added to the call accounting package.

Automatic Wakeup Options (Switch)

The following options are available for the Automatic Wakeup feature:

- Dual Wakeup
- Daily Wakeup
- VIP Wakeup, including the maximum number of VIP Wakeup requests allowed during a 5-minute interval
- Wakeup Activation via Tones.

NOTE:
If Wakeup Activation via Tones is enabled, the wakeup feature provided by the Speech Synthesizer circuit pack (TN725B) is disabled from service.

These options are part of the hospitality parameters. See *DEFINITY ECS Release 7 and GuestWorks Hospitality Operations* for more information.

```
change system-parameters hospitality                          Page   2 of   3
                            HOSPITALITY

            Dual Wakeups? y   Daily Wakeup? y    VIP Wakeup? y
                                  VIP Wakeups Per 5 Minutes: 5
                          Room Activated Wakeup With Tones? y
                    Time of Scheduled Wakeup Activity Report:
                     Time of Scheduled Wakeup Summary Report:
                Time of Scheduled Emergency Access Summary Report:
                                          Announcement Type: mult-integ
                            Default Announcement Extension: 380

          Length of Time to Remain Connected to Announcement: 30
             Extension to Receive Failed Wakeup LWC Messages: 399
              Routing Extension on Unavailable Voice Synthesis:
                    Display Room Information in Call Display? n

                                  Number of Digits from PMS:
                                        PMS Sends Prefix? n
                        Number of Digits in PMS Coverage Path: 3
                                     Digit to Insert/Delete:
```

Call Vectoring (Switch)

NOTE:
If you use a vector to route calls to a location outside of your hotel, the COR of the vector must route using its own ARS restricted partition to prevent toll fraud, and the Facility Restriction Level (FRL) should be set to 0.

The Call Vectoring feature is used to set up the Automated Attendant feature for incoming calls to the hotel. Coordinate this administration with your customer. You will need to record announcements for this feature (see Page 112).

You must first assign a vector directory number (VDN) using the **add vdn XXXX** command. The extension number **XXXX** is an unused extension on the switch. You can have up to 20 VDNs depending on the capacity of the system (R7csi/si is 10; R7r is 20). One of the VDNs is usually the published telephone number for the hotel. A second VDN could be used by hotel guests to provide a menu of information about hotel services and events. After you add a VDN, you can later change the VDN if needed. For more information about vectors, see *DEFINITY BCS and GuestWorks Call Vectoring Guide.*

The next step is to create the vector used by callers to access different numbers at the hotel. The following example shows an auto-attendant vector.

```
change vector 1                                              Page   1 of   3
                                CALL VECTOR

 Number: 1                    Name auto-attd-1                        Lock? n

     Basic? y   EAS? n    G3V4 Enhanced? n    ANI/II-Digits? n   ASAI Routing? n
 Prompting? y   LAI? n   G3V4 Adv Route? n            CINFO? n            BSR? n

01 wait-time    2   secs hearing ringback
02 collect      1  digits after announcement 381
03
04 route-to     number 0               with cov n if digit             =  0
05 route-to     number 105             with cov n if digit             =  1
06 goto         step   12  if digits          =      2
07 route-to     number 699             with cov n if digit             =  3
08 goto         step   20  if digits          =      4
09 goto         step   16  if digits          =      5
10 route-to     number 0               with cov n if unconditionally
11
```

```
change vector 1                                              Page   2 of   3
                                  CALL VECTOR


12 collect      3  digits after announcement 382
13 route-to     digits with coverage y
14 route-to     number 0               with cov n if unconditionally
15
16 goto         step   2   if unconditionally
17
18
19
20 collect      3  digits after announcement 383
21 goto         step   13  if unconditionally
22
```

This vector does the following:

1. The caller hears ringback for 2 seconds.
2. Announcement 381 plays. This announcement asks the caller to do one of the following:
   - Press 0 or wait if they want the front desk; if they press 0 or wait for the timeout, they are routed to the front desk.
   - Press 1 if they want the reservation desk; if they press 1, they are routed to extension 105, which is the reservations desk.
   - Press 2 if they know the guest room extension; if they press 2, they are routed to announcement 382, which tells them to dial the guest room extension.
   - Press 3 if they want to retrieve their voice messages; if they press 3, the call is routed to the voice messaging system.
   - Press 4 if they know the department they wish to access (such as catering); if they press 4, they are routed to announcement 383, which gives them a listing of several extensions at the hotel that they can dial directly.
   - Press 5 to start over again; if they press 5, the caller hears announcement 381, which repeats all of the options.
   - If the caller dials anything else, the call is routed to the front desk.

Dial by Name (Switch)

The Dial by Name feature allows you to “dial” someone by entering their name from your touch-tone keypad. This feature is accessible by using the Call Vectoring feature and recorded announcements (see Page 112) to create an auto-attendant procedure where one option allows callers to enter a person’s name instead of their extension number. The system processes the name characters received, and, when a single match is found, the number is dialed automatically. For more information about Dial by Name and vectoring, see *DEFINITY BCS and GuestWorks Issue 5 Overview* and *DEFINITY BCS and GuestWorks Call Vectoring Guide.*

You must first assign a VDN using the **add vdn XXXX** command. The extension number **XXXX** is an unused extension on the switch. You can have up to 20 VDNs depending on the capacity of the system (R7csi/si is 10; R7r is 20). The VDN used for Dial by Name would be the published telephone number for the hotel.

The next step is to create the vector that enables the Dial by Name feature. The following example shows a vector that includes steps for Dial by Name.

```
change vector 2                                              Page   1 of   3
                                  CALL VECTOR

 Number: 2                    Name Dial by Name                        Lock? n

     Basic? y   EAS? n    G3V4 Enhanced? n    ANI/II-Digits? n   ASAI Routing? n
 Prompting? y   LAI? n   G3V4 Adv Route? n            CINFO? n            BSR? n

01 wait-time    2   secs hearing ringback
02 collect      1  digits after announcement 381
03
04 route-to     number 0               with cov n if digit             =  0
05 route-to     number 105             with cov n if digit             =  1
06 goto         step   12  if digits           =      2
07 goto         step   21  if digits           =      3
08 goto         step   19  if digits           =      4
09 goto         step   16  if digits           =      5
10 route-to     number 0               with cov n if unconditionally
11
```

```
change vector 2                                              Page   2 of   3
                                  CALL VECTOR


12 collect      3  digits after announcement 382
13 route-to     digits with coverage y
14 route-to     number 0               with cov n if unconditionally
15
16 goto         step   2   if unconditionally
17
18
19 collect      3  digits after announcement 383
20 goto         step   13  if unconditionally
21 collect      4 digits after announcement 661
22 route-to     name1 with coverage y
```

```
change vector 2                                              Page   3 of   3
                                  CALL VECTOR


23 goto         step 30 if nomatch
24 collect      11 digits after announcement 662
25 route-to     name2 with coverage y
26 goto         step 30 if nomatch
27 collect      2 digits after announcement 663
28 route-to     name3 with coverage y
29 goto         step 30 if nomatch
30 collect      1 digits after announcement 660
31 goto         step 21 if digits = 1
32 route-to     number 0                with cov n if unconditionally
```

This vector does the following:

1. The caller hears ringback for 2 seconds.
2. Announcement 381 plays. This announcement asks them to do one of the following:
   - Press 0 or wait if they want the operator; if they press 0 or wait for the timeout, they are routed to the operator.
   - Press 1 if they want the help desk; if they press 1, they are routed to extension 105, which is the help desk.
   - Press 2 if they know the person's extension; if they press 2, they are routed to announcement 382, which tells them to dial the person's extension.
   - Press 3 if they know the person's name; if they press 3, the following sub-procedure occurs:
     a. Announcement 661 plays requesting they enter the first four letters of the person's last name.

        If there is a single match, the call is redirected.

        If there are multiple matches, continue with Step b.

        If there is no match, go to Step d.

     b. Announcement 662 plays requesting they enter the rest of the person's last name, followed by the # key.

        If there is a single match, the call is redirected.

        If there are multiple matches, continue with Step c.

        If there is no match, go to Step d.

     c. Announcement 663 plays requesting they enter the first two letters of the person's first name.

        If there is a single match, the call is redirected.

        If there is no match, continue with Step d.

     d. Since there are no matches, announcement 660 plays telling them they can press 1 to try again, or press 0 to get an operator.
   - Press 4 if they know the department they wish to access (such as engineering); if they press 4, they are routed to announcement 383, which gives them a listing of several departments that they can dial directly.
   - Press 5 to start over again; if they press 5, the caller hears announcement 381, which repeats all of the options.
   - If the caller dials anything else, the call is routed to the operator.

Trunk-to-Trunk Transfer (Switch)

Use the **change system-parameters features** command to enable Trunk-to-Trunk Transfer only if it is requested by the customer. This feature is normally disabled.

CAUTION:
If Trunk-to-Trunk Transfer is enabled, calls made to guest rooms can be transferred outside of the hotel and toll charges may be lost for some toll calls.

```
change system-parameters features                              Page   1 of   9
                      FEATURE-RELATED SYSTEM PARAMETERS



                               Trunk-to-Trunk Transfer: none
Automatic Callback - No Answer Timeout Interval (rings): 3
                  Call Park Timeout Interval (minutes): 10
    Off-Premises Tone Detect Timeout Interval (seconds): 20
                             AAR/ARS Dial Tone Required? y
                                   Music/Tone on Hold: music  Port: 01B1101
          Music (or Silence) on Transferred Trunk Calls? no
                     DID/Tie/ISDN Intercept Treatment: attd
              Messaging Service Adjunct (MSA) Connected? n
 Internal Automatic Answer for Attendant Extended Calls? n
              Automatic Circuit Assurance (ACA) Enabled? n



        Abbreviated Dial Programming by Assigned Lists? n
   Auto Abbreviated/Delayed Transition Interval (rings): 2
```

Switch-to-INTUITY Translations

Table 11 is a checklist of the translations and tests that must be done to administer the switch-to-INTUITY link.

Table 11. Checklist for Switch-to-INTUITY Translations

✔	Description	Reference
	Switch-to-INTUITY Messaging Link — Depending on the hardware release, use only one of these link configurations: - TCP/IP signaling - X.25 signaling - Mode Code signaling	 Page 127 Page 150 Page 157
	Voice ports (switch)	Page 159
	Hunt groups for the voice ports (switch)	Page 162
	Voice port extensions, channels, and services (INTUITY)	Page 164
	Services to phone number mapping (INTUITY)	Page 166
	Attendant and administrator passwords (INTUITY)	Page 167
	Extension for guest message retrieval (switch)	Page 168
	Coverage paths to route calls to INTUITY AUDIX (switch)	Page 169
	Test the switch-to-INTUITY voice ports	Page 170

Switch-to-INTUITY Messaging Link

There are three ways you can set up the messaging link between the switch and the INTUITY:

- TCP/IP signaling
- X.25 signaling
- Mode Code signaling.

TCP/IP Signaling

The TCP/IP signaling link used with GuestWorks Issue 5 and later requires administration on both the switch and the INTUITY. Any switch type (csi, si, or r) can use a TCP/IP link. This section includes procedures for testing the link.

The TCP/IP link administration is different depending on whether the system has R7-based software or R8-based software. Use the **list config software** command to display the software load for the system. The `Memory Resident` field displays the software load.

- R7-based software — G3V7x.xx.x.xxx.x
- R8-based software — G3V8x.xx.x.xxx.x

Follow the procedures under "TCP/IP Link (R7-Based Switch)" on Page 127 or "TCP/IP Link (R8-Based Switch)" on Page 134 depending on your switch software release.

TCP/IP Link (R7-Based Switch)

On the switch, you must do the following to administer the TCP/IP link:

1. Assign the bus bridge (*csi* systems only)
2. Assign node names
3. Assign an ethernet data module
4. Assign a processor interface channel
5. Assign IP routes (if needed).

Assign the Bus Bridge (csi Systems Only)

Using the **change system-parameters maintenance** command, Page 2, verify that the Bus Bridge Packet Interface 2 has been enabled for the C-LAN circuit pack. If it is not already assigned, enter the C-LAN circuit pack equipment location, and use the defaults for the Timeslot Port fields as shown below.

```
change system-parameter maintenance                          Page 2 of 3
                       MAINTENANCE-RELATED SYSTEM PARAMETERS

MINIMUM MAINTENANCE THRESHOLDS ( Before Notification )
        TTRs: 4        CPTRs: 1        Call Classifier Ports:
        MMIs: 0          VCs:

TERMINATING TRUNK TRANSMISSION TEST (Extension)
  Test Type 100:        Test Type 102:         Test Type 105:

ISDN MAINTENANCE
   ISDN-PRI TEST CALL Extension:         ISDN BRI Service SPID:

DS1 MAINTENANCE
   DSO Loop-Around Test Call Extension:

LOSS PLAN (Leave Blank if no Extra Loss is Required)
   Minimum Number of Parties in a Conference Before Adding Extra Loss:

SPE OPTIONAL BOARDS
             Packet Intf1? y     Packet Intf2? y
   Bus Bridge: 03C05   Inter-Board Link Timeslots  Pt0: 6  Pt1: 1  Pt2: 1
```

Assign Node Names

Using the **change node-names** command, assign a node name and IP address for the INTUITY system on Page 1. For this example, the INTUITY system is named **audix** and the IP address is **192.168.2.5**. Any 192.168.x.x IP address is a non-public IP address. If you have a dedicated link to the switch, use the address shown in this example. If the customer has their own network, you may need to use a different address. If using the customer's network, make sure that the IP addresses assigned here are unique within the customer's network.

```
change node-names                                          Page   1 of   6
                                NODE NAMES

      Audix Names   IP Address          MSA Names   IP Address
      audix         192.168.2  .5
```

On Page 2 of the Node Names screen, assign a node name and IP address for the switch. In this example, the switch is named **guestworks** and the IP address is **192.168.2.2**. Again, the IP address in the example is a non-public number. Use this IP address if you are installing a dedicated direct link between the switch and the INTUITY system. The **default** node name entry is display-only and is not used for this application.

If the connection is going through a router instead of a direct connection, you must also assign a node name to the router and enter the router's IP address as provided by the customer. In this example, the router is named **router** and the IP address is **125.135.115.105**.

```
change node-names                                          Page   2 of   6

                              NODE NAMES

    Name            IP Address        Name              IP Address
default            0  .0  .0  .0                          .   .   .
guestworks         192.168.2  .2                          .   .   .
router             125.135.115.105                        .   .   .
                      .   .   .                           .   .   .
```

Assign an Ethernet Data Module

Use the **change data-module** command to administer an ethernet data module. If you are changing options on an existing data module, you must disable the link before you make any changes.

- `Data Extension` — Use an unassigned extension number.
- `Type` — Enter **ethernet**.
- `Port` — Enter the equipment location of the TN799 C-LAN circuit pack. For the ethernet link, you will always use circuit number **17**.
- `Link` — Select a TCP/IP link number (1-25 for *csi/si*, 1-33 for *r*). For most systems, use link **1**.
- `Enable Link` — Enter **y**.
- `Name` — Enter a name for the data module. This name will display when you list the assigned data modules.
- `Node Name` — Enter the switch node name assigned on Page 2 of the Node Names screen. In this example, enter **guestworks**.
- `Subnet Mask` — Use the default entry or check with the LAN administrator on site if connecting through the customer's LAN.
- `Broadcast Address` — Though other options are available, a safe assignment is to use the network address followed by 255. For these examples, use **192.168.2.255**.
- `Automatic Subnet Routing` — If you are on a private network, such as a dedicated link between the switch and the INTUITY, and they are both on the same subnet, enter **y**. This means that an IP route is not required.

  If the switch is connecting to the INTUITY over a customer's network or over a public network, or if they are on different subnets, enter **n**. This means that an IP route is required.

```
add data-module 2000                                          Page   1 of   1
                              DATA MODULE

   Data Extension: 2000             Name: ethernet data module          BCC: 2
            Type: ethernet
            Port: 01A0217
            Link: 1
      Enable Link? y

        Node Name: guestworks
      Subnet Mask: 255.255.255.0
Broadcast Address: 192.168.2  .255
Automatic Subnet Routing? y
```

Assign a Processor Interface Channel

Use the **change communication-interface processor-channels** command to assign a processor interface channel.

- `Proc Chan` — Select a processor channel for this link. Use the first link available.
- `Enable` — Enter **y**.
- `Appl` — Enter **audix**.
- `Gtwy To` — Not used for the AUDIX application.
- `Mode` — Enter **s** (for server).
- `Interface Link` — Enter the TCP/IP link number used on the ethernet data module screen. For this series of examples, link **1** was used.
- `Interface Chan` — Enter the TCP channel number (5002 or 6001-6999). This must match the `TCP Port` field of the INTUITY Switch Interface Administration screen. The recommended entry for an INTUITY system is **5002**.
- `Destination Node` — Enter the node name for the INTUITY system as assigned on the Node Names screen. In these examples, **audix** is used.
- `Destination Port` — Leave at default of **0**.
- `Session Local` — Enter **1**. This field must match the `Local Node Number` field in the switch dial plan.
- `Session Remote` — Enter **1**. This field must match the `AUDIX Number` field in the INTUITY Switch Interface Administration screen.
- `Mach ID` — Enter **1**. This field must match the `AUDIX Number` field in the INTUITY Switch Interface Administration screen.

```
change communication-interface processor-channels              Page   1 of   8
                      PROCESSOR CHANNEL ASSIGNMENT

Proc                 Gtwy      Interface        Destination       Session     Mach
Chan Enable   Appl.   To   Mode Link/Chan       Node     Port  Local/Remote   ID
  1:   y      audix         s     1  5002       audix    0      1     1       1
  2:   n
  3:   n
```

Assign IP Routes (if needed)

Use the **add ip-route** command to set up the IP route(s) from the switch to the INTUITY system. This is required only when:

- The switch and the INTUITY are on different subnets, or
- When a Gateway address is not administered for the C-LAN IP interface.

Administer the following fields for each IP route:

- `Route Number` — If the link between the switch and the INTUITY system is a dedicated link through a hub, you only need to assign one IP route. If you are going through a router, you must set up IP route 1 from the switch to the router, and then set up IP route 2 from the switch to the INTUITY system. This example shows a dedicated link through a hub using only one IP route.
- `Destination Node` — This field represents the node name of the destination for this route. You would typically enter the node name for the INTUITY system or a router, depending on your configuration.
- `Gateway` — Enter the node name of the gateway by which the destination node is reached for this route. This is either the local C-LAN port or the first intermediate node between the C-LAN port and the final destination. For example, if there were one of more routers between the C-LAN port and the final destination node (the INTUITY system), the gateway would be the node name of the first router.
- `C-LAN Board` — Enter the equipment location of the C-LAN circuit pack that provides this route. It is possible to have more than one C-LAN circuit pack, but GuestWorks configurations will only have one C-LAN circuit pack.
- `Metric` — This field specifies the complexity of this IP route. Enter **0** if there are no intermediate nodes between the switch C-LAN port and the LAN circuit card on the INTUITY. A metric value of **1** is used only on a switch that has more than one C-LAN circuit pack installed.

This example shows a simple IP route without any intermediate nodes.

```
add ip-route 1                                          page   1 of   1
                            IP ROUTING

     Route Number: 1
 Destination Node: audix
          Gateway: guestworks
      C-LAN Board: 01A02
           Metric: 0
```

These next two examples show how you might set up a pair of IP routes when there is one intermediate router in the link.

```
add ip-route 1                                          page   1 of   1
                            IP ROUTING

     Route Number: 1
 Destination Node: router
          Gateway: guestworks
      C-LAN Board: 01A02
           Metric: 1
```

```
add ip-route 2                                          page   1 of   1
                            IP ROUTING

     Route Number: 2
 Destination Node: audix
          Gateway: guestworks
      C-LAN Board: 01A02
           Metric: 1
```

TCP/IP Link (R8-Based Switch)

On the switch, you must do the following to administer the TCP/IP link:

1. Assign the bus bridge (*csi* systems only)
2. Assign node names
3. Assign the IP interface
4. Assign an ethernet data module
5. Assign a processor interface channel
6. Assign IP routes (if needed).

Assign the Bus Bridge (csi Systems Only)

Using the **change system-parameters maintenance** command, Page 2, verify that the Bus Bridge Packet Interface 2 has been enabled for the C-LAN circuit pack. If it is not already assigned, enter the C-LAN circuit pack equipment location, and use the defaults for the Timeslot Port fields as shown below.

```
change system-parameter maintenance                          Page 2 of 3
                        MAINTENANCE-RELATED SYSTEM PARAMETERS

MINIMUM MAINTENANCE THRESHOLDS ( Before Notification )
        TTRs: 4        CPTRs: 1        Call Classifier Ports:
        MMIs: 0          VCs:

TERMINATING TRUNK TRANSMISSION TEST (Extension)
  Test Type 100:        Test Type 102:         Test Type 105:

ISDN MAINTENANCE
   ISDN-PRI TEST CALL Extension:         ISDN BRI Service SPID:

DS1 MAINTENANCE
   DSO Loop-Around Test Call Extension:

LOSS PLAN (Leave Blank if no Extra Loss is Required)
   Minimum Number of Parties in a Conference Before Adding Extra Loss:

SPE OPTIONAL BOARDS
            Packet Intf1? y     Packet Intf2? y
   Bus Bridge: 03C05   Inter-Board Link Timeslots  Pt0: 6  Pt1: 1  Pt2: 1
```

Assign Node Names

Using the **change node-names** command, assign a node name and IP address for the INTUITY system on Page 1. For this example, the INTUITY system is named **audix** and the IP address is **192.168.2.5**. Any 192.168.x.x IP address is a non-public IP address. If you have a dedicated link to the switch, use the address shown in this example. If the customer has their own network, you may need to use a different address. If using the customer's network, make sure that the IP addresses assigned here are unique within the customer's network.

```
change node-names                                        Page   1 of   6
                              NODE NAMES

      Audix Names   IP Address          MSA Names   IP Address
      audix         192.168.2  .5
```

On Page 2 of the Node Names screen, assign a node name and IP address for the switch. In this example, the switch is named **guestworks** and the IP address is **192.168.2.2**. Again, the IP address in the example is a non-public number. Use this IP address if you are installing a dedicated direct link between the switch and the INTUITY system. The **default** node name entry is display-only and is not used for this application.

If the connection is going through a router instead of a direct connection, you must also assign a node name to the router and enter the router's IP address as provided by the customer. In this example, the router is named **router** and the IP address is **125.135.115.105**.

```
change node-names                                        Page   2 of   6

                              NODE NAMES

    Name            IP Address        Name              IP Address
default           0  .0  .0  .0                          .   .   .
guestworks        192.168.2  .2                          .   .   .
router            125.135.115.105                        .   .   .
                     .   .   .                           .   .   .
```

Assign the IP Interface

Use the **change ip-interfaces** command to administer a C-LAN circuit pack as an IP interface.

- `Inter-region IP connectivity allowed` — Enter **n**. This application is not used for C-LAN.
- `Enabled` — Enter **y** to enable the C-LAN IP interface. After initial administration, you must disable the interface before you make any changes.
- `Type` — Enter **C-LAN**.
- `Slot` — Enter the equipment location of the C-LAN circuit pack.
- `Code/Sfx` — This is a display-only field that shows the designation number of the circuit pack installed in the specified slot.
- `Node Name` — Enter the switch node name assigned on Page 2 of the Node Names screen. In this example, enter **guestworks**. The same node name cannot be assigned to two different IP interfaces.
- `Subnet Mask` — Identifies which portion of an IP address is a network address and which is a host identifier. Use the default entry of **255.255.255.0**, or check with the LAN administrator on site if connecting through the customer's LAN.
- `Gateway Address` — Enter the address of a network node that will serve as the default gateway for the IP interface. If the application goes to points off the subnet, a Gateway address of the router is required. If using ethernet only, and a Gateway Address is administered, no IP routes are required.
- `Network Region` — For a C-LAN IP interface, enter **1**.

```
change ip-interfaces                                          Page 1 of 1

 Inter-region IP connectivity allowed? n
 En-                                                                  Net
abled Type   Slot  Code Sfx Node Name       Subnet Mask     Bcast/Gway Addr Rgn
  y   C-LAN  01A02 TN799    guestworks      255.255.255.0   192.168.2  .255 1
  n                                        255.255.255.0      .   .   .
  n                                        255.255.255.0      .   .   .
  n                                        255.255.255.0      .   .   .
  n                                        255.255.255.0      .   .   .
  n                                        255.255.255.0      .   .   .
```

Assign an Ethernet Data Module

Use the **change data-module** command to administer an ethernet data module. If you are changing options on an existing data module, you must disable the link before you make any changes.

- `Data Extension` — Use an unassigned extension number.
- `Type` — Enter **ethernet**.
- `Port` — Enter the equipment location of the C-LAN circuit pack. For the ethernet link, you will always use circuit number **17**.
- `Link` — Select a TCP/IP link number (1-25 for *csi/si*, 1-33 for *r*). For most systems, use link **1**. this entry is also used on the Processor Channel screen.
- `Name` — Enter a name for the data module. This name will display when you list the assigned data modules.
- `Network uses 1's for Broadcast Address` — This sets the host portion of the IP address to 0's or 1's. The default is yes (all 1's). The default is yes (all 1's). Use the default for GuestWorks.

```
add data-module 2000                                          Page   1 of   1
                              DATA MODULE

   Data Extension: 2000             Name: ethernet data module
             Type: ethernet
             Port: 01A0217
             Link: 1



Network uses 1's for Broadcast Address? y
```

Assign a Processor Interface Channel

Use the **change communication-interface processor-channels** command to assign a processor interface channel.

- `Proc Chan` — Select a processor channel for this link. Use the first link available.
- `Enable` — Enter **y**.
- `Appl` — Enter **audix**.
- `Gtwy To` — Not used for the AUDIX application.
- `Mode` — Enter **s** (for server).
- `Interface Link` — Enter the TCP/IP link number used on the ethernet data module screen. For this series of examples, link **1** was used.
- `Interface Chan` — Enter the TCP channel number (5002 or 6001-6999). This must match the `TCP Port` field of the INTUITY Switch Interface Administration screen. The recommended entry for an INTUITY system is **5002**.
- `Destination Node` — Enter the node name for the INTUITY system as assigned on the Node Names screen. In these examples, **audix** is used.
- `Destination Port` — Leave at default of **0**.
- `Session Local` — Enter **1**. This field must match the `Local Node Number` field in the switch dial plan.
- `Session Remote` — Enter **1**. This field must match the `AUDIX Number` field in the INTUITY Switch Interface Administration screen.
- `Mach ID` — Enter **1**. This field must match the `AUDIX Number` field in the INTUITY Switch Interface Administration screen.

```
change communication-interface processor-channels              Page   1 of   8
                      PROCESSOR CHANNEL ASSIGNMENT

Proc                 Gtwy      Interface        Destination       Session     Mach
Chan Enable   Appl.   To   Mode Link/Chan       Node     Port  Local/Remote   ID
  1:   y      audix         s     1  5002       audix    0      1     1       1
  2:   n
  3:   n
```

Assign IP Routes (if needed)

Use the **add ip-route** command to set up the IP route(s) from the switch to the INTUITY system. This is required only when:

- The switch and the INTUITY are on different subnets, or
- When a Gateway address is not administered for the C-LAN IP interface.

Administer the following fields for each IP route:

- `Route Number` — If the link between the switch and the INTUITY system is a dedicated link through a hub, you only need to assign one IP route. If you are going through a router, you must set up IP route 1 from the switch to the router, and then set up IP route 2 from the switch to the INTUITY system.
- `Destination Node` — This field represents the node name of the destination for this route. You would typically enter the node name for the INTUITY system or a router, depending on your configuration.
- `Gateway` — Enter the node name of the gateway by which the destination node is reached for this route. This is either the local C-LAN port or the first intermediate node between the C-LAN port and the final destination. For example, if there were one or more routers between the C-LAN port and the final destination node (the INTUITY system), the gateway would be the node name of the first router.
- `C-LAN Board` — Enter the equipment location of the C-LAN circuit pack that provides this route. It is possible to have more than one C-LAN circuit pack, but GuestWorks configurations will only use one C-LAN circuit pack.
- `Metric` — This field specifies the complexity of this IP route. Enter **0** if there are no intermediate nodes between the switch C-LAN port and the LAN circuit card on the INTUITY. A metric value of **1** is used only on a switch that has more than one C-LAN circuit pack installed.
- `Route Type` — This field specifies whether the route is **host** or **network** (default). Use a Host route to get to a specific IP address. Use a Network route to get to a subnet.

This example shows a simple IP route without any intermediate nodes.

```
add ip-route 1                                          page   1 of   1
                            IP ROUTING

     Route Number: 1
 Destination Node: audix
          Gateway: guestworks
      C-LAN Board: 01A02
           Metric: 0
       Route Type: network
```

These next two examples show how you might set up a pair of IP routes when there is one intermediate router in the link.

```
add ip-route 1                                          page   1 of   1
                            IP ROUTING

     Route Number: 1
 Destination Node: router
          Gateway: guestworks
      C-LAN Board: 01A02
           Metric: 0
       Route Type: network
```

```
add ip-route 2                                          page   1 of   1
                            IP ROUTING

     Route Number: 2
 Destination Node: audix
          Gateway: guestworks
      C-LAN Board: 01A02
           Metric: 0
       Route Type: network
```

TCP/IP Link (INTUITY)

On the INTUITY, you must do the following for the TCP/IP link:

- Administer the TCP/IP networking

> **NOTE:**
> Before you can administer the TCP/IP networking, the TCP/IP feature must be enabled on the customer features window. Lucent technical support must dial-in and enable TCP/IP if it is not enabled.

- Configure the LAN circuit card
- Select a switch type (R4.4 only)
- Administer the switch interface
- Reboot the INTUITY system (R4.4 only).

Administer the TCP/IP Networking (R4.4)

Use the **Networking Administration**, **TCP/IP Administration** command to access the TCP/IP administration.

> **NOTE:**
> If this administration is already complete, verify that the settings are accurate for your installation.

- `UNIX Machine Name` — Enter the UNIX name for the INTUITY system. This name is case-sensitive.
- `IP Address` — Enter the IP address for the INTUITY system. From the previous examples, use **192.168.2.5** if using a dedicated private link.
- `Subnet Mask` — Use the default of **255.255.255.0**.
- `Default Gateway IP Address` — This is an optional field. Leave blank.

```
+------------------------------------------------+
+            TCP/IP Administration               +
+------------------------------------------------+
|              UNIX Machine Name: map5p          |
|                                                |
|                     IP Address: 192.168.2.5    |
|                                                |
|                    Subnet Mask: 255.255.255.0  |
|                                                |
|     Default Gateway IP Address:                |
+------------------------------------------------+
```

Administer the TCP/IP Networking (R5)

Use the **TCP/IP Administration, Network Addressing** command to access the TCP/IP administration.

NOTE:
If this administration is already complete, verify that the settings are accurate for your installation.

- `TCP/IP Interface` — Use the default **eeE_0**.
- `Host Name` — Enter the UNIX name for the INTUITY system. This name is case-sensitive.
- `IP Address` — Enter the IP address for the INTUITY system. From the previous examples, use **192.168.2.5** if using a dedicated private link.
- `Subnet Mask` — Use the default of **255.255.255.0**.
- `Default Gateway Address` — This is an optional field. Leave blank.

```
+-------------------------------------------------------+
+                     Network Addressing                +
+-------------------------------------------------------+
|            TCP/IP Interface: eeE_0                    |
|                   Host Name: map5p                    |
|                  IP Address: 192.168.2.5              |
|                 Subnet Mask: 255.255.255.0            |
|  Default Gateway IP Address:                          |
+-------------------------------------------------------+
```

Configure the LAN Circuit Card (R4.4)

After adding the TCP/IP administration, press F8 to change the function key display, then press F2 to select the LAN circuit card configuration. This should be set to **10BASE-T**. After selecting this option, press F3 to save the change. The circuit card configuration is displayed. Press F6 to exit the display.

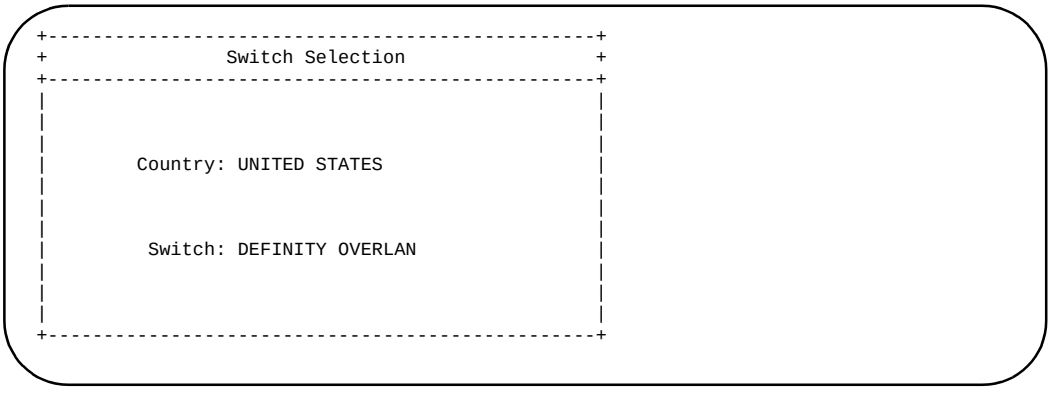
Configure the LAN Circuit Card (R5)

After adding the TCP/IP administration, press F6 to return to the INTUITY Main Menu. Use the TCP/IP Administration, Network Interface Card Set-up command. Set the `Card Type` to **PRO100B** and the `Network Media Type` to **Auto-Detect**. After setting these options, press F3 to save the change.

Select a Switch Type (R4.4 only)

Use the **Switch Interface Administration**, **Switch Selection** command to access the switch selection administration.

- `Country` — Enter the country where this system is installed.
- `Switch` — Enter **DEFINITY OVERLAN**.



Administer the Switch Interface

Use the **Switch Interface Administration, Call Data Interface Administration, Switch Link Administration** command to access the switch link administration.

- `Extension Length` — Enter the extension length from the switch dial plan.
- `Host Switch Number` — Enter **1**.
- `AUDIX Number` — Enter **1**. This must match the `Machine ID` setting on the Processor Channel screen.
- `Switch Number` — Enter **1**.
- `IP Address/Host Name` — Enter the IP address of the switch. In this example, use **192.168.2.2**. This must match the IP address from the switch Node Names screen.

- TCP Port — Enter the TCP port number (5002 or 6001-6999). This must match the Interface Channel field of the switch Processor Channel screen. The default for an INTUITY system is **5002**.

```
+------------------------------------------------------------------------+
+                    Switch Interface Administration                     +
+------------------------------------------------------------------------+
| Switch Link Type: LAN                       Country: UNITED STATES     |
| Extension Length: 3                          Switch: DEFINITY OVERLAN  |
| Host Switch Number: 1                                                  |
| AUDIX Number: 1                                                        |
|                                                                        |
|Switch     IP Address/      TCP      Switch     IP Address/      TCP    |
|Number     Host Name        Port     Number     Host Name        Port   |
|   1      192.168.2.2       5002                                       |
|                                                                        |
|                                                                        |
|                                                                        |
|                                                                        |
|                                                                        |
|                                                                        |
|                                                                        |
|                                                                        |
|                                                                        |
+------------------------------------------------------------------------+
```

Reboot the INTUITY System (R4.4 Only)

You must now reboot the INTUITY system. This is not required on an R5 system.

1. Use the **Customer/Services Administration**, **System Management**, **System Control**, **Shutdown System** command to shut down the INTUITY system.
2. When it asks for a number of seconds to wait before shutdown, enter **0**. Follow the shutdown instructions to bring the system back up.
3. After bringing the system up, start up the voice system and then continue with link testing.

NOTE:
If you change any INTUITY system IP addresses on an R4.4 system after doing this administration, you must reboot the system before the link will come up.

Testing the TCP/IP Link

The following tests can be run from the switch to test the link to the INTUITY:

- **ping node-name *name***, where ***name*** is the INTUITY node name.

```
ping node-name audix

                          PING RESULTS

  End-pt Node-name  Port      Port Type  Result    Time(ms)  Error Code

  audix             01A0217   ETH-PT     PASS      8
```

- **ping ip-address *address***, where ***address*** is the INTUITY IP address.

```
ping ip-address 192.168.2.5

                          PING RESULTS

  End-pt ip         Port      Port Type  Result    Time(ms)  Error Code

  192.168.2.5       01A0217   ETH-PT     PASS      8
```

- **status processor-channels *X***, where ***X*** is the ethernet link number.

```
status processor-channels 1
                       PROCESSOR-CHANNEL STATUS

          Channel Number: 1
    Session Layer Status: In Service
           Socket Status: Established TCP
             Link Number: 10
               Link Type: ethernet
   Message Buffer Number: 0

            Last Failure: Far end sent disconnect message
                      At: 05/10/99 20:24
```

- **status link *X***, where ***X*** is the TCP/IP link number. In this example of Page 1, it shows that the link is connected and that it is in service.

```
status link 1                                        Page   1 of   3
                              LINK/PORT STATUS

                 Link Number: 1
                 Link Status: connected
                   Link Type: ethernet
                   Link Name: ethernet data module
       Service Port Location: 01A0217
 Service Port Data Extension: 2000
                Service Stats: in-service/active
                    Node Name: guestworks
           Source IP Address: 192.168.2.1
                 Subnet Mask: 255.255.255.0
           Broadcast Address: 192.168.2  .255
            Physical Address: ff:ff:ff:ff:ff:ff
                     Enabled? yes
            Maintenance Busy? no
             Active Channels: 1
```

- Also check Page 3, because that is where it shows whether the link is up or down. If the link is not up, there is a problem somewhere in translations or connectivity.

```
status link 1                                                Page   3 of   3
                          PROCESSOR CHANNEL STATUS

UP: 010
```

- **status data-module *XXXX***, where ***XXXX*** is the extension number of the ethernet data module. This shows which port is connected and if the port is in service.

```
status data-module 2000
                              DATA-MODULE STATUS

Data Ext/Stn Ext for Stn DM: 2000          Service State: in-service/active
        Port/Channel Number: 01A0217    Maintenance Busy? no
                                      CF Destination Ext:




           Connected Ports:
```

- **trace-route ip-address *address* board *CCs***, where ***address*** is the INTUITY IP address, and ***CCs*** is the equipment location of the C-LAN circuit pack. The command displays the hops traversed from source to destination, along with the IP addresses of the hop points and final destination, and the observed round-trip delay from the source to each hop point. If no reply is received from a hop point, the IP address is blank.

```
trace-route ip-address 192.168.2.5 board 1b10

                                TRACE ROUTE RESULTS

Hop           Time(ms)       IP Address

1             10, 12, 11     192.168.2.10
2             15, 15, 12     192.168.2.15
3             23, 26, 26     192.168.2.12
4             23, 25, 25     192.168.2 7
```

- **list measurements clan ethernet *CCsc***, where ***CCsc*** is the cabinet, carrier, slot, and circuit number of the ethernet port on the C-LAN circuit pack. This command displays Cyclic Redundancy Check and collision counts for the past 24 hours in 15-minute intervals. N/A is displayed if the data cannot be retrieved for any interval.

```
list measurements clan ethernet 1b1017                          Page   1 of   3

Switch Name: guestworks                          Date: 3:50 pm  TUE AUG 17, 1999

              C-LAN ETHERNET PERMORMANCE MEASUREMENT DETAILED REPORT

Date        Time             CRC CHECK                      Collision Count
                        total         delta            total            delta
02/01       03:08         650             50             650              250
02/01       02:53         600            600             400              400
02/01       02:38         N/A            N/A             N/A              N/A
02/01       02:23  1000000570             20     10000000570               20
02/01       02:08  1000000550    10000000550     10000000550     10000000550
```

The following tests can be run from the INTUITY to test the link to the switch:

- **Customer/Services Administration, Diagnostics, Switch Link Diagnostics, Link Diagnostics**

  This screen is an example of a TCP/IP link. It shows the link being in service.

```
+-------------------------------------------------------------------------+
+                          Link Diagnostics                               +
+-------------------------------------------------------------------------+
| Switch Link Type: LAN                        Country: UNITED STATES     |
|                                               Switch: DEFINITY OVERLAN  |
|                                                                         |
|                                                                         |
| Switch      Link      Session         Switch      Link     Session      |
| Number     Status     Status          Number     Status    Status       |
|   1          UP         UP                                              |
|                                                                         |
+-------------------------------------------------------------------------+
```

  If the link status and session status show DOWN, use the following function keys to test the link:

  — F3 tests to see if the link is electrically connected. Run this test first. If it fails, check the cabling.

  — F2 resets the link. After finished, press F5 to refresh the link. If it still does not come up, check the switch and INTUITY system administration.

  You can also press F8 to change the function key labels and use the following to control the status of the link:

  — F2 busies-out the link

  — F3 releases the link from busy-out.

- **Customer/Services Administration, Diagnostics, Switch Link Diagnostics, Session Layer Diagnostics**

```
+-------------------------------------------------------------------------------+
+                            Session Layer                                      +
+-------------------------------------------------------------------------------+
| Switch Link Type: LAN                      Country: UNITED STATES             |
|                                             Switch: DEFINITY OVERLAN          |
|                                                                               |
|                  Transmit   Receive                        Transmit   Receive |
| Switch   Session Sequence   Sequence   Switch   Session  Sequence   Sequence  |
| Number    State   Number     Number    Number    State    Number     Number  |
|   1        DATA     148        45                                             |
|                                                                               |
+-------------------------------------------------------------------------------+
```

  Press F5 every few seconds to see if the sequence numbers increment. If the numbers do not increment, data transfer is not taking place.

- **Customer/Services Administration, Diagnostics, TCP/IP Diagnostics, Send & Receive Test Packets**

  After entering the switch IP address, press F3 to start the test. This sends test packets between the INTUITY and the switch. It tests to see if all the packets are transmitted and that they are transmitted in the correct sequence. If there is high (greater than 10%) packet loss or if the packets are out of order, there may be network problems. While this test is running, the yellow T/R lamp on the LAN circuit card should be flashing.

```
+-------------------------------------------------------------------------------+
+                            Test Packet Results                                +
+-------------------------------------------------------------------------------+
|72 bytes from 192.168.X.X: icmp_seq=0, time-0, ms                              |
|72 bytes from 192.168.X.X: icmp_seq=1, time-0, ms                              |
|72 bytes from 192.168.X.X: icmp_seq=2, time-0, ms                              |
|72 bytes from 192.168.X.X: icmp_seq=3, time-0, ms                              |
|72 bytes from 192.168.X.X: icmp_seq=4, time-0, ms                              |
|72 bytes from 192.168.X.X: icmp_seq=5, time-0, ms                              |
|72 bytes from 192.168.X.X: icmp_seq=6, time-0, ms                              |
|72 bytes from 192.168.X.X: icmp_seq=7, time-0, ms                              |
|72 bytes from 192.168.X.X: icmp_seq=8, time-0, ms                              |
|72 bytes from 192.168.X.X: icmp_seq=9, time-0, ms                              |
|                                                                               |
|10 packets transmitted, 10 packets recieved, 0% packet loss                    |
|round-trip (ms) min/arg/max=0/0/0                                              |
|                                                                               |
|Note: Hight packet loss, long round-trip time, or packets received out         |
|of order (icmp-swq) may indicate a network problem.                            |
|                                                                               |
|Press <HELP> for more information, <CANCEL> to continue.                       |
+-------------------------------------------------------------------------------+
```

- **Customer/Services Administration, Diagnostics, TCP/IP Diagnostics, View Packet Statistics**

  When using this command, you can select from a detailed report, an interfaces report (shown below), and a routing report.

```
+-------------------------------------------------------------------------------+
+                            Packet Statistics                                  +
+-------------------------------------------------------------------------------+
| Name  Mtu    Network     Address    Ipkts  Ierrs  Opkts  Oerrs  Collis       |
| sme0  1500  192.168.2  192.168.2.2  65827  0      48865  0      0            |
|                                                                               |
|Note: The Ethernet board is named sme00. Abnormally high values                |
|in the “Ierrs”, “Oerrs”, or “Collis” column may indicate a network             |
|problem.                                                                       |
|Press <HELP> for more information, <CANCEL> to continue                        |
|                                                                               |
+-------------------------------------------------------------------------------+
```

Continue with “INTUITY AUDIX Voice Ports (Switch)” on Page 159.

X.25 Signaling

The X.25 PI link requires administration on both the switch and the INTUITY. Only the *si* and *r* systems can use an X.25 link. A *csi* system must use TCP/IP or Mode Code Integration. This section includes procedures for testing the link.

X.25 Link (Switch)

Use the following procedures to administer the link between the switch and the INTUITY for administrative voice messaging. This administration is applicable for *si* or *r* systems using a direct IDI connection.

Data Modules on an si System

Use the **add data-module** command on an *si* system to administer the data module parameters for a processor interface (PI) link. For this connection, the data modules are integrated into the TN765 PI circuit pack. Set the options as shown, except use the correct extension, COS, and COR as set up for your installation.

```
add data-module 7991                                      Page   1  of  1
                                 DATA MODULE

  Data Extension: 7991               Name: intuity
            Type: procr-infc          COS: 15     Maintenance Extension: 7995
Physical Channel: 01                  COR: 50        Destination Number: eia
             ITC: restricted           TN:         Establish Connection? y
            Link: 1                DTE/DCE: DTE             Connected To: DCE
                                Enable Link? n                  Clocking: internal

ABBREVIATED DIALING
  List1:

SPECIAL DIALING OPTION:


ASSIGNED MEMBERS (Station with a data extension button for this data module)

         Ext     Name
       1:
```

You must set the `Enable Link` field to **n** at this time. After you have set up the processor interface channel, you must go back and enable the link.

The following table is an example of how you can administer the processor interface channels (your extensions will differ). Only channel 01 will be enabled later to handle the messaging traffic. The other channels are used for maintenance and testing.

Data Extension	Physical Channel	Maintenance Extension
7991	01	7995
7992	02	7996
7993	03	7997
7994	04	7998

Data Module on an r System

Use the **add data-module** command on an *r* system to administer the data module parameters for a packet gateway link. For this connection, the data modules are integrated into the TN577 circuit pack. Set the options as shown, except use the correct extension, COS, and COR as set up for your installation.

```
add data-module 2005                                    Page   1  of  2
                                  DATA MODULE

Data Extension: 2005                 Name: intuity link
          Type: x.25                            Remote Loop-Around Test? n
          Port: 01C0301               COR: 50         Destination Number: external
     Baud Rate: 9600                   TN: 1        Establish Connection?
 Endpoint Type: adjunct             DTE/DCE: dte     Connected Data Module:
          Link: 1              Enable Link? n              Error Logging? y


   Permanent Virtual Circuit? y                Highest PVC Logical Channel: 64
    Switched Virtual Circuit? n
```

You must set the `Enable Link` field to **n** at this time. After you have set up the processor interface channel, you must go back and enable the link.

Processor Channels

Use the change communication-interface processor-channels command to administer the processor channels.

- `Proc Chan` — Use channel **59**. It is recommended that this should match the `Session Local` field used for this link.
- `Enable` — Enter **y**.
- `Appl` — Enter **audix**.
- `Gtwy To` — Not used for GuestWorks.
- `Mode` — Not used for GuestWorks.
- `Interface Link` — Enter the link number used on the data module screen.
- `Interface Chan` — Enter the `Local Node Number` as administered in the dial plan screen.
- `Destination Node` — Not used for GuestWorks.
- `Destination Port` — Enter **0**.
- `Session Local` — It is recommended that this should match the processor channel number used for this link. However, this value must match the `Switch Port` field on the INTUITY Switch/DCIU Interface Administration screen.
- `Session Remote` — This must match the `AUDIX Number` field on the INTUITY Switch/DCIU Interface Administration screen.
- `Machine-ID` — This must match the `AUDIX Number` field on the INTUITY Switch/DCIU Interface Administration screen.

```
change communication-interface processor-channels              Page   4 of   8
                        PROCESSOR CHANNEL ASSIGNMENT

Proc                  Gtwy      Interface        Destination       Session     Mach
Chan Enable   Appl.    To   Mode Link/Chan       Node      Port  Local/Remote   ID
 49:
 50:
 51:
 52:
 53:
 54:
 55:
 56:
 57:
 58:
 59:   y      audix              1    1                 0        59    1       1
 60:
```

Enabling the Data Module Link

You must now go back to the data module screen and enable the link. You should only enable the link for channel 01, the link that handles the messaging traffic.

X.25 Link (INTUITY)

Checking the Switch Link

Use the **Customer/Services Administration**, **Diagnostics**, **Switch Interface Diagnostics** command to determine if the link is active. During initial installation, this screen should show that the link is busied out.

```
+------------------------------------------------------------------------------+
+                          Diagnose Switch Link                                +
+------------------------------------------------------------------------------+
| STATUS SWITCH-LINK                                                           |
|                                                                              |
|   Type  Baud    State                                                        |
|   DCIU  9600    Busied                                                       |
|                                                                              |
|   Link Level 2 is Down                                                       |
|                                                                              |
|   DCIU switches (In/Out of data transfer)                                    |
|          1  2  3  4  5  6  7  8  9 10 11 12 13 14 15 16 17 18 19 20          |
|          I                                                                   |
+------------------------------------------------------------------------------+
```

After pressing F8 to change the function key labels, the following function keys control the status of the link:

- F2 busies-out the link
- F3 releases the link from busy-out
- F4 performs diagnostics on the link.

Select a Switch Type (R4.4 only)

Use the **Switch Interface Administration**, **Switch Selection** command to access the switch selection administration.

- `Country` — Enter the country where this system is installed.
- `Switch` — Enter **Definity**.

```
+------------------------------------------------+
+               Switch Selection                 +
+------------------------------------------------+
|                                                |
|                                                |
|                                                |
|        Country: UNITED STATES                  |
|                                                |
|                                                |
|                                                |
|         Switch: Definity                       |
|                                                |
|                                                |
|                                                |
+------------------------------------------------+
```

Administer the Switch Interface (R4.4)

Use the **Switch Interface Administration, DCIU Interface Administration** command on the INTUITY to administer the link to the switch.

- `Extension Length` — Enter the extension length from the switch dial plan.
- `Host Switch Number` — Enter **1**.
- `AUDIX Number` — Enter **1**. This must match the `Machine ID` field on the switch Processor Channel screen.
- `Logical Channel` — Enter **1**.
- `Switch Port` — Enter **59**. This must match the `Session Local` field value on the switch Processor Channel screen

```
+----------------------------------------------------------------+
+                DCIU Interface Administration                   +
+----------------------------------------------------------------+
|Switch Link Type: DCIU                Switch:    Definity       |
|Extension Length: 3                                             |
|Host Switch Number: 1                                           |
|AUDIX Number: 1                                                 |
|              HOST SWITCH LINK ASSIGNMENTS                      |
|        AUDIX Port                        AUDIX Port            |
| Switch Logical Switch           Switch Logical Switch          |
| Number Channel Port             Number Channel Port            |
|   1       1     59                  2                        |
|   3                                 4                        |
|   5                                 6                        |
|   7                                 8                        |
|   9                                10                        |
|  11                                12                        |
|  13                                14                        |
|  15                                16                        |
|  17                                18                        |
|  19                                20                        |
+----------------------------------------------------------------+
```

Administer the Switch Interface (R5)

Use the **Switch Interface Administration** command on the INTUITY to administer the link to the switch.

- `Extension Length` — Enter the extension length from the switch dial plan.
- `Host Switch Number` — Enter **1**.
- `AUDIX Number` — Enter **1**. This must match the `Machine ID` field on the switch Processor Channel screen.
- `Logical Channel` — Enter **1**.
- `Switch Port` — Enter **59**. This must match the `Session Local` field value on the switch Processor Channel screen

```
+----------------------------------------------------------------+
+               Switch Interface Administration                  +
+----------------------------------------------------------------+
|Switch Link Type: DCIU               Country:    UNITED STATES  |
|Extension Length: 3                   Switch:    Definity       |
|Host Switch Number: 1                                           |
|AUDIX Number: 1                                                 |
|                HOST SWITCH LINK ASSIGNMENTS                    |
|        AUDIX Port                        AUDIX Port            |
| Switch Logical Switch           Switch Logical Switch          |
| Number Channel Port             Number Channel Port            |
|   1       1     59                2                            |
|   3                               4                            |
|   5                               6                            |
|   7                               8                            |
|   9                              10                            |
|  11                              12                            |
|  13                              14                            |
|  15                              16                            |
|  17                              18                            |
|  19                              20                            |
+----------------------------------------------------------------+
```

Testing the X.25 Link

The following tests can be run from the switch to test the link to the INTUITY:

- **status processor-channels *X***, where ***X*** is the X.25 link number

```
status processor-channels 1
                       PROCESSOR-CHANNEL STATUS

          Channel Number: 59
          Channel Status: In Service
             Link Number: 10
               Link Type: BX.25
   Message Buffer Number: 0
             Reset Count: 0
    Retransmission Count: 0
           Failure Reason:
```

- **status link *X***, where ***X*** is the X.25 link number.

```
status link 1                                        Page   1 of   3
                              LINK/PORT STATUS

                 Link Number: 1
                 Link Status: connected
                   Link Type: x.25
                   Link Name: intuity link
       Service Port Location: 01C0301
 Service Port Data Extension: 2005
               Service Stats: in-service/active
                     Enabled? y
            Maintenance Busy? n
             Active Channels: 0

                      CONNECTED TO:

       Destination: TDMODULE                     Destination Port: 1C0303
 Destination Status: in-service/active        Destination Extension: external
                 AC: 1 Connected/Orig
```

The following tests can be run from the INTUITY to test the link to the switch:

- Use the command **Lodging Administration**, press F7 to bring up the command menu, and select **LDG/PMS Link Restart** to restart the switch-to-INTUITY link.
- **Customer/Services Administration, Diagnostics, Switch Link Diagnostics, Link Diagnostics**

  This screen is an example of an X.25 link. It shows the link being in service and the link level as up.

```
+------------------------------------------------------------------------------+
+                           Diagnose Switch Link                               +
+------------------------------------------------------------------------------+
| STATUS SWITCH-LINK                                                           |
|                                                                              |
|   Type  Baud    State                                                        |
|   DCIU  9600    In Service                                                   |
|                                                                              |
|   Link Level 2 is Up                                                        |
|                                                                              |
|   DCIU switches (In/Out of data transfer)                                    |
|          1  2  3  4  5  6  7  8  9 10 11 12 13 14 15 16 17 18 19 20          |
|          I                                                                   |
+------------------------------------------------------------------------------+
```

After pressing F8 to change the function key labels, the following function keys control the status of the link:

- — F2 busies-out the link
- — F3 releases the link from busy-out
- — F4 performs diagnostics on the link.

Continue with "INTUITY AUDIX Voice Ports (Switch)" on Page 159.

Mode Code Signaling

The Mode Code Integration link requires administration on both the switch and the INTUITY. Any switch types can use Mode Code Integration, but TCP/IP or X.25 are the recommended methods for messaging links.

Mode Code Integration Link (Switch)

Translating the Mode Code Integration link involves the following:

- Enabling the Mode Code feature under the customer options
- Verifying that the default mode codes are accurate.

Mode Code Integration on the switch is described in the *DEFINITY ECS Administrator's Guide.*

Use the **display system-parameters customer-options** command, Page 2, to verify that there is a **y** in the `Mode Code Interface` field. If Mode Code is not enabled, contact Lucent Technologies to have someone dial in and enable this feature.

```
display system-parameters customer-options                      Page   2 of   4
                               OPTIONAL FEATURES

                     ISDN Feature Plus? n  Restrict Call Forward Off Net? y
                       ISDN-BRI Trunks? n          Secondary Data Module? y
                              ISDN-PRI? n          Station and Trunk MSP? n

                  Malicious Call Trace? n
                   Mode Code Interface? y            Tenant Partitioning? n
               Multifrequency Signaling? y    Terminal Trans. Init. (TTI)? y
Multimedia Appl. Server Interface (MASI)? n           Time of Day Routing? n
        Multimedia Call Handling (Basic)? n          Uniform Dialing Plan? n
     Multimedia Call Handling (Enhanced)? n  Usage Allocation Enhancements? n

           Personal Station Access (PSA)? n            Wideband Switching? n
                                                                Wireless? n

                Processor and System MSP? n
                      Private Networking? n


(NOTE: You must logoff & login to effect the permission changes.)
```

Use the **change system-parameters mode-code** command to verify that the default mode code parameters are correct for this installation.

```
change system-parameters mode-code                              Page   1 of   1
                    MODE CODE RELATED SYSTEM PARAMETERS

      MODE CODES (FROM SWITCH TO VMS)
          Direct Inside Access: #00
    Direct Dial Access - Trunk: #01
             Internal Coverage: #02
             External Coverage: #03




         System In Day Service: #11
       System In Night Service: #12

                          OTHER RELATED PARAMETERS
DTMF Duration - On (msec): 100   Off (msec): 100     Sending Delay (msec):100
      VMS Hunt Group Extension:
```

Mode Code Integration (INTUITY)

Mode Code Integration on the INTUITY is described in the following documents:

- *INTUITY Messaging Solutions Release 4 MAP/5P System Installation*
- *INTUITY Messaging Solutions Integration with System 75, DEFINITY Generics 1 & 3, and R5/6*
- *INTUITY Messaging Solutions Release 5 Documentation (CD).*

Continue with "INTUITY AUDIX Voice Ports (Switch)" on Page 159.

INTUITY AUDIX Voice Ports (Switch)

Use the **add station** command to administer the voice ports that are linked to the INTUITY system. On Page 1, assign the following fields as shown:

- `Extension` — The extension must be in the dial plan but not assigned for any other purpose.
- `Type` — Enter **2500** for the station type when using the TCP/IP or X.25 link. Enter **VMI** for the station type when using mode code integration.
- `Port` — Each analog circuit pack supports 8, 16, or 24 analog voice connections. Depending on the circuit pack and the required number of voice ports, you may need to spread out the voice port assignments over more than one circuit pack. For example, if you are using a 16-port circuit pack, use no more than 4 ports of circuits 1-8 and 4 ports of circuits 9-16 on that circuit pack. If you still need more INTUITY voice ports, select a circuit pack that is at least one-quarter carrier distance away from the first circuit pack. For example, if your system has 12 voice ports and you assign the first 8 ports to the circuit pack in slot 3, assign the other 4 voice ports to a circuit pack in slot 7 or higher. See more about circuit pack characteristics in the *DEFINITY ECS R7 System Description*.
- `Name` — Assign the first port as **AUDIX1**, and then increment the number for each subsequent port (**AUDIX2**, **AUDIX3**, and so on).
- `COR` — Use the same COR for the voice ports that you use for the hunt groups. This COR should have the FRL set to 1 and should not allow access to trunk group CORs.
- `COS` — Use a COS that allows data privacy.

```
add station 720                                          Page   1 of   3
                                  STATION


Extension: 720                       Lock Messages? n              BCC: 0
     Type: 2500                      Security Code:                 TN: 1
     Port: 01A0201                 Coverage Path 1:               COR: 35
     Name: AUDIX1                  Coverage Path 2:               COS: 4
                                   Hunt-to Station:             Tests? n

STATION OPTIONS
     Off Premise Station? n              Message Waiting Indicator:
```

The following is an example of Page 1 when Mode Code Integration is installed.

```
add station 720                                          Page   1 of   3
                                  STATION


Extension: 720                        Lock Messages? n              BCC: 0
     Type: VMI                        Security Code:                 TN: 1
     Port: 01A0201                 Coverage Path 1:                 COR: 35
     Name: AUDIX1                  Coverage Path 2:                 COS: 4
                                   Hunt-to Station:               Tests? n

STATION OPTIONS
     Off Premise Station? n                 Message Waiting Indicator:
```

On Page 2:

- `LWC Reception` — Enter **audix**.
- `Switchhook Flash` — Enter **y.**
- `Adjunct Supervision` — Enter **y** if Message Manager is not being used; enter **n** if Message Manager is being used. Enter **y** when using Mode Code signaling whether or not Message Manager is being used.

```
add station 720                                          Page 2 of   3
                                  STATION
FEATURE OPTIONS
           LWC Reception: audix
          LWC Activation? n                    Coverage Msg Retrieval? n
             CDR Privacy? n                              Auto Answer: none
   Redirect Notification? n                          Data Restriction? n
 Per Button Ring Control? n                    Call Waiting Indication? n
   Bridged Call Alerting? n              Att. Call Waiting Indication? n
        Switchhook Flash? y              Distinctive Audible Alerting? n
    Ignore Rotary Digits? n                       Adjunct Supervision? y
        H.320 Conversion? n
                                  Per Station CPN - Send Calling Number?

                                               Audible Message Waiting? n

    MWI Served User Type:
```

On Page 3, set the `Line Appearance` field to **call-appr**.

```
add station 720                                                Page    3 of   3
                                    STATION
 SITE DATA
       Room:                                          Headset? n
       Jack:                                          Speaker? n
      Cable:                                         Mounting: d
      Floor:                                     Cord Length: 0
   Building:                                       Set Color:


ABBREVIATED DIALING
     List1: System   1         List2:                    List3:

HOT LINE DESTINATION
         Abbreviated Dialing List Number (From above 1, 2 or 3):
                                                    Dial Code:

     Line Appearance: call-appr
```

After you assign the first port, use the **duplicate station** command to assign the rest of the ports.

Hunt Groups for INTUITY AUDIX Voice Ports (Switch)

Use the **add hunt-group** command to administer the INTUITY AUDIX voice port hunt groups. This hunt group is used by both the office staff and the hotel guests when they call to retrieve their messages.

On Page 1:

- `Group Name` — Enter a name for this group.
- `Group Extension` — Enter an unassigned extension. This extension will be used by office staff for message retrieval. The guests will use a different extension that is forwarded into this hunt group. See Page 168.
- `Group Type` — Enter **ucd-mia**.
- `COR` — Use the same COR as the INTUITY AUDIX voice ports.
- `Queue` — Enter **y**.
- `Queue Length` — This must equal the number of installed voice ports.

```
add hunt-group 1                                          Page   1 of   10
                                HUNT GROUP

            Group Number: 1                                 ACD? n
              Group Name: AUDIX                           Queue? y
         Group Extension: 699                           Vector? n
              Group Type: ucd-mia                 Coverage Path:
                      TN: 1           Night Service Destination:
                     COR: 35                    MM Early Answer? n
           Security Code:
         ISDN Caller Disp:

            Queue Length: 6
  Calls Warning Threshold:      Port:
   Time Warning Threshold:      Port:
```

On Page 2:

- `Message Center` — Enter **audix** if using TCP/IP or X.25 signaling. Enter **none** if using Mode Code signaling.
- `Calling Party Number to INTUITY AUDIX` — Enter **n** except when this feature is active on the INTUITY system.
- `LWC Reception` — Enter **none**.

```
add hunt-group 1                                          Page   2 of   10
                                HUNT GROUP

                           Message Center: audix




    Calling Party Number to INTUITY AUDIX? n
                            LWC Reception: none


            First Announcement Extension:       Delay (sec):
```

On Page 3, assign each extension in the same exact order as assigned in the INTUITY voice ports (Page 164). The name field is populated after you add the list of extensions and redisplay the hunt group. The `Administered Members` fields should match the number of voice ports once they have all been assigned.

```
add hunt-group 1                                            Page   3 of   10
                                HUNT GROUP
           Group Number: 1       Group Extension: 699         Group Type: ucd-mia
   Member Range Allowed: 1 - 200          Administered Members (min/max): 1  /6
                                             Total Administered Members: 6
GROUP MEMBER ASSIGNMENTS
     Ext   Name                              Ext     Name
  1: 720   AUDIX1                        14:
  2: 721   AUDIX2                        15:
  3: 722   AUDIX3                        16:
  4: 723   AUDIX4                        17:
  5: 724   AUDIX5                        18:
  6: 725   AUDIX6                        19:
  7:                                     20:
  8:                                     21:
  9:                                     22:
 10:                                     23:
 11:                                     24:
 12:                                     25:
 13:                                     26:

  At End of Member List
```

INTUITY AUDIX Voice Ports (INTUITY)

Do the following to assign the voice port extension numbers to each activated voice channel on the INTUITY system:

NOTE:
Port numbers and channel numbers start with 0 (zero).

1. Enter the **Voice System Administration**, **Voice Equipment** command.
2. Press F8 to display the actions menu.
3. Select the **Assign/Change** option.
4. Select the **PBX Extension to Channel** option.

```
+-----------------------------------------+
+     Assign PBX Extension to a Channel   +
+-----------------------------------------+
|            PBX Extension:               |
|           Channel Number:               |
|                                         |
+-----------------------------------------+
```

5. Enter a voice port extension number and a channel number (0-5). Use the exact same order here as was used when the hunt group extensions were assigned (Page 162).
6. Press F3 to save the assignment. A message displays confirming that the extension was mapped to a channel.
7. Press Enter to acknowledge the message.
8. Repeat this procedure for each voice port extension.
9. When finished, press F6 to exit. You must now map services to channels for normal operation.
10. Select the **Services to Channels** option.

```
+-----------------------------------------+
+        Assign Services to Channels      +
+-----------------------------------------+
|   Channel Numbers:                      |
|      Service Name:                      |
|                                         |
+-----------------------------------------+
```

11. Enter the numbers of the channels the customer has purchased in the `Channel Numbers` field. For example, if the customer purchased 12 channels, enter **0-11**.
12. Enter ***DNIS_SVC** for all channels in the `Service Name` field.

13. Press F3 to save the assignment.

    An acknowledgement message is displayed. Press F1 to continue.

14. Press F6 repeatedly to return to the INTUITY Main Menu.

15. Enter the **Voice System Administration**, **Voice Equipment** command to display the voice channel setup.

```
+-------------------------------------------------------------------------------+
+                              Voice Equipment                                  +
+-------------------------------------------------------------------------------+
|  CD.PT CHN STATE   STATE-CHNG-TIME  SERVICE-NAME PHONE   GROUP   OPTS TYPE    |
|                                                                               |
|  CARD  0   STATE: Inserv    CLASS: Analog(TR)            O.S. INDEX: 0        |
|            NAME: AYC10        OPTIONS: master 1,no tdm,tt                     |
|            FUNCTION: TipRing                                                  |
|                                                                               |
|   0.0  0   Inserv  Mar 20 18:49:25  *DNIS_SVC    720     2       talk IVC6   |
|   0.1  1   Inserv  Mar 20 18:49:25  *DNIS_SVC    721     2       talk IVC6   |
|   0.2  2   Inserv  Mar 20 18:49:25  *DNIS_SVC    722     2       talk IVC6   |
|   0.3  3   Inserv  Mar 20 18:49:25  *DNIS_SVC    723     2       talk IVC6   |
|   0.4  4   Inserv  Mar 20 18:49:25  *DNIS_SVC    724     2       talk IVC6   |
|   0.5  5   Inserv  Mar 20 18:49:25  *DNIS_SVC    725     2       talk IVC6   |
+-------------------------------------------------------------------------------+
```

The channel state should normally be **Inserv** (in-service), but it could be **foos** (facility out-of-service) or **manoos** (manually out-of-service). The SERVICE NAME should be ***DNIS_SVC** and the GROUP should be set to **2**.

Services to Phone Number Mapping (INTUITY)

You must associate the extension numbers used to access voice mail messages to the services the extensions provide. In the examples shown in this section, extension 699 is used by the office staff, extension 710 is used by the guests, and extension 770 is used for printing FAX messages.

CAUTION:
If the AUDIX service is not assigned, calls placed to the office staff extensions will hear an "Extension not valid" message when the call is transferred to INTUITY AUDIX, and the caller cannot leave a message.

Use the **Voice System Administration**, **Number Services, Assign Service** command to access the number service screen. Assign `Called Numbers` and `Calling Numbers` to the following services:

- AUDIX — Enter the extension that office staff dial to retrieve their AUDIX messages. In the example for this book, that would be extension **699**.
- AUDIX+ldg — Enter **any**.
- lodging — Enter the extension that guests dial to retrieve their AUDIX messages. In the example for this book, that would be extension **710**.
- LGfax — Enter the extension callers would use to transmit a FAX. In the example for this book, that would be extension **770**.

The `Calling Numbers` field will always be **any**. The example shown here matches the extension used elsewhere in this book.

```
+------------------------------------------------------------+
+                  Assign Number Service                     +
+------------------------------------------------------------+
|     Called Numbers:699               to 699                |
|    Calling Numbers:any               to any                |
|       Service Name:AUDIX                                   |
+------------------------------------------------------------+
```

Attendant and Administrator Passwords (INTUITY)

Use the **Lodging Administration**, **Lodging Administrator Registration** command to access the administrator registration screen. Using this screen, you must assign an administrator extension (an unused extension on the switch), an administrator password, and an attendant password. These passwords can be used to retrieve voice messages for the guests. Your administration should look similar to this screen.

CAUTION:
When creating passwords, do not use a sequential digit string (such as 1234) or a repeated digit (such as 5555).

```
+---------------------------------+
+Lodging Administrator Registration+
+---------------------------------+
|Administrator Extension: 475     |
| Administrator Password: 3872    |
|     Attendant Password: 6391    |
+---------------------------------+
```

Extension for Guest Message Retrieval (Switch)

The way guests retrieve their messages is to call an extension that is call forwarded to the INTUITY AUDIX hunt group extension. This is done using a standard station line that covers to the hunt group (defined on Page 162).

Use the **add station** command to add a station extension that is used only for accessing the INTUITY AUDIX voice messages:

- `Type` — Enter **2500**.
- `Port` — Enter **X** (administration without hardware).
- `Name` — Enter a name to identify this station.
- `COS` — Enter a COS designated for AUDIX use.

```
add station 710                                          Page   1 of   3
                                  STATION

Extension: 710                        Lock Messages? n          BCC: 0
     Type: 2500                       Security Code:             TN: 1
     Port: X                     Coverage Path 1:               COR: 35
     Name: GUEST VOICE MAIL      Coverage Path 2:               COS: 4
                                 Hunt-to Station:          Tests? y

STATION OPTIONS
     Off Premise Station? n                Message Waiting Indicator:
```

```
add station 710                                                  Page 2 of   3
                                  STATION
FEATURE OPTIONS
           LWC Reception: audix
          LWC Activation? n                      Coverage Msg Retrieval? n
            CDR Privacy? n                                 Auto Answer: none
   Redirect Notification? n                              Data Restriction? n
 Per Button Ring Control? n                     Call Waiting Indication? n
   Bridged Call Alerting? n                Att. Call Waiting Indication? n
        Switchhook Flash? y                  Distinctive Audible Alerting? n
    Ignore Rotary Digits? n                           Adjunct Supervision? y
        H.320 Conversion? n
                                  Per Station CPN - Send Calling Number? n

                                             Audible Message Waiting? n

    MWI Served User Type:
```

On Page 3, set the `Line Appearance` field to **call-appr**.

```
add station 710                                                Page    3 of   3
                                    STATION
 SITE DATA
       Room: 710                                    Headset? n
       Jack:                                        Speaker? n
      Cable:                                       Mounting: d
      Floor:                                   Cord Length: 0
   Building:                                     Set Color:


ABBREVIATED DIALING
     List1: System   1         List2:                    List3:

HOT LINE DESTINATION
         Abbreviated Dialing List Number (From above 1, 2 or 3):
                                                    Dial Code:

     Line Appearance: call-appr
```

After you assign this extension, you must manually call forward this extension to the main INTUITY AUDIX hunt group extension. To allow Call Forwarding, the Class of Service used for this station must have Call Forwarding enabled (see Page 80). In this example, you would forward extension 710 to extension 699. You can do this from any telephone that has console permissions.

Call Coverage Path (Switch)

Use the **add coverage path** command to define the coverage path that redirects unanswered calls to the voice messaging system (as defined on Page 162). After three rings, calls go to hunt group 1 (**h1**). If the INTUITY system is down or the voice ports are all busy, the calls then forward to the attendant (**attd**).

```
add coverage path 1
                               COVERAGE PATH

                  Coverage Path Number: 1
                                              Hunt after Coverage? n
                      Next Path Number:       Linkage

COVERAGE CRITERIA
    Station/Group Status    Inside Call     Outside Call
            Active?             y               y
              Busy?             y               y
       Don't Answer?            y               y         Number of Rings: 3
              All?              n               n
 DND/SAC/Goto Cover?            y               y

COVERAGE POINTS

    Terminate to Coverage Pts. with Bridged Appearances? n

      Point1: h1               Point2: attd             Point3:
      Point4:                  Point5:                  Point6:
```

Testing the Switch-to-INTUITY Voice Ports

Use the **Voice System Administration, Voice Equipment** command to check the status of the voice ports.

```
+-------------------------------------------------------------------------------+
+                                Voice Equipment                                +
+-------------------------------------------------------------------------------+
|  CD.PT CHN STATE   STATE-CHNG-TIME  SERVICE-NAME PHONE   GROUP   OPTS TYPE    |
|                                                                               |
|  CARD  0   STATE: Inserv    CLASS: Analog(TR)            O.S. INDEX: 0        |
|            NAME: AYC10        OPTIONS: master 1,no tdm,tt                     |
|            FUNCTION: TipRing                                                  |
|                                                                               |
|   0.0  0   Inserv  Mar 20 18:49:25  *DNIS_SVC    720     2       talk IVC6    |
|   0.1  1   Inserv  Mar 20 18:49:25  *DNIS_SVC    721     2       talk IVC6    |
|   0.2  2   Inserv  Mar 20 18:49:25  *DNIS_SVC    722     2       talk IVC6    |
|   0.3  3   Inserv  Mar 20 18:49:25  *DNIS_SVC    723     2       talk IVC6    |
|   0.4  4   Inserv  Mar 20 18:49:25  *DNIS_SVC    724     2       talk IVC6    |
|   0.5  5   Foos    Mar 20 18:49:25  *DNIS_SVC    725     2       talk IVC6    |
+-------------------------------------------------------------------------------+
```

This command shows you the extension numbers directly assigned to each INTUITY AUDIX voice port and you can call each one to test the ports. There are four possible port states:

- In-Service (Inserv) — The channel is ready to accept telephone calls.
- Facility-out-of-service (Foos) — The channel is not in service. This occurs when a channel has been released through the **Voice Board Diagnostics** screen to Inserv, and it does not detect loop current. A channel in the Foos state should automatically convert to the Inserv state when it detects loop current, but it may need to be reset. If you connected the ports to the switch and the ports remain in the Foos state, there is a problem with the switch, the connection, or the INTUITY hardware.
- Manually-out-of-service (Manoos) — The channel has been busied-out under the **Voice Board Diagnostics** screen, or the channel is on a new IVC6 circuit card. A channel in the Manoos state will remain until it is released under the **Voice Board Diagnostics** screen.
- Non-Existent (NONEX or no entry on any screen) — The system does not see the channel. The system will not see a channel that has not been properly activated even if the IVC6 is present. To change a channel from non-existent to recognized, the remote maintenance center must activate it.

In this example, extension 725 is possibly out of service. It can be verified by calling the port extension to see if the call is answered by INTUITY AUDIX. Refer to the appropriate MAP installation document for more information about testing.

INTUITY Lodging-to-PMS Translations

There are two ways that the INTUITY Lodging software and the PMS software can exchange messages for database updates:

- Use the Switch/INTUITY/PMS Link Integration feature. This feature uses the switch to exchange the voice mail database update messages between the INTUITY Lodging and the PMS. This option is known as the “Guest-Works Interface.” The INTUITY system must be modified during software installation to include this option. The INTUITY system currently defaults to this option. This option can be used with TCP/IP or X.25 links, but cannot be used for Mode Code Integration.
- Use a hard-wired link between the MAP and the PMS voice messaging port. This link is illustrated in Figure 8 on Page 35. This option is known as the “Standalone Mode.” This option can be used with TCP/IP or X.25 links, and must be used for Mode Code Integration. This link should also be used if the PMS must keep track of the number of voice mail messages for each guest.

PMS Interface for GuestWorks

To administer the PMS Interface for GuestWorks, you must do the following:

- Enable the feature on the switch
- Install the software on the INTUITY
- Set up the system parameters on the INTUITY.

To enable the Switch/INTUITY/PMS Link Integration feature (the “PMS Interface for GuestWorks” link), enter a **y** in the `Forward PMS Messages to Intuity Lodging` field.

```
change system-parameters hospitality                          Page   1 of   3
                              HOSPITALITY

                        Message Waiting Configuration: act-nopms
                 Controlled Restrictions Configuration: act-pms
                 Housekeeper Information Configuration: act-pms
                       Number of Housekeeper ID Digits: 0
                          Extension of PMS Log Printer:
                 Extension of Journal/Schedule Printer:
               Client Room Coverage Path Configuration: act-nopms
                Default Coverage Path for Client Rooms: 1
               Forward PMS Messages to Intuity Lodging? y

                              PMS LINK PARAMETERS
                                    Extension of PMS: 7899
                                  PMS Protocol Mode: transparent ASCII mode? y
                  Seconds before PMS Link Idle Timeout: 20
Milliseconds before PMS Link Acknowledgement Timeout: 500
                     PMS Link Maximum Retransmissions: 5
            PMS Link Maximum Retransmission Requests: 5
                     Take Down Link for Lost Messages? y
```

You must then verify if the INTUITY system has the GuestWorks Interface link software installed and active. Use the **Customer/Services Administration**, **System Management**, **System Control**, **PMS Interface Administration** screen to display the available options. Press F8 to change the function keys, and then press F1 to show the currently-installed interface.

- If the “GuestWorks/DEFINITY Interface” is currently installed, no changes are needed.
- If the “Stand-alone PMS Interface” is currently active or no interface has been installed, select the “PMS Interface for GuestWorks” option. Select Yes to continue, insert the software CD or tape, and follow any other instructions displayed to install the software.

Once the software is installed, use the **Lodging Administration**, **System Parameter Administration** command to administer the system parameters for INTUITY Lodging.

- `Attendant Extensions` — Enter **0** for the attendant console, the backup telephone extensions, and any extensions that will be used to retrieve messages for guests.
- `Primary Attendant` — Enter the attendant console dial-up number (usually **0**) or extension.
- `Default Language` — Select a default language option.

```
+-------------------------------------------------------------------------+
+                    System Parameter Administration                      +
+-------------------------------------------------------------------------+
|                      Attendant Extensions:                              |
|        2000    195     0                                                |
|                      Hunt Group Or                                      |
|                  Primary Attendant: 0                                   |
|                                                                         |
|                       Voice Mail Parameters                             |
|                  Mailbox Size: 6  min            Mailbox Type: Separate |
|              Pause For TT Input: 4 sec         Play Back Format: FIFO    |
|      Maximum Extension Length: 4                                        |
|        Maximum Message Length: 120 sec                                  |
|Allow Guests To Save Messages?: Yes                                      |
|Lamp ON For New Messages Only?: Yes                                      |
|          Automatic Transfer to                                          |
|      Operator At End Of Call?: No                                       |
|               Default Language: American English                        |
+-------------------------------------------------------------------------+
```

Standalone Mode

To administer the standalone interface link, you must do the following:

- Disable the integrated link feature on the switch
- Install the software on the INTUITY
- Set up the link on the INTUITY
- Set up the system parameters on the INTUITY.

To use the hard-wired link between the INTUITY and the PMS (Figure 8), you must first disable the Switch/INTUITY/PMS Link Integration feature. Enter an **n** in the `Forward PMS Messages to Intuity Lodging` field.

```
change system-parameters hospitality                          Page   1 of   3
                              HOSPITALITY

                      Message Waiting Configuration: act-nopms
                Controlled Restrictions Configuration: act-pms
                Housekeeper Information Configuration: act-pms
                      Number of Housekeeper ID Digits: 0
                         Extension of PMS Log Printer:
                Extension of Journal/Schedule Printer:
              Client Room Coverage Path Configuration: act-nopms
               Default Coverage Path for Client Rooms: 1
              Forward PMS Messages to Intuity Lodging? n

                              PMS LINK PARAMETERS
                                    Extension of PMS: 7899
                                   PMS Protocol Mode: transparent ASCII mode? y
                 Seconds before PMS Link Idle Timeout: 20
Milliseconds before PMS Link Acknowledgement Timeout: 500
                       PMS Link Maximum Retransmissions: 5
            PMS Link Maximum Retransmission Requests: 5
                       Take Down Link for Lost Messages? y
```

You must then verify if the INTUITY system has the Standalone Mode link software installed and active. Use the **Customer/Services Administration**, **System Management**, **System Control**, **PMS Interface Administration** screen to display the available options. Press F8 to change the function keys, and then press F1 to show the currently-installed interface.

- If the “Stand-alone PMS Interface” is currently installed, no changes are needed.
- If the “GuestWorks/DEFINITY Interface” is currently active or no interface has been installed, select the “Stand-alone PMS Interface” option. Select Yes to continue, insert the software CD or tape, and follow any other instructions displayed to install the software.

Once the software is installed, use this screen on the INTUITY to administer the standard hard-wired link between the INTUITY Lodging and the PMS. Use the **Lodging Administration**, **PMS Parameter Administration** command to access this screen.

- `Device for Link` — This must match the physical port connected to the Equinox card. Use **/dev/ttysac** if the connection is on the Multi-Port Serial Card and **/dev/ttys00** if the connection is on the COM1 port.
- `Baud Rate` — Set the speed to match the vendor equipment. If the vendor does not have a recommended speed, use 4800 bps.
- All other options must match the vendor requirements.

```
+-----------------------------------------------+
+         PMS Parameter Administration          +
+-----------------------------------------------+
|              Device for Link: /dev/ttysac     |
|            Maximum Link Error: 50             |
|  Link Acknowledgement Timeout: 20 sec         |
|             Link Idle Timeout: 20  sec        |
|        Maximum Retransmission: 5              |
|Maximum Retransmission Request: 5              |
|                     Baud Rate: B4800          |
+-----------------------------------------------+
```

Use the **Lodging Administration**, **System Parameter Administration** command to administer the system parameters for INTUITY Lodging.

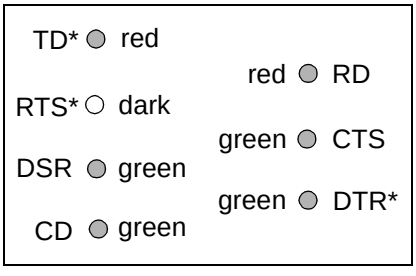
- `Attendant Extensions` — Enter **0** for the attendant console, the backup telephone extensions, and any extensions that will be used to retrieve messages for guests.
- `Primary Attendant` — Enter the attendant console dial-up number (usually **0**) or extension.
- `Lamp ON For New Messages Only` — Enter **Yes** if using TCP/IP or X.25 signaling between the switch and the INTUITY system. Enter **No** if using Mode Code signaling between the switch and the INTUITY system.
- `Default Language` — Select the default language option.
- `PMS Integration Parameters` — Must match the vendor requirements.
- `Message Waiting Lamp Controlled By` — This should be set to **LDG** if you want INTUITY Lodging to control the guest room message lamps. If the lamp control is enabled for the PMS, the front desk personnel

should take messages for guests when the PMS link is down because the message lamps will not be turned on even when the INTUITY has taken a message.

```
+------------------------------------------------------------------------+
+                    System Parameter Administration                     +
+------------------------------------------------------------------------+
|                        Attendant Extensions:                           |
|        2000    195     0                                               |
|                        Hunt Group Or                                   |
|                    Primary Attendant: 0                                |
|                                                                        |
|                        Voice Mail Parameters                           |
|                   Mailbox Size: 6  min            Mailbox Type: Separate |
|             Pause For TT Input: 4 sec          Play Back Format: FIFO  |
|       Maximum Extension Length: 4                                      |
|         Maximum Message Length: 120 sec                                |
|Allow Guests To Save Messages?: Yes   PMS Integration Parameters        |
|Lamp ON For New Messages Only?: Yes  Message Lamp Controlled By: LDG    |
|           Automatic Transfer to     When PMS link is down, calls       |
|       Operator At End Of Call?: No        For Guests Handled By: LDG   |
|                Default Language: American English                      |
+------------------------------------------------------------------------+
```

Testing the INTUITY Lodging-to-PMS Link

After the connection is complete and the link is active, the mini-tester should show the following results (see the Note on Page 11). The leads marked with an asterisk are controlled by the INTUITY system, and the PMS controls the other leads.



After the connection is complete and the INTUITY link is active, the following may indicate that the PMS is not active. Check with the vendor to verify if the link is active.

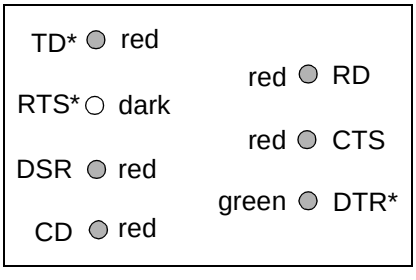


Table 12 gives a list of PMS alarm codes, the event IDs, a description of the problem, and a method to clear the problem. Use the **Customer/Services Administration**, **Log Administration**, **Maintenance Log** command to set up which maintenance events will display.

Table 12. PMS Event IDs Generated on the INTUITY

Alarm Code	Event IDs	Description	Clearing
11	PMS01, PMS02, PMS04, PMS05, PMS06, PMS07	The PMS communication link is down.	Restart PMS through the command menu.
12	PMS08	An unknown PMS communication link problem.	Stop and restart the voice system.
13	PMS10, PMS11, PMS38	Unable to manage allocated memory.	Stop and restart the voice system.
14	PMS14	PMS received a message of an invalid size.	Stop and restart the voice system.
15	PMS03, PMS09, PMS12, PMS13, PMS15, PMS16, PMS27, PMS29, PMS30, PMS31, PMS33, PMS34, PMS35, PMS39, PMS43	The PMS communication interface is having problems.	Restart PMS through the command menu.
16	PMS20, PMS22, PMS24, PMS25	Unable to use the assigned serial port.	Stop and restart the voice system.

Use the following screens to test the voice mailboxes for the guest rooms.

NOTE:
Mailboxes are created automatically for the guest rooms and do not require administration.

You must first do a test check-in from the PMS terminal to create a valid entry. The first screen is displayed using the **Lodging Administration**, **Guests Mailbox Administration**, **Mailbox** command. You must press F8 to change the function key labels, enter the extension number, and press the DISPLAY function key. After you verify that the guest mailbox was created, remove the test entry by doing a check-out at the PMS terminal.

```
+-------------------------------------------------------+
+                       Mailbox                         +
+-------------------------------------------------------+
|        Guest Extension: 112                           |
|      Guest Room Number: 112                           |
|             Guest Name: ERWIN                         |
|         Guest Password: *                             |
|         Guest Language: Canadian French               |
|          Switch number: 1                             |
|Allow personal greeting: Yes                           |
|                                                       |
|       Messages Waiting:                               |
|                 Voice:                                |
|                   Fax:                                |
|                  Text:                                |
| Mailbox Capacity Usage:   0%                          |
|Suite Mailbox Extension:                               |
|               Comments:                               |
+-------------------------------------------------------+
```

NOTE:
The Guest Password and Guest Personal Greeting options are not controlled on a system-wide basis; they are controlled on an individual mailbox basis either by administering them through the INTUITY or by messages sent from the PMS.

The following screen is displayed using the **Lodging Administration**, **Traffic and Space Usage Reports**, **Mailbox Usage** command.

```
+------------------------------------------------------------------------+
+                          Mailbox Usage Report                          +
+------------------------------------------------------------------------+
|                          Mailbox Usage Report                          |
|                          Mailbox size: 360 seconds                     |
|                          Mon Apr  1 07:40:20 1996                      |
|  Current Messages:                                                     |
|  Mailbox             Voice Msgs  Time(secs)  Text Msgs  Fax Msgs        |
|   112                   0           0           0          0           |
|   115                   0           0           0          0           |
|   119                   0           0           0          0           |
|   123                   0           0           0          0           |
|                                                                        |
|  Deleted Messages:                                                     |
|  Mailbox             Voice Msgs  Time(secs)                            |
|   115                   4           230                                |
|                                                                        |
|  Old Messages:                                                         |
|  Mailbox             Voice Msgs  Time(secs)                            |
|   112                   0           0                                  |
+------------------------------------------------------------------------+
```

Switch-to-Call Accounting Translations

You must assign the link between the switch and the INTUITY, administer the CDR parameters, and enable CDR for each incoming and outgoing trunk group. If a standalone call accounting system (such as Xiox) is used, the vendor must assist in setting up their system.

Link Parameters (INTUITY)

The data link between the switch and the INTUITY Lodging Call Accounting must be administered by the Homisco technician when he or she installs the software on the INTUITY platform.

CDR Parameters (Switch)

Use the **change system-parameters cdr** command to assign the CDR parameters on the switch.

- `Primary Output Format` — Enter **printer** (or the format required by the call accounting vendor).
- `Primary Output Extension` — Enter **eia** if the call accounting system is directly connected to the switch. Enter the data module extension if using a switched connection.
- `EIA Device Bit Rate` — Use the default of 9600 for the INTUITY Lodging Call Accounting system, and 1200 for the Xiox call accounting system. For other stand-alone call accounting systems, use the speed specified by the vendor.
- `Record Outgoing Calls Only` — Unless the customer wishes to record incoming calls, enter **y**.

- `CDR Account Code Length` — Set this field to the number of digits used for extensions in the dial plan.

```
change system-parameters cdr                                  Page   1 of   1
                          CDR SYSTEM PARAMETERS

 Node Number (Local PBX ID):                      CDR Date Format: month/day
      Primary Output Format: printer            Primary Output Ext: eia
    Secondary Output Format:
          Use ISDN Layouts? n                 EIA Device Bit Rate: 9600
       Use Enhanced Formats? n
Modified Circuit ID Display? n                  Remove # From Called Number? n
                  Record Outgoing Calls Only? y            Intra-switch CDR? n
  Suppress CDR for Ineffective Call Attempts? y          CDR Call Splitting? y
      Disconnect Information in Place of FRL? n    Attendant Call Recording? y
                                                     Interworking Feat-flag? n
 Force Entry of Acct Code for Calls Marked on Toll Analysis Form? n
                                  Calls to Hunt Group - Record: member-ext
Record Called Vector Directory Number Instead of Group or Member? n

     Inc Trk Call Splitting? n
  Record Non-Call-Assoc TSC? n
      Record Call-Assoc TSC? n   Digits to Record for Outgoing Calls: dialed
   Privacy - Digits to Hide: 0               CDR Account Code Length: 2
```

As shown on Page 118, enable CDR Reports for each trunk group.

Testing the Switch-to-Call Accounting Link

To test the CDR link, use the **status cdr-link** command on the switch.

```
status cdr-link
                          CDR LINK STATUS
               Primary                         Secondary

       Link State: up                          extension not administered

 Maintenance Busy? no
```

You should also work with the vendor to test the link from the call accounting end. If you are installing the INTUITY Lodging Call Accounting, work with the Homisco technician to test the link.

INTUITY Lodging Call Accounting-to-PMS Translations

The data link between the INTUITY Lodging Call Accounting and the PMS must be administered by the Homisco technician when he or she installs the software on the INTUITY platform.

If a standalone call accounting system (such as Xiox) is used, the vendor must assist in setting up their system.

Testing the INTUITY Lodging Call Accounting-to-PMS Link

To test the call accounting link, make a test call from a test guest room to verify that the call is posted on the call accounting system and the PMS.

Switch-to-PMS Link Translations

Administration of the switch-to-PMS link includes the following:

- Network control (netcon) data module for *si* system (Page 183)
- 7400A or 8400B data module (Page 184)
- Hospitality parameters (Page 184)
- Housekeeping status feature access codes and definitions (Page 187)
- Controlled restrictions (Page 188).

Network Control (Netcon) Data Module

Use the **add data-module** command to administer the netcon data module on the *si* system.

```
add data-module 7891
                              DATA MODULE

  Data Extension: 7891            Name: NETCON 01                      BCC: 2
            Type: netcon           COS: 15     Maintenance Extension: 7995
Physical Channel: 01               COR: 50
             ITC: restricted        TN: 1


ABBREVIATED DIALING
  List1:

SPECIAL DIALING OPTION:


ASSIGNED MEMBER ( Station with a data extension button for this data module )

         Ext     Name
      1:
```

You should assign all four netcon channels. The following table is an example of how you can administer the netcon channels:

Data Extension	Physical Channel	Maintenance Extension
7891	01	7895
7892	02	7896
7893	03	7897
7894	04	7898

Data Modules

Use the **add data-module** command to administer the 7400A or 8400B data module connected between the switch and the PMS.

```
add data-module 7899
                              DATA MODULE

  Data Extension: 7899            Name: PMS LINK                      BCC: 2
            Type: pdm              COS: 1          Remote Loop-Around Test? n
            Port: 01B0102          COR: 50           Secondary data module? n
             ITC: restricted        TN: 1                    Connected to: dte


ABBREVIATED DIALING
  List1:

SPECIAL DIALING OPTION:


ASSIGNED MEMBER ( Station with a data extension button for this data module )

         Ext     Name
     1:
```

Hospitality Parameters

Use the **change system-parameters hospitality** command to administer the hospitality parameters. These assignments must be coordinated with the PMS vendor and the customer. On Page 1, administer the following:

- For the `Message Waiting Configuration` field, enter **act-nopms** if the INTUITY is controlling the message waiting lamps, and enter **act-pms** if the PMS is controlling the message waiting lamps.
- The `Controlled Restrictions Configuration`, `Housekeeper Information Configuration`, and `Client Room Coverage Path Configuration` fields control features offered by some PMS vendors. If the PMS vendor supports the feature, enter **act-pms** in the corresponding field. If the PMS vendor does not support the feature, enter **act-nopms** in the corresponding field. Note that if the `Client Room Coverage Path Configuration` field is administered incorrectly, administered coverage paths for rooms will be deleted.

- If the PMS Protocol Mode is **transparent**, set the Seconds before PMS Link Idle Timeout to **20** and the Milliseconds before PMS Link Acknowledgement Timeout to **500**. If the PMS Protocol Mode is **normal**, set the PMS Link Idle Timeout to **20** and the PMS Link Acknowledgement Timeout to **300**. If the PMS supports ASCII data mode, enter a **y** in the ASCII mode field.

```
change system-parameters hospitality                          Page   1 of   3
                              HOSPITALITY

                      Message Waiting Configuration: act-nopms
                Controlled Restrictions Configuration: act-pms
                Housekeeper Information Configuration: act-pms
                      Number of Housekeeper ID Digits: 0
                         Extension of PMS Log Printer:
                Extension of Journal/Schedule Printer:
              Client Room Coverage Path Configuration: act-nopms
               Default Coverage Path for Client Rooms: 1
              Forward PMS Messages to Intuity Lodging? y

                              PMS LINK PARAMETERS
                                    Extension of PMS: 7899
                                   PMS Protocol Mode: transparent ASCII mode? y
                  Seconds before PMS Link Idle Timeout: 20
Milliseconds before PMS Link Acknowledgement Timeout: 500
                         PMS Link Maximum Retransmissions: 5
              PMS Link Maximum Retransmission Requests: 5
                         Take Down Link for Lost Messages? y
```

NOTE:
Use the commands **busyout pms-link** followed by **release pms-link** whenever you change the link timer values.

On Page 2, the Number of Digits From PMS field should be left blank and the Digit to Insert/Delete field may need to be administered. If the room numbers use a combination of 3- and 4-digit or 4- and 5-digit extension numbers, you must enter the leading digit that must be inserted when sent from the PMS to the switch and deleted when sent from the switch to the PMS.

NOTE:
The PMS interface supports 3-, 4-, or 5-digit extensions, but be aware that prefixed extensions do not send the entire number across the interface. Only the assigned extension number is sent. Therefore, you should not use prefixed extensions for numbers that are also going to use the Insert/Delete Digit function.

This works as shown in the following example:

- Digit Insertion — If the digits received by the switch are 123 and the insertion digit is 7, extension 7123 is checked to see if it is a valid extension. If 7123 is valid, the message is processed for extension 7123; if extension 7123 is not valid, the switch assumes that the message is for extension 123 and processes it accordingly. If both 7123 and 123 are valid, the message will only be processed for extension 7123. Numbering conflicts such as this should be avoided when possible.
- Digit Deletion — The switch checks the extension before it is sent to the PMS. If the extension contains the maximum number of digits translated for a leading digit and the leading digit matches the administered Insert/Delete digit, the digit is deleted before sending the extension to the PMS. For example, if the Insert/Delete digit is 7 and extensions 712 and 7123 are valid on the switch, 712 will be sent as 712; however, 7123 is sent as 123 (this assumes there are no 5-digit extensions starting with 7 on the switch).

```
change system-parameters hospitality                          Page   2 of   3
                            HOSPITALITY

           Dual Wakeups? y    Daily Wakeup? y    VIP Wakeup? y
                                VIP Wakeups Per 5 Minutes: 5
                        Room Activated Wakeup With Tones? y
                  Time of Scheduled Wakeup Activity Report:
                   Time of Scheduled Wakeup Summary Report:
          Time of Scheduled Emergency Access Summary Report:
                                        Announcement Type: mult-integ
                          Default Announcement Extension: 380

         Length of Time to Remain Connected to Announcement: 30
            Extension to Receive Failed Wakeup LWC Messages: 399
          Routing Extension on Unavailable Voice Synthesis:
                  Display Room Information in Call Display? n

                                 Number of Digits from PMS:
                                        PMS Sends Prefix? n
                    Number of Digits in PMS Coverage Path: 3
                                   Digit to Insert/Delete:
```

Housekeeping Status

Use the **change feature-access-codes** command to assign the housekeeping status feature access codes. Administer only the feature access codes that the vendor supports and that match the status definitions.

```
change feature-access-codes                                    Page   5 of   5
                            FEATURE ACCESS CODE (FAC)
                              Hospitality Features

              Automatic Wakeup Call Access Code: *98
   Housekeeping Status (Client Room) Access Code: *81
   Housekeeping Status (Client Room) Access Code: *82
   Housekeeping Status (Client Room) Access Code: *83
   Housekeeping Status (Client Room) Access Code: *84
   Housekeeping Status (Client Room) Access Code:
   Housekeeping Status (Client Room) Access Code:
       Housekeeping Status (Station) Access Code:
       Housekeeping Status (Station) Access Code:
       Housekeeping Status (Station) Access Code:
       Housekeeping Status (Station) Access Code:
          Verify Wakeup Announcement Access Code: *89
                Voice Do Not Disturb Access Code: *33
```

Use the **change system-parameters hospitality** command to administer the housekeeping status definitions. Coordinate these assignments with the PMS requirements.

```
change system-parameters hospitality                           Page   3 of   3
                            HOSPITALITY

          Definition for Rooms in State 1: OCCUPIED/DIRTY
          Definition for Rooms in State 2: OCCUPIED/MAID IN ROOM
          Definition for Rooms in State 3: OCCUPIED/CLEAN
          Definition for Rooms in State 4: VACANT/CLEAN
          Definition for Rooms in State 5: Rooms in state 5
          Definition for Rooms in State 6: Rooms in state 6
```

Controlled Restrictions

When Controlled Restrictions are applied to guest rooms, calls made to those rooms or from those rooms are routed to intercept treatment. The recommended intercept treatment is shown in the following example. Use the **change system-parameters features** command to set the controlled restriction intercept treatment.

```
change system-parameters features                              Page   3 of   9
                        FEATURE-RELATED SYSTEM PARAMETERS

                     Reserved Slots for Attendant Priority Queue: 5
                                      Time before Off-hook Alert: 10
                          Emergency Access Redirection Extension:
             Number of Emergency Calls Allowed in Attendant Queue: 5
                                         Call Pickup Alerting? n
                     Temporary Bridged Appearance on Call Pickup? y
                                   Call Pickup on Intercom Calls? y
                                         Directed Call Pickup? n
               Deluxe Paging and Call Park Timeout to Originator? y
   Controlled Outward Restriction Intercept Treatment: attendant
  Controlled Termination Restriction (Do Not Disturb): coverage
            Controlled Station to Station Restriction: attendant
AUTHORIZATION CODE PARAMETERS        Authorization Codes Enabled? y
                                       Authorization Code Length: 7
                           Authorization Code Cancellation Symbol: #
                                        Attendant Time Out Flag? n
                                    Display Authorization Code? y
                Controlled Toll Restriction Replaces: station-station
```

The PMS automatically applies controlled restrictions to guest rooms as they check in and check out. If the PMS link is down, you will have to apply and remove controlled restrictions manually. Administer the controlled restriction feature access codes using the screens found on Page 78.

Optionally, customers can substitute Toll Restriction for the standard Outward or Station-to-Station restrictions. Using the above screen, you can enter **none**, **outward**, or **station-station** into the `Controlled Toll Restriction replaces` field. If you enter **none**, the customer has access to Outward, Total, Termination, and Station-to-Station restrictions. If you enter **outward**, the customer has access to Toll, Total, Termination, and Station-to-Station restrictions. If you enter **station-station**, the customer has access to Outward, Total, Termination, and Toll restrictions. In this example, Toll Restriction is substituted for Station-Station Restriction.

Testing the Switch-to-PMS Link

To test the switch-to-PMS link, have the hotel designate a room for testing. Testing the switch-to-PMS link includes the following:

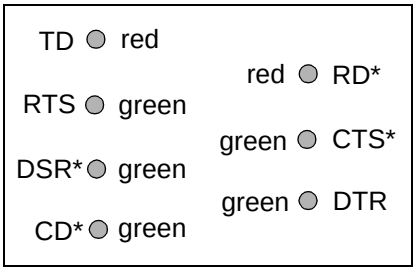
- Testing with the RS232 Mini-Tester (Page 190)
- Netcon and 7400A or 8400B data module (Page 192)
- PMS testing and status (Page 193)
- Database swap (Page 194)
- Check-in and check-out (Page 195)
- Message delivery (both manual messages and voice messages) (Page 196)
- Controlled restrictions (Page 199)
- Housekeeping status (Page 200).

During the switch-to-PMS testing, you will use the **list pms-down** command often to view events that may indicate problems with the link. These events are found in "Appendix C — List PMS Down Events" on Page 217.

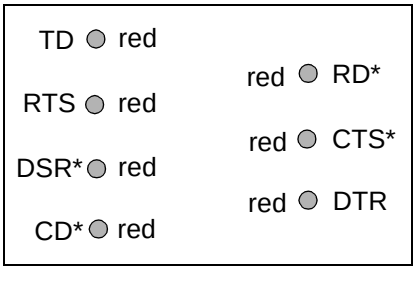
Switch-to-PMS Link Testing with the RS232 Mini-Tester

Using the RS232 Mini-Tester (see the Note on Page 11), check the status of the PMS link. The leads marked with an asterisk are controlled by the switch, and the PMS controls the other leads. If any switch leads are dark, there is no connection.

If the link to a PMS is active, the mini-tester should show the following. The Physical Link State should be up and the Protocol State should be up. If this is the status of the link, proceed to "Netcon and 7400A or 8400B Testing" on Page 192. Otherwise, look at the other results in this section.

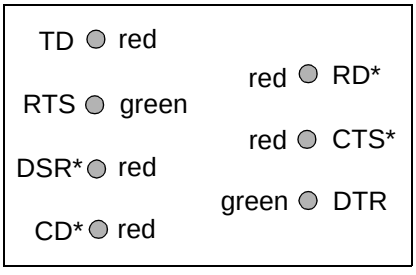


If the link is idle, the mini-tester may show the following. The Physical Link State will be down and the Protocol State will be down. Possible causes may be that the switch or PMS are not administered correctly, or the PMS software is not running.



NOTE:
The CTS lead shows green when used with an 8400B. RTS will be lit on the front panel of the 7400A.

If the link to a PMS is idle, the mini-tester may also show the following. The Physical Link State will be down and the Protocol State will be down. Possible causes may be that the PMS hardware is powered-up but the switch is not administered correctly, or the PMS link is busied out at the switch.



NOTE:
The CTS lead shows green when used with an 8400B. RTS will be lit on the front panel of the 7400A.

Netcon and 7400A or 8400B Testing

To test the netcon and the 7400A or 8400B, do the following:

1. Use the **status data-module XXXX** command (where **XXXX** is the extension of the netcon data module).

```
status data-module 7891
                            DATA-MODULE STATUS

Data Ext/Stn Ext for Stn DM: 7891          Service State: in-service/active
        Port/Channel Number: 01A0502    Maintenance Busy? no
                                      CF Destination Ext:




            Connected Ports: 01AXX01
```

   If the status message shows that the netcon data module is in the in-service/active state and shows the connected port of the 7400A or 8400B data module, this indicates that there was an available netcon data channel and that the 7400A or 8400B extension has been added to the hospitality parameters screen.

   If the status message shows that the netcon data module is in the in-service/idle state, the PMS link may have been busied out. Release the PMS link.

2. Use the **status data-module XXXX** command (where **XXXX** is the extension of the PMS link data module).

```
status data-module 7899
                            DATA-MODULE STATUS

Data Ext/Stn Ext for Stn DM: 7899          Service State: in-service/active
        Port/Channel Number: 01AXX01    Maintenance Busy? no
                                      CF Destination Ext:




            Connected Ports: 01A0502
```

   If the status message shows that the PMS link data module is in the in-service/active state and shows the connected port of the netcon, this indicates that the PMS link data module extension has been added to the hospitality parameters screen.

   If the status message shows that the netcon data module is in the in-service/idle state, the PMS link may not be providing DTR. Contact the PMS vendor for assistance.

3. Dial the netcon extension and the PMS link data module extension. If these facilities are operational, you will hear a high-pitched data tone.

PMS Testing and Status

Use the **test pms** command to test the PMS link. If the link is not active, this command sometimes causes the link to be established. Test 215 should PASS before testing can proceed.

Use the **status pms-link** command to display the current status of the PMS link. The following is an example of that screen:

```
status pms-link
                        PMS LINK STATUS

        Physical Link State: Up
             Protocol State: Up
          Number of Retries: 1
           Maintenance Busy? yes
          Database Swapping? No
```

The fields are defined as follows:

- `Physical Link State` — If the link state is `Up`, the transmit/receive lamps will be flashing, and all other lamps will be lit (except for the ringing indicator lamp). This indicates that the link is active, and the call has been placed from the netcon to the data module.
- `Protocol State` — If the protocol state is `Up`, the 7400A or 8400B carrier detect lamp is lit, and at least one status inquiry message has been received and understood from the PMS. The 7400A or 8400B transmit/receive lamps will be flashing if the switch is talking with the PMS. If the lamps stay on longer than the link idle timeout setting (usually 20 seconds), the switch and the PMS are communicating. If the TD lamp flashes every 15 to 20 seconds, this indicates that the PMS is sending data to the switch.
- `Number of Retries` — This count increments every 5 minutes for the first 12 retries, and then every 15 minutes until the link is established. This could indicate that the netcon data channel is not available because too many resources are assigned, or the data module could be busy. If there are no retries to report, this field is not displayed.
- `Maintenance Busy?` — This field shows whether the link is currently maintenance busied-out. If the link is not maintenance busied-out, this field is not displayed.
- `Database Swapping?` — If the field displays `yes`, the room images are being transmitted between the switch and the PMS. If the field displays `pending`, the database swap has been requested by the switch. If the field displays `no`, the PMS link is up.

Database Swap Testing

To test database swapping, do the following:

1. Busy-out the PMS link using the **busyout pms-link** command.
2. Do a check-in or check-out on the test room from the attendant console or backup telephone. This sets the flag for the switch to request a database swap from the PMS.
3. Release the PMS link using the **release pms-link** command.
4. Use the **status pms-link** command to verify the database swap between the switch and the PMS. A database swap can take from 20 minutes to 1 hour. If the database swap completes immediately, the PMS may only be set up for an “empty swap” as opposed to a full swap. Contact the PMS vendor and request that they change their setup to do a full swap when requested by the switch.

```
status pms-link
                        PMS LINK STATUS

        Physical Link State: Up
             Protocol State: Up


          Database Swapping? Yes
```

NOTE:
Before the database swapping begins, the `Database Swapping` field may show `Pending`.

5. When the database swapping is complete, the `Database Swapping` field is `No`. Use the **status station XXXX** command (where **XXXX** is a guest room number) on a few guest rooms to confirm that the check-in and check-out status agrees between the switch and the PMS.
6. Use the **list pms-down** command to display any PMS messages that may help you troubleshoot link problems. The meanings of the PMS messages are found in “Appendix C — List PMS Down Events” on Page 217.

Check-In and Check-Out Testing

To test check-in and check-out, do the following:

1. Do a check-in for the test room from the PMS terminal.
2. Use the **status station XXXX** command (where **XXXX** is the test room number). The status should appear as follows:

```
status station 1005                                          Page   1 of   1
                              GENERAL STATUS

                 Type: 2500                  Service State: in-srv/on-hook or disc
            Extension: 1005                Download Status: not-applicable
                 Port: 01B0601                SAC Activated? no
          Call Parked? no                   User Cntrl Restr: none
      Ring Cut Off Act? No                 Group Cntrl Restr: none
Active Coverage Option: 1             CF Destination Ext:


       Message Waiting:
       Connected Ports:

                     ACD STATUS                 HOSPITALITY STATUS
Grp/Mod Grp/Mod Grp/Mod Grp/Mod Grp/Mod    AWU Call At:
   /       /       /       /       /          User DND: not activated
   /       /       /       /       /        Group DND: not activated
   /       /       /       /       /       Room Status: occupied
   /       /       /       /       /
       On ACD Call? no
```

Normally at check-in, the `Room Status` field should be `occupied`, and the `User Cntrl Restr` field should be `none`. If an occupied room's restriction is set to `outward`, this indicates that the guest is a cash-paying customer and is restricted from placing calls external to the switch.

3. Use the **list station** command to list the guest room stations. The test room guest name should display on that listing, as well as other guest names received on a database swap.
4. Use the **list maintenance pms-down** command to display any PMS messages that may help you troubleshoot link problems. The meanings of the PMS messages are found in "Appendix C — List PMS Down Events" on Page 217.
5. Do a check-out on the test room.
6. Run the **status station XXXX** command again.

   The `Room Status` field should be `vacant` and the restrictions should be set to `outward`.
7. Use the **list pms-down** command to display any PMS messages that may help you troubleshoot link problems. The meanings of the PMS messages are found in "Appendix C — List PMS Down Events" on Page 217.

Message Waiting Testing

You must test manual message waiting and voice messaging (if installed). To test manual message waiting, do the following:

1. Activate manual message waiting for the test room from the PMS terminal.
2. Use the **status station XXXX** command (where **XXXX** is the test room number). The status should appear as follows:

```
status station 1005
                                GENERAL STATUS

                  Type: 2500                  Service State: in-srv/on-hook or disc
             Extension: 1005                 Download Status: not-applicable
                  Port: 01B0601                SAC Activated? no
           Call Parked? no                   User Cntrl Restr: none
      Ring Cut Off Act? No                  Group Cntrl Restr: none
Active Coverage Option: 1              CF Destination Ext:


       Message Waiting: pms
       Connected Ports:

                     ACD STATUS                  HOSPITALITY STATUS
Grp/Mod Grp/Mod Grp/Mod Grp/Mod Grp/Mod    AWU Call At:
   /       /       /       /       /          User DND: not activated
   /       /       /       /       /        Group DND: not activated
   /       /       /       /       /       Room Status: occupied
   /       /       /       /       /
       On ACD Call? no
```

3. Use the **list pms-down** command to display any PMS messages that may help you troubleshoot link problems. The meanings of the PMS messages are found in "Appendix C — List PMS Down Events" on Page 217.
4. Deliver the message from the PMS terminal.
5. Run the **status station XXXX** command again.

   The `Message Waiting` field should be blank.
6. Use the **list pms-down** command to display any PMS messages that may help you troubleshoot link problems. The meanings of the PMS messages are found in "Appendix C — List PMS Down Events" on Page 217.

To test voice messaging by retrieving the message from the test room, do the following:

1. Call the test room and leave a message after the tone.
2. Use the **status station XXXX** command (where **XXXX** is the test room number). The status should appear as follows:

```
status station 1005
                                GENERAL STATUS

                Type: 2500                  Service State: in-srv/on-hook or disc
           Extension: 1005                 Download Status: not-applicable
                Port: 01B0601                SAC Activated? no
         Call Parked? no                  User Cntrl Restr: none
     Ring Cut Off Act? No                 Group Cntrl Restr: none
Active Coverage Option: 1             CF Destination Ext:


      Message Waiting: audix
      Connected Ports:

                    ACD STATUS                  HOSPITALITY STATUS
Grp/Mod Grp/Mod Grp/Mod Grp/Mod Grp/Mod    AWU Call At:
   /       /       /       /       /          User DND: not activated
   /       /       /       /       /        Group DND: not activated
   /       /       /       /       /       Room Status: occupied
   /       /       /       /       /
      On ACD Call? no
```

3. Use the **list pms-down** command to display any PMS messages that may help you troubleshoot link problems. The meanings of the PMS messages are found in "Appendix C — List PMS Down Events" on Page 217.
4. From the test room, call the voice messaging system. You will hear "Welcome to the guest voice mail system. You have one new message." Listen to the message, and then delete the message.
5. Run the **status station XXXX** command again.

   The `Message Waiting` field should be blank.
6. Use the **list pms-down** command to display any PMS messages that may help you troubleshoot link problems. The meanings of the PMS messages are found in "Appendix C — List PMS Down Events" on Page 217.

To test voice messaging by retrieving the message from the attendant console, do the following:

1. Call the test room and leave another message after the tone.
2. Use the **status station XXXX** command (where **XXXX** is the test room number). The status should appear as follows:

```
status station 1005
                                GENERAL STATUS

                Type: 2500                  Service State: in-srv/on-hook or disc
           Extension: 1005                 Download Status: not-applicable
                Port: 01B0601                SAC Activated? no
         Call Parked? no                  User Cntrl Restr: none
     Ring Cut Off Act? No                 Group Cntrl Restr: none
Active Coverage Option: 1             CF Destination Ext:


      Message Waiting: audix
      Connected Ports:

                    ACD STATUS                  HOSPITALITY STATUS
Grp/Mod Grp/Mod Grp/Mod Grp/Mod Grp/Mod    AWU Call At:
   /       /       /       /       /          User DND: not activated
   /       /       /       /       /        Group DND: not activated
   /       /       /       /       /       Room Status: occupied
   /       /       /       /       /
      On ACD Call? no
```

3. Use the **list pms-down** command to display any PMS messages that may help you troubleshoot link problems. The meanings of the PMS messages are found in "Appendix C — List PMS Down Events" on Page 217.
4. From the attendant console or backup telephone, call the voice messaging system. You will hear "Please enter your room extension." Enter the test room extension. You will hear "You have one new voice mail message." Listen to the message, and then delete the message.
5. Run the **status station XXXX** command again.

   The `Message Waiting` field should be blank.
6. Use the **list pms-down** command to display any PMS messages that may help you troubleshoot link problems. The meanings of the PMS messages are found in "Appendix C — List PMS Down Events" on Page 217.

Controlled Restrictions Testing

To test Controlled Restrictions, do the following:

1. Activate Outward Restriction on the test room from the PMS terminal.
2. Use the **status station XXXX** command (where **XXXX** is the test room number). The status should appear as follows:

```
status station 1005
                                GENERAL STATUS

                  Type: 2500                   Service State: in-srv/on-hook or disc
             Extension: 1005                 Download Status: not-applicable
                  Port: 01B0601                SAC Activated? no
           Call Parked? no                   User Cntrl Restr: outward
      Ring Cut Off Act? No                  Group Cntrl Restr: none
Active Coverage Option: 1              CF Destination Ext:


       Message Waiting:
       Connected Ports:

                     ACD STATUS                    HOSPITALITY STATUS
Grp/Mod Grp/Mod Grp/Mod Grp/Mod Grp/Mod    AWU Call At:
   /       /       /       /       /          User DND: not activated
   /       /       /       /       /        Group DND: not activated
   /       /       /       /       /       Room Status: occupied
   /       /       /       /       /
       On ACD Call? no
```

3. Use the **list pms-down** command to display any PMS messages that may help you troubleshoot link problems. The meanings of the PMS messages are found in "Appendix C — List PMS Down Events" on Page 217.
4. Deactivate Outward Restriction on the test room from the PMS terminal.
5. Run the **status station XXXX** command again.

   The `User Cntrl Restr` field should be blank.
6. Use the **list pms-down** command to display any PMS messages that may help you troubleshoot link problems. The meanings of the PMS messages are found in "Appendix C — List PMS Down Events" on Page 217.

Housekeeping Status Testing

To verify that the housekeeping status is updated, do the following:

1. At the test room, update the housekeeping status. If the PMS confirms the status change within 4 seconds, you will hear confirmation tone. If the status was not accepted, you will hear reorder tone. If you dialed an invalid code, you will hear intercept tone.
2. Verify that the status changed at the PMS terminal. You can also check the housekeeping status from the attendant console.
3. Use the **list pms-down** command to display any PMS messages that may help you troubleshoot link problems. The meanings of the PMS messages are found in "Appendix C — List PMS Down Events" on Page 217.
4. At a designated telephone, update the housekeeping status for the test room. If the PMS confirms the status change within 4 seconds, you will hear confirmation tone. If the status was not accepted, you will hear reorder tone. If you dialed an invalid code, you will hear intercept tone.
5. Verify that the status changed at the PMS terminal. You can also check the housekeeping status from the attendant console.

Provide a list of feature access codes and housekeeping status codes to the customer and the PMS vendor.

Journal/PMS Log and System Printer Translations (Switch)

To administer a printer, you must assign a 7400A or 8400B data module and assign the data module extension to the hospitality parameters screen or the system parameters screen. In the example below, the same printer is used for journal/schedule printing and log printing. If you have two different printers, you must administer two different 7400A or 8400B data modules, and you will assign a different extension for each printer.

NOTE:
A log printer must be administered if the “list PMS down” feature is to log errors. If an actual log printer is not being installed, you should administer an **X** in the equipment location field (administration without hardware) to represent the log printer assignment.

```
add data-module 7850
                              DATA MODULE

  Data Extension: 7850            Name: JOURNAL PRT              BCC: 2
            Type: pdm              COS: 15   Remote Loop-Around Test? n
            Port: 01B0101          COR: 50     Secondary data module? n
             ITC: restricted        TN: 1               Connected to: dte


ABBREVIATED DIALING
  List1:

SPECIAL DIALING OPTION:


ASSIGNED MEMBER ( Station with a data extension button for this data module )

         Ext     Name
     1:
```

Enter the extensions of the printers in the `Extension of PMS Log Printer` and `Extension of Journal/Schedule Printer` field.

```
change system-parameters hospitality                          Page   1 of   3
                              HOSPITALITY

                      Message Waiting Configuration: act-nopms
                Controlled Restrictions Configuration: act-pms
                Housekeeper Information Configuration: act-pms
                     Number of Housekeeper ID Digits: 0
                        Extension of PMS Log Printer: 7850
                  Extension of Journal/Schedule Printer: 7850
              Client Room Coverage Path Configuration: act-nopms
               Default Coverage Path for Client Rooms: 1
              Forward PMS Messages to Intuity Lodging? y

                                PMS LINK PARAMETERS
                                     Extension of PMS: 7899
                                   PMS Protocol Mode: transparent ASCII mode? y
                  Seconds before PMS Link Idle Timeout: 20
Milliseconds before PMS Link Acknowledgement Timeout: 500
                         PMS Link Maximum Retransmissions: 5
             PMS Link Maximum Retransmission Requests: 5
                         Take Down Link for Lost Messages? y
```

For a system printer, enter the data module extension in the `System Printer Extension` field. If you are connecting the system printer to the DCE EIA port (instead of using that port for call accounting), enter **eia** in this field.

```
change system-parameters features                                 Page   4 of   9
                      FEATURE-RELATED SYSTEM PARAMETERS

SYSTEM PRINTER PARAMETERS
              System Printer Extension: 7860                Lines Per Page: 60
                   EIA Device Bit Rate: 9600

SYSTEM-WIDE PARAMETERS
                           Switch Name:

MALICIOUS CALL TRACE PARAMETERS
                Apply MCT Warning Tone? n    MCT Voice Recorder Trunk Group:

SEND ALL CALLS OPTIONS
             Send All Calls Applies to: station
        Auto Inspect on Send All Calls? n

UNIVERSAL CALL ID
       Create Universal Call ID (UCID)? n    UCID Network Node ID:

CRISIS ALERT: Every User Responds? y
```

Use the **change system-parameters maintenance** command to enter the time of day when you want the scheduled reports to print.

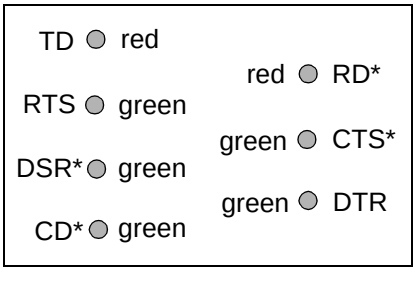
CAUTION:
Do not set the time for these reports to coincide when the switch starts its scheduled maintenance tests (usually at 1 a.m.). See the ***change system-parameters maintenance*** *screen to verify the time and coordinate this administration so the times do not overlap.*

```
change system-parameters hospitality                          Page   2 of   3
                            HOSPITALITY

           Dual Wakeups? y    Daily Wakeup? y    VIP Wakeup? y
                                  VIP Wakeups Per 5 Minutes: 5
                          Room Activated Wakeup With Tones? y
                  Time of Scheduled Wakeup Activity Report: 12:00:am
                   Time of Scheduled Wakeup Summary Report: 12:30:am
          Time of Scheduled Emergency Access Summary Report: 12:45:am
                                        Announcement Type: silence


        Length of Time to Remain Connected to Announcement: 30
           Extension to Receive Failed Wakeup LWC Messages: 399
          Routing Extension on Unavailable Voice Synthesis:
                  Display Room Information in Call Display? n

                                  Number of Digits from PMS:
                                       PMS Sends Prefix? n
                    Number of Digits in PMS Coverage Path: 3
                                  Digit to Insert/Delete:
```

Testing the Journal/PMS Log or System Printer

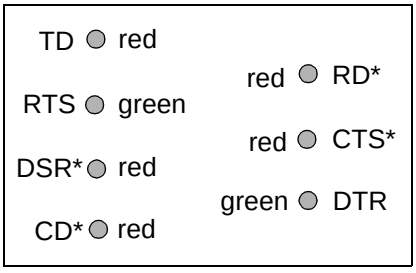
Using the RS232 Mini-Tester (see the Note on Page 11), check the status of the printer connection. The leads marked with an asterisk are controlled by the switch, and the printer controls the other leads; if any of the switch leads are dark, there is no connection.

If the link is active, the mini-tester should show the following:

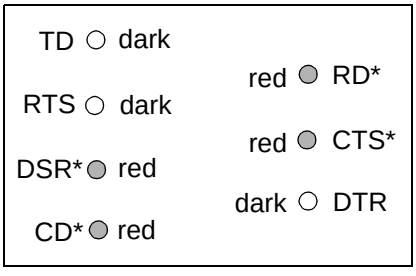


The following test results occur if the link is idle, but the reasons for the results are different.

The following will display if the link is not up; try the **test journal pms** command to start the link. The printer could also be busied out; try the **release journal pms** command to release the printer.

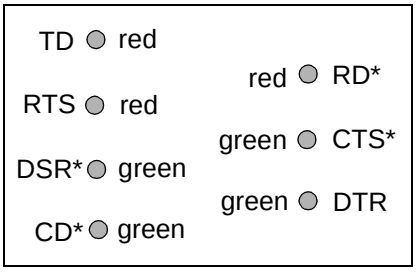


The following will display if the printer is turned off; turn on the printer power.



NOTE:
RTS will be lit on the front panel of the 7400A. The CTS lead shows green when used with an 8400B.

The following will display if the printer is off-line; press the on-line button on the printer.



Another way to test the log printer connection is to create an Automatic Wakeup call for the test room. If the printer is working, an Automatic Wakeup call request message prints on the log printer.

Parallel Printer Translations (INTUITY)

For R4.4, use the **Customer/Services Administration, System Management, UNIX Management, Printer Administration, Install Printer Software** command to set up the parallel printer on the INTUITY system. This command enables the printer port (lp1) for parallel printer operation.

For R5, use the **UNIX Management, Printer Administration** command to set up the parallel printer on the INTUITY system. This command enables the printer port (lp1) for parallel printer operation. You can select from **Install Okidata 320 Printer Software** or **Install Okidata Laser Printer Software**. Use the option that best matches your printer model.

Customer Logins (Switch)

Customer logins cannot be added using the craft login, but you can change passwords for existing customer logins (use **list login** to display the logins). If customer logins exist, use the following screen to change the passwords to the switch. The passwords must be three to six characters long using any combination of 0-9, a-z, and A-Z. You should change only the logins that the customer requests. Instruct the customer that the logins and passwords must be kept secure to avoid security issues.

```
change password staff1                                    Page   1 of   1
                        PASSWORD ADMINISTRATION

   Password of Login Making Change:

LOGIN BEING CHANGED
                        Login Name: staff1

LOGIN'S PASSWORD INFORMATION
                Login's Password:
        Reenter Login's Password:
```

Customer Logins (INTUITY)

Use the **Customer/Services Administration**, **System Management**, **Password Administration** command to create a password for the customer. The customer will use the "sa" login. Remind the customer to change the password as soon as the system is turned over, and to change it frequently.

Security Notification (Switch)

Use the **change system security-parameters** command to add security notification to the switch for login, remote access, authorization code, or station security code violations. You must enter **y** in the highlighted fields before the other entry fields will display

```
change system security-parameters                              Page   1 of   2
                    SECURITY-RELATED SYSTEM PARAMETERS

 SECURITY VIOLATION NOTIFICATION PARAMETERS

   SVN Login Violation Notification Enabled? y
            Originating Extension:                 Referral Destination:
                  Login Threshold:                        Time Interval:
          Announcement Extension:

   SVN Remote Access Violation Notification Enabled? y
            Originating Extension:                 Referral Destination:
          Barrier Code Threshold:                         Time Interval:
          Announcement Extension:

   SVN Authorization Code Violation Notification Enabled? y
            Originating Extension:                 Referral Destination:
     Authorization Code Threshold:                        Time Interval:
          Announcement Extension:
```

```
change system security-parameters                              Page   2 of   2
                    SECURITY-RELATED SYSTEM PARAMETERS

 SECURITY VIOLATION NOTIFICATION PARAMETERS

   SVN Station Security Code Violation Notification Enabled? y
            Originating Extension:                 Referral Destination:
   Station Security Code Threshold:                        Time Interval:
          Announcement Extension:

STATION SECURITY CODE VERIFICATION PARAMETERS

                         Minimum Station Security Code Length: 4
Station Security Code for Terminal Self-Administration Required? y
```

Save Translations (Switch)

After you have finished all translations, tested the translations, and verified them with the customer, save the announcements using the **save announcements** command. When that is finished, save translations using the **save translation** command. After saving translations, log off using the **logoff** command.

Create Backup (INTUITY)

Use the **Customer/Services Administration**, **Backup/Restore**, **Backup** command to create a backup tape for the INTUITY. Follow the instructions displayed on the screen.

Continuing with the Switch Installation

This section contains procedures you must complete after you have connected and tested the hospitality adjuncts. The procedures in this section are fully detailed in the appropriate switch installation documents.

Testing the Switch

See the appropriate installation document for information about testing the switch:

- For CMC installations, see Chapter 1 of *DEFINITY ECS Release 7 Installation, Upgrades and Additions for Compact Modular Cabinets.*
- For SCC installations, see Chapter 4 of *DEFINITY ECS Release 7 Installation and Test for Single-Carrier Cabinets.*
- For MCC installations, see Chapter 4 of *DEFINITY ECS Release 7 Installation and Test for Multi-Carrier Cabinets*.

Installing and Wiring Telephones and Other Equipment

See the appropriate installation document for information about installing and wiring telephones and other equipment:

- For CMC installations, see Chapters 1 and 2 of *DEFINITY ECS Release 7 Installation, Upgrades and Additions for Compact Modular Cabinets.*
- For SCC installations, see Chapter 5 of *DEFINITY ECS Release 7 Installation and Test for Single-Carrier Cabinets.*
- For MCC installations, see Chapter 5 of *DEFINITY ECS Release 7 Installation and Test for Multi-Carrier Cabinets*.

When installing the attendant consoles, see "Attendant Console Recommended Button Layout (Switch)" on Page 97 for more information. When installing backup telephones, see "Backup Telephone Recommended Button Layouts (Switch)" on Page 106 for more information.

Testing Telephones and Other Equipment

See the appropriate installation document for information about testing telephones and other equipment:

- For CMC installations, see Chapter 1 of *DEFINITY ECS Release 7 Installation, Upgrades and Additions for Compact Modular Cabinets.*
- For SCC installations, see Chapter 6 of *DEFINITY ECS Release 7 Installation and Test for Single-Carrier Cabinets.*
- For MCC installations, see Chapter 6 of *DEFINITY ECS Release 7 Installation and Test for Multi-Carrier Cabinets*.

Customer Turnover

After you have installed and tested the switch and installed adjuncts, and have determined that the system is operating correctly, you will turn control of the system over to the customer. This transfer includes the following:

- Do a final save of the translations.
- Give the customer the following documentation:
  - DEFINITY BCS and GuestWorks Issue 5 Overview
  - DEFINITY Systems Little Instruction Box
  - DEFINITY ECS Console Operations Quick Reference
  - DEFINITY ECS and GuestWorks Hospitality Operations
  - DEFINITY BCS and GuestWorks Issue 5 Documentation Library (CD)
  - INTUITY voice messaging instructions/artwork
  - A copy of the dialing plan, a list of the feature access codes, and a list of the trunk access codes
  - Customer logins and passwords for the switch and the INTUITY system.
- Show the customer how to record announcements for Automatic Wakeup calls or the Automatic Attendant feature.
- Explain any Call Vectoring procedures that have been administered for the Automated Attendant or Dial by Name features.

- Remind the customer to provide information about any new telephone numbers and services to the guests, such as instructions that show guests how to do their own Automatic Wakeup calls and Do Not Disturb requests. The information about those features is in *DEFINITY ECS and GuestWorks Hospitality Operations*.
- If the customer has a maintenance contract with Lucent Technologies, tell them that all trouble calls, whether it is the switch, the INTUITY AUDIX or INTUITY Lodging, or the INTUITY Lodging Call Accounting, should go to 1-800-242-2121. Outside of the United States, the customer should call their local Lucent Technologies authorized representative.

Maintenance

Maintenance procedures for the switch are the same as other Lucent Technologies DEFINITY ECS products. See the appropriate maintenance document for more information:

- *DEFINITY ECS Release 7 Maintenance for R7r*
- *DEFINITY ECS Release 7 Maintenance for R7csi*
- *DEFINITY ECS Release 7 Maintenance for R7si.*

Appendixes

Additional information about GuestWorks is provided in the following appendixes:

- Appendix A — Parts List
- Appendix B — Connector Pinouts
- Appendix C — List PMS Down Events
- Appendix D — Homisco Call Record Format.

Appendix A — Parts List

Table 13 shows many of the parts used with the GuestWorks system. Use this list as a reference if you need to order additional or replacement parts.

Table 13. Parts List

Part	Number
MAP LAN card - Model 8412 - Model 8416	
MAP DCIU card (GPSync)	406801647; J1P260AA, List 31
MAP Multiport Serial card (Equinox)	J1P260AA1, List 39
MAP Equinox DTE 10/10 adapter, P/N:210068	406983155
MAP IVC6 (AYC10) analog voice interface MAP IVC6 (AYC29) tip/ring interface MAP IVC6 (AYC30) next generation tip/ring interface	106406580 107213944 107224586
MAP Ferrites (required for some voice port installations	407616846
MAP 6-pin modular cords, 3 ft.	ED5P208-30, Group 16
MAP 885A connector kit 885A connecting block RJ11C 4-wire modular cords, 25 ft.	601419666; ED5P907-70, Group 1 106079270 103732582
103A connecting block 104A connecting block	105164818 105164859
Isolating Data Interface (IDI) Unit 105C 105D	 107422735 108367376
PI-to-IDI cable 10 ft. 25 ft. 50 ft. 100 ft. 200 ft.	 H600-210, Group 1 H600-210, Group 2 H600-210, Group 3 H600-210, Group 4 H600-210, Group 5
IDI-to-DCIU card cable, 4.5 ft.	ED1E434-11, Group 175
D6AP RJ25 6-pin modular cord 7 ft. 14 ft. 25 ft.	 102937620 102937604 102937588
D8W RJ45 8-pin modular cord 7 ft. 14 ft. 25 ft. 50 ft. 75 ft. 100 ft.	 103786786 or 103786778 103786802 103786828 103866109 103866125 103866141

Table 13. Parts List

Part	Number
Modular Adapters	
259A	102631413
258A	102605136
356A	104158829
D25F 5 ft. cable, plug-to-receptacle	105193668
M25A cable, plug-to-receptacle	
5 ft.	102269602 or 846823649
9 ft.	102269610 or 846823656
25 ft.	102269628 or 846823664
50 ft.	102269636 or 846823680
M25B cable, plug-to-plug	
4 ft.	102269669 or 846823706
10 ft.	102269677 or 846823714
25 ft.	102986643 or 846823722
50 ft.	846823730
B25A distribution cable	
10 ft.	846300994
15 ft.	846301000
Null modem	407122043
7400A data module	105558050
8400B data module	407444835
Comsphere 3820 modem	107560534
9-pin to 25-pin transition cable, 1 ft.	847106945; ED3G1115
RS232 Mini-Tester	407515139

Appendix B — Connector Pinouts

Connections from the Equinox card on the MAP to the hospitality adjuncts (PMS or call accounting) can often cause problems. The following list gives you the pinouts and EIA leads provided when using a D6AP modular cord from the Equinox card to the Equinox 10/10 adapter (P/N:210068, comcode 406983155). These pinouts are on the 25-pin end of the adapter.

- Pin 2 - TD (transmit data)
- Pin 3 - RD (receive data)
- Pin 7 - GND (ground)
- Pin 8 - DCD (data carrier detect)
- Pin 20 - DTR (data terminal ready).

This arrangement of EIA is standard in the industry, but these pinouts may become valuable if the adjunct vendor needs to provide a special adapter to interface to this arrangement.

Appendix C — List PMS Down Events

Whenever an error occurs between the switch and the PMS, a log of the event is kept on the switch. The following is an example of some PMS down events and reasons.

```
list pms-down                                                    Page   1
                PROPERTY MANAGEMENT SYSTEM ACTIVITY

Extension       Event               Reason              Date/Time
   2900         from room, code 1   active - nopms      18/20:10 PM
   3100         from sta., code 2   active - nopms      18/21:00 PM
   3344         checkout, MWL off   PMS Link Out        18/21:25 PM
   3302         room check in       PMS Link Out        18/21:34 PM
   3320         PBX chng stn rstr   active - nopms      18/22:00 PM
```

You can use these events to troubleshoot link problems or verify link events. If there is a log printer installed and administered on the switch, these events are logged to that printer as they occur. If there is not a log printer, the **list pms-down** command displays the events that occurred on the switch for the last 24 hours. The **list pms-down long** command displays the last 100 events that occurred on the switch, regardless of time frame. Table 14 is a listing of the events and their meanings, and Table 15 is a listing of the reasons and their meanings.

Table 14. PMS Down Events

Event	Meaning
checkin, occupied	Check in confirmed; room already occupied
checkout, message	Check out confirmed; messages exist
checkout, MWL off	Check out confirmed; MWL off
checkout, MWL on	Check out confirmed; MWL on
checkout, vacant	Check out confirmed; room already vacant
cnf data link rel	Confirm data link release
end data swap	End of database exchange
from room, code 1	Housekeeping from room; process code 1
from room, code 2	Housekeeping from room; process code 2
from room, code 3	Housekeeping from room; process code 3
from room, code 4	Housekeeping from room; process code 4
from room, code 5	Housekeeping from room; process code 5
from room, code 6	Housekeeping from room; process code 6
from room, PMS acc	PMS accepts housekeeping status change from room
from room, PMS rej	PMS rejects housekeeping status change from room
from stn, code 1	housekeeping from station; process code 1
from stn, code 2	Housekeeping from station; process code 2

Table 14. PMS Down Events — Continued

Event	Meaning
from stn, code 3	Housekeeping from station; process code 3
from stn, code 4	Housekeeping from station; process code 4
from stn, PMS acc	PMS accepts housekeeping status change from station
from stn, PMS rej	PMS rejects housekeeping status change from station
gst info: complt	Guest info completed
gst info: no chg	Guest info no change
gst info: request	Guest info request
gst info: vacant	Guest info vacant
invalid PMS msg	Switch received a message with either a bad feature code or process code
MWL, another type	PMS attempted clearing MWL
PBX chng stn rstr	Switch change the station's restriction value
PBX cleared MWL	Switch cleared a station's MWL
PBX enabled MWL	Switch enabled a station's MWL
PBX room image	Switch's room data image for synchronization
PMS chng stn rstr	PMS changes station's restriction value
PMS cleared MWL	PMS wants station's MWL cleared
PMS enabled MWL	PMS wants station's MWL enabled
PMS room change	Room change message from PMS
PMS room image	PMS's room data image for synchronization
PMS room swap	Room swap message from PMS
req data link rel	Request data link release
room ch/sw error	Room change/swap data error
room checkin	Room check-in
room checkout	Switch is to check-out room
room data request	Room data request
room data resp	Room data response
start data swap	Start of database exchange
status inquiry	Status inquiry from PMS
status : OK	Status response: OK
status : PBX init	Status response: switch-initiated
status : UC	Status response: uncommunicated changes

Table 15. PMS Down Reasons

Reason	Meaning
active-nopms	Feature is active, no PMS
ADX link out	AUDIX link is out of service
ADX rej msg	AUDIX rejected message
PBX bfr ovfl	Switch buffer overflow
PBX rej msg	Switch rejected message
PMS link out	PMS link is out of service
PMS prot vio	PMS protocol violation
PMS rej msg	PMS rejected the message
rcv viol msg	Received violation message
viol:bad cp	Coverage path not within allowed range or equal to a special code representing the “Default Coverage Path for Client Rooms”
viol:bad ext	Extension does not exist or does not have a client room COS
viol:bad fea	Invalid feature code
viol:bad fmt	Message format not correct (for example, 0xff characters or 0xf bytes not present where required)
viol:bad mw	Invalid Message Waiting message
viol:bad nm	At least one name character is invalid
viol:bad occ	Invalid occurrence
viol:bad pro	Invalid process code for the associated feature code
viol:bad res	Invalid restriction level
xmt viol msg	Transmitted violation message

Appendix D — Homisco Call Record Format

This appendix provides a copy of the Homisco call record format for call accounting. Share this information with the PMS vendor before the installation, if possible.

Call Record Format

```
01--   <STX>Start Of Text
02--05 Call ID
06--   Space
07--09 Hotel Identifier (3 char.)
10--   Space
11--15 Date Field
16--   Space
17--22 Extension Field (left-justified)
23--27 Time of Day (24-hour clock)
28--   Space
29--32 Duration Field
33--   Space
34--40 Price Field (including “$” and “.”)
41--   Space
42--57 Number Dialed Field (left-justified)
58--   Call Type Identifier (L=Local, F=Foreign)
59--   <ETX> End of Text
60--   Check Sum (may be disregarded)
```

Examples of Call Record Format

```
<STX>0001 PPH 08/12 1102  10:02 0004 $003.34 617-234-9876     <ETX>a
<STX>0002 PPH 08/12 303   10:16 0011 $012.56 3438754923      F<ETX>P
<STX>0003 PPH 08/12 72101 11:01 0001 $000.60 555-1212         <ETX>M
<STX>0004 PPH 08/12 1309  11:15 0006 $000.75 399-1000        L<ETX>+
<STX>0005 PPH 08/12 723   13:27 0018 $000.50 610-375-3876     <ETX>!
<STX>0006 PPH 08/12 505   13:45 0001 $000.60 411             L<ETX>8
<STX>0007 PPH 08/12 72100713:59 0003 $002.18 332-7845         <ETX>*
```

Message Exchange

```
Homisco                    PMS
  ENQ ------------>
           <---------------ACK
 TEXT------------->
           <-------------ACK/NAK
```

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We'd like your opinion.

Lucent Technologies welcomes your feedback on this document. Your comments can be of great value in helping us improve our documentation.

GuestWorks® Issue 5 Technician Handbook
555-231-108, Issue 2, January 2000, Comcode 108436551

1. Please rate the effectiveness of this document in the following areas:

	Excellent	Good	Fair	Poor
Ease of Finding Information				
Clarity				
Completeness				
Accuracy				
Organization				
Appearance				
Examples				
Illustrations				
Overall Satisfaction				

2. Please check the ways you feel we could improve this document:

- ❒ Improve the overview/introduction
- ❒ Improve the table of contents
- ❒ Improve the organization
- ❒ Add more figures
- ❒ Add more examples
- ❒ Add more detail
- ❒ Make it more concise
- ❒ Add more step-by-step procedures/tutorials
- ❒ Add more troubleshooting information
- ❒ Make it less technical
- ❒ Add more/better quick reference aids
- ❒ Improve the index

Please add details about your concern._____

_____

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3. What did you like most about this document?_____

_____

_____

4. Feel free to write any comments below or on an attached sheet._____

_____

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