

518-455-310
September 1991

PARTNER™ II

Communications System

Release 1

Installation and Use

AT&T—Proprietary

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Notice

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This equipment has been tested and found to comply with the limits of a Class A digital device, pursuant to Part 15 of FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference, in which case the user will have to correct the interference at his or her own expense. For additional FCC interference, registration, and repair information, see Appendix D of this book.

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Warranty

AT&T provides a limited warranty to this product. Refer to "AT&T Limited Warranty and Limitation of Liability" in Appendix B of this book.

Ordering Information

The order number for this book is 518-455-310. To order additional books, call 1 800 432-6600 in the U.S. and 1 800 255-1242 in Canada. For more information on how to order this and other system reference materials, see "Reference Materials" in "About This Guide." For information on ordering replacement parts, accessories, and other compatible equipment, refer to "Product Ordering Information" in Appendix B.

Support Telephone Numbers

AT&T provides a toll-free customer helpline 24 hours a day. In the U.S. call the AT&T Helpline at 1 800 628-2888 if you need assistance when installing, programming, or using your system. In Canada, call one of the following Technical Assistance Centers for service or technical assistance:

Eastern Canada and Ottawa:	1 800 363-1882
Ontario:	1 800 387-4268
Central and Western Canada:	1 800 663-9817

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About This Guide

Purpose

PARTNER™ II Installation and Use explains what the PARTNER II Communications System can do, provides instructions for using the system, and shows you how to get the most out of its many features and capabilities.

How to Use This Guide

- If you are a new user, read Chapters 1, 3, and 4 to familiarize yourself with the system's features and to learn how to program your phone and handle calls.
- If you are installing the system for the first time, we suggest you read Chapters 1 through 3, which will give you an overview of the system components, and instructions for installing and programming them. If you are installing auxiliary devices, also see Chapter 5.
- If you are adding equipment to an existing system, see Chapter 2, "Installing the Hardware," Chapter 3, "Programming," and Chapter 5, "Using Auxiliary Equipment."
- If you need to reprogram the system or individual extensions, see Chapter 3, "Programming," or the Programming Quick Reference sections at the back of this book.
- Once you are experienced with the system, use the Table of Contents or Index to locate the information you need.

Product Safety Statements

This book contains several product safety statements, identified by a .



CAUTION:

Indicates the presence of a hazard that will or can cause minor personal injury or property damage if the hazard is not avoided.

**WARNING:**

Indicates the presence of a hazard that can cause severe or fatal personal injury if the hazard is not avoided.

Carefully read the **WARNING** statement on page 2-7. Opening the system modules or backplane will expose you to hazardous voltages, which can cause severe or fatal personal injury. Also, read "Important Safety Instructions" on page 2-ii before performing any installation procedures.

Terminology

This guide refers to AT&T telephones specifically designed to work with the PARTNER II system as *system phones*. System phones include the MLS-34D, MLS-12D, MLS-12, MLS-6, and MLC-6 model telephones. When specific models are discussed, the model numbers are given.

You can also use industry-standard telephones with the system. This guide refers to such telephones as *standard phones*.

Reference Materials

These reference materials are available to help you install, program, and use the system (the order numbers are in parentheses):

- *Installation and Use* (518-455-310) provides instructions for installing, programming, and using the system.
- *Quick Reference for Use with MLS-Series Telephones* (518-455-305, package of 6) contains basic instructions for using system phones.
- *MLC-6 Cordless Telephone: Installation and Troubleshooting* (999-506-143) explains how to install the MLC-6 cordless telephone and how to solve any difficulties that might occur when using it.
- *MLC-6 Cordless Telephone Quick Reference: Display and Controls* (999-506-146) explains how to use the MLC-6 cordless telephone with your system.

To order the above reference materials, call the AT&T Customer Information Center:

In the U.S.: 1 800 432-6600

In Canada: 1 800 255-1242

In addition, a *System Planner* (GBS-123) provides the forms needed to plan and record how your system and telephones are to be programmed. You can order the Planner from AT&T Forms Services at 1 800 367-6487.

How to Comment on This Guide

A feedback form is located at the end of this guide, after the appendixes. If the form is missing, send your comments and recommendations for changes to A. Sherwood, AT&T, 99 Jefferson Road (Room 2A-25), Parsippany, NJ 07054 (fax 201 887-6898).

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Overview

Managing the System

This guide explains everything you need to know about using your PARTNER™ II Communications System. If you are responsible for managing the system—whether you are a receptionist, an office manager, or the “resident expert” on using it—you will find instructions and advice on the following topics:

- **Installing System Hardware.** If your company already has modular jacks for all outside lines and extensions, you may be able to use the existing wiring to install the system hardware and connect telephones to the system yourself (see Chapter 2 for installation instructions). If you prefer to have an AT&T service technician perform the installation and customize your system, call 1 800 247-7000 or call your AT&T authorized dealer.

The system supports a wide variety of auxiliary equipment, including fax machines, modems, answering machines, credit card scanners, automated attendants, and call reporting devices. See Chapter 5 for advice on setting up these devices to work effectively with the system.

- **Customizing the System.** You can change your system's settings easily to accommodate new or expanding needs. Chapter 3 gives instructions for making whatever changes are needed—from programming the system to recognize newly added telephone lines to programming newly purchased telephones. It will help you decide how to set up your system and telephones to meet your business's needs and gives detailed programming instructions.
- **Training Co-Workers.** Chapter 4 explains how to handle calls and use the system's features effectively. To help with this task, give each telephone user a *Quick Reference* card and filled-in copies of the “Speed Dial” form in the *System Planner* or Appendix A of this book.

-
- **Solving Problems.** Appendix B provides information on solving problems and ordering additional accessories and equipment. If your system or telephones malfunction, you may be able to solve the problem by following the steps provided in the “Troubleshooting” section of that appendix. If you still need help, call the 24-hour AT&T Helpline at 1 800 628-2888.
 - **Daily Operation.** Depending on how your system is set up, you may need to oversee some of the system's daily operations. For example, if your system is programmed to use the Night Service feature, you will need to turn on Night Service at the end of each day before leaving the office. (See “Using Night Service” in Chapter 4.)

Features and Capabilities

The following list provides an overview of the system's basic features, along with the additional capabilities that you can get by customizing it:

- Provides a maximum capacity of either 24 lines and 24 extensions, or 16 lines and 48 extensions.
- Uses interchangeable parts, making the system easy to install, maintain, and upgrade.
- Provides each extension with access to multiple lines from one phone.
- Supports industry-standard touch-tone and rotary telephones.
- Supports two extensions (10 and 11) for system programming.
- Supports up to two Intercom Autodialers at each programming extension—for dialing and transferring calls to other system extensions with one touch, and for easily seeing which extensions are busy.
- Lets you connect fax machines, answering machines, modems, and credit card scanners directly to your phone system. Therefore, you do not have to buy extra lines or expensive adapters to connect these devices to the system.
- Displays prompts and messages to guide you when programming, making it easy for you to change the way the system and phones are programmed.
- Includes the following flexible dialing restrictions and permissions so you can control telephone activity and phone bills:
 - Line Access Restrictions and Outgoing Call Restrictions that restrict the kinds of calls a user can make on outside lines
 - Disallowed Lists that prevent users from dialing certain telephone numbers (such as 900 numbers)
 - Allowed Lists, System Password, Marked System Speed Dial numbers, and Emergency numbers for overriding dialing restrictions
- Combines simplicity of use with a wide range of features, including:
 - Speed Dialing
 - Conferencing

-
- Last Number Redial
 - Do Not Disturb
 - Privacy
 - Hold
 - Exclusive Hold
 - Transfer
 - Loudspeaker Paging
 - Call Forwarding
 - Direct Line Pickup
 - Supports the following groups of extensions for flexibility in directing and answering calls:
 - Calling Groups allow users to ring or page (voice-signal) a group of extensions at once
 - Call Pickup Groups allow users to answer incoming calls ringing at any extension in a group
 - Extension Hunt Groups allow users to ring or page the first available extension in a group
 - Night Service Group prevents unauthorized use of telephones after normal business hours while allowing incoming calls to be answered
 - Allows you to make and answer calls during a power failure (with standard phones), while retaining programmed settings for up to four days. (An optional Uninterruptible Power Supply, or UPS, is also available to allow full system operation during a power failure.)
 - Supports optional equipment such as doorphones, hotline telephones, automated attendants, paging systems, call reporting devices, music-on-hold* systems, and extra alerts.

* If you use equipment that rebroadcasts music or other copyrighted materials, you may be required to obtain a license from a third party such as ASCAP or BMI. Or, you can purchase a Magic on Hold® system from AT&T, which does not require you to obtain such a license.

System Components

Modular hardware design makes the system easy to install and expand. Figure 1-1 shows the components of the system. A brief description of each component follows the figure.

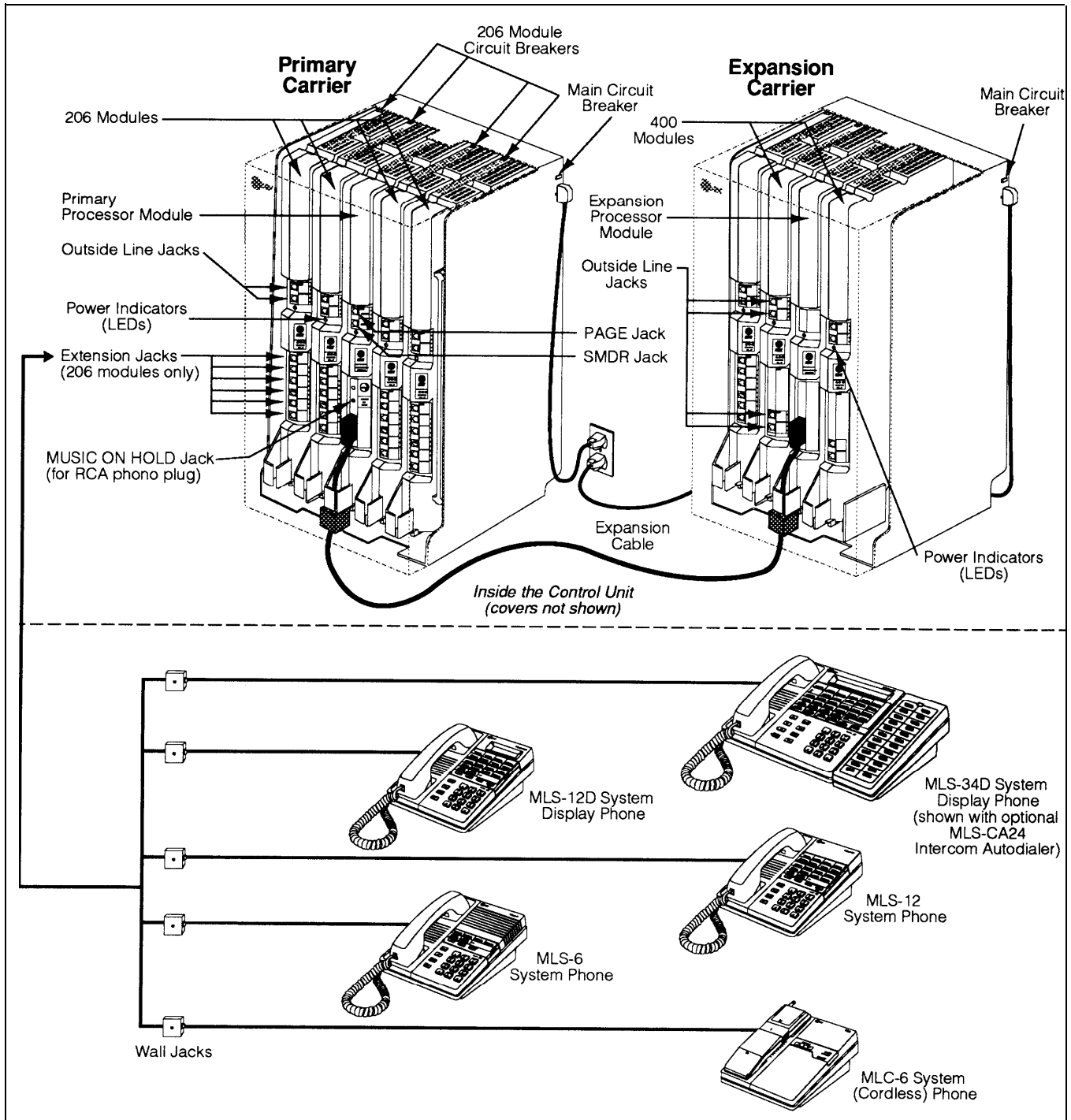


Figure 1-1. System Components

Control Unit

The *control unit* is the heart of the system; it is made up of one or two *carriers*, which house the *system modules*. A fully loaded system has two carriers, referred to as the *primary carrier* and the *expansion carrier*. Each carrier housing includes a *backplane* and a *cover*. All system modules slide into the backplane, which channels power to the system. The cover slides onto the front of the backplane after all the system modules have been installed.

System Modules

The following system modules can be installed in your system:

- **Primary Processor Module.** The primary processor module provides the software intelligence that controls the system's features; it is always installed in the center slot of the *primary carrier*. It has jacks for a music-on-hold audio source, a loudspeaker paging system, and a call reporting device, such as a printer.
- **Expansion Processor Module.** The expansion processor module extends the primary processor module's software capabilities to the lines and extensions located on modules in the *expansion carrier*; it is always installed in the center slot. An expansion cable connects the primary processor module in the primary carrier to the expansion processor module in the expansion carrier.
- **206 Module.** Each 206 module has jacks to connect a maximum of two outside telephone lines and six extensions to the system. You can connect telephones and other telecommunications devices (such as fax machines, answering machines, or modems) to the extension jacks on the 206 module (either directly or through your building's extension jacks). Each 206 module has a green power indicator that shows it is receiving power. *The system requires at least one 206 module in the leftmost slot of the primary carrier.*
- **400 Module.** The 400 module is similar to the 206 module, but without extension jacks. It has jacks for four outside lines. The module is an inexpensive way to add lines when you do not need more extensions. *(If you are upgrading from a PARTNER or PARTNER Plus System, you can still use its 200 modules, each providing two line jacks.)*

System Capacity

The combination of 206 and 400 modules you install in the control unit determines the number of available lines and extensions. The system will allow up to 24 lines and up to 48 extensions; however, these cannot be achieved simultaneously:

- For maximum *line* capacity (24 lines), install four 206 modules and four 400 modules. When maximizing line capacity, you are limited to 24 extensions.
- For maximum *extension* capacity (48 extensions), install eight 206 modules. When maximizing extension capacity, you are limited to 16 lines.

Telephones

System Telephones

AT&T MLS- and MLC-model telephones are designed to make maximum use of the system's features. They have several buttons in common: two volume control buttons, two intercom buttons, and the [*Feature*], [*Conf*], [*Transfer*], and [*Hold*] buttons.

The five system phones and their additional features are:

- **AT&T MLS-34D™ Telephone.** This phone is the best choice for extensions 10 and 11—typically the extensions used by the system manager, receptionist, or operator—and for anyone else who makes many outside calls or wants to program many features onto their phones. It has 34 buttons with status lights—two intercom buttons and 32 others that can be used for outside lines, Auto Dial numbers, or programmable features. It also has a built-in speaker and microphone (for dialing and having a conversation without lifting the handset) and a display that shows the following:
 - Current date, day, and time
 - Number dialed and elapsed time (when making a call)
 - Extension number calling you or transferring a call to you (when receiving an inside call)
 - Prompts and messages (when programming the system)
 - **AT&T MLS-12D™ Telephone.** This phone has 12 buttons with lights—two intercom buttons and ten others that can be used for outside lines, Auto Dial numbers, or programmable features. It also has six programmable buttons without lights, for features that do not require lights (such as Last Number Redial). It has a built-in speaker and microphone, and a display similar to the one on the MLS-34D.
- NOTE:**
An MLS-34D or MLS-12D is *required* for system programming. Use the MLS-12D only if there are no MLS-34D phones in the system.
- **AT&T MLS-12™ Telephone.** This telephone has all the features of the MLS-12D telephone, but without a display.
 - **AT&T MLS-6™ Telephone.** This telephone has six buttons with lights—two intercom buttons and four others that can be used for outside lines, Auto Dial numbers, or programmable features. It also has a built-in speaker but no microphone. This means that a user can dial a number without lifting the handset, but must lift the handset to speak when the party answers.
 - **AT&T MLC-6™ Cordless Telephone.** This cordless telephone works like the MLS-6 corded telephone. It has six buttons—two intercom buttons and four others for outside lines, Auto Dial numbers, or programmable features. It also includes a display that shows line status, an On/Off button that must be pressed before using the phone (to save battery power), and some special cordless feature buttons.

Standard Telephones

Standard phones are industry-standard (non-proprietary) rotary or touch-tone phones, including feature phones with built-in feature buttons and lights. See “Industry-Standard Devices” in the following section for more information on standard phones.

Auxiliary Equipment

The system works with many telecommunications devices, not only system phones. You can connect industry-standard devices to your system, and certain models of other devices, all without expensive adapters or additional phone lines.

Industry-Standard Devices

Many *industry-standard, single-line* telecommunications devices will work with the system:

- Touch-tone, rotary, and cordless telephones (such as those you might have in your home)
- Fax machines
- Answering machines
- Modems
- Credit card scanners
- Automated attendants

Limitations

You can connect standard devices to your system, regardless of the manufacturer. The following limitations apply:

- It must be industry-standard and non-proprietary. That is, it cannot be made specifically for use on a particular telephone system. (For example, you cannot connect an AT&T MERLIN® phone because it is specifically designed for use on a MERLIN system.)
- Its Ringer Equivalence Number (REN*) cannot be greater than 2.0. (The REN is shown on a label on the device, usually on the bottom.)

NOTE:

You can connect a multiple-line device to the system, but for best results it should be installed and used as if it were a single-line device.

*

REN is a measure of the power it takes to ring a phone. The typical home phone line handles 4.0–5.0 RENs; each extension jack in your system handles up to 2.0 RENs.

Connecting and Using Standard Devices

You can connect a standard device so that it is on an extension by itself, or so that it shares an extension with another piece of equipment (either another standard device or a system phone). An extension with two devices connected to it is called a *combination extension*. For example, you can connect a standard touch-tone phone and an answering machine to the same extension. To connect two devices on one extension, you need an inexpensive AT&T 267F2 bridging adapter (two are provided with each 206 module). See Chapter 2 for installation instructions.

For additional information on programming and using fax machines, answering machines, modems, or credit card scanners, see Chapter 5.

Other Devices

You can connect other devices to your system, but *only specific models are compatible with the system*. These devices include:

- **MLS-CA24 Intercom Autodialers with Busy Indication** allow the users at extensions 10 and 11 to see which extensions are busy and to automatically dial or transfer calls to them. (The technical names for these features are *Busy Lamp Fields [BLF]* and *Direct Station Select [DSS]*). The system supports up to two AT&T MLS-CA24 Intercom Autodialers at both programming extensions; each autodialer has buttons for 24 extensions.
- **Call accounting devices and printers** allow the system manager to print call reports. The call accounting device or printer connects directly to the primary processor module in the primary carrier. See “Call Reporting Devices (SMDR)” in Chapter 5 for more information.
- **Doorphones** allow visitors to ring up to 5 extensions at once by pressing a button on the doorphone; the person who answers a doorphone call can then speak with the visitor at the doorphone. The system supports up to two AT&T PARTNER Plus/II doorphones, which can be installed indoors or outdoors. A doorphone is especially useful for providing access to offices or departments after hours. For example, you can install a doorphone outside your building entrance to allow visitors to ring telephones inside the building when the receptionist is not there and the front door is locked.
- **Loudspeaker paging systems** allow you to broadcast a message over a large area, by connecting the paging system directly to the PAGE jack on the primary processor module. The system supports all AT&T paging systems. For information on how to use a loudspeaker paging system with the system, see Chapter 4.
- **Music-on-hold systems** allow you to play recorded music to callers while they are on hold, by connecting the music-on-hold system to the primary processor module. The system supports the AT&T Magic on Hold® system and most models from other manufacturers.
- **Extra alerts** are strobes, lights, chimes, horns, or bells that light or ring when calls come in. They can connect to either extension jacks or line jacks. AT&T offers several compatible alerts.

-
- **In-Range Out-of-Building (IROB) protectors** are required to prevent electrical surges from damaging your system when phones are installed in another building, but on the same continuous property. The system supports the AT&T 504A1 IROB protector, which provides coverage over a distance of 3,000 feet for standard phones and 1,000 feet for system phones. (For installation instructions, refer to the booklet packaged with the IROB protector.)
 - **Speakerphones** provide hands-free two-way operation of a phone without lifting the handset. Combining a speakerphone with an MLS-model system phone or a standard phone on an extension in a conference room or office is an inexpensive way for several people at a meeting to conference in other parties. The system supports the AT&T S203 speakerphone. (MLS-model system phones have built-in speakers, but they are designed for individual use—not group—use.)
 - **Repertory dialers** allow you to store frequently used numbers for one-touch dialing. If a user needs many Auto Dial numbers, a repertory dialer can be combined on an extension with a system or standard phone.
 - **Headsets** allow users to hold private, hands-free conversations. A headset is a combination earphone and microphone worn on the head, useful for receptionists, salespeople, or others who need to have their hands free while talking on the phone. AT&T offers several compatible headsets.
 - **Handsets for hard-of-hearing users** are designed for those who need even more amplification than is provided by the volume controls on system phones. Although the volume controls on system phones significantly reduce the need for an amplified handset, hard-of-hearing users may find that the AT&T K6S handset meets their needs.

Chapter 2 explains how to connect standard devices to the system and how to combine them on a single extension.

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Important Safety Instructions

Always follow these basic safety precautions when using the system:

1. Read and understand all instructions.
2. Follow all warnings and instructions marked on the product.
3. **DO NOT** block or cover the ventilation slots and openings. They prevent the product from overheating. **DO NOT** place the product in a separate enclosure unless proper ventilation is provided.
4. Never spill liquid on the product or drop objects into the ventilation slots and openings. Doing so may result in serious damage to the components.
5. Repair or service must be performed by a qualified repair person.
6. The product is provided with a three-wire grounding type plug. This is a safety feature. **DO NOT** defeat the safety purpose of the grounding type plug. **DO NOT** staple or otherwise attach the AC power supply cord to building surfaces.
7. **DO NOT** use the product near water or in a wet or damp place (such as a wet basement).

Additional Safety Instructions for Installation Personnel

1. **DO NOT** install telephone wiring during a lightning storm.
2. **DO NOT** install telephone jacks in a wet location unless the jack is specifically designed for wet locations.
3. Never touch uninsulated telephone wires or terminals, unless the telephone line has been disconnected at the network interface.
4. Use caution when installing or modifying telephone lines.
5. The system carriers must be securely wall mounted.



CAUTION:

If any wiring from the extension jacks leaves the building premises, you must install AT&T 504A1 IROB protectors (see Appendix C, "Requirements for Out-of-Building Extensions").



CAUTION:

Use only AT&T-manufactured PARTNER modules in the PARTNER II Communications System.



CAUTION:

Environmental and electrical conditions must meet the specifications in Appendix C.

SAVE THESE INSTRUCTIONS

This chapter explains how to install the system. It begins with general guidelines to consider before installation, followed by an example setup. It ends with step-by-step instructions for connecting and testing the components. Follow the instructions that apply to your setup.

IMPORTANT:

Before installation, record your setup choices in the System Planner, available separately.

Installation Guidelines

Placement of Carriers and Modules

- **Carriers.** You will be installing either one or two carriers, depending on the number of lines and extensions you have. *If you are going to install the expansion carrier, plan to install it to the right of the primary carrier, leaving at least six inches of space between the carriers and not more than 24 inches for proper cable connection.* Install the backplane(s) within five feet of a grounded 110 VAC electrical outlet (not controlled by a switch) and the network interface jacks. If installing two carriers, both must be connected to the same power outlet. In addition, when you mount the backplane(s) on the wall, leave at least six inches of clearance at the top and sides, and two feet at the front and bottom. For each carrier, you will need to obtain four #12 screws of the appropriate type for the wall and weight of the carrier (a carrier with four 206 modules and a processor module weighs approximately 27.5 pounds or 12.3 kilograms).
- **System Modules.** In the primary carrier, you must install the primary processor module in the *center* slot and one 206 module in the *leftmost* slot. If you are installing the expansion carrier, you must install the expansion processor module in its center slot. In the remaining slots, you can install more 206 or 400 modules. However, to ensure consecutive numbering of extensions, install any 206 modules to the *left* of any 400 modules.

Line and Extension Numbering

Outside lines connect to the top two jacks on 206 modules and any jack on 400 modules. For each 206 module, the system assigns two lines and six extensions; for each 400 module, the system assigns four lines. The system numbers the lines from 01 through 24 (if you have the maximum number of lines), and numbers the extensions 10 through 57 (if you have the maximum number of extensions).

Figure 2-1 shows line and extension numbering for a system containing both 206 and 400 modules.

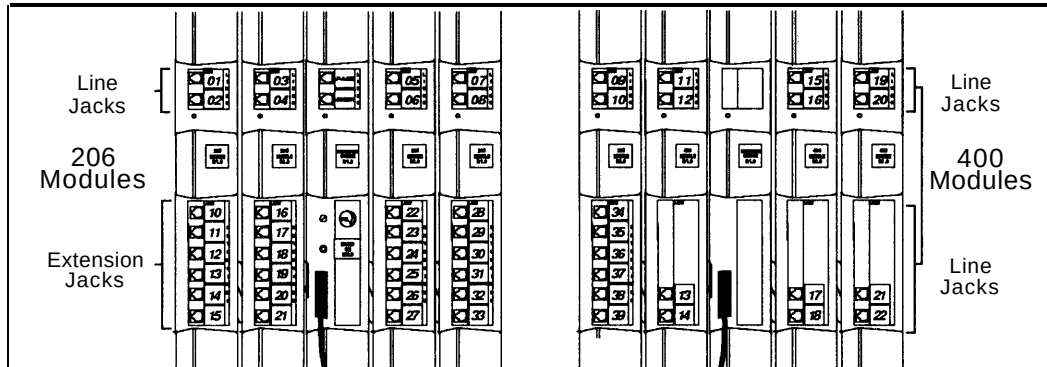


Figure 2-1. Line and Extension Numbering

Connection of Telephones and Devices

You can connect the following telephones and devices to the system:

- **MLS- and MLC-Model System Phones.** System phones require at least two-pair wiring and are compatible with AT&T 4-pair SYSTIMAX™ wiring. If you need a shorter cord, use AT&T's two-foot D4BU-29 mounting cord (available separately—see “Product Ordering Information” in Appendix B). An MLS-34D or MLS-12D is required for system programming at extension 10 or 11. Use an MLS-12D only if there are no MLS-34D phones in the system.
- **MLS-CA24 Intercom Autodialers with Busy Indication.** You can connect up to two Intercom Autodialers to each system phone at extensions 10 and 11 (maximum four per system). The Intercom Autodialer has its own power supply, which must be plugged into an AC outlet. (Two autodialers can share one power supply.)
- **Industry-Standard Devices.** Industry-standard devices (including standard phones) require one-pair mounting cords; AT&T D2R mounting cords are recommended.
- **Standard Phones.** Connect standard touch-tone or rotary dial phones to the system for:

- **Power Failure Operation.** During a power failure, system phones will not work because they require power to operate. However, if standard phones are connected to extensions 10, 16, 22, 28, 34, 40, 46, or 52, they can place and answer outside calls on lines 1, 3, 5, 7, 9, 11, 13, or 15, respectively. Connect a standard phone to one or more of these extensions, either alone or combined with a system phone. (If you combine a standard phone and a system phone on one extension, you may want to turn off the standard phone's ringer during normal use.)
- **Hotlines.** A hotline phone must be a standard phone—not a system telephone—but can ring any type of phone. A hotline phone can also be set up to ring the paging system, so announcements can be made over the loudspeaker. Do not connect a Hotline phone to extensions 10, 16, 22, 28, 34, 40, 46, or 52, to keep them available for power failure use.
- **Auxiliary Equipment.** There are a variety of ways to set up fax machines, modems, answering machines, and automated attendants to work with the system. See Chapter 5 for advice on setting up this equipment. To connect a telephone and a standard device on the same extension, see “Combination Extensions” below.
- **Doorphones.** You can connect up to two doorphones to the system. Do not connect doorphones to extensions 10, 11, 16, 17, 22, 23, 28, 29, 34, 35, 40, 41, 46, 47, 52, or 53.
- **Call Reporting Devices.** You can connect a call reporting device to the SMDR jack on the primary processor module for recording call activity. (For more information, see “Call Reporting Devices (SMDR)” in Chapter 5.)
- **In-Range Out-of-Building Protectors.** Installing phones in a different building from the control unit requires AT&T 504A1 In-Range Out-of-Building (IROB) protectors, to prevent damage due to lightning (installation instructions are included with the protector).

Combination Extensions

You can connect a standard device (such as a standard phone or a fax machine) on an extension by itself, or you can use an AT&T 267F2 bridging adapter (*only*) to combine the standard device with another standard device or with a system phone at one extension jack. You cannot install two system phones on the same extension, and the combined REN of the two devices on an extension must be no more than 2.0. Figure 2-2 shows how to connect the two devices to the bridging adapter at a combination extension.

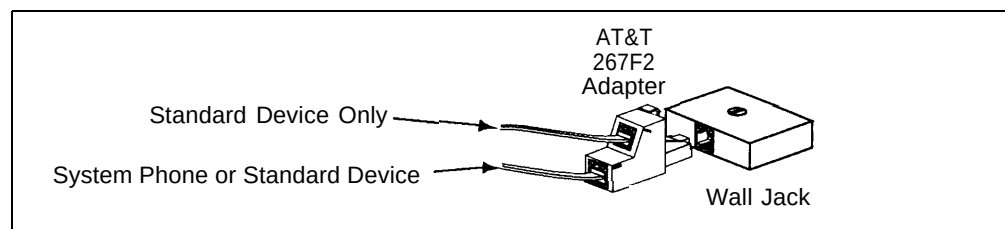


Figure 2-2. Connecting Two Devices on One Extension

An Example System Setup

These two pages show a control unit with two 206 modules and three 400 modules, giving the system a capacity of 16 outside lines and 12 extensions. Although your system will probably differ, this example will give you an idea of the types of equipment you can connect to it. In the example, system phones and industry-standard equipment are connected to ten extensions. The circled numbers in the figure refer to the following list, which gives a brief description of the system's hardware components.

Control Unit

The control unit shows both the primary and the expansion carriers, plus these components:

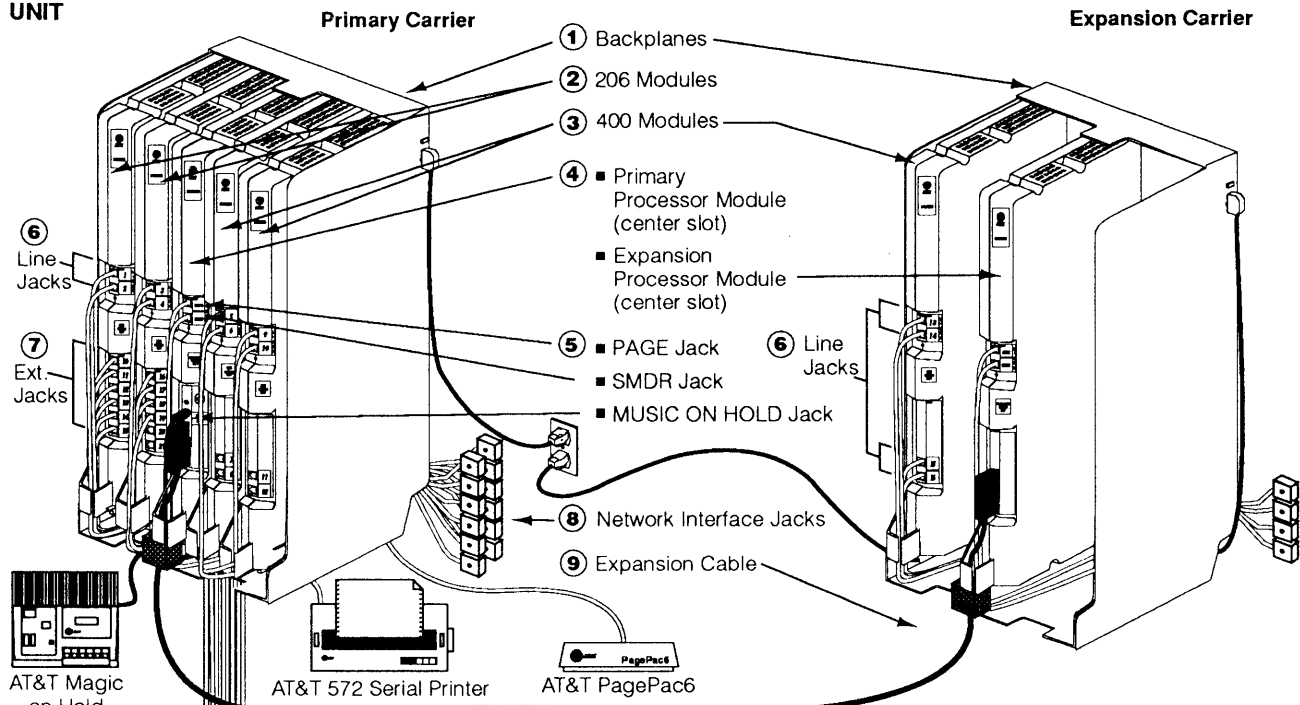
- ① **Backplanes.** The backplanes channel power to the system and connect the system modules.
- ② **206 Modules.** Each 206 module has jacks for two lines and six extensions.
- ③ **400 Modules.** Each 400 module provides four more line jacks but no extensions. *Notice that the 400 modules are installed to the right of the 206 modules.*
- ④ **Primary Processor Module.** The primary processor module contains the software that provides the system's features. It also has PAGE, SMDR (Station Message Detail Recording), and MUSIC ON HOLD jacks. (See ⑤ below.)
Expansion Processor Module. The expansion processor module extends the primary processor module's software intelligence to the modules in the expansion carrier.
- ⑤ The following auxiliary equipment jacks are on the primary processor module:
 - **PAGE.** A loudspeaker paging system plugs directly into this modular jack. The system is compatible with any AT&T aging system, including the AT&T PagePac6® shown here.
 - **SMDR.** A call reporting device connects directly to this jack. AT&T's 572 serial printer is shown here.
 - **MUSIC ON HOLD.** AT&T's Magic on Hold® is connected to this jack to provide customized music and messages for callers on hold. Other types of audio equipment (including a CD player, cassette player, or stereo receiver) can be connected using an audio cord with an RCA phono plug (not supplied).
- ⑥ **Line Jacks.** The top two jacks on each 206 module, and all four jacks on each 400 module, connect to outside telephone lines.
- ⑦ **Extension Jacks.** The bottom six jacks on each 206 module connect inside wiring for telephones and other telecommunications equipment.
- ⑧ **Network Interface Jacks.** These jacks provide access to telephone lines from the local telephone company. Each outside line was connected to the system by plugging one end of the line cord into one of these jacks, and the other end into a line jack on a 206 or 400 module.
- ⑨ **Expansion Cable.** The expansion cable connects the primary processor module to the expansion processor module.

Extensions

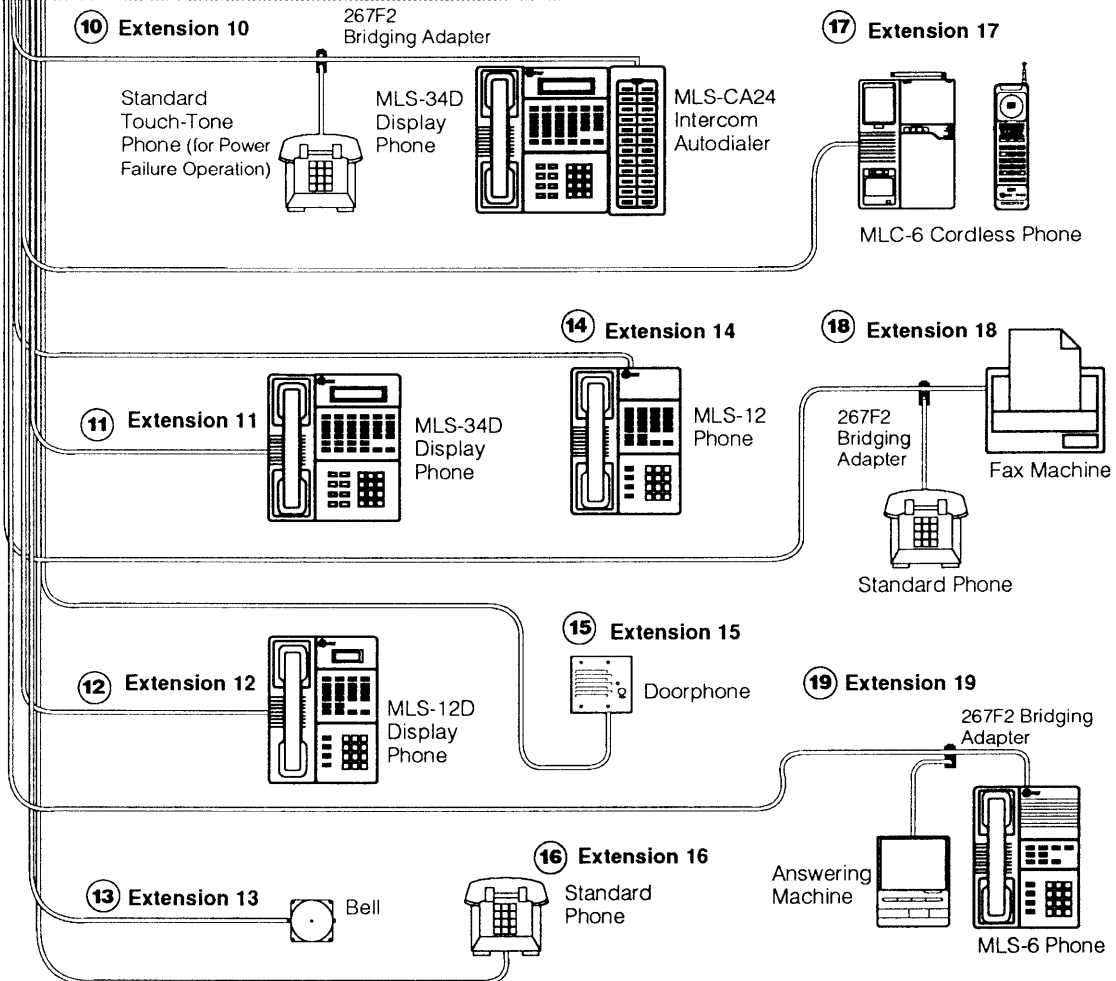
This example shows various devices—including system phones and industry-standard devices—connected to the modular wall jacks at each extension. (The modular wall jacks connect to the extension jacks in the control unit by way of the building's inside wiring.)

- ⑩ **Extension 10:** These devices are connected:
 - **MLS-34D Display Phone.** Typically, the receptionist on extension 10, called the *primary programming extension*, has an MLS-34D display phone like the one shown here.
 - **MLS-CA24 Intercom Autodialer.** An Intercom Autodialer is connected to the phone for dialing extensions and transferring calls to them with one touch, and for seeing which extensions are busy. (A maximum of four Autodialers—two at extension 10 and two at extension 11—can be connected.)
 - **AT&T 267F2 Bridging Adapter.** This adapter permits the connection of two devices—in this example a standard phone and an MLS-34D phone—on one extension jack. (You cannot connect two system phones.) This is called a *combination extension*.
 - **Standard Touch-Tone Phone.** The MLS-34D phone on extension 10 will not work during a power failure; therefore, the receptionist can use the standard phone to place and receive calls on line 1.
 - ⑪ **Extension 11: MLS-34D Display Phone.** Another MLS-34D is connected to extension 11, which is the *backup programming extension*. This means you can program the system from this extension while the receptionist at extension 10 is free to handle calls.
 - ⑫ **Extension 12: MLS-12D Display Phone.** This display phone can handle ten outside lines and has a display showing the time, the number dialed, the duration of calls, and programming messages.
 - ⑬ **Extension 13: Bell.** A loud bell is connected directly to this extension jack.
 - ⑭ **Extension 14: MLS-12 Phone.** This phone is similar to the MLS-12D phone (see ext. 12), but it has no display.
 - ⑮ **Extension 15: Doorphone.** A doorphone is installed at the building entrance. When someone at the entrance presses the button on the doorphone, the designated extensions (five maximum) in the office ring automatically.
 - ⑯ **Extension 16: Standard Phone.** A standard touch-tone phone (such as you might have in your home) is connected directly to the extension jack.
 - ⑰ **Extension 17: MLC-6 Cordless Phone.** An AT&T MLC-6 cordless phone is connected to this extension. It works like the corded MLS-6 system phone.
 - ⑱ **Extension 18: Fax Machine and Standard Phone.** A fax machine and standard phone are connected together on this extension. This setup lets you share the fax line with a telephone. (Alternatively, you can use a system phone at another extension to monitor the fax machine—see page 5-1 for Fax Management).
 - ⑲ **Extension 19: MLS-6 Phone and Answering Machine.** An MLS-6 phone and an answering machine are connected to this extension. (See Chapter 5.)
- NOTE:** An MLS-34D or MLS-12D is required for system programming at extension 10 or 11, or both. Use an MLS-12D only if there are no MLS-34D phones in the system.

CONTROL UNIT



EXTENSIONS



Installation Procedures

Before installing the system, be sure you read the safety instructions on page 2-ii. In addition, be sure you have the parts shown in Figure 2-3 (if not, call the Helpline). You will have up to four packages of system components; Figure 2-3 shows the contents of each package in the area marked by a dashed line.

Required Parts

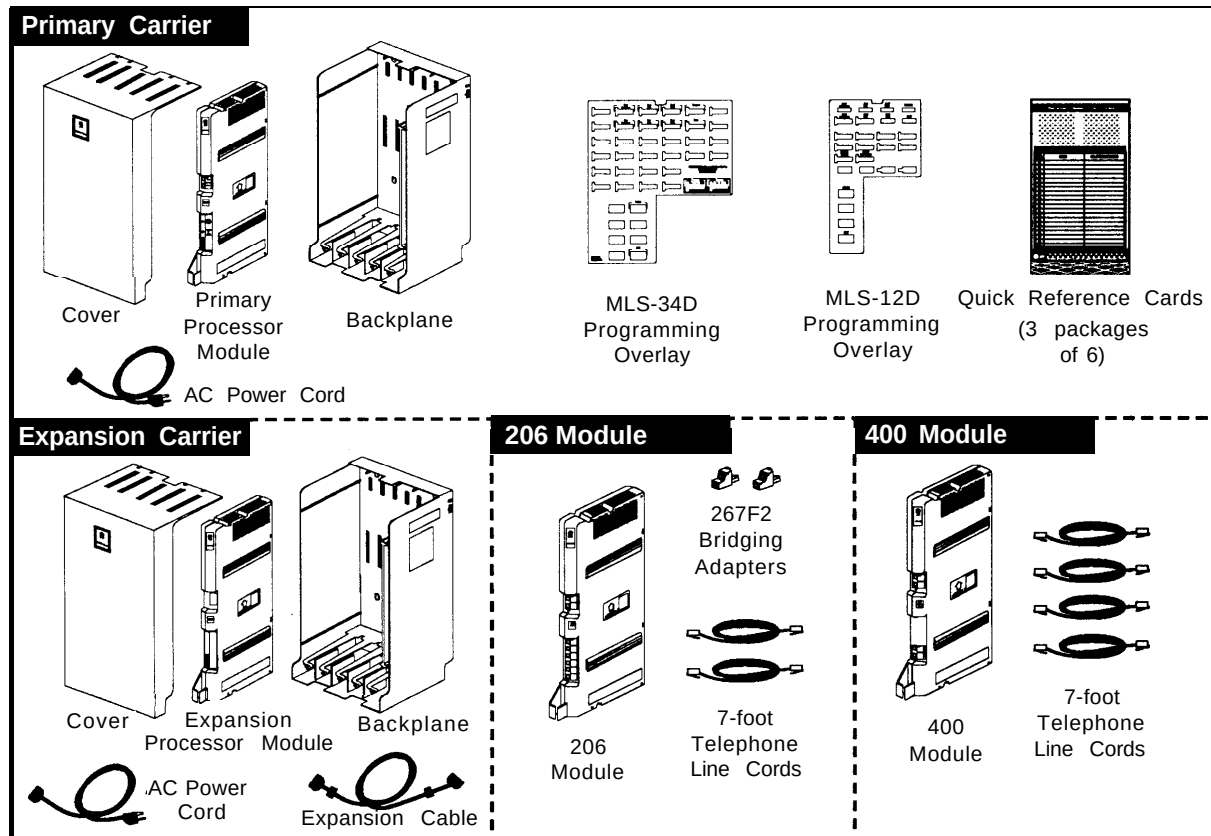
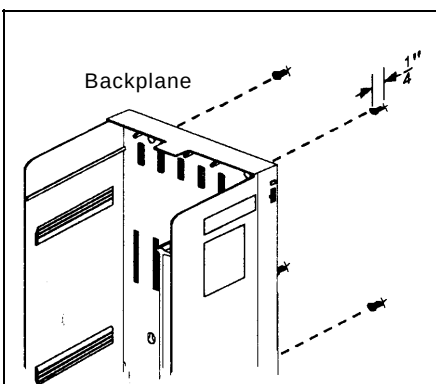
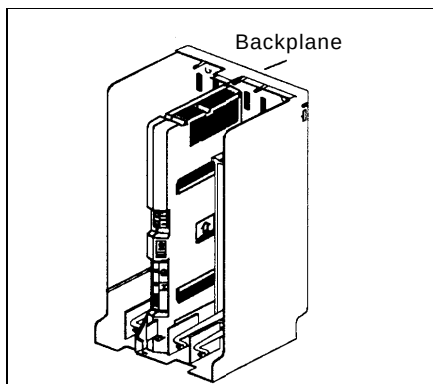


Figure 2-3. Required Parts

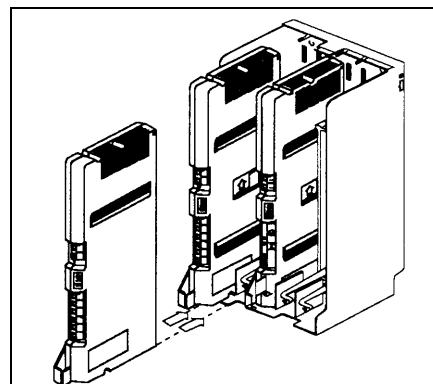
Installing the Carriers and Modules



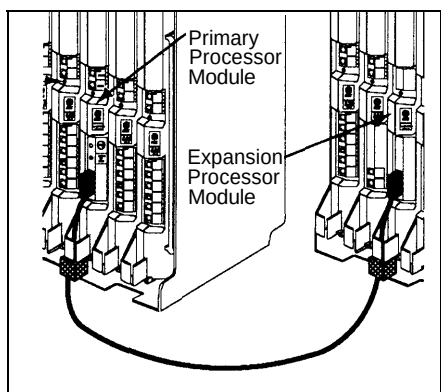
1 A) Hold the backplane against the wall. (If you are also installing the expansion carrier, plan to install it to the *right* of the primary carrier, leaving 6" to 24" between carriers.) Using the four screw keyholes in the backplane as a template, mark screw locations on the wall. Start four #12 screws, leaving the screw heads approximately 1/4" away from the wall. Slip the backplane onto the screws and tighten them. B) If you are mounting the expansion carrier, repeat this step.



2 A) Slide the primary processor module into the *center* slot of the primary carrier. Push slowly but firmly until the module locks into place with two snaps, and is attached to the rear of the backplane and held in place by the locking tab on the bottom of the slot. Do not force the module. If it does not insert easily, remove the module, clear any obstruction, and reinsert. B) If you have an expansion carrier, slide the expansion processor module into its *center* slot until the module locks into place.

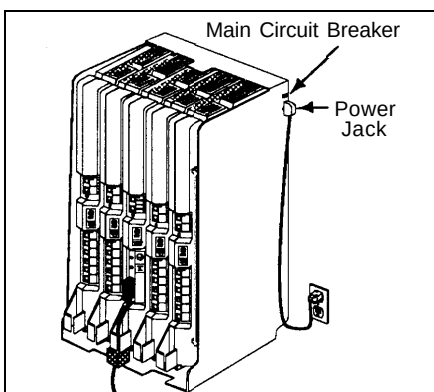


3 Slide the first 206 module into the *leftmost* slot of the primary carrier backplane. (The system will not work if a 206 module is not installed in this slot.) Going from left to right, install 206 modules first, then any 400 (or 200) modules. The 400 modules *must always* be to the right of all 206 modules, so the extensions will be numbered consecutively.

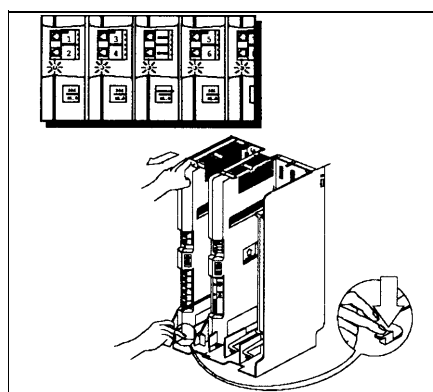


4 If you have installed both carriers, plug the ends of the expansion cable into the two processor modules and tighten the screws. Route both ends of the cable through the hooks on the fronts of the modules.

NOTE: The colored plastic filters on the expansion cable should rest just below the hooks.



5 A) Make sure the main circuit breakers on both carriers are pulled out. B) Press the AC power cord firmly into the power jack on the top right side of the primary carrier's backplane until it locks into place. Plug the other end of the power cord into a three-prong wall outlet not controlled by a switch. Repeat for the expansion carrier, plugging its cord into the same wall outlet. C) Push in the circuit breaker on the expansion carrier *first*, and then push in the circuit breaker on the primary carrier.



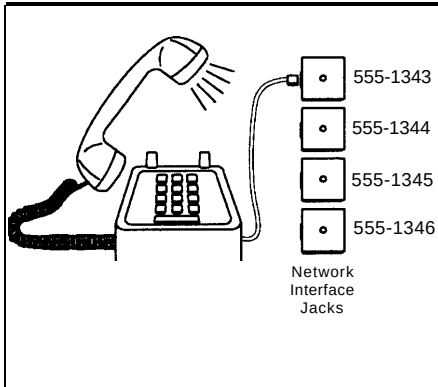
6 Check all green lights on the fronts of the modules. *If a single light is out*, pull out the circuit breakers, reseal the module, then push in the circuit breakers (as you did in step 5C). *If multiple lights are out*, pull out the circuit breakers, reseal the leftmost module of the ones that are out, then push in the circuit breakers. *If the lights are still out*, call the Helpline.



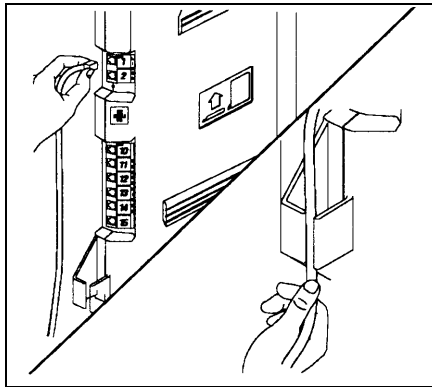
WARNING:

There are no customer-serviceable components inside the system modules or backplane. Hazardous voltages within. **DO NOT OPEN THE MODULES.**

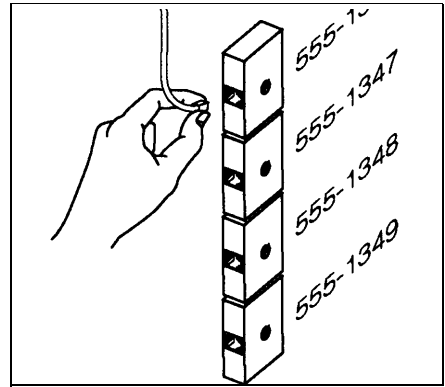
Connecting Lines and Extensions



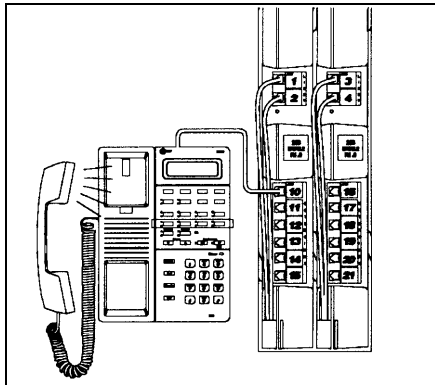
1 Test for dial tone at the network interface jacks before connecting outside lines. Connect a standard touch-tone or rotary phone to the first network interface jack. Lift the handset and listen for dial tone. Repeat for each network interface jack. (If there is no dial tone, contact your local telephone company before continuing.)



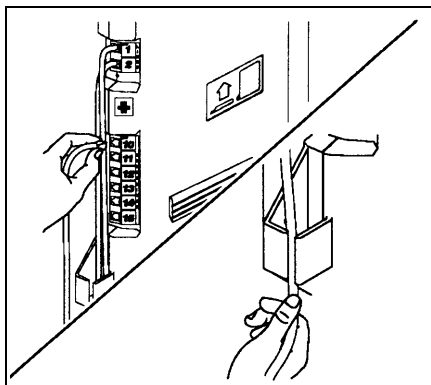
2 A) Connect telephone cords to the line jacks on 206 and 400 modules, starting with the top line jack on the leftmost 206 module. B) Route each cord through the hook on the front of module, then through the slot between the module and the base of the backplane. Leave at least two feet of slack in the cords so you can easily reconnect cords after replacing system modules (see "Replacing a System Module" on page 2-12).



3 Connect the free end of each line cord to the appropriate network interface jack.



4 Test the lines. Plug a system phone into extension 10. Press the line buttons for each outside line and listen for dial tone. Repeat for extensions 16, 22, 28, 34, 40, 46, and 52 (if available).

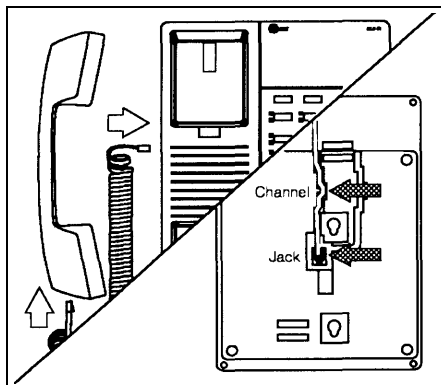


5 A) Connect modular telephone cords to 206 module extension jacks, starting at the top jack on the leftmost module. B) Route each cord through the hook on the front of the module, then through the slot between the module and the base of the backplane. Leave at least two feet of slack to allow easy replacement of system modules (see "Replacing a System Module" on page 2-12). Connect each cord to the appropriate wall jack.

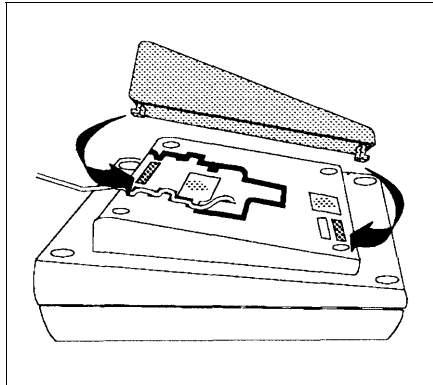
NOTE: If extensions are not wired to any modular jacks, call a qualified service technician.

Assembling System Phones

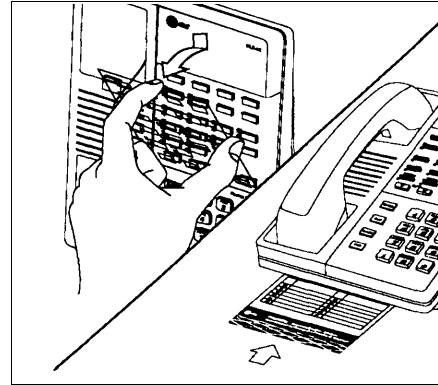
Desk Mounting (stand required for MLS-34D; optional for other system phones)



1 A) Plug one end of the handset cord into the jack on the handset and the other end into the small jack on the left side of the base. If installing an MLS-34D, go directly to step 2 (skip 1B). B) Plug one end of the phone cord into the big jack on the bottom of the phone. Push the cord into place along the channel on the bottom of the phone. If you want to raise the angle of the phone, go to step 2 and install the telephone stand. If not, go to step 3.



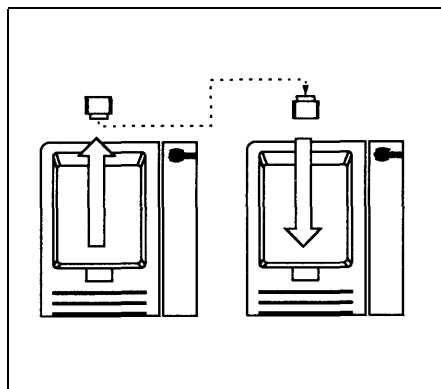
2 To install the telephone stand (required for the MLS-34D), gently place the phone upside down, with the low end of the phone to your right. Insert the tab on the narrow end of the stand into the right slot on the bottom of the phone. (For an MLS-34D phone, feed the cord through the stand and plug it in.) Then insert the other tab into the left slot, pushing the stand down and slightly inward until the tab locks into place.



3 A) Remove the plastic cover from the phone and place a labeled button sheet on the phone so the holes on the sheet fit over the buttons. Carefully replace the plastic cover. B) Slide the *Quick Reference* card under the telephone.

NOTE: If you wall mount a display phone, the display may be difficult to read, so desk mounting is recommended.

Wall Mounting (stand required for all system phones)



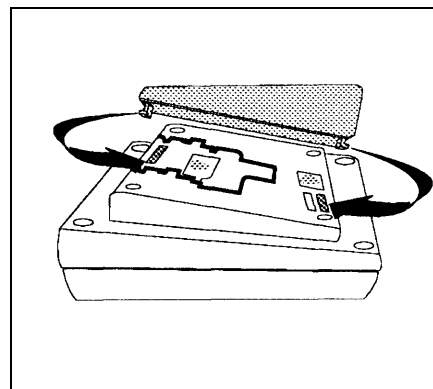
1 Reverse the plastic hook that sits in the earpiece part of the handset cradle.



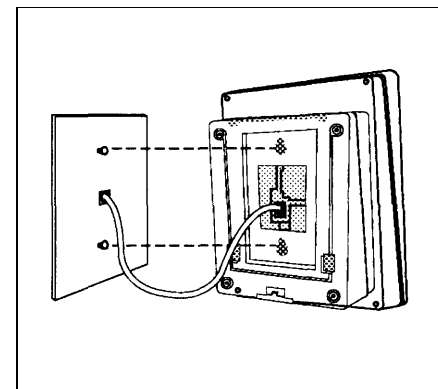
CAUTION:

Do not unscrew the bottom of the phone. To do so will expose you to a risk of electrical shock.

NOTE: Wall mounting instructions apply to *corded* MLS-model phones only. To wall mount an MLC-6 cordless phone, follow the instructions in the booklet provided with the phone.

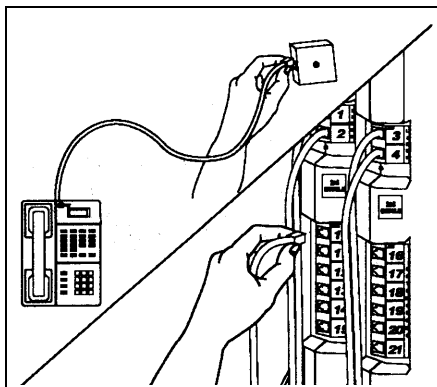


2 To install the telephone stand, gently place the phone upside down with the low end of the phone to your right. Insert the tab on the narrow end of the stand into the left slot on the bottom of the phone. (For an MLS-34D phone, feed the cord through the stand and plug it in.) Then insert the other tab into the right slot, pushing the stand down and slightly inward until the tab locks into place.



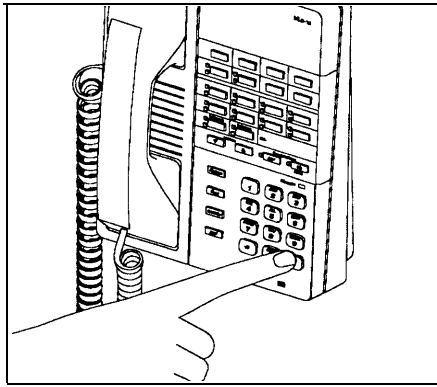
3 Insert the phone cord through the center of the stand and plug it into the jack on the base of the phone, then plug the other end into the modular wall jack. Mount the phone on the wall jack using the screw keyholes on the base of the stand. For proper mounting, the wall jack must be an AT&T 630B connecting block. Finally, connect the handset cord as described in "Desk Mounting," step 1A above, and label the button sheet as in step 3A above.

Connecting and Testing Telephones



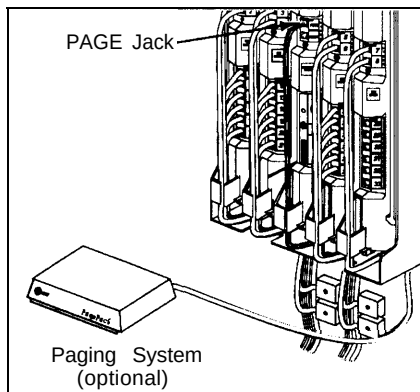
1 To connect a phone, plug the modular telephone mounting cord into a modular wall jack or directly into a 206 module extension jack. (If you are connecting a standard phone and its mounting cord is loose, use an AT&T D2R mounting cord instead.)

To install two phones (or other devices) on a single extension jack, see the figure on page 2-3.

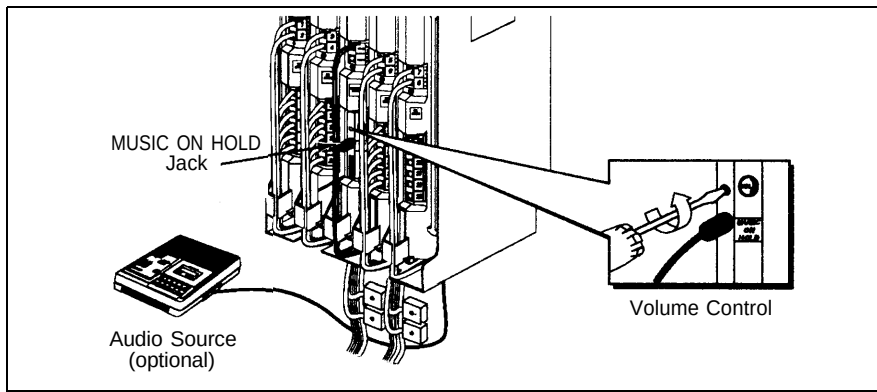


2 Test the telephone for proper operation. To test the power and lights on a system phone, press and hold the [#] button for five seconds. Before releasing the [#] button, lift the handset. All lights should light, the ringer should sound, and (on the MLS-12D or MLS-34D phones only) a test pattern should appear on the display. (If not, call the Helpline at 1 800 628-2388.) Replace the handset; the phone is now in normal operating mode.

Connecting Paging and Music-on-Hold Devices



Paging System: To install an AT&T paging system, insert the modular plug for the paging system into the jack labeled PAGE on the processor module. Route the cord as for line and extension cords, then connect it to the loudspeaker paging system.

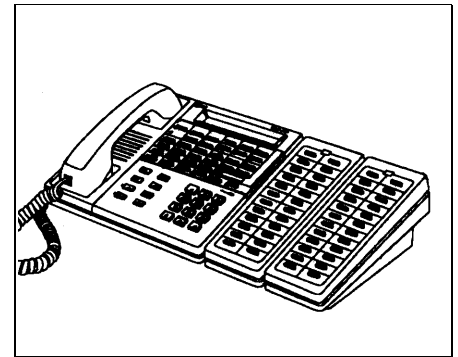
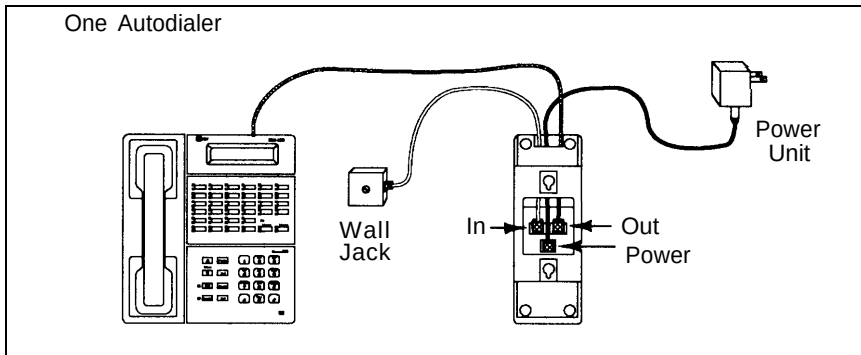


Music-on-Hold Audio Source: A) To connect an audio source, insert an RCA phono plug into the MUSIC ON HOLD jack on the primary processor module. Route the cord as you did for line and extension cords, and then connect it to the audio source.

B) To adjust volume, first use a flathead screwdriver to turn the volume control on the processor module counterclockwise to the lowest setting, and then connect AC power. Place a call on hold and listen while adjusting the volume. If you do not hear music at any setting, check system programming procedure #602 (see Chapter 3).

NOTE: Only the steps for connection to the control unit are provided here. Follow the manufacturer's directions for setting up and using your paging or music-on-hold system.

Connecting MLS-CA24 Intercom Autodialers



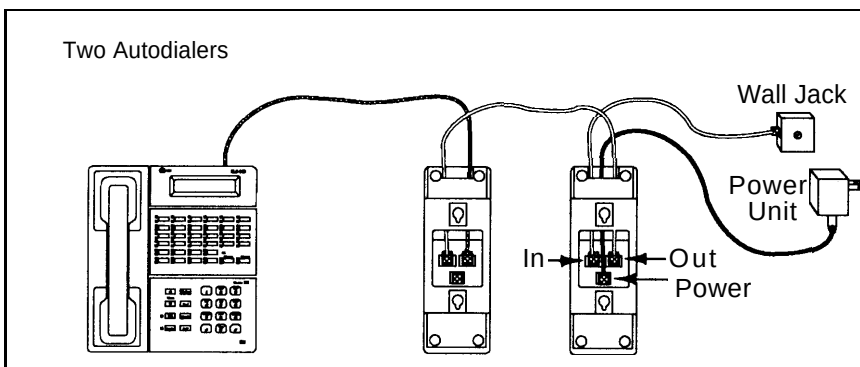
1 To connect one Intercom Autodialer to a system phone: A) Unplug the phone's modular telephone cord from the jack on the bottom of the phone and the wall jack, and save the cord for step B. Then, plug one end of the D8W cord, supplied with the autodialer, into the phone. Route the other end through the groove at the back of the autodialer and plug it into the OUT jack. B) Route one end of the modular telephone cord through the groove at the back of the autodialer and plug it into the IN jack; plug the other end into the wall jack for extension 10 or 11.

2 A) Connect auxiliary power. Connect one end of the power cord, supplied with the autodialer, to the POWER jack on the bottom of the autodialer, routing it through the groove as you did in step 1; plug the other end into the modular jack of the power supply unit. B) Plug the power supply into the electrical outlet.

3 Arrange the autodialer(s) on your desk next to the phone. Remove the plastic cover from each autodialer and place a labeled button sheet on it, and then carefully replace the plastic cover.

NOTE. If you have an MLS-12D system phone, install its stand to match the height of the autodialer. See "Assembling System Phones" earlier in this section.

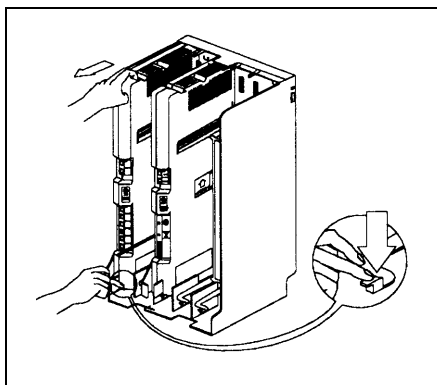
NOTE: You can wall mount an Intercom Autodialer to work next to a wall-mounted system phone.



1 To wire two Intercom Autodialers to a system phone: A) Connect the phone to the first autodialer, following the instructions in step 1A above (the figure at the top of this page). B) Using the second D8W cord, connect the two autodialers together: plug one end of the line cord into the IN jack on the first autodialer, and plug the other end into the OUT jack on the second autodialer.

2 A) Using the modular telephone cord, route one end through the groove at the back of the second autodialer and plug it into the IN jack; plug the other end into the wall jack for extension 10 or 11. B) Connect auxiliary power using the instructions in step 2 above (second power supply is not needed). C) Arrange the autodialers on the desk using the instructions in step 3 above.

Replacing a System Module



To replace a system module, first disconnect the AC power cord from the wall outlet, and then slide the control unit cover off the backplane.

Place one hand on top of the module. With the other hand, grip the plastic bracket on the bottom front of the module, and use the middle finger to hold down the locking tab just below the bracket. Slide the module straight out, being careful not to strain the wires connected to the module. (If there is not enough slack in the wires, label and disconnect them before removing the module.)

Disconnect the wires from the old module and plug them into the same jacks on the new module. (Transfer the wires one at a time to make sure that you know where each wire goes.)

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Alphabetical List of System and Telephone Programming Procedures

For information on a programming procedure, see the page cited in this table. System programming procedures are identified by the procedure code following the procedure name (for example, #305 for Abbreviated Ringing). Telephone programming procedures show only the procedure name (they have no code).

Procedure	Page	Procedure	Page
Abbreviated Ringing #305	3-17	Line Ringing	3-26
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Hold Disconnect Time #203	3-17	System Password #403	3-18
Hotline #603	3-19	System Speed Dial Numbers	3-20
Hunt Group Extensions #505	3-19	Time, System #103	3-16
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Overview

After you install the system hardware as described in Chapter 2, you can customize the system and individual telephones to meet the requirements of your business. This chapter explains how to use *programming* to accomplish that.

There are two types of programming:

- **System Programming** allows you to customize the system to meet the needs of your business. When the system is first installed, it uses factory settings that reflect the most common settings, which you can change as needed. The “System Programming Options” section in this chapter explains your choices.

You can program the system from either extension 10 or 11. Because an extension cannot be in program mode and handle calls at the same time, this flexibility allows you to program from extension 11 (the *backup* programming extension) while the receptionist at extension 10 (the *primary* programming extension) continues to handle calls. An MLS-34D telephone is required for programming if your system has any MLS-34D telephones; if not, you can use an MLS-12D.

- **Telephone Programming** allows users to customize their telephones to meet their individual needs; for example, users can program calling features onto phone buttons, or Personal Speed Dial numbers that can be used only at the extension. You can program individual telephones either from extension 10 or 11 using an MLS-34D or MLS-12D phone (called *Centralized Telephone Programming*), or from a user's own extension using a system phone (called *Extension Programming*).

Detailed descriptions and step-by-step programming instructions are in the “System Programming” and “Telephone Programming” sections later in this chapter. Brief summaries of all programming procedures are on the inside back cover of this book.

Initial System Setup

After installing the control unit, you set up the system using a combination of system *and* telephone programming procedures. However, before you program, you need to:

- Compile a list of system extensions, along with the type of phone at the extension, and identify the lines to assign to each extension.
- Determine how your company's receptionist will cover calls so you can choose line ringing options for all employees (for advice see "Programming a Receptionist's Phone" later in this chapter).
- Consider other programming options, such as Line Access Restriction, or Outgoing Call Restriction (for advice see "System Programming Options" later in this chapter).

Once you know how you want the system to work and the information is recorded in the *System Planner* (available separately), you can program.

The programming procedures* you are most likely to use initially include:

- **System Date (#101), System Day (#102), and System Time (#103)** to set the current date, day and time.
- **Dial Mode (#201)** to identify any rotary lines you may have in your phone system.
- **Line Assignment (#301)** to assign individual lines to specific extensions.
- **Line Ringing** (Centralized Telephone Programming) to specify when each available line will start ringing at an extension.
- **Line Access Restriction (#302)** to limit an extension's access to each line.
- Procedures to identify extensions with fax machines (#601), doorphones (#604–#606), or automated attendants (#607).

Other programming procedures are optional, but strongly recommended to make the most of your investment. (See "System Programming Options" and "Telephone Programming Options" later in this chapter for details.)

Copy Settings

The recommended way to set up your system is to program one extension for each *type* of phone in the system, and then use Copy Settings (#399) to program other phones of the same type, thereby saving the time it would take to program them individually. For example, you can program one MLS-12D phone and then copy its settings to any other extensions that have MLS-12D phones. (See page 3-17 for a list of the programmed settings that are copied.)

* System Programming procedures are identified by a code (# and three digits); Telephone Programming procedures are not identified by a code.

Changing Settings after Installation

As your business grows or changes, you will probably need to change the way your system was originally programmed. Here are some examples:

Changing the System Clock

You may need to change or reset the system clock for daylight saving time, after a prolonged power failure, or after a complete system reset. To change the system clock, use the following procedures:

- **System Date (#101)** to set the month, day, and year.
- **System Day (#102)** to set the day of the week.
- **System Time (#103)** to set the hour.

Adding New Lines

If you add an outside line to your system after installation, use one or more of the following procedures:

- **Dial Mode (#201)** to identify the new line as rotary or touch-tone.
- **Line Assignment (#301)** to assign the line to specific extensions.
- **Line Ringing** (Centralized Telephone Programming) to specify when the line will start ringing at each extension that has the line.
- **Line Access Restriction (#302)** to limit an extension's access to it.

NOTE:

Do *not* use the Number of Lines (#104) programming procedure if you add new lines to the system because the procedure changes Line Access Restriction (#302), Automatic Line Selection, Line Ringing, and Hold Disconnect Time (#203) for existing lines back to factory settings.

Adding New Extensions

If you add an extension to your system after installation, use one or more of the following procedures. Note that you can use Copy Settings (#399) to copy the settings of an existing extension to the new extension.

- **Line Assignment (#301)** to assign specific lines to the extension.
- **Line Access Restriction (#302)** to restrict the extension's access to a line for placing or receiving calls.
- **Display Language (#303)** to specify the language (English, French, or Spanish) to appear on a system display phone.
- **Automatic Extension Privacy (#304)** to prevent other extensions with the same line from joining a call at the extension. This feature is also useful for extensions connected to a modem, fax, or credit card scanner—any device whose function can be disrupted by someone trying to join it. (To program Privacy onto a button of a system phone, so Privacy can be manually turned on and off, see “Telephone Programming Procedures” at the end of this chapter.)

-
- **Outgoing Call Restriction (#401)** to prevent the extension from making certain types of outgoing calls (on *all* system lines).
 - **Disallowed List Assignment (#405)** to assign one or more Disallowed Phone Number Lists to the extension. Use the Disallowed Phone Number Lists (#404) procedure to compile the lists of outside numbers that extensions *cannot* dial.
 - **Allowed List Assignment (#408)** to assign an Allowed Phone Number List to the extension. Use the Allowed Phone Number Lists (#407) procedure to compile a list of outside numbers that extensions *can* dial.
 - **Group Assignment** to place the new extension in Pickup Groups (#501), Calling Groups (#502), the Night Service Group (#504), or Hunt Groups (#505).
 - **Auxiliary Equipment Extensions** to identify the new extension as a fax machine (#601), a doorphone (#604-# 606), or an automated attendant (#607).
 - **Automatic Line Selection** (Centralized Telephone Programming) to specify the order in which the system tries to select an available line (intercom or outside) for an outgoing call, when the user lifts the handset or presses [Spkr] to make a call without first selecting a specific line button.
 - **Line Ringing** (Centralized Telephone Programming) to specify when each outside line on the extension should start ringing.

System Programming

Read this section before programming your system. "System Programming Options" explains the choices that are available to you; "System Programming Procedures" explains how to perform each System Programming procedure.

System Programming Options

This section explains how you can set up your system to operate most efficiently, taking into account your company's telephone service, personnel, and equipment, as well as the special needs of particular departments.

Dialing Restrictions and Permissions

The system has several procedures for restricting telephone use, and several for overriding those restrictions. You can use any combination of these procedures to design a system that meets your needs. Refer to Table 3-1 at the end of this section for a summary of available dialing restrictions and permissions.

NOTE:

While procedures that restrict dialing are very effective, absolute protection against misuse cannot be guaranteed. System phones give more protection than standard phones. Therefore, we strongly recommend that you install system phones where restricting phone use is important.

Restricting Access to Outside Lines

A user can access a line either by pressing a button on the phone or by dialing a feature code (Direct Line Pickup). If you do not want a user to access a specific line, use Line Access Restriction (#302) to control an extension's access to a certain line. For example, you may want a secretary to answer calls on a manager's line, but not to make any outgoing calls on the line; in this case you can assign the manager's line to the secretary's extension and restrict it to "incoming only." In addition, you may want to make sure no one else can join the manager's line using Direct Line Pickup. To do this, assign "no access" to that line for all other extensions in the system. The following settings for Line Access Restriction are available:

- *No restriction.*
- *Outgoing only.* The extension cannot receive calls on the line (except transferred calls), but can make outgoing calls.
- *Incoming only.* The extension can receive but not make calls on the line. If you restrict a line on an extension to incoming calls only, the user cannot select that line to dial out.
- *No access.* The extension can see the status of the line (by looking at the lights), join a call, and pick up a transferred or held call. However, the extension cannot make or receive calls on the line.

NOTE:

The Line Access Restriction (#302) procedure controls an extension's access to an outside line. Once an extension is on an outside line, what it can dial is controlled by Outgoing Call Restriction and Disallowed Phone Number Lists, as explained in the next section.

Controlling Calls on Outside Lines

When an extension is allowed access to an outside line, you can use the following procedures to control calling:

- **Outgoing Call Restriction (#401)** controls calling for *all* lines available on an extension. You have the following choices:
 - *No restriction* allows long distance, local, and inside calling.
 - *Local only* allows local and inside calling only (make sure the Toll Call Prefix is set properly, using procedure #402).
 - *Inside only* allows intercom calls only.
- **Disallowed Phone Number Lists (#404)** creates lists of numbers that cannot be dialed. The numbers on a Disallowed List can be entire telephone numbers, or numbers of a certain type (such as all numbers in a particular area code). You can store as many as four different lists of up to 10 numbers each.

After you create the Disallowed Phone Number List(s), use the Disallowed List Assignment (#405) procedure to assign one or more of the lists to a specific extension. When a Disallowed Phone Number List is assigned to an extension, the list applies to *all* the lines the extension has access to.

-
- **Night Service** causes after-hours calls to ring immediately at the extensions in the Night Service Group, regardless of Line Ringing during normal day operation. If you define a System Password, turning Night Service on also restricts outside calling by all extensions in the Night Service Group. See page 3-10 for details on Night Service.

Overriding Dialing Restrictions

The following programming procedures provide ways to override all dialing restrictions, except those imposed by Line Access Restriction (#302):

- **Emergency Phone Number List (#406)** defines a list of up to ten numbers that can be dialed from any extension in the system (if the extension has access to an outside line). A typical number is 911.
- **Marked System Speed Dial Numbers** can be dialed from any extension with access to an outside line. System Speed Dial numbers are outside telephone numbers that a user can dial automatically by pressing [*Feature*] (or [#] a standard phone), followed by a two-digit code. "Marking" a System Speed Dial number lets any user in the system dial it, overriding any dialing restrictions for the extension.
- **System Password (#403)** creates a password that, when entered at any MLS-model phone, overrides dialing restrictions for the duration of a call. This means that a person who knows the password can make a call from a restricted extension, as long as the extension has access to an outside line. If you define a System Password, turning on Night Service also restricts outside calling for the Night Service Group. See page 3-10 for details on Night Service.

You can use the following procedure to override all dialing restrictions, except Line Access Restriction and Night Service with a System Password:

- **Allowed Phone Number Lists (#407)** allows you to create lists of numbers that specific extensions are allowed to dial. Even if an extension's settings for Outgoing Call Restriction and Disallowed Phone numbers would normally prevent the extension from dialing a number, defining the number as an Allowed Phone number lets the extension dial it. (For example, if you put 900 numbers on a Disallowed List but want users to be able to call a specific 900 technical support hotline, put that number in an Allowed List.)

The system stores as many as four different Allowed Lists of up to 10 numbers each. After creating Allowed Lists, use the Allowed List Assignment (#408) procedure to assign one or more of the lists to a specific extension.

Users can always place and receive intercom calls and can always receive transferred calls (even on outside lines not assigned to an extension), regardless of the dialing restrictions placed on their extensions.

NOTE:

A variety of factors influence the effectiveness of dialing restrictions. Avoid putting 800 numbers in your Emergency List. If you need to allow restricted users to dial 800 numbers, put those numbers in an Allowed List.

Summary

Table 3-1 summarizes the available dialing restrictions and permissions, showing how they can be combined in a variety of ways to customize an extension's dialing privileges.

Table 3-1. Dialing Restrictions and Permissions

	Type of Restrictions or Permissions for the Extension	Setting for Line Assignment (#301)	Setting for Line Access Restriction (#302)	Setting for Outgoing Call Restriction (#401)	Setting for Disallowed Phone Number List (#404)
Settings that restrict an extension's access to a specific line	Can receive and place intercom (inside) calls only	No outside lines* "assigned"	—	"Inside only"	—
		Example: Clerks in a supermarket can call the service desk to check prices, but they cannot make outgoing calls, except for emergency numbers.			
	Cannot use a specific outside line	Outside line "not assigned"	"No access" for that line	—	—
		Example: On an 8-line system, all phones get lines 1–7; the fax machine extension gets line 8. Line 8 is removed from all other extensions, to keep the line free for the fax machine.			
	Can only monitor call activity and pick up held calls on a specific line	Outside line "assigned"	"No access" for that line	—	—
		Example: The receptionist's phone has the boss' private line, so the receptionist can see when the boss is on the line and can pick up calls the boss has put on hold.			
Can only receive calls on a specific line	Outside line "assigned"	"Incoming only" for that line	—	—	
	Example: A line is only used for taking sales orders.				
	Can place outgoing calls only on a specific line	Outside line* may be "assigned"	"Outgoing only" for that line	—	—
		Example: A line is only used for telemarketing.			
Settings that restrict an extension's dialing once it gets an outside line	Can place intercom and local calls only (and can answer any call)	Outside line* may be "assigned"	"No restriction"	"Local only"	Any local numbers the extension should not dial
		Example: An extension in the lobby permits visitors to make local and intercom calls, but they are prevented from making long-distance calls.			
	Can place intercom, local and long-distance calls (and can answer any call)	Outside line* may be "assigned"	"No restriction"	"No restriction"	Any local and long-distance numbers the extension should not dial
		Example: An employee can make any type of call on lines appearing on his or her phone, except calls to foreign countries and "900" numbers.			
* If a line is not assigned to the extension, a user can use Direct Line Pickup to access the line.					
Emergency numbers, Marked System Speed Dial numbers, Allowed Phone numbers, and numbers dialed using the System Password override all dialing restrictions if a user has access to an outside line to place the call.					

Setting Up Groups of Extensions

You can set up four types of extension groups:

- **Pickup Groups** that let any user in the system answer outside calls for any extension in a group
- **Calling Groups** that let users ring or page all extensions in a group simultaneously
- **Extension Hunt Groups** that allow users to ring or page the first available extension in a group
- **Night Service Group** that lets extensions in the group receive calls after hours.

Pickup Groups

The system can have up to four Pickup Groups. The Pickup Group feature allows any *outside* call ringing at an extension in a group to be answered *from any other extension in the system* by dialing a special code. (Intercom or transferred calls are not picked up.) In other words, when an outside call rings at an extension that is in a Pickup Group, any extension in the system can pick up (answer) the call, without knowing which extension is ringing and without being in the same Pickup Group.

Here are some useful applications for the Pickup Group feature, followed by an example to show how it is used:

- Put all system extensions in a Pickup Group (except the boss's private extension), so anyone on the system can answer a ringing line (except the boss's).
- Put the extensions of people who work near each other and who can hear each other's phone ring, but who don't have each other's lines on their phones, in a Pickup Group. This way they can cover each other's calls without knowing specifically which phone is ringing.

Example: A group of typists work in a large room separated by cubicles, and all their extensions are in Pickup Group 1. When a typist leaves the room and the typist's phone rings, anyone else in the system who can hear the line ring can pick it up, simply by dialing the Pickup Group dial code for that group ([Intercom] [6][6][1]).

Pickup Group Extensions (#501) assigns extensions to the Pickup Groups.

Calling Groups

The system can have up to four Calling Groups. The Calling Group feature allows a user to ring or page an entire group of extensions simultaneously. Once an extension answers, the ringing or paging stops at the other extensions in the group. (Calls cannot be transferred to the Calling Groups.)

Here are some useful applications for this feature:

- Group page employees for general announcements; this feature is an inexpensive alternative to a paging system. (Remember to install MLS-model system phones, which have built-in speakers, where you want employees to hear announcements.)

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- Put the extensions of people with similar responsibilities in a Calling Group, so when a caller needs to talk with anyone in the group, the person simply dials a code instead of having to place separate intercom calls.

Example: A car dealership puts all extensions for the sales staff into Calling Group 1. To talk to any salesperson, the sales manager simply places a ringing intercom call to the group by dialing the Calling Group dial code for that group ([*Intercom*] [*Z*] [*1*]). All the phones in the group ring, and the sales manager is connected to the first salesperson to answer. (Alternatively, the sales manager can page (voice signal) the group through the speakers of their system phones by dialing [*Intercom*] [***] [*Z*] [*1*] instead.)

Calling Group Extensions (#502) assigns extensions to the Calling Groups. Exclude extensions with fax machines, hotline phones, doorphones, or automated attendants from Calling Groups.

Extension Hunt Groups

You can create up to six Hunt Groups. The Extension Hunt Group feature allows extensions to share call volume. Extensions in the Hunt Group receive intercom calls in succession. This means when an intercom call is placed to the Hunt Group, the system rings the first available (non-busy) extension in the group, passing over busy extensions in a circular hunt. After an extension receives a Hunt Group call, the next call to the Hunt Group will not ring at that extension unless all the other extensions in the group are busy.

The intercom call to the Hunt Group can be a direct extension-to-Hunt Group call, but more typically it is an outside call that is transferred to the Hunt Group. Therefore, an outside call answered by an operator or receptionist, or by an automated attendant, can be transferred to a Hunt Group.

IMPORTANT:

If your extension is in a Hunt Group, turn on Do Not Disturb when you leave your desk. This way, if your extension receives a Hunt Group call while you are gone, the system will direct it to the next available extension in the Group; otherwise, the call will ring until the system returns it to the extension that transferred it.

Here are some useful applications for a Hunt Group:

- Place the extensions of employees who work in a department sharing calls, such as a customer service group, in a Hunt Group so that when a call comes in to the receptionist or to the automated attendant it may be transferred to the next available extension. This alleviates the problem of one employee receiving most of the calls.
- Place extensions of employees of a particular department in a Hunt Group and program the group as a route for an automated attendant.

Example: A mail-order company assigns the extensions of its sales representatives to a Hunt Group, so when a call comes in to the receptionist or to the automated attendant, it may be transferred to the first available extension in the group.

Hunt Group Extensions (#505) assigns up to 48 extensions to each Hunt Group.

Night Service

The Night Service feature allows you to change how a group of extensions operates after normal business hours. When Night Service is turned on, all incoming calls will ring *immediately* at the extensions in the Night Service Group, even if Line Ringing for those extensions is set for “delayed ring” or “no ring” during normal daytime use.

Example: In a real estate office, all calls normally come through a receptionist. The receptionist goes home at 5:00 in the evening, but some agents work later. At 5:00, the receptionist turns on Night Service, so all phones in the Night Service Group ring immediately when a call comes in.

Three procedures are used to program Night Service:

- **Night Service Button (#503)** programs the Night Service On/Off feature onto a specific button on the system display phone *at extension 10 only*. Figure 3-1 shows the factory-set location of the button; the button can be assigned to a different button using this procedure. Press the button to turn Night Service on or off.
- **Night Service Group (#504)** assigns extensions to the Night Service Group.
- **System Password (#403)** (optional) identifies the System Password. If a password is programmed, you must enter it to turn Night Service on or off. If Night Service is on and a password has been programmed, users at extensions in the Night Service Group must enter the System Password before dialing outside telephone numbers (except Emergency numbers and Marked System Speed Dial numbers).

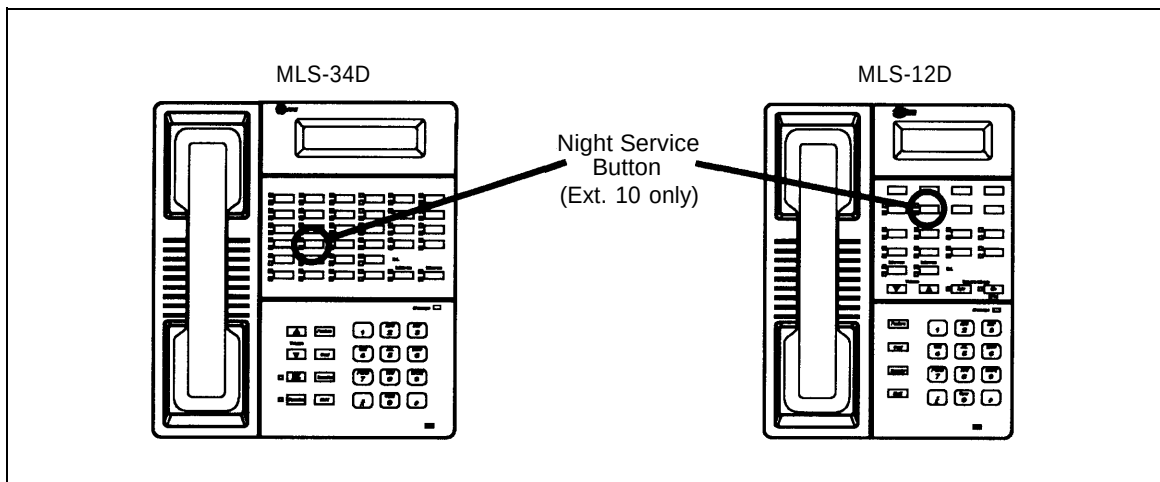


Figure 3-1. Location of Night Service Button (Factory Setting)

Setting Up Auxiliary Equipment

In addition to telephones, your system can include fax machines, answering machines, automated attendants, modems, doorphones, loudspeaker paging systems, and other auxiliary equipment.

The following programming procedures help you manage auxiliary equipment:

- **Fax Machine Extensions (#601)** lets you identify an extension on which a fax machine is installed. If you also program that extension number on a button on a system telephone, and the button has a light, the button will show the status of the fax machine when the fax machine is in use, is returning a transferred call, or needs paper.

To prevent other extensions from interrupting a fax transmission, program the fax extension for Automatic Extension Privacy (#304). See Chapter 5, "Using Auxiliary Equipment," for more details on setting up and using fax machines.

- **Music on Hold (#602)** activates or deactivates the MUSIC ON HOLD jack on the primary processor module.
- **Hotline (#603)** allows you to identify Hotline extensions, so that when a person lifts the handset of the Hotline phone, a predetermined extension automatically rings. Even the loudspeaker paging system can be designated as a hotline destination so that the hotline phone can be used to make announcements over the loudspeaker. *A hotline phone must be a standard touch-tone or rotary phone, not a system phone.*

Example: A supermarket installs a Hotline phone at its meat counter. When a customer uses the Hotline phone, the butcher's phone rings. (Alternatively, if the loudspeaker paging system is selected as the Hotline destination, a sales clerk could request a "price check" over the loudspeaker by simply lifting the handset.)

When programming a Hotline extension, you should also perform these procedures:

- **Automatic Line Selection** to program the phone at the Hotline extension as "Intercom only. "
- **Line Assignment (#301)** to make sure that no outside lines are assigned to the Hotline extension.
- **Doorphone Extensions (#604 and #605)** identifies the extensions on which doorphones are installed. **Doorphone Alert Extensions (#606)** identifies the extensions (up to five) that ring when the button on a doorphone is pressed. (If the alerting extension has a system phone, the doorphone ring will be a distinctive *ding-dong* ring to distinguish it from regular calls.) A single extension cannot be both a doorphone and a Hotline phone.

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- **AA/VMS Extensions (#607)** identifies extensions on which you have installed an automated attendant. Automated attendants answer calls and route them to the appropriate extension based on caller responses to a recorded announcement. Also, use **Transfer Return Extension (#306)** to identify the extension to which the call should be routed if the destination extension does not answer.
 - **SMDR Record Type (#608)** specifies the type of calls that you want to record for call reporting; “1” records all calls (the factory setting) and “2” records outgoing calls only, **Top of Page (#609)** notifies the system that the printer has been manually adjusted to the top of a new page by a user; the system responds by printing out a new header. (If Top of Page is not used after the printer has been adjusted, the report page header may print in the middle of the page.)

System Speed Dialing

You can program frequently dialed phone numbers—such as suppliers, repair services, customers, or other business associates—so that *all users in the system* can dial them by pressing *three* buttons: [*Feature*] (or [*#*] on a standard phone) plus a two-digit code. The following notes apply to System Speed Dial numbers:

- System Speed Dial numbers are stored in the *system's* memory, so any extension can dial them.
- The system can have a maximum of 60 System Speed Dial numbers (dial codes 20–79).
- System Speed Dial numbers *must* be programmed from extension 10 or 11.
- A System Speed Dial number can be *marked* so that it overrides any dialing restrictions an extension may have.

Appendix A provides a form on which to record Speed Dial numbers. Each user should get a copy of that form with all the numbers listed.

Frequently dialed numbers can also be programmed onto an unused button on a system phone for even faster *one-touch* dialing (see “Programming Telephone Buttons” later in this chapter).

NOTE:

Personal Speed Dial numbers can also be programmed for individual extensions. See “Personal Speed Dialing,” later in this chapter, for more information.

System Programming Procedures

System Programming requires an MLS-34D or MLS-12D phone at extension 10 or extension 11, with a *programming overlay* placed over the phone's dial pad. *System Programming procedures* are identified by # and a three-digit code (for example, System Date is #101).

In general, you can program the system in one of two ways:

- **Direct Method.** With this method, you access a programming procedure directly by dialing the code for that procedure. This method is best when you are using only a few procedures during a programming session and know the codes.
- **Cycle Method.** With this method, you cycle through the procedures in numerical order by pressing [*Next Procedure*] or [*Prev Procedure*] (see the programming overlays on the next two pages). This method is best for programming the system for the first time or when changing a series of related settings.

Step-by-step instructions for using each procedure are given in "System Programming Reference," starting on page 3-16.

NOTE:

You can be talking on the phone while you program. This is useful if you need to talk with someone at the AT&T Helpline about programming. However, you must call before you enter programming mode, and you must use the handset to talk, not the speaker and microphone.

The Programming Overlays

During System Programming, the normal functions of several buttons on the display phone at extension 10 or 11 change. For example, the left [*Intercom*] button becomes [*System Program*], the button used to enter programming mode. To identify these buttons while programming, place the appropriate programming overlay provided with the system on the dial pad of the phone at extension 10 or 11. Figures 3-2 and 3-3 show the programming overlays for the MLS-34D and MLS-12D phones, and explain what the special buttons do while programming.

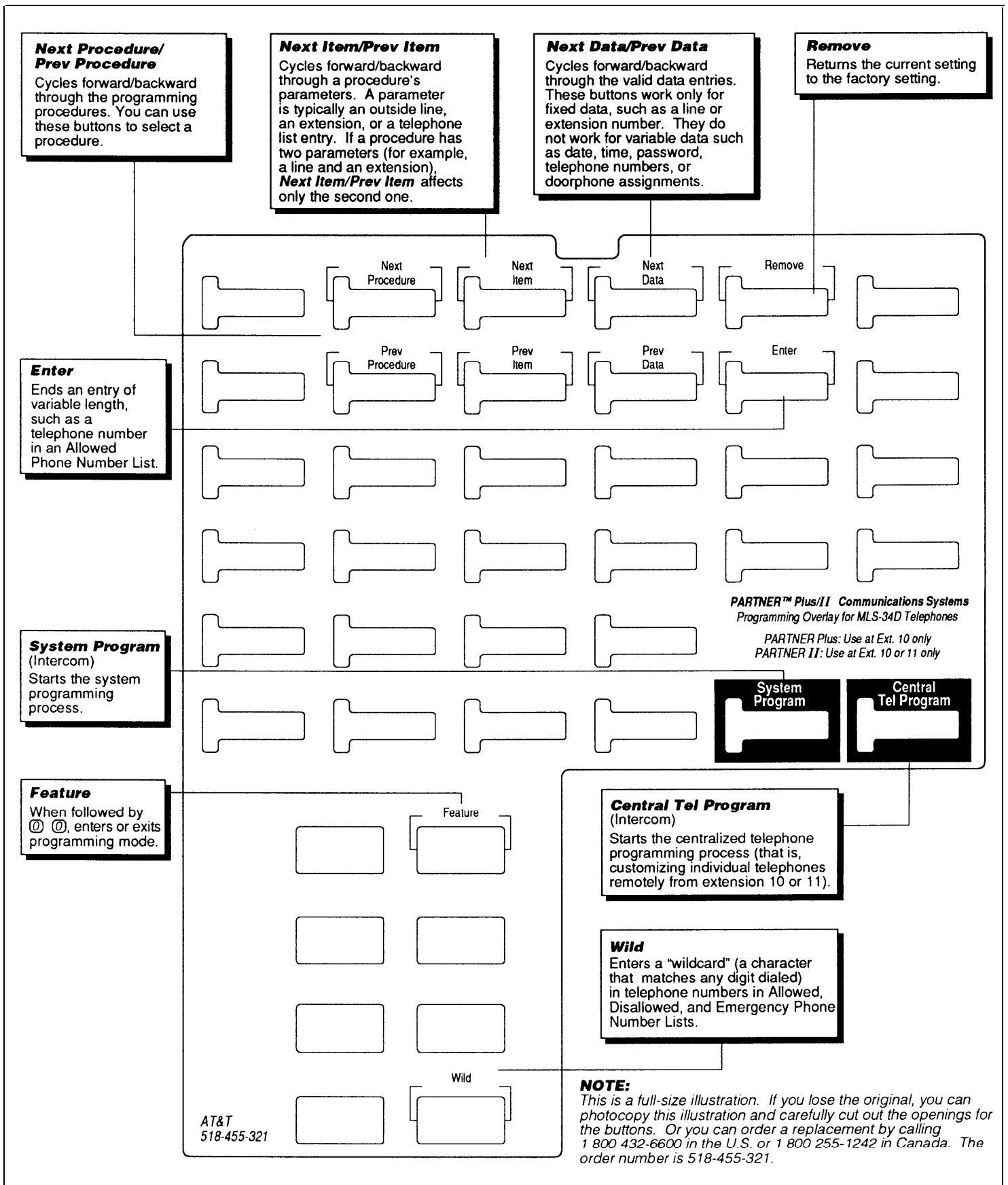


Figure 3-2. Programming Overlay for MLS-34D Phone

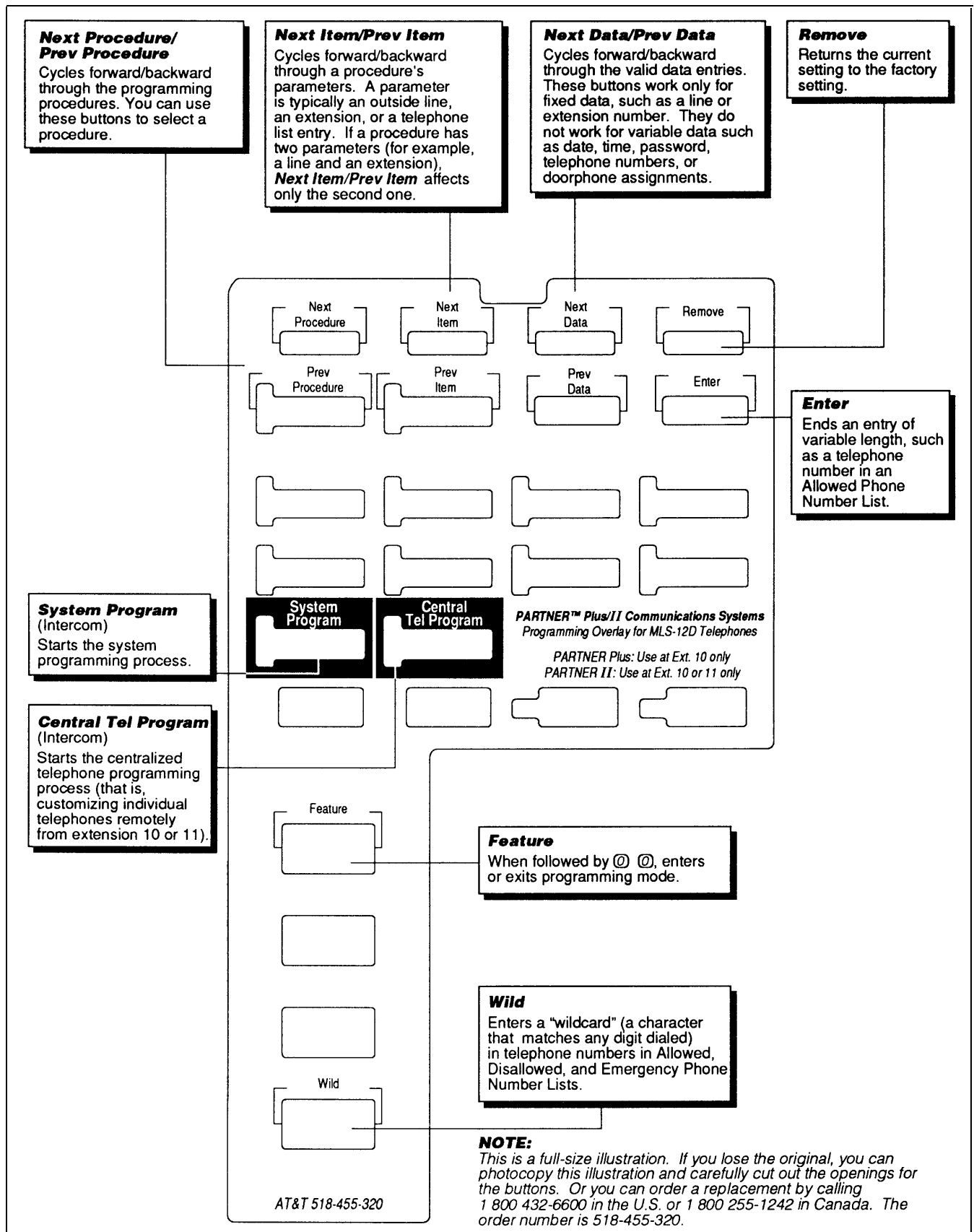


Figure 3-3. Programming Overlay for MLS-12D Phone

System Programming Reference

System Programming changes settings for the system as a whole, or for individual lines or extensions. You can also use System Programming to set up dialing restrictions, define groups, and set up optional equipment.

Place the Programming Overlay on the dial pad of the system display phone at extension 10 or 11

TO START SYSTEM PROGRAMMING

PRESS [Feature] [2] [2]

PRESS [System Program]

PRESS [System Program]

TO END SYSTEM PROGRAMMING

PRESS [Feature] [2] [2]

TO USE A SPECIFIC PROCEDURE

DIAL [#] and the three-digit procedure code
Example: [#] [1] [2] [1] for System Date

TO CYCLE THROUGH SYSTEM PROGRAMMING PROCEDURES

PRESS [Next Procedure] or [Prev Procedure]

NOTE: Procedures #399, #609, and #728—shown below in dashed boxes—are skipped when cycling

TO CYCLE THROUGH AVAILABLE SETTINGS

PRESS [Next Data] or [Prev Data]

TO RETURN TO FACTORY SETTING

PRESS [Remove]

SYSTEM

SYSTEM DATE

Sets the month, day, and year to appear on system display phones (MLS-34D and MLS-12D). Include leading zeroes for single-digit months or days (for example, January 3, 1992, is entered as 010392).

DIAL #101

DIAL the date in MMDDYY form

SYSTEM DAY

Sets the day of the week to appear on system display phones (MLS-34D and MLS-12D).

DIAL #102

- DIAL
- 1 = Sunday ✓
 - 2 = Monday
 - 3 = Tuesday
 - 4 = Wednesday
 - 5 = Thursday
 - 6 = Friday
 - 7 = Saturday

SYSTEM TIME

Sets the time to appear on system display phones (MLS-34D and MLS-12D). Enter four digits in 24-hour military notation, from 0000 for 12 midnight to 2359 for 11:59 p.m. (for example, 8:15 a.m. = 0815). System displays times as a.m. or p.m.

DIAL #103

DIAL the time in HHMM form

NUMBER OF LINES

Use only when first setting up the system, to assign the same number of outside lines to all extensions. (For example, entering 06 means that all extensions are assigned lines 1–6.)

DIAL #104

DIAL two digits for the number of outside lines in the system (01 to 24)

- ✓ 2 per 206 module plus 4 per 400 module

IMPORTANT: Do not use this procedure if you add lines to the system after initial setup because it changes Line Access Restriction (#302), Automatic Line Selection, Line Ringing, and Hold Disconnect Time (#203) for existing lines back to factory settings. To change line assignments without affecting other settings, use Line Assignment (#301).

TRANSFER RETURN RINGS

For all system extensions, defines the number of times transferred calls ring before returning to the extension that transferred the call (or to a programmed Transfer Return Extension, #306).

NOTE: For fax, answering machine, or auto attendant extensions, set this number to be greater than the ring delay for the device, to prevent calls from being returned before the device answers.

DIAL #105

DIAL one digit for the number of rings before the call returns (0 to 9)

- ✓ = 4 rings
- 0 rings = no return

RECALL TIMER DURATION

The Recall feature sends a timed signal (switchhook flash) to your local phone company. This setting changes the length of the signal in 25-millisecond (msec) increments. (For example, 01 = 25 msec, 80 = 2000 msec.)

Factory setting is correct for most PBX systems. Change the factory setting only if:

- using Recall drops calls (shorten the time).
- using Recall has no effect—i.e., no dial tone (lengthen the time).

DIAL #107

DIAL two digits to set the length of a switchhook flash (01 to 80)

- ✓ = 18 (450 msec)

ROTARY DIALING TIMEOUT

Change the factory setting only if you have trouble calling out on rotary lines with standard touch-tone phones. (For example, if users dial slowly and calls are not completed or are connected to wrong numbers, lengthen the timeout.) Use only if the Dial Mode (#201) for at least one line is set to "rotary."

DIAL #108

- DIAL
- 1 = 4 seconds
 - 2 = 8 seconds ✓
 - 3 = 12 seconds

OUTSIDE CONFERENCE

Determines whether users can include more than one outside party in a conference call (affects all system users).

DIAL #109

- DIAL
- 1 = Allowed ✓
 - 2 = Disallowed

SYSTEM RESET – PROGRAMMING SAVED

IMPORTANT: Using this procedure disconnects any active calls but retains system settings. Use it only if the system fails to function correctly after a power failure or down period.

DIAL #728

✓ = Factory Setting

LINES

DIAL MODE

Identifies individual lines as touch-tone or rotary. You may also need to adjust the Rotary Dialing Timeout (#108).

DIAL #201

DIAL a line number

DIAL 1 = Touch-Tone ✓
2 = Rotary

PRESS [*Next Item*] to program another line

HOLD DISCONNECT TIME

Determines the signal that the system uses to detect when a caller on hold hangs up. Change the setting to "long" if the system disconnects callers on hold before they hang up, or to "short" if users get dial tone when trying to retrieve calls left on hold.

DIAL #203

DIAL a line number

1 = Long (450 msec) ✓
2 = Short (50 msec)

PRESS [*Next Item*] to program another line

✓ = Factory Setting

EXTENSIONS

LINE ASSIGNMENT

Assigns the outside lines that are available at an extension, in consecutive order. The order of line assignment is from left to right, starting with the bottom row of line buttons on a system phone. To put the lines in a different order, first use this procedure to remove all assigned lines; then assign lines in the desired order.

DIAL #301

DIAL an extension number

A red light appears next to each line button that has a line assigned.

To remove all existing line assignments, press [*Remove*] before selecting a line.

DIAL a line number (01 to 24)

If that line is currently assigned, a green light will appear next to the button it is assigned to.

DIAL 1 = Assigned ✓
2 = Not Assigned
3 = Select Button and then press a line button to assign the line to that button

If you use option 3 after a line has been assigned, the line moves from the old button to the new button you select.

PRESS [*Next Item*] to program another line for this extension

To program another extension:

PRESS [*Next Procedure*] [*Prev Procedure*], enter a new extension number, and repeat above steps

NOTE: Use the Line Ringing procedure on page 3-26 to identify when each outside line should start ringing at an extension.

LINE ACCESS RESTRICTION

Restricts calling on individual lines. Make sure to restrict lines even if they are not assigned to the extension so they cannot be accessed by dialing the Direct Line Pickup code

DIAL #302

DIAL an extension number

DIAL a line number

DIAL 1 = No Restriction ✓
2 = Outgoing Only
3 = Incoming Only
4 = No Access (line appears on button, but you can use line only to pick up a transferred or held call)

PRESS [*Next Item*] to program another line

To program another extension:

PRESS [*Next Procedure*] [*Prev Procedure*], enter a new extension number, and repeat above steps

DISPLAY LANGUAGE

Identifies the language display messages will appear in, if the extension has an MLS-34D or MLS-12D phone.

DIAL #303

DIAL an extension number

DIAL 1 = English ✓
2 = Spanish
3 = French

PRESS [*Next Item*] to program another extension

AUTOMATIC EXTENSION PRIVACY

Prevents other extensions with the same line from joining calls. You can also use this procedure to prevent users from interrupting calls on an extension with a fax machine or modem. Privacy can also be programmed on a button for manual use (see page 3-27).

DIAL #304

DIAL an extension number

DIAL 1 = Assigned
2 = Not Assigned ✓

PRESS [*Next Item*] to program another extension

ABBREVIATED RINGING

Determines how incoming calls ring at an extension when the extension is busy on another call. If Abbreviated Ringing is on and you are busy on a call, the call rings once; the green button for the line continues to flash until you answer the call or the caller hangs up.

DIAL #305

DIAL an extension number

DIAL 1 = Active (1 ring) ✓
2 = Not Active (repeated ringing)

PRESS [*Next Item*] to program another ext.

TRANSFER RETURN EXTENSION

Identifies where transferred calls should go if the extension receiving the transfer does not answer. (Useful for extensions with automated attendants, so the caller only hears the device's greeting once.)

DIAL #306

DIAL an extension number

DIAL number of the extension to which call should return if not answered

✓ = Extension transferring call

PRESS [*Next Item*] to program another ext.

COPY SETTINGS

Copies all of the following settings from one extension to another:

#301 Line Assignment
#302 Line Access Restriction
#303 Display Language
#304 Automatic Extension Privacy
#305 Abbreviated Ringing
#401 Outgoing Call Restriction
#405 Disallowed List Assignment
#408 Allowed List Assignment
#501 Pickup Group Extensions
#502 Calling Group Extensions
#504 Night Service Group Extensions
#505 Hunt Group Extensions
#601 Fax Machine Extensions
#607 AA/VMS Extensions
Automatic Line Selection
Line Ringing

DIAL #399

DIAL a source extension number

DIAL target extension numbers

System Programming Reference

System Programming changes settings for the system as a whole, or for individual lines or extensions. You can also use System Programming to set up dialing restrictions, define groups, and set up optional equipment.

Place the Programming Overlay on the dial pad of the system display phone at extension 10 or 11

TO START SYSTEM PROGRAMMING

PRESS [*Feature*] [*2*] [*2*]

PRESS [*System Program*]

PRESS [*System Program*]

TO END SYSTEM PROGRAMMING

PRESS [*Feature*] [*2*] [*2*]

TO USE A SPECIFIC PROCEDURE

DIAL [*#*] and the three-digit procedure code

Example: [*#*] [*1*] [*2*] [*1*] for System Date

TO CYCLE THROUGH SYSTEM PROGRAMMING PROCEDURES

PRESS [*Next Procedure*] or [*Prev Procedure*]

NOTE: Procedures #399, #609, and #728—shown below in dashed boxes—are skipped when cycling

TO CYCLE THROUGH AVAILABLE SETTINGS

PRESS [*Next Data*] or [*Prev Data*]

TO RETURN TO FACTORY SETTING

PRESS [*Remove*]

DIALING RESTRICTIONS AND PERMISSIONS

OUTGOING CALL RESTRICTION

Restricts calling on *all* lines at an extension.

NOTE: Emergency numbers, Marked System Speed Dial numbers, and Allowed List numbers override call restrictions; a user can also enter the system password to override restrictions.

DIAL #401

DIAL an extension number

DIAL 1 = No Restriction ✓
2 = Inside (intercom) Only
3 = Local (intercom and local) Only

PRESS [*Next Item*] to program another extension

TOLL CALL PREFIX

Indicates whether users must dial a 0 or 1 to make a long-distance call

DIAL #402

DIAL 1 = 0/1 plus Area Code and Number ✓
2 = Area Code and Number Only

SYSTEM PASSWORD

Defines a 4-digit password. Users can enter it to override dialing restrictions. If a password is defined, users in the Night Service Group must enter it to make outgoing calls (other than Emergency numbers and Marked System Speed Dial numbers) when Night Service is on.

DIAL #403

DIAL 4 digits to set the password

✓ = Factory Setting

DISALLOWED PHONE NUMBER LISTS

Creates up to 4 lists of telephone numbers that users *cannot* dial (up to 10 numbers per list). Use procedure #405 to assign lists to extensions.

DIAL #404

DIAL a list number (1 to 4)

DIAL a list entry (01 to 10)

To add entry:

DIAL the phone number (up to 12 digits)

PRESS [*Enter*]

NOTE: For instructions on entering phone numbers, see "Entering Telephone Numbers in Lists" (see box, bottom left).

PRESS [*Remove*] to remove a list entry

PRESS [*Next Item*] to select another list entry

To program another list:

PRESS [*Next Procedure*] [*Prev Procedure*], enter a new list number, and repeat above steps

DISALLOWED LIST ASSIGNMENT

Assigns one or Disallowed Lists to an extension.

DIAL #405

DIAL an extension number

DIAL a list number

DIAL 1 = Assigned
2 = Not Assigned ✓

PRESS [*Next Item*] to program another list

To program another extension:

PRESS [*Next Procedure*] [*Prev Procedure*], enter a new extension number, and repeat above steps

EMERGENCY PHONE NUMBER LIST

Creates a list of up to 10 telephone numbers that all users *can* dial regardless of dialing restrictions.

DIAL #406

DIAL a list entry (01 to 10)

To add entry:

DIAL the telephone number (up to 12 digits)

PRESS [*Enter*]

NOTE: For instructions on entering phone numbers, see "Entering Telephone Numbers in Lists" (see box, bottom left).

PRESS [*Remove*] to remove a list entry

PRESS [*Next Item*] to program another list entry

ALLOWED PHONE NUMBER LISTS

Creates up to 4 lists of telephone numbers that users *can* dial regardless of dialing restrictions (up to 10 numbers per list). Lists must also be assigned to extensions using procedure #408.

DIAL #407

DIAL a list number (1 to 4)

DIAL a list entry (01 to 10)

To add entry:

DIAL the telephone number (up to 12 digits)

PRESS [*Enter*]

NOTE: For instructions on entering phone numbers, see "Entering Telephone Numbers in Lists" (see box, bottom left).

PRESS [*Remove*] to remove a list entry

PRESS [*Next Item*] to select another list entry

To program another list:

PRESS [*Next Procedure*] [*Prev Procedure*], enter a new list number, and repeat above steps

ALLOWED LIST ASSIGNMENT

Assigns one or more Allowed Lists to an extension.

DIAL #408

DIAL an extension number

DIAL a list number

1 = Assigned

2 = Not Assigned ✓

PRESS [*Next Item*] to select another list

To program another extension:

PRESS [*Next Procedure*] [*Prev Procedure*], enter a new extension number, and repeat above steps

Entering Telephone Numbers in Lists

TYPE OF TELEPHONE NUMBER(S)

LIST ENTRIES REQUIRED

... if you dial 0 or 1
for long distance calls

... if you just dial
area code and number

Full Telephone Number
Examples: 555-5678
411

555-5678
411

555-5678
411

All Numbers in an Area Code
Example: 900 numbers

1900
0900

900
0900

All Numbers in an Exchange
Example: 976 exchange
(! = wild card,
see note below)

976
!0!976
!1!976
0!0!976
0!1!976

976
!0!976
!1!976

International Numbers
(011 prefix)

011

011

NOTE: You can enter the wild card character ! by pressing Wild (the [*Hold*] button on your system phone) This character represents *any single character* in a phone number.

GROUPS

PICKUP GROUP EXTENSIONS

Assigns extensions to a Pickup Group. Outside calls to a Pickup Group can be picked up by any user in the system.

DIAL #501

DIAL a group number (1 to 4)

DIAL an extension number

DIAL 1 = Assigned to group

2 = Not assigned to group ✓

PRESS [*Next Item*] to assign another extension

To program another group:

PRESS [*Next Procedure*] [*Prev Procedure*], enter a new group number, and repeat above steps

CALLING GROUP EXTENSIONS

Assigns extensions to a Calling Group. Any user in the system can ring or page all extensions in a Calling Group at the same time (the first user to pick up the call is connected to the caller).

DIAL #502

DIAL a group number (1 to 4)

DIAL an extension number

DIAL 1 = Assigned to group

2 = Not assigned to group ✓

PRESS [*Next Item*] to assign another extension

To program another group:

PRESS [*Next Procedure*] [*Prev Procedure*], enter a new group number, and repeat above steps

NIGHT SERVICE BUTTON

Programs a button to turn Night Service on and off. Option 1 assigns Night Service to the standard button of the system display phone at extension 10 (see page 3-10); option 3 lets you select a different button. To assign extensions to the Night Service Group, use procedure #504. If a system password is programmed, you must enter it when turning Night Service on or off.

DIAL #503

DIAL 1 = Assigned to standard button

2 = Not assigned ✓

3 = Select button—and then press a programmable button

If you use option 3 after a Night Service button has been assigned, the Night Service feature moves from the old button to the new button you select (erasing any previously programmed feature on that button).

NIGHT SERVICE GROUP EXTENSIONS

Assigns extensions to the Night Service Group. When Night Service is on, any lines set to "no ring" or "delayed ring" on extensions in the Night Service Group change to "immediate ring." If a system password has been programmed, members of the Night Service Group can only dial Emergency numbers and Marked System Speed Dial numbers.

DIAL #504

DIAL an extension number

DIAL 1 = Assigned to group

2 = Not assigned to group ✓

PRESS [*Next Item*] to assign another extension

✓ = Factory Setting

AUXILIARY EQUIPMENT

FAX MACHINE EXTENSIONS

Identifies extensions to which fax machines are connected. To monitor the status of the fax machine from a system phone, see "Fax Management" (the bottom half of this box).

DIAL #601

DIAL an extension number

DIAL 1 = Assigned

2 = Not Assigned ✓

PRESS [*Next Item*] to identify another extension

FAX MANAGEMENT

To monitor the status of fax machines from system phones:

1. Use System Programming procedure #601 to identify extensions connected to fax machines.
2. For each fax extension to be monitored from a system phone, program the fax extension on a phone button with lights. Label the phone's Auto Dial button appropriately (for example, "FAX 12").

MUSIC ON HOLD

Activates and deactivates the MUSIC-ON-HOLD jack. When active and an audio source is connected to the jack and turned on, callers on hold hear music or recorded messages.

DIAL #602

DIAL 1 = Active ✓

2 = Not Active

HOTLINE*

Identifies a "hotline" extension and its "alert" extension. When a user picks up the hotline phone, it rings the alert extension. The hotline phone must be a standard touch-tone or rotary phone; the alert extension can have any type of phone or can be the loudspeaker paging system.

DIAL #603

DIAL an extension number (except 10 or 11) to be the hotline

DIAL the alerting extension number (except the hotline), or [*z*] [*z*] if the paging system will be alerted

To remove the hotline and alert:

PRESS [*Remove*]

HUNT GROUP EXTENSIONS

Assigns extensions to a Hunt Group. Calls to a Hunt Group ring at the next extension that is not busy. After the system rings an extension, the next call to that Hunt Group will not ring there unless all other phones in the group are busy.

DIAL #505

DIAL a group number (1 to 6)

DIAL an extension number

DIAL 1 = Assigned to group

2 = Not assigned to group ✓

PRESS [*Next Item*] to assign another ext.

To program another group:

PRESS [*Next Procedure*] [*Prev Procedure*], enter a new group number, and repeat above steps

DOORPHONE 1 EXTENSION *

Identifies a doorphone extension. When a person uses the doorphone, it rings all the alert extensions for the doorphone at the same time.

DIAL #604

DIAL an extension number (12–15, 18–21, 24–27, 30–33, 36–39, 42–45, 48–51, or 54–57)

DOORPHONE 2 EXTENSION*

See "Doorphone 1 Extension" above.

DIAL #605

DIAL an extension number (12–15, 18–21, 24–27, 30–33, 36–39, 42–45, 48–51, or 54–57)

DOORPHONE ALERT EXTENSIONS

Identifies up to 5 extensions to be alerted by a doorphone (extensions identified using procedures #604 or #605). When a person uses the doorphone, it rings all alert extensions at the same time. If the alert extension is a system phone, the call rings with a unique "ding-dong" sound to distinguish it from other calls.

DIAL #606

DIAL an extension number (except a doorphone extension)

DIAL 1 = Not an alert ✓

2 = Doorphone 1 alert

3 = Doorphone 2 alert

4 = Doorphones 1 and 2

PRESS [*Next Item*] to identify another extension (up to 5 alert extensions per doorphone)

AA/VMS EXTENSIONS

Identifies an extension on which an automated attendant or voice messaging system is installed.

DIAL #607

DIAL an extension number

DIAL 1 = Assigned

2 = Not Assigned ✓

PRESS [*Next Item*] to identify another extension

NOTE: See #306 to identify a transfer return extension; a call returns to this extension when a destination extension for a call transferred by the automated attendant/VMS does not answer.

SMDR RECORD TYPE

Identifies the type of calls a call reporting device should record.

DIAL #608

DIAL 1 = All calls ✓

2 = Outgoing calls only

SMDR TOP OF PAGE

Notifies the system that the printer has been aligned to the top of a new page. The system responds by printing the call report page header.

DIAL #609

* Use #301 to remove outside lines from this extension, and #502, #504, and #505 to remove this extension from the Calling, Night Service, and Hunt Groups. Also set Automatic Line Selection for this extension to "intercom only."

System Speed Dial

Programming Reference

From extension 10 or 11, you can store up to 60 outside numbers as System Speed Dial numbers. Once System Speed Dial numbers have been stored, any user can dial a number automatically by pressing [*Feature*] + a two-digit code (from 20–79).

NOTE: In addition, each extension can store up to 20 Personal Speed Dial numbers (80–99) for the private use of the user at the extension; see page 3–26 for programming instructions.

TO PROGRAM A SYSTEM SPEED DIAL NUMBER
(At extension 10 or 11 only)

PRESS [*Feature*] [2] [2] to enter program mode

PRESS [*Feature*] ←

DIAL a two-digit code (20 to 79)

DIAL the telephone number—up to 20 digits including special functions (see “Entering Special Characters in Speed Dial and Auto Dial Numbers” below)

*To mark a number which overrides dialing restrictions), dial [*] before the telephone number*

To program another Speed Dial number, or to change a number, repeat the last three steps

PRESS [*Feature*] [2] [2] to exit program mode

TO REMOVE A SPEED DIAL NUMBER
(At extension 10 or 11 only)

PRESS [*Feature*] [2] [2] to enter program mode

PRESS [*Feature*] ←

DIAL the two-digit code (20 to 79) for the System Speed Dial number to be removed

PRESS [*Mic*]

To remove another Speed Dial number, repeat the last three steps

PRESS [*Feature*] [2] [2] to exit program mode

IMPORTANT:
If you program 911 or other emergency numbers as Speed Dial numbers and want to place test calls:

1. Remain on the line and briefly explain to the dispatcher the reason for the call before hanging up.
2. Perform such activities in the off-peak hours, such as early morning or late evening.

Entering Special Characters in Speed Dial and Auto Dial Numbers

These special characters can be included in System Speed Dial, Personal Speed Dial, and Auto Dial numbers.

Function	Button	Display	What It Does
Pause	[<i>Hold</i>]	P	Inserts a 1.5 second pause in dialing sequence, to wait for a response such as a dial tone or a computer voice message. Example: To call an answering machine at 555-0529, wait 15 seconds, and then dial 10 to retrieve messages, enter [5] [5] [5] [0] [5] [2] [9] [<i>Hold</i>] [<i>Hold</i>] [<i>Hold</i>] [<i>Hold</i>] [<i>Hold</i>] [<i>Hold</i>] [<i>Hold</i>] [<i>Hold</i>] [<i>Hold</i>] [<i>Hold</i>] [1] [0].
Recall	[<i>Sokr</i>]	R	Sends a timed switchhook flash over the phone line. Use Recall <i>only</i> as the first entry in a Speed Dial number. Example: To use a favorite Central Office feature, you have to send a timed switchhook flash and then dial 388. Enter [<i>Sokr</i>] [3] [8] [8].
Stop	[<i>Mic</i>]	S	Stops dialing so that the user can enter additional digits, such as a password or credit card number. After a stop, the user can press [<i>Feature</i>] and the Speed Dial code again to continue. NOTE: Since MLS-6 phones have no [<i>Mic</i>] button, you must program numbers that include the Stop function from extension 10. Example: Your local bank-by-phone service requires you to enter a password before the account number. To program a Speed Dial number to call the bank at 555-7898, include a stop for manually entering the password, and continue with the bank account number (679 556 88), enter [5] [5] [5] [7] [8] [9] [8] [<i>Mic</i>] [6] [7] [9] [5] [5] [6] [8] [8].
Touch-Tone Enable	[<i>Transfer</i>]	T	Sends touch-tone digits over a rotary line, to electronic equipment such as an answering machine or bank computer. Example: Your system is connected to rotary lines but you want to call an answering machine at 555-3454 to retrieve messages. Since the answering machine requires touch tones, enter [5] [5] [5] [3] [4] [5] [4] [<i>Transfer</i>]. All digits pressed during the rest of the call are sent as touch tones.

Telephone Programming

System telephones are ready to use when they are installed, but they can be customized to meet the needs of your business and individual users. This customization is accomplished through *telephone programming*.

Telephone Programming Options

Automatic Line Selection

When a user lifts the handset of a telephone, the system chooses an idle line automatically. The Automatic Line Selection procedure sets the order in which the system looks for an idle line. You can set the system to look for outside lines first—in any desired order—or to select an inside (intercom) line first.

With Automatic Line Selection at its factory setting, the system first searches to find an idle *outside* line in numerical order (starting with line 1). Then, if all outside lines are busy, the system searches for an idle *intercom* line. This order can be changed, however, to accommodate your business needs. For example, a telemarketing firm with a WATS line (line 5) to reduce telephone expenses would set Automatic Line Selection for all telemarketers' extensions to "5, 1, 2, 3, 4, Intercom." This way the WATS line would be selected first.

If a *standard phone* user intends to place intercom calls and access system features, Automatic Line Selection for his or her extension must be set to "intercom first" for proper operation. For example, the setting for a standard phone in a lobby used for calling employees or making local calls on line 1 would be set to "Intercom, 1."

Line Ringing

Line Ringing defines when each outside line will ring at a phone. For each line at an extension, you can specify "immediate ring," "delayed ring" (phone rings after a 20-second delay), or "no ring." Examples:

- If you want all calls on a line to ring directly at users' extensions—with the receptionist providing backup—set the line at the users' extensions to "immediate ring." Then set the line on the receptionist's extension to "delayed ring." An incoming call that is not answered by a user within 20 seconds will also ring at the receptionist's extension.
- If you want calls to be answered by the receptionist first, set the lines at the receptionist's extension to "immediate ring" and the lines at the users' extensions to "delayed ring." If the receptionist does not answer a call within 20 seconds, it will ring the users' extensions.
- If you want a line to appear on a phone without ringing, set it to "no ring,"

NOTE:

You can program Automatic Line Selection and Line Ringing *only* from extension 10 or 11 using Centralized Telephone Programming; users cannot program them at their own phones.

Personal Speed Dialing

Personal Speed Dial numbers are outside phone numbers that a user dials by pressing [*Feature*] (or [#] on a standard phone) plus a two-digit code. Unlike System Speed Dial numbers, which are available to all users in the system, Personal Speed Dial numbers are available *only* at the extension for which they are programmed. The following notes apply to Personal Speed Dial numbers:

- Personal Speed Dial numbers are stored in an *extension's* memory and are for the private use of that extension.
- Each extension can have a maximum of 20 Personal Speed Dial numbers (dial codes 80–99).
- Personal Speed Dial numbers can be programmed either from extension 10 or 11 (Centralized Telephone Programming) or from the user's extension.

A user's most frequently dialed numbers can also be programmed onto a button of a system phone, if some are available, for even faster *one-touch* dialing (see "Programming Telephone Buttons" below).

Programming Telephone Buttons

Telephone buttons without lines assigned to them can be programmed to store dial-code features or telephone numbers, so you can use the feature or dial the phone number with one touch. Once programmed, these buttons are called *Auto Dial buttons*, because simply pressing the button automatically dials the feature's code or the telephone number.

- **Dial-Code Features.** The features you can program on buttons are called *dial-code features*, because to use a feature you dial its code. The system supports many dial-code features, among them Last Number Redial, Exclusive Hold, and Loudspeaker Paging; all the features are described on pages 3-26 and 3-27.
- **Telephone Numbers.** Inside (intercom) and outside telephone numbers can also be stored onto programmable buttons for automatic dialing. An extension number programmed on a button is an *Intercom Auto Dial number*, and an outside phone number programmed on a button is an *Outside Auto Dial number*. (Auto Dial numbers and Speed Dial numbers are different. Auto Dial numbers are dialed simply by pressing the programmed button; Speed Dial numbers are dialed by pressing the dial code.)

A user who has a system phone with programmable buttons should consider programming them with a combination of frequently used dial-code features and Auto Dial numbers.

Programming a Receptionist's Extension

If you set up a centralized telephone answering position at extension 10, use the following settings to customize it:

- **Immediate call answering.** If the receptionist should answer *all calls*, assign all lines (#301) to extension 10. Set Line Ringing for all lines at extension 10 to "immediate ring;" set the lines assigned at each user's extension to "delayed ring" or "no ring."
- **Backup call answering.** If the receptionist should answer some lines *only when a user does not pick up*, set Line Ringing for those lines to "delayed ring."
- **No answering.** If some lines should not be picked up by the receptionist at all, either set Line Ringing for those lines at the receptionist's extension to "no ring" or simply do not assign those lines to the receptionist's extension. In either case, Line Access Restriction should be set to "no access" to prevent the receptionist from using the Direct Line Pickup code.

If you do not have MLS-CA24 Intercom Autodialers on extension 10, you can program the unused buttons on the MLS-34D phone with Intercom Auto Dial numbers for the extensions you dial most frequently (see page 3-26). To illustrate, the MLS-34D phone shown in Figure 3-4 has Intercom Auto Dial buttons for extensions 11 through 31, starting with the top left programmable button. Dial-code features are programmed on three other unused buttons (just above lines 5–7).

The lights of an Intercom Auto Dial button show the status of the extension, so the receptionist can tell whether the phone at the extension is idle (*no lights*), busy (*red on*), calling the receptionist (*green flash*), or ringing back after the receptionist transferred a call (*green flutter*). If the extension is programmed as a fax extension (#601), the button also shows when the fax machine at the extension is not responding (for example, when it is out of paper). (For more information, see "Lights" in Chapter 4).

In summary, Intercom Auto Dial buttons give the receptionist the ability to dial or transfer calls to extensions with one touch and to see their status. (The technical names of these features are *Direct Station Select [DSS]* and *Busy Lamp Fields [BLF]*).

Backup Programming Extension

You may want to connect an MLS-34D or MLS-12D telephone to extension 11 for system and telephone programming. The backup programming extension gives the System Manager the ability to program without disrupting the receptionist on extension 10.

Telephone Programming Procedures

The rest of this chapter gives step-by-step instructions for each Telephone Programming procedure. To program a phone from extension 10 or 11, use the instructions at the top of page 3-26. To program at the extension, use the instructions at the bottom of page 3-27; then go to the appropriate box on pages 3-26 and 3-27 for instructions on programming an individual feature.

During Centralized Telephone Programming, the display phone at extension 10 or 11 takes on the characteristics of the telephone being programmed, including any System Programming settings and the lines assigned to the phone. Make sure the programming phone is as large as the largest phone in the system, because an MLS-12D phone *cannot* program an MLS-34D phone. When you enter Centralized Telephone Programming, green lights appear next to any line buttons that are already assigned.

Figure 3-4 illustrates the system telephone models: MLS-34D, MLS-12D, MLS-12, MLS-6, and MLC-6. As you program buttons, mark their functions on the phone's labeling sheet (see the examples in Figure 3-4).

NOTE:

An MLS-6 phone with 4 lines assigned to it has no programmable buttons.

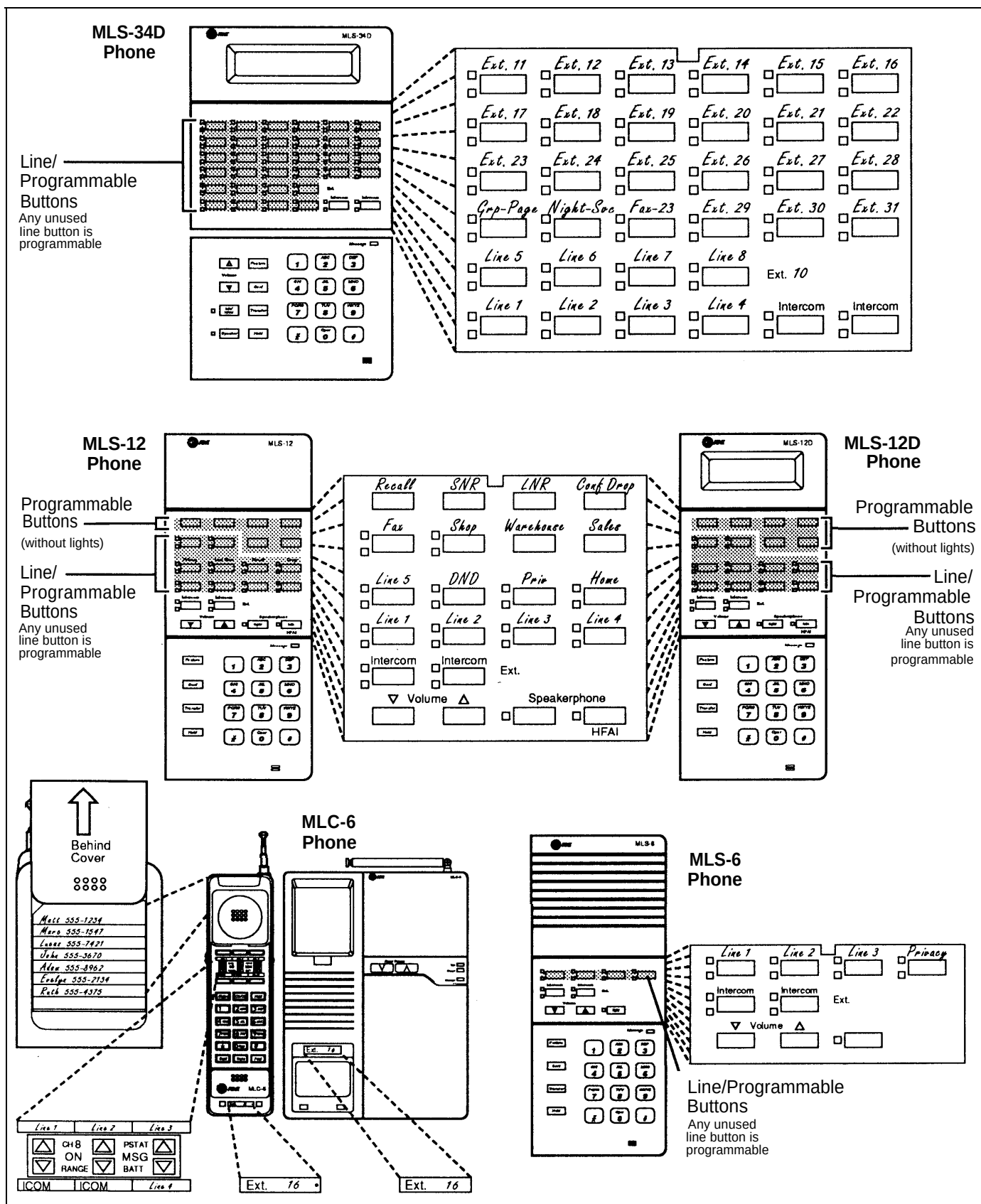


Figure 3-4. Programmable Buttons and Labeling Sheets on System Phones

Telephone Programming Reference

Centralized Telephone Programming

Use Centralized Telephone Programming to program features or store telephone numbers for individual extensions. Automatic Line Selection and Line Ringing must be programmed from extension 10 or 11 (using Centralized Telephone Programming); all other features can be programmed on a system phone at the user's extension (see "Extension Programming" on next page). If a user has a standard phone, Personal Speed Dial numbers for the extension must be programmed from extension 10 or 11.

Place the Programming Overlay on the dial pad of the system display phone at extension 10 or 11

TO START PROGRAMMING

PRESS [*Feature*] [0] [0]

PRESS [*System Program*]

PRESS [*System Program*]

PRESS [*Central Tel Program*]

DIAL the extension number to be programmed

Buttons on which lines are assigned for the extension light up to show the current Line Ringing setting; remaining buttons can be programmed with Auto Dial numbers or features

TO PROGRAM ANOTHER FEATURE AT THE SAME EXTENSION

After you finish changing a setting, simply continue with the instructions in the box shown for the new feature on page 3-26 or 3-27.

TO CHANGE SETTING FOR ANOTHER EXTENSION

PRESS [*Central Tel Program*]

DIAL the new extension's number

TO ERASE A FEATURE OR AUTO DIAL BUTTON

PRESS the programmed button

PRESS [*Mic*]

TO END PROGRAMMING

PRESS [*Feature*] [0] [0]

NOTE: Program Automatic Line Selection first.

LINES

AUTOMATIC LINE SELECTION

Determines the line a user is connected to after lifting the handset to make a call. When the user picks up the handset, the system looks for a free line in the order specified by this procedure and selects the first available line. For example, if you specify outside lines first for an extension, but all outside lines are busy, the user will hear the intercom dial tone after lifting the handset.

- For standard touch-tone or rotary phones, or for any phone used mainly to call other extensions, set the extension to select Intercom first,
- For hotline, doorphone, and auto attendant extensions, set to Intercom only (no outside lines).
- ✓ Outside lines 01–24, Intercom

PRESS [1] [1]

PRESS the line/intercom buttons in the desired order

PRESS [1] [1]

LINE RINGING

Determines how outside lines ring at the extension:

- Immediate ring (*green steady*) ✓
- Delayed ring—starts ringing after 20 seconds (*green slow flashing*)
- No ring (*green fast flutter*)

PRESS each line button until the desired ringing option appears in the display



Factory Setting



Requires a button with lights

SPEED DIALING

PERSONAL SPEED DIAL NUMBERS*

Stores up to 20 Personal Speed Dial numbers for a user's extension. Users with system phones can program Personal Speed Dial numbers; standard phones must be programmed from extension 10 or 11.

PRESS [*Feature*]

DIAL a 2-digit code (80 to 99)

DIAL the phone number—up to 20 digits including special characters (see page 3-20)

AUTO DIAL NUMBERS—INSIDE (INTERCOM) AND OUTSIDE*

Stores phone numbers on programmable buttons of system phones, so users can dial simply by pressing a button. If you program an extension number on a button with lights, the lights show calling activity at the extension. If you have two MLS-CA24 Intercom Autodialers connected to the system phone at extension 10 or 11, you can program *all* of the extensions on your system (up to 48) on Auto Dial buttons; this lets your receptionist see activity at all extensions with a glance and transfer calls to any extension by pressing one button.

PRESS a programmable button

To program an outside number:

DIAL the number—(up to 20 digits, including special characters (see page 3-20))

To program an extension number:

PRESS left [*Intercom*]

PRESS the extension number (to *ring* the extension when the Auto Dial button is pressed) or [1] plus the extension number (to *voice-signal* the extension when the Auto Dial button is pressed)

DIAL-CODE FEATURES

DO NOT DISTURB

Prevents the phone from ringing; outside callers hear ringing and inside callers hear a busy signal. This feature is recommended only if someone else answers outside calls for your extension.

PRESS a programmable button with lights

PRESS [*Feature*] [0] [1]

EXCLUSIVE HOLD

Prevents other extensions that share a line from picking up calls placed on hold.

PRESS a programmable button

PRESS [*Feature*] [0] [2]

RECALL

Sends a timed switchhook flash over the phone line. This lets the user end a call and get dial tone, to make another call without hanging up and lifting the handset.

PRESS a programmable button

PRESS [*Feature*] [0] [3]

SAVE NUMBER REDIAL

Saves an outside number into temporary memory, by pressing the button before hanging up the call. This feature then redials the saved number, even after intervening calls.

NOTE: This feature can be programmed onto more than one button.

PRESS a programmable button

PRESS [*Feature*] [0] [4]

*IMPORTANT:

If you program 911 or other emergency numbers as Speed Dial numbers and want to place test calls:

1. Remain on the line and briefly explain to the dispatcher the reason for the call before hanging up.
2. Perform such activities in the off-peak hours, such as early morning or late evening.

DIAL-CODE FEATURES

LAST NUMBER REDIAL

Automatically redials the last outside number dialed.

PRESS a programmable button

PRESS [*Feature*] [2] [5]

CONFERENCE DROP

Drops the last outside party added to a conference call, without disconnecting the other parties.

PRESS a programmable button

PRESS [*Feature*] [2] [6]

PRIVACY

Prevents other extensions that share a line from joining telephone conversations.

PRESS a programmable button with lights

PRESS [*Feature*] [2] [7]

TOUCH-TONE ENABLE

Lets users with rotary lines use phone services such as "Bank by Phone" that require touch-tone digits. After the user presses Touch-Tone Enable, all numbers dialed during the call are sent as touch-tone digits.

PRESS a programmable button

PRESS [*Feature*] [2] [8]

MESSAGE LIGHT ON

Turns on the Message light at an extension with a system phone.

PRESS a programmable button

PRESS [*Feature*] [2] [9]

MESSAGE LIGHT OFF

Turns off the Message light at an extension with a system phone. To use this feature, you can enter the feature code or press a programmed button, then enter the extension number.

PRESS a programmable button

PRESS [*Feature*] [1] [2]

CALL FORWARDING

Forwards all intercom, outside, or transferred calls to another system extension. You can use this feature at your own extension or at the extension where you want your calls forwarded.

PRESS a programmable button

PRESS [*Feature*] [1] [1]

CALL PICKUP (any extension)

Picks up a call ringing at any other extension in the system.

PRESS a programmable button

PRESS [*Intercom*] [6]

DIAL the extension number

GROUP PICKUP

Picks up an outside call ringing at any extension in a Pickup Group (see System Programming procedure #501).

PRESS a programmable button

DIAL left [*Intercom*] [6] [6]

DIAL the Pickup Group number (1–4)

LOUDSPEAKER PAGING

Connects the user to the (optional) loudspeaker paging system.

PRESS a programmable button

PRESS left [*Intercom*] [7] [2]

GROUP CALLING

Simultaneously rings all extensions in a Calling Group (see System Programming procedure #502). The first user to answer is connected to the caller.

PRESS a programmable button

PRESS left [*Intercom*] [7] [3]

DIAL a Calling Group number (1–4)

GROUP PAGING

For simultaneously placing a voice-signaled call to all extensions in a Calling Group (see System Programming procedure #502). When using this feature, the caller hears a beep and begins speaking; the caller's voice is then heard on the speakers of all system phones in the Calling Group. The first user to answer the call (by picking up the handset or pressing the [*Mic*] button) is connected to the caller.

PRESS a programmable button

PRESS left [*Intercom*] [8] [3]

DIAL a Calling Group number (1–4)

EXTENSION HUNT GROUP

Rings or pages (voice-signals) the next available extension in a Hunt Group (see System Programming procedure #505).

For ringing the first available extension.

PRESS a programmable button

DIAL left [*Intercom*] [7] [4]

DIAL a Hunt Group number (1–6)

For paging the first available extension:

PRESS a programmable button

PRESS left [*Intercom*] [8] [4]

DIAL a Hunt Group number (1–6)

DIRECT LINE PICKUP

Picks up a specific outside line. This feature is useful for accessing a line that is not assigned to a phone.

For picking up an idle line:

PRESS a programmable button

DIAL left [*Intercom*] [8]

For picking up a ringing call, or held call, or to join a call in progress:

PRESS a programmable button

DIAL left [*Intercom*] [9] [8]



Requires a button with lights

Extension Programming

Users can program features or store telephone numbers at their *own phones* using Extension Programming, Automatic Line Selection and Line Ringing *must* be programmed from extension 10 or 11 (using Centralized Telephone Programming); all other features can be programmed on a system phone at the user's extension. If a user has a standard phone, Personal Speed Dial numbers for the extension must be programmed from extension 10 or 11.

TO PROGRAM OR CHANGE A PERSONAL SPEED DIAL NUMBER, AUTO DIAL NUMBER, OR DIAL-CODE FEATURE

PRESS [*Feature*] [2] [2] to enter program mode.

Follow the boxed instructions in "Centralized Telephone Programming" above to program the first number or feature.

To program more numbers or features, follow their boxed instructions.

PRESS [*Feature*] [2] [2] when you are finished programming.

TO REMOVE AN AUTO DIAL NUMBER OR A DIAL CODE FEATURE FROM A BUTTON

PRESS [*Feature*] [2] [2] to enter program mode.

PRESS the programmed button. ←

PRESS [*Mic*].

To remove another number or feature, repeat the last two steps.

PRESS [*Feature*] [2] [2] when you are finished programming.

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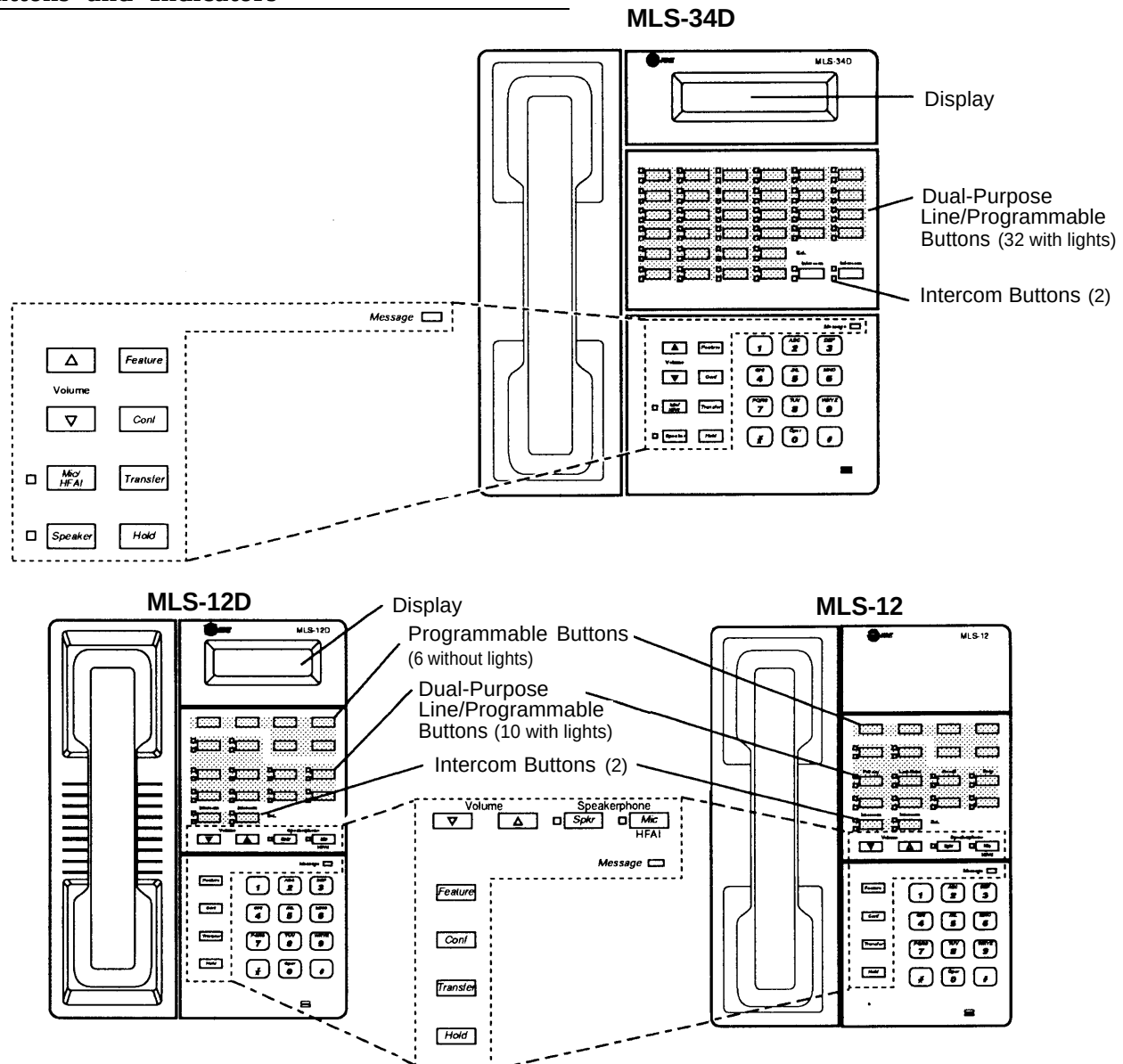
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System Telephones

System phones have some common buttons and indicators. The following pages explain where they are and how they work.

Instructions for using dial-code features on system and standard phones begin on page 4-11, and call handling instructions begin on page 4-14.

Buttons and Indicators



The following buttons and displays appear on system phones. (Some controls and indicators are not available on all phones.)

Display. (MLS-34D and MLS-12D only) Shows date, day, and time when phone is idle, number dialed when placing a call, extension number calling when receiving an Intercom call, extension number dialed when transferring a call, and duration while a call is in progress. When programming, shows settings, options, and prompts.

Dual-Purpose Line/Programmable Buttons. Used for outside lines or (if no line is assigned on a button) for programming telephone or extension numbers, or other dialing sequences (such as the dial-code features described later in this chapter). When a line is assigned, you can press the line button to make a call on a specific line (lights show status of line). When no line is assigned, the button may be programmed. The MLS-34D has 32 line/programmable buttons; the MLS-12D and MLS-12 have 16 programmable buttons (10 with lights); the MLS-6 and MLC-6 phones have 4 line/programmable buttons.

Intercom Buttons. Press either button to place an intercom (inside) call to another extension.

Other Buttons and Indicators (shown in exploded views)

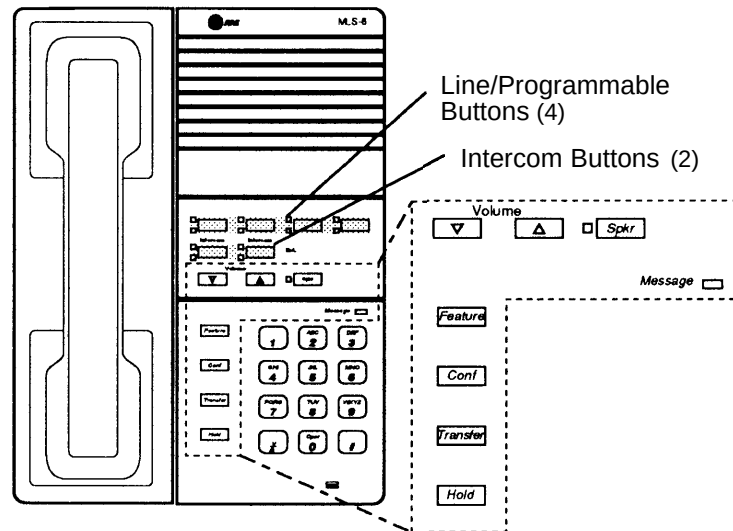
Feature. Press to change programmed settings or use dial-code features.

Conf (Conference). Press to add other parties to your call.

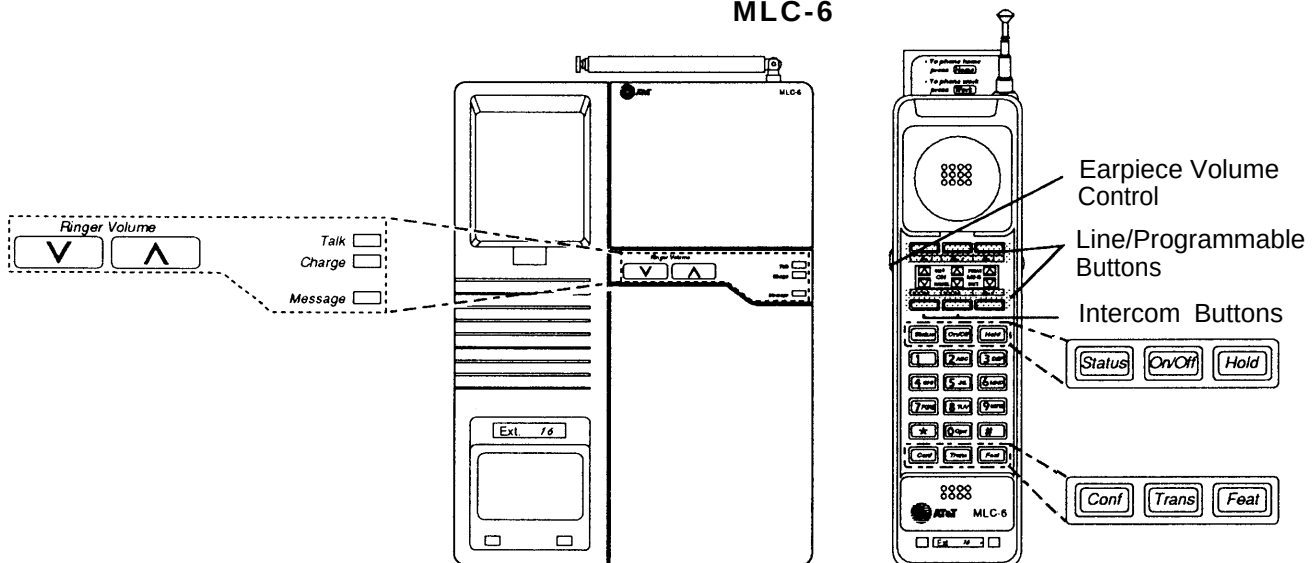
Transfer. Press to transfer a call to another extension.

Hold. Press to put a call on hold.

MLS-6



MLC-6



Spkr (Speaker) (all models except the MLC-6). Press to talk without lifting the handset. Turns on speaker and microphone (if available), so you can dial or have a conversation without lifting the handset.

Mic (Microphone) (MLS-34D, MLS-12D, and MLS-12 only). Leave on to use Hands-Free Answer on Intercom feature. The light next to this button shows when the microphone is turned on; press this button to turn off the microphone when you are using the built-in speaker.

Message Indicator. Lights when someone signals you with the Message Light On feature.

Volume Control Buttons. Press ▼ to decrease or ▲ to increase the volume of the ringer, speaker, and handset.

- To adjust ringer volume, press ▼ or ▲ while the phone is idle and the handset is on the phone.
- To adjust speaker volume, press ▼ or ▲ while listening to a call through the speaker.
- To adjust handset volume, press ▼ or ▲ while listening through the handset.

On/Off (MLC-6 only). Turns the handset on and off. (You must turn the handset on to make calls.)

Status (MLC-6 only). Quickly updates the display on the MLC-6 handset.

Talk (MLC-6 only). Lights when handset is lifted and turned on.

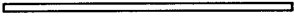
Charge (MLC-6 only). Lights when handset is placed on the base and handset batteries are charging.

Lights

Each line button has a green light and a red light. The meaning of these lights varies, depending on whether a button is used to access an outside line, is programmed with a dial-code feature, or is programmed with an Intercom Auto Dial number. (Auto Dial buttons for fax extensions show additional information; these “Fax Management” buttons are described in Chapter 5.)

Table 4-1 shows the meanings of the various light patterns for each possible button assignment.

Table 4-1. Light Patterns for System Phones

Light Pattern	Line Button	Feature Button*	Intercom Auto Dial Button
Steady On 	Line is busy. Green means your phone is busy; red means someone at another extension is busy on the line.	Feature is on	Red means the extension is busy (making or answering a call).
Off  (steady off)	Line is idle (not being used).	Feature is off	Extension is idle (not being used).
Flash  (long on, long off)	A call is ringing on the line. Green flash means a call is ringing at your extension. Red flash means a call is ringing on the line, but not at your extension.	—	Green flash means someone at another extension is calling you.
Alternating Red/Green Flash  (red on, green on, red on, green on)	Alternating green and red flash appears at both extensions in a joined call, and at any extension connected in a conference call.	—	—
Wink  (long on, short off)	A call on the line is on hold. When the green light winks, the call is on hold at your extension. When the red light winks, the call is on hold at another extension. (Anyone who has the line can retrieve the call.)	—	—
Flutter  (short on, short off)	Green flutter means a call is on exclusive hold at your extension (and can only be retrieved from your extension).	—	Green flutter means a call transferred to the extension is now ringing at your phone.
Broken Flutter  (short on/off, long off)	—	—	Fax Management only—the fax extension is not answering calls (may be out of paper).

NOTE:

When a phone is in programming mode, the lights show information about programmed settings. See Chapter 3 for details.

* Applies only to Do Not Disturb, Privacy, and Night Service, all of which require programming on a button with lights. (For more information about programming these features, see pages 3-26 and 3-27.)

Ringing Patterns

You can tell what kind of call you are receiving by the way your telephone rings.

- A single ring (*ring . . . ring . . . ring . . .*) means that you are receiving an outside call.
- A ring and a beep (*ring BEEP . . . ring BEEP . . . ring BEEP . . .*) means that someone is calling you from another extension. If you have a system phone with a display, the caller's extension number will show on the display.
- A ring and two beeps (*ring BEEP BEEP . . . ring BEEP BEEP . . . ring BEEP BEEP . . .*) means either that a transferred call is coming in, or that a transferred call that was not answered is ringing back.

Dial Tones

You will encounter two different dial tones when making calls with a system phone:

- **Outside dial tone** is generated by your local phone company to indicate that you are connected with an outside line.
- **Intercom dial tone** is generated by the system to indicate that you are connected with an inside line. You hear this dial tone when you are making an inside, or *intercom*, call.

To hear the difference between the two types of dial tones on a system phone, press a line button. The dial tone you hear is an outside dial tone. To hear an intercom dial tone, press [*Intercom*].

Using the Handset, Speaker, and Microphone

Every MLS-model telephone has a speaker, which you can turn on by pressing [*Spkr*]. When the green light next to [*Spkr*] is on, the speaker is on.

MLS-34D, MLS-12D, and MLS-12 phones also have a microphone. On these phones, pressing [*Spkr*] turns on *both* the speaker *and* the microphone. In addition, you can turn just the microphone on and off by pressing [*Mic*]. When the green light next to [*Mic*] is on, the microphone is on.

The call handling instructions in this chapter explain how to use the handset to make and answer calls. If you prefer to dial and conduct calls without lifting the handset, you can use the speaker and the microphone instead. Use these techniques to make calls with the speaker and (if you have one) the microphone:

- To make a call without lifting the handset, press [*Spkr*] to get a dial tone; then dial the number and you will hear the call ringing. If you have a microphone, it is turned on automatically when you press [*Spkr*] (if it is not on already); when the other party answers, you can talk without lifting the handset. On MLS-6 system phones (which have no microphone), you must lift the handset to talk when the other party answers.
- To turn off the microphone when you are using the speaker, press [*Mic*]. This will *mute* your voice so the other party cannot hear you.

-
- If you are already on a call, you can switch from the handset to the speaker and microphone (on an MLS-34D, MLS-12D, or MLS-12 phone) by pressing [*Spkr*] and hanging up the handset. Conversely, if you are using the speaker and microphone and want to switch to the handset, lift the handset and the speaker and microphone will turn off.
 - Use the Hands-Free Answer on Intercom (HFAI) feature to answer *voice-signaled* calls without lifting the handset (see below).

Hands-Free Answer on Intercom (HFAI)

When you receive a *voice-signaled* intercom call (are “paged”), your phone beeps to indicate that your speaker has been turned on automatically, and you hear the caller’s voice over your phone’s speaker. If you leave the microphone on your phone on all the time, you can simply start talking when you hear the caller, without lifting the handset. This feature is called *Hands-Free Answer on Intercom*.

NOTE:

Since MLS-6 and MLC-6 phones do not have microphones, you must lift the handset to answer voice-signaled calls to those phones.

Any user in the system can make a voice-signaled call to a system telephone by pressing [*] and then dialing an extension number. (You can make a voice-signaled call *from* either a system phone or a standard phone. However, if you try to make a voice-signaled call *to* a standard phone, it will ring.)

NOTES:

1. The HFAI feature can only be turned on or off when your phone is idle. Muting your voice while you are on a call only turns off the microphone for the duration of the call.
2. If HFAI is on and you are already on a call, you will not hear any other pages to your extension.

Speakerphone Performance Tips

The speakerphone on your MLS-34D, MLS-12D, or MLS-12 telephone has a sensitive sound-activated switch. Room acoustics and background noise can affect the proper operation of the speakerphone. To ensure that your speakerphone works effectively, follow these guidelines:

- Avoid placing your phone in areas with high background noise caused by loud voices, radios, printers, copiers, typewriters, other noisy office equipment, and heater and air conditioning fans.
- Avoid rustling papers near the microphone (lower right corner of your phone).
- Avoid talking before the other person is finished speaking. When you both talk at the same time, only one person’s voice comes through.
- When talking, always face your phone and stay within two feet of it.
- Place your phone at least six inches away from the edge of your desk.

-
- If you have difficulty hearing the other party, increase the speaker volume. If the difficulty persists, lift your handset to continue the conversation.
 - In conference rooms, a separate speakerphone (such as the AT&T S203 Speakerphone) is recommended, since the built-in speaker on a system phone is designed for individual use.

Standard Telephones

In addition to system phones, you can connect standard touch-tone or rotary dial telephones—and even some non-system phones with built-in calling features—directly to the system. You can also combine standard phones on the same extension with system phones or other devices, without using expensive adapters or connectors.

Standard telephones can do many of the things that system telephones can do, and you can save money by using them in certain situations when a system telephone is not needed. Follow these guidelines when using standard phones:

- Use standard phones as power failure backups. In the event of a power failure, standard phones at extensions 10, 16, 22, 28, 34, 40, 46, and 52 connect to lines 1, 3, 5, 7, 9, 11, 13, and 15, respectively, for continued operation; but system phones will not work. You can connect standard phones in combination with system phones at power failure extensions, or you can simply keep spare standard phones at those extensions to serve as replacements in case of a power failure.
- To use a dial-code feature, press [#] followed by its dial code when you hear the intercom dial tone. (For details, see “Dial-Code Features” in the next section.)
- To use a Speed Dial number, press [#] followed by its two-digit code. (For details, see “System Speed Dialing” in Chapter 3.)
- Use the switchhook on a standard phone to place calls on hold, transfer a call, or set up a conference call. (For details, see “Using the Switchhook” on the next page, or the call handling instructions later in this chapter.)

Ringing Patterns

Standard phones have these ringing patterns:

- An outside call will *ring . . . ring . . . ring*.
- An intercom call will *ring-ring . . . ring-ring . . . ring-ring*.
- A transferred call will *ring-ring-ring . . . ring-ring-ring . . . ring-ring-ring*.

Dial Tones

Standard phones have two different dial tones:

- **Outside dial tone** is generated by your local telephone company to indicate that you are connected with an outside line.
- **Intercom dial tone** is generated by the system to indicate that you are connected with an inside line. You hear this dial tone when you are making an inside, or *intercom*, call.

To hear the difference between the two dial tones, lift the handset. The dial tone you hear is an intercom dial tone. To hear an outside dial tone, press [9].

Using the Switchhook

Some of the call handling instructions in this chapter direct you to “rapidly press and release the switchhook.” Pressing the switchhook for 1/4 to 1 second sends a signal over the line called a *switchhook flash*. However, do not press the switchhook *too* quickly. If you press the switchhook and nothing happens, try again and press it a *little* longer.

NOTE:

If your feature phone has a button labeled “Recall” or “Flash,” use the button instead of pressing the switchhook.

Limitations

Because standard phones do not have system line buttons, feature buttons, or dedicated function buttons, basic call handling procedures are sometimes different from those for system telephones. In addition, the following actions *cannot* be performed at a standard telephone:

- Because there are no line buttons on standard phones, you must use the dial code for Direct Line Pickup to select a specific line. (For information on Automatic Line Selection, see “Telephone Programming” in Chapter 3.)
- If a standard phone is in use, there is no indication of a second call and the caller will hear a busy tone.
- You can make a voice-signaled call *from* a standard phone, but if you try to make a voice-signaled call *to* a standard phone, it will ring because it does not have a system speaker.
- You cannot enter programming mode.
- You cannot use the System Password.
- You cannot use the following dial-code features: Do Not Disturb, Exclusive Hold, Save Number Redial, or Privacy.
- If the standard phone has a message waiting light, it will not work.

Feature Phones

A *feature phone* is a standard telephone that has feature buttons in addition to the regular 12-key dial pad. For example, there are feature phones that have programmable auto dial buttons, last number redial buttons, hold buttons, and built-in speakerphones. Most of the features on these phones will work with the system. You can use most of the system's dial-code features from a feature phone, and program them onto a feature phone button. However, there are some limitations to what these phones can do.

The capabilities of a feature phone are *in the phone itself*. For example, if you store a number on a feature phone's auto dial button, that number is stored *in* the feature phone. (This is different from storing a number on a system phone's Auto Dial button. When you program a button on a system phone, the number is actually stored in the control unit.) Similarly, when you press a Hold button on a feature phone, the call is held at the phone itself. Other phones in the system cannot see that the call is on hold (it appears as a busy line).

If you want to program an outside number on a feature phone's auto dial button, you must add a [9] [*Pause*] [*Pause*] before each outside number. (The 9 gets an outside line, and the [*Pause*] allows a few seconds to get an outside dial tone.)

Note that the feature phone's last number redial button may not work for an outside call. To redial the last number, use the system's Last Number Redial feature by pressing [#] [0] [5].

Combination Extensions

A *combination extension* is an extension with devices connected to it—either two standard devices, or a system phone and a standard device (but *not* two system phones). For instructions on how to install a combination extension, see Figure 2-2 in Chapter 2.

The following are examples of useful combination extensions:

- System phone plus standard telephone, for power failure backup on extensions 10, 16, 22, 28, 34, 40, 46, and 52
- System phone plus answering machine
- System phone plus fax machine
- System phone plus tip-ring headset
- System phone plus an external alert (such as a bell or chime).

Using the telephones in a combination extension is fairly simple. The main thing to understand is that the two telephones share a single extension in the same way several home telephones share a single number. A system telephone works like it always does and a standard telephone works like it always does when connected to the system. *Only one phone or device can be used at a time*, unless you want to join the two on a single call (the same way two people can pick up the same call on different telephones at home). For example:

- Both phones share the same extension number.

-
- Both phones share the same *voicepath*; that is, when either phone is busy, the extension is busy.
 - The lights on the system phone show what the standard telephone is doing as well as what the system phone is doing. For an explanation of light patterns, see “Lights” at the beginning of this chapter.
 - Calls ring at both phones.
 - You can handle a call on the standard telephone by pressing buttons on the system telephone. For example, you can use the system phone to select a specific outside line, and conduct the call on the standard phone. Or, if someone is on a call using the standard telephone, someone else can put that call on hold by pressing [*Hold*] on the system phone. To do this, it is not necessary to lift the handset of the system phone. Held calls do not ring back from a standard phone at a combination extension. To retrieve a held call from the standard phone, use Direct Line Pickup.
 - You can also use dial-code features at the system phone while the standard phone is on a call. (See the next section for more information on using dial-code features.)
 - If you make a voice-signaled intercom call to a combination extension with a system phone, only the system phone signals.

Dial-Code Features

Dial-code features are features that are accessed by a dial code. They include such features as Exclusive Hold, Conference Drop, and Last Number Redial. A complete list of dial-code features is shown in Table 4-2, which starts on this page.

In general, you can use a dial-code feature in either of two ways:

- Dial the code manually. For example, to use Last Number Redial on a system phone, press [*Feature*] [0] [5]; to use it on a standard phone, press [#] [0] [5]. (A standard phone must be receiving intercom dial tone in order to use a dial code feature.) Instructions for manually using dial-code features are in Table 4-2.
- Program the feature's dial code onto a programmable button of a system phone, so you can use it automatically with a single touch. Instructions for using the feature once its code is programmed on a button are in Table 4-2 and in the *Quick Reference* card.

NOTE:

If you use all four line buttons on an MLS-6 or MLC-6 phone for outside lines, you cannot program any of these dial-code features on the phone.

Table 4-2. Dial-Code Features

Dial-Code Feature	To Use Manually on a . . .		To Use When Programmed on a Button
	System Phone	Standard Phone	
Do Not Disturb Prevents calls from ringing at your phone. Outside callers hear the usual ringing; intercom callers hear a busy signal. If you transfer a call and it returns to you, your phone will ring even if Do Not Disturb is on. Recommended only if someone else answers your outside calls. To use this feature, you must program [<i>Feature</i>] [0] [1] onto a button with lights.	Not available	Not available	 Press the button to turn Do Not Disturb on; press it again to turn it off. Use the button like a switch—when the light is on, Do Not Disturb is on
Exclusive Hold Places a call on hold so other extensions with the line cannot pick it up.	Dial [<i>Feature</i>] [0] [2] to put the call on hold. To retrieve it, press the line button on which the call is held	Not available	Press the button to put the call on hold. To retrieve it, press the line button on which the call is held
Recall "Recalls" a dial tone. Use Recall to end a call without hanging up—you will get a dial tone and can then make another call.	Dial [<i>Feature</i>] [0] [3]	Dial [#] [0] [3]	Press the button
Save Number Redial Saves the last outside number dialed into temporary memory. Use the dial code to save a number before you hang up on a busy or non-answering call. Once saved, you can redial it at any time. The number stays in memory until a different one is saved. System Speed Dial numbers cannot be saved. (You can program this feature onto more than one button.)	Dial [<i>Feature</i>] [0] [4] before hanging up. To redial later, press [<i>Feature</i>] [0] [4] again	Not available	Press the button before hanging up. To redial later, press the button again
 = Must be programmed onto a button with lights (see pages 3-26 and 3-27). You cannot dial this feature manually.			

Dial-Code Feature	To Use Manually on a . . .		To Use When Programmed on a Button
	System Phone	Standard Phone	
Last Number Redial The Last Number Redial feature dials the last outside number dialed (maximum 20 digits per phone number). Useful for immediately redialing a busy number. You cannot redial System Speed Dial numbers with this feature. The difference between Last Number Redial and Save Number Redial is that with Save Number Redial you can make other outside calls before redialing the saved number.	Dial [<i>Feature</i>] [0] [5]	Dial [#] [0] [5]	Press the button
Conference Drop Drops the last outside party added to a conference call, without disconnecting the other parties.	Dial [<i>Feature</i>] [0] [6]	Not available as a dial-code feature, but you can press the switchhook instead	Press the button
Privacy Prevents other users who share the same lines with you from joining your calls. To use this feature, you must first program [<i>Feature</i>] [0] [7] onto a button with lights. If Automatic Extension Privacy—system programming procedure #304—is programmed for your extension, your extension will normally be private. However, if you will sometimes need to have co-workers join your conversations, you can program Privacy onto a button with lights. This will let you temporarily override Automatic Extension Privacy.	Not available	Not available	 Press the button to turn Privacy on; press it again to turn it off. Use the button like a switch—when the light is on, Privacy is on
Touch-Tone Enable Sends touch-tone signals over a rotary line. Allows you to use phone services such as “Bank-by-Phone” that require dialing touch-tone digits. Use this feature at the point in the call when you need touch-tone signals. The rest of the numbers you dial during the call will be touch-tone digits.	Dial [<i>Feature</i>] [0] [8] when you need to enter touch-tone digits	Not available	Press the button when you need to enter touch-tone digits
Message Light On Turns on the Message light on a system phone (but not on a standard phone). Although anyone can use this feature, it is typically used by a receptionist to let someone know a message is waiting.	Dial [<i>Feature</i>] [0] [9] + extension number	Dial [#] [0] [9] + extension number	Press the button, then dial the extension number
Message Light Off Turns off a previously lit Message light on another system phone.	Dial [<i>Feature</i>] [1] [0] + extension number	Dial [#] [1] [0] + extension number	Press the button, then dial the extension number
 = Must be programmed onto a button with lights (see pages 3-26 and 3-27). You cannot dial this feature manually.			

Dial-Code Feature	To Use Manually on a . . .		To Use When Programmed on a Button
	System Phone	Standard Phone	
Call Forwarding Forwards all intercom, outside, and transferred calls from your extension to a destination extension. You can activate Call Forwarding from <i>any</i> extension. Programming this feature on a button with lights will let you see at a glance if your calls have been forwarded. Also, your system phone will beep once each time a call is forwarded from your extension to indicate Call Forwarding is active. (You will not hear this beep if Do Not Disturb is turned on.)	Dial [<i>Feature</i>] [1] [1] + your extension number + destination extension number To cancel Call Forwarding, enter your own extension number as the destination	Dial [#] [1] [1] + your extension number + destination extension number To cancel Call Forwarding, enter your own extension number as the destination	Press the button, then dial your extension number followed by the destination extension number To cancel Call Forwarding, enter your own extension as the destination number
Call Pickup Picks up a call ringing at any extension in the system.	Dial [<i>Intercom</i>] [6] + extension number	Dial [6] + extension number	Press the button
Group Pickup Picks up an outside call ringing at any extension in a Pickup Group.	Dial [<i>Intercom</i>] [6] [6] + group number (1–4)	Dial [6] [6] + group number (1–4)	Press the button
Group Calling Simultaneously rings all extensions in a Calling Group. You are connected to the first extension that answers.	Dial [<i>Intercom</i>] [z] + group number (1–4)	Dial [z] + group number (1–4)	Press the button
Group Paging Simultaneously voice signals (pages) all extensions in a Calling Group. (If you voice signal an MLC-6 or standard phone, it will ring.)	Dial [<i>Intercom</i>] [*] [z] + group number (1–4)	Dial [*] [z] + group number (1–4)	Press the button
Extension Hunt Group—Calling Rings the next available extension in a Hunt Group.	Dial [<i>Intercom</i>] [z] [z] + group number (1–6)	Dial [z] [z] + group number (1–6)	Press the button
Extension Hunt Group—Paging Voice signals the next available extension in a Hunt Group. (If you voice signal an MLC-6 or standard phone, it will ring.)	Dial [<i>Intercom</i>] [*] [z] [z] + group number 1–6)	Dial [*] [z] [z] + group number (1–6)	Press the button
Loudspeaker Paging Connects you to the (optional) loudspeaker paging system. See page 4-24 for additional instructions on using a loudspeaker paging system.	Dial [<i>Intercom</i>] [z] [0] then make your announcement	Dial [z] [0], then make your announcement	Press the button, then make your announcement
Direct Line Pickup—Idle Line Lets you access an idle line that is not assigned to your phone. For example, if your company has a dedicated WATS line, you can use this feature to access it.	Dial [<i>Intercom</i>] [2] + two-digit line number 01–24)	Dial [2] + two-digit line number (01–24)	Press the button, then dial the two-digit line number (01–24)
Direct Line Pickup—Active Line Lets you access a ringing, held, or active call on a line not assigned to your phone.	Dial [<i>Intercom</i>] [2] [2] + two-digit line number 01–24)	Dial [2] [2] + two-digit line number (01–24)	Press the button, then dial the two-digit line number (01–24)

Using Your Telephone

The charts below explain how to handle calls with both system and standard phones. When prior programming is required, the page number where you can find programming instructions is shown in the left column.

NOTE:

The instructions in the following tables assume standard phones have been programmed with Automatic Line Selection set to "Intercom first." This means when a user on a standard phone lifts the handset, the user will automatically hear intercom dial tone.

When you use your phone, there are *several ways* to access a line for placing and answering calls:

- *On a system phone*, you can either press a specific line button *or* lift the handset and let the system select a line.
- *On a standard phone*, you can dial 9.
- *On either a system phone or a standard phone*, you can use Direct Line Pickup. To place a call on an *idle* line, dial [*Intercom*] [*g*] and the two-digit line number; to pick up a *ringing* or *held* call, or to join an *active* call, use [*Intercom*] [*g*] [*g*] instead.

Placing a Call

You can place a call by dialing the entire outside phone number or extension number. There are also several ways to *speed dial* a number that has been stored in your telephone or in the system. If dialing restrictions have been programmed for an extension, the system may prevent you from placing certain calls. For example, an extension may not be allowed to dial 900 numbers. (Or an extension may be programmed to take incoming calls only, so that you will not be able to dial out at all). If a System Password has been programmed, you can enter the password to override all dialing restrictions (see "Dialing Restrictions and Permissions" in Chapter 3).

	On a System Phone* 	On a Standard Phone 
To make an outside call	1. Lift the handset or press [<i>Spkr</i>]. <i>The line button light is steady green.</i> 2. Dial the number. <i>On a display phone, the dialed number appears and the call timer begins.</i> <i>To make a call on a specific line ...</i> 1. Lift the handset and press the idle (unlit) line button, or dial [<i>Intercom</i>] [<i>g</i>] an the two-digit line number**. 2. Dial the number.	1. Lift the handset. <i>You hear the intercom dial tone.</i> 2. Dial [<i>g</i>] to get an outside line. <i>You hear the outside line dial tone.</i> 3. Dial the number. <i>To make a call on a specific line ...</i> 1. Lift the handset and dial [<i>g</i>] plus the two-digit line number**. 2. Dial the number.
* If you are using an MLC-6 cordless phone, make sure the handset is on before following these instructions. Also, the MLC-6 phone has no speaker, so use the handset to make a call. For more information on using the MLC-6 phone, see AT&T MLC-6 Cordless Telephone <i>Quick Reference: Display and Controls</i>. ** The line number represents the line jack on a 206 or 400 module that the outside line is connected to (01, 02, 03 and so on).		

	On a System Phone* 	On a Standard Phone 
To reserve an outside line <i>If a line you want to use is busy (steady red light), you can reserve it and your phone will beep when the line becomes free.</i> <i>The Line Reserve feature is useful when you share a line—such as a WATS line—with other people.</i>	1. Press the busy line button without lifting the handset or touching [<i>Spkr</i>]. 2. When the line is free and your phone beeps, lift the handset and dial the number. (If more than one person reserves a line, all their phones beep when the line is free. The first person to pick up the phone after the beep gets the line, and the other reservations are canceled.)	This feature is not available.
To Auto Dial an outside number <i>See page 3-26 for programming instructions.</i> <i>You can dial an Auto Dial number—for example, an account number for an automatic banking service—while on an outside call, but not while on an intercom call.</i> <i>You cannot dial an outside Auto Dial number while on an intercom call; this will disconnect the intercom call.</i>	1. Lift the handset or press [<i>Spkr</i>] before dialing. 2. Press the button on which the Auto Dial number is programmed. The system automatically selects a line, turns on the speaker (if the handset is on the hook), and dials the Auto Dial number. (The number being dialed will show on display phones.) <i>If you want to call on a specific line, press the line button (or dial [<i>g</i>] and the two-digit line number) before pressing the Auto Dial button.</i>	This feature is not available.
To dial a System or Personal Speed Dial number <i>See pages 3-20 and 3-26 for programming instructions.</i> <i>Ask your System Manager for a copy of the Speed Dial Numbers form showing your company's System Speed Dial numbers.</i>	<i>You can lift the handset or press [<i>Spkr</i>] before dialing ...</i> 1. If you want to call on a specific line, press the line button (or dial [<i>intercom</i>] [<i>g</i>] and the two-digit line number). 2. Press [<i>Feature</i>]. 3. Dial the two-digit Speed Dial code. The code for a System Speed Dial number is two digits from 20–79; for a Personal Speed Dial number, 80–99. <i>If you did not specify an outside line, the system automatically selects one, turns on the speaker if the handset is on the hook, and dials the number. (The number being dialed will show on a display phone unless it is a Marked System Speed Dial number.)</i>	1. Lift the handset. You hear the intercom dial tone. 2. Press [<i>#</i>]. 3. Dial the two-digit Speed Dial code. The code for a System Speed Dial number is two digits from 20–79; for a Personal Speed Dial number, 80–99. <i>The system automatically selects an outside line and dials the Speed Dial number.</i> <i>If you want to call on a specific line, press the line button (or dial [8] and the two-digit line number) before dialing the code.</i>
* If you are using an MLC-6 cordless phone, make sure the handset is on before following these instructions. For more information on using the MLC-6 phone, see <i>AT&T MLC-6 Cordless Telephone Quick Reference: Display and Controls</i>.		

	On a System Phone* 	On a Standard Phone 
To enter a System Password to override dialing restrictions <i>See page 3-18 for programming instructions.</i> <i>You cannot use a System Password on an MLC-6 phone.</i>	<i>Before lifting the handset or turning on the speaker ...</i> 1. Press [<i>Hold</i>]. 2. Enter the password. <i>The password overrides all dialing restrictions but not Line Access Restriction (#302). (The System Password will not appear on display phones.)</i> 3. Press an outside line button (or dial [<i>Intercom</i>] [<i>g</i>]) and the two-digit line number and lift the handset. 4. Dial the number. <i>The password is in effect until you hang up the phone.</i>	This feature is not available.
To call another extension on your system (an intercom call) <i>If you voice signal a standard phone or an MLC-6 cordless phone, the phone will ring.</i>	<i>You can lift the handset or press [<i>Spkr</i>] before dialing ...</i> 1. Press an idle [<i>Intercom</i>] button. <i>You hear an intercom dial tone, and the light next to the [<i>Intercom</i>] button is steady green.</i> 2. To ring the extension, dial the two-digit extension number, or To voice signal a system phone at the extension, dial [<i>*</i>] plus the two-digit extension number. When you hear a beep, start talking. <i>Your voice is heard on the other extension's speaker. If someone is using the phone at the other extension (or that extension is a standard phone), it will ring instead.</i>	1. Lift the handset. <i>You hear the intercom dial tone.</i> 2. To ring the extension, dial the two-digit extension number, or To voice signal a system phone at the extension, dial [<i>*</i>] plus the two-digit extension number. When you hear a beep, start talking. <i>Your voice is heard on the other extension's speaker. If someone is using the phone at the other extension (or that extension is a standard phone), it will ring instead.</i>
To Auto Dial another system extension <i>See page 3-26 for programming instructions.</i> <i>You can program an Intercom Auto Dial button to make ringing or voice-signaled calls.</i> <i>You can use an Intercom Auto Dial button to make one-touch transfers to an extension.</i>	1. Press the button on which the Auto Dial number is programmed. <i>The phone automatically turns on the speaker and dials the Auto Dial number if the handset is on the hook.</i>	This feature is not available.
* If you are using an MLC-6 cordless phone, make sure the handset is on before following these instructions. For more information on using the MLC-6 phone, see <i>AT&T MLC-6 Cordless Telephone Quick Reference: Display and Controls</i>.		

	On a System Phone* 	On a Standard Phone 
To ring or page all extensions in a Calling Group See page 3-19 for instructions on setting up a Calling Group. You can program [<i>Intercom</i>] [<i>z</i>] and a group number from 1 to 4 onto a programmable button to make a Group Call with a single touch. Voice signaling to a group is called "group paging."	1. Lift the handset and press [<i>Intercom</i>] (in either order). You hear the intercom dial tone. 2. To make a ringing call, dial [<i>z</i>]. 3. Dial a group number (1–4). All available extensions in the Calling Group ring. To make a voice-signaled call, dial [*] [<i>z</i>] and a group number 1 to 4. After the beep, start talking. Your voice is heard through the speakers at all Calling Group system phones that are not busy. If someone answers the page, you will be connected to that person and the rest of the Calling Group will no longer hear the page.	1. Lift the handset. You hear the intercom dial tone. 2. To make a ringing call, dial [<i>z</i>]. 3. Dial a group number (1–4). All available extensions in the Calling Group ring. To make a voice-signaled call, dial [*] [<i>z</i>] and a group number. After the beep, start talking. Your voice is heard through the speakers at all Calling Group system phones that are not busy. If someone answers the page, you will be connected to that person and the rest of the Calling Group will no longer hear the page.
To call the Hunt Group See page 3-19 for instructions on setting up a Hunt Group. You can program [<i>Intercom</i>] [<i>z</i>] [<i>z</i>] and a group number from 1 to 6 onto a programmable button to call or to transfer calls to a Hunt Group with a single touch.	1. Lift the handset and press [<i>Intercom</i>] (in either order). You hear the intercom dial tone. 2. To make a ringing call, dial [<i>z</i>] [<i>z</i>]. 3. Dial a group number (1–6). The next available extension in the Hunt Group rings. To make a voice-signaled call, dial [*] [<i>z</i>] [<i>z</i>] and a group number 1 to 6. After the beep, start talking. Your voice is heard through the speaker of the first available system phone that is not busy.	1. Lift the handset. You hear the intercom dial tone. 2. To make a ringing call, dial [<i>z</i>] [<i>z</i>]. 3. Dial a group number (1–6). The next available extension in the Hunt Group rings. To make a voice-signaled call, dial [*] [<i>z</i>] [<i>z</i>] and a group number 1 to 6. After the beep, start talking. Your voice is heard through the speaker of the first available system phone that is not busy.
* If you are using an MLC-6 cordless phone, make sure the handset is on before following these instructions. For more information on using the MLC-6 phone, see <i>A&T MLC-6 Cordless Telephone Quick Reference. Display and Controls.</i>		

Answering a Call

	On a System Phone* 	On a Standard Phone 
To answer a call <i>You can program Direct Line Pickup onto a button. See page 3-27 for programming instructions.</i>	<i>When the telephone is ringing ...</i> - Lift the handset. <i>You are connected to the incoming call. If more than one line is ringing, you are connected to the line that has been ringing longest.</i> <i>If the call is an intercom call and you have a display phone, the caller's extension number briefly appears on your display.</i> <i>To answer a call when you are already on a call ...</i> - Press [<i>Hold</i>]. <i>The call you are on is placed on hold.</i> - Press the line button or dial [<i>Intercom</i>] [<i>6</i>] [<i>8</i>] followed by the two-digit line number) for the new call. <i>You are connected to the incoming call.</i> <i>To return to the first call ...</i> - Put the second call on hold and press the line button for the first call. <i>To answer a voice-signaled call (your phone beeps) ...</i> - If the microphone is on, you can speak after the beep. <i>If the microphone is not on, press [<i>Mic</i>] or lift the handset.</i> <i>To answer a call on a specific line when more than one line is ringing ...</i> - Press the line button for the line you want to answer. - Lift the handset or press [<i>Spkr</i>].	When the telephone is ringing... Lift the handset. <i>You are connected to the incoming call.</i> This feature is not available. This feature is not available. This feature is not available.
* If you are using an MLC-6 cordless phone, make sure the handset is on before following these instructions. For more information on using the MLC-6 phone, see <i>AT&T MLC-6 Cordless Telephone Quick Reference: Display and Controls</i>.		

	On a System Phone* 	On a Standard Phone 
To answer a call ringing at another extension <i>The call can be an outside call, an intercom call, or a transferred call, and can be on a line not assigned to your extension.</i> <i>See page 3-19 for instructions on programming a Pickup Group.</i>	<i>When an extension in the system is ringing (and the extension number is known) ...</i> 1. Lift the handset. 2. Press [<i>Intercom</i>]. 3. Dial [<i>6</i>] plus the two-digit number of the ringing extension to pick up the call. <i>When an extension in the system is ringing (and the line number is known) ...</i> 1. Lift the handset. 2. Press [<i>Intercom</i>]. 3. Dial [<i>6</i>] [<i>6</i>] plus the two-digit number of the ringing line to pick up the call. <i>If an extension in a Pickup Group is ringing (if Pickup Group extensions have been programmed)...</i> 1. Dial [<i>Intercom</i>] [<i>6</i>] [<i>6</i>] and a group number (1–4) to pick up an outside call ringing at any extension in the group.	<i>When any extension in the system is ringing (and the extension number is known)...</i> 1. Lift the handset. You hear the intercom dial tone. 2. Dial [<i>6</i>] plus the two-digit number of the ringing extension to pick up the call. <i>When an extension in the system is ringing (and the line number is known)...</i> 1. Lift the handset. 2. Dial [<i>6</i>] [<i>6</i>] plus the two-digit number of the ringing line to pick up the call. <i>If an extension in a Pickup Group is ringing (if Pickup Group extensions have been programmed)...</i> 1. Dial [<i>6</i>] [<i>6</i>] and a group number (1–4) to pick up an outside call ringing at any extension in the group.
* If you are using an MLC-6 cordless phone, make sure the handset is on before following these instructions. For more information on using the MLC-6 phone, see <i>AT&T MLC-6 Cordless Telephone Quick Reference: Display and Controls</i>.		

Putting a Call on Hold

	On a System Phone* 	On a Standard Phone 
To put a call on hold (anyone can retrieve it) <i>Only one party on an intercom call can put the call on hold. If both parties try to put the call on hold, the call will be disconnected.</i>	Press [<i>Hold</i>]. <i>The light next to the line button winks green.</i> <i>You can make and receive other calls while a call is on hold. If a call is left on hold for longer than one minute, the extension at which the call is held generates a short Hold Reminder Tone. The reminder tone sounds once every minute until the held call is retrieved, or until the caller hangs up.</i>	Press the switchhook down once rapidly. <i>You hear the intercom dial tone. The call is on hold.</i> <i>Do not hang up the handset while the call is on hold. If you hang up the handset, the phone will ring. Answering will reconnect you with the held call.</i>
To put an outside call on Exclusive Hold (only you can retrieve it) <i>You can program Exclusive Hold [<i>Feature</i>] [0] [2] onto a programmable button. See page 3-26 for programming instructions.</i>	Press [<i>Feature</i>] [0] [2]. <i>The light next to the line button flutters green.</i>	This feature is not available.
To retrieve a held call	<i>If you put the call on hold ...</i> - Press the line button on which the call is held. <i>(For a call on Exclusive Hold, you must be at your own phone.) The light next to the line button changes from winking or fluttering to steady green.</i> - Lift the handset. <i>You are reconnected with the held call.</i> <i>If the call was placed on hold by a person at another extension ...</i> - Press the winking red line button (or dial [<i>Intercom</i>] [2] [2] and the two-digit line number.	<i>If you put the call on hold ...</i> - Hang up. <i>The call "rings back."</i> - Lift the handset. <i>You are reconnected with the held call.</i> <i>If the call was placed on hold by a person at another extension...</i> - Dial [<i>Intercom</i>] [2] [2] and the two-digit line number.
* If you are using an MLC-6 cordless phone, make sure the handset is on before following these instructions. For more information on using the MLC-6 phone see <i>AT&T MLC-6 Cordless Telephone Quick Reference: Display and Controls</i>.		

Transferring a Call

	On a System Phone* 	On a Standard Phone 
To transfer a call You can transfer both outside and intercom calls to other system extensions. You cannot transfer calls to a Calling Group, but you can transfer calls to a Hunt Group. To transfer calls to an extension with a single touch, program the extension number onto an Auto Dial button (see page 3-26). To program a different Transfer Return extension for calls you transfer that are not answered, see page 3-17.	<i>To transfer a call with one button touch ...</i> - While on a call, press the Auto Dial button assigned to the extension you want to transfer the call to. (There is no need to press [<i>Transfer</i>] or [<i>Hold</i>].) For an extension that has a system phone, you can program [*] plus the extension number on the Auto Dial button and announce calls over the phone's speaker before you transfer them. <i>To transfer a call ...</i> - While on a call, press [<i>Transfer</i>]. You hear the intercom dial tone. The call is put on hold and its associated light winks green. - Dial the two-digit number of the extension you want the call transferred to. When you transfer a call from a display phone, the extension number you transfer the call to briefly appears on the display. The call will ring the other extension with an intercom ring (ring BEEP) until you hang up, then will ring with the transfer ring (ring BEEP BEEP). - To announce the call, wait for the other extension to answer. Otherwise, hang up when you hear ringing. If no one answers, the call will ring back at your extension (unless a different transfer return extension is programmed). If you have a display phone, the number of the extension that is returning the transferred call will briefly appear on your display. The Intercom Auto Dial button for that extension will flutter green. - If the call rings back at your extension, press the line button next to the flashing green light and you are reconnected to the caller. If the extension where you want to transfer the call has a system phone and you want to page the user over the phone's speaker, dial [*] plus the two-digit extension number. Your voice is heard through the speaker of the system phone.	This feature is not available. <i>To transfer a call ...</i> - While on a call, press the switchhook down once rapidly. You hear the intercom dial tone. The call is put on hold. - Dial the two-digit number of the extension where you want the call transferred. The call rings at the other extension with an intercom ring (ring BEEP) until you hang up, then rings with a transfer ring (ring BEEP BEEP). - To announce the call, wait for the other extension to answer. Otherwise, hang up when you hear ringing. If no one answers, the call will ring back at your extension (unless a different transfer return extension is programmed). - If the call rings back at your extension, lift the handset and you are reconnected with the caller. If the extension where you want to transfer the call has a system phone and you want to announce the call over the phone's speaker, dial [*] plus the two-digit extension number. Your voice is heard through the speaker of the system phone.
* If you are using an MLC-6 cordless phone, make sure the handset is on before following these instructions. For more information on using the MLC-6 phone, see <i>AT&T MLC-6 Cordless Telephone Quick Reference: Display and Controls</i>.		

Making a Conference Call

A conference call connects up to five parties (including the originator) in a single call. You can connect both outside calls and intercom calls in a conference call, but the call cannot include more than two outside parties. You cannot have two outside parties on a call if your system is programmed for Outside Conference Denial (#109). See Chapter 3 for details. You can use System Speed Dial, Personal Speed Dial, or Auto Dial numbers to add parties to the conference.

Do not add a busy or ringing outside call to a conference; if you do, all callers hear the busy or ringing signal. If you hear a busy signal or the party does not answer, reconnect with the held party by pressing the line button. You cannot join a conference call; the originator must add each party to the conference.

If the conference originator puts the call on hold, other parties can continue to talk while the originator is on hold. Other inside parties cannot put their extensions on hold. When the originator hangs up, the conference is disconnected. You cannot transfer a conference call.

During the conference call, any inside party can exit the call at any time simply by hanging up. However, if an outside party hangs up during a conference call, the callers who remain will hear a dial tone. A system feature called Conference Drop removes the last-added outside party from a conference call.

	On a System Phone* 	On a Standard Phone 
To set up a conference call <i>A system phone can connect up to five parties (including the originator) in a conference call. A standard phone can connect a total of three parties—the originator and two additional parties.</i>	<i>Set up the call to the first party (you can call the party, pick up the call from hold, or answer an incoming call). Then:</i> 1. Press [<i>Conf</i>]. <i>The first party is on hold.</i> 2. Set up the call to the second party. <i>You are connected with the second party. If you are adding an intercom extension to a call, you must wait until the party answers.</i> 3. Press [<i>Conf</i>] again to add the second party to the call. <i>You can now speak with the first and second parties.</i> 4. Repeat steps 1–3 to add up to two more parties.	<i>Set up the call to the first party (you can call the party, pick up the call from hold, or answer an incoming call). Then:</i> 1. Press the switchhook down once rapidly. <i>The first party is put on hold. You hear the intercom dial tone.</i> 2. To add an outside party, dial [<i>2</i>] plus the outside number. If the number is busy or does not answer, hang up and the first party rings back. To add an inside party, dial the two-digit extension number. If the extension is busy or does not answer, press the switchhook down once rapidly and you will be reconnected with the first party. 3. When the second party answers, press the switchhook down once rapidly. <i>You are connected with both parties.</i>
To drop parties from a conference call <i>You can program [<i>Feature</i>] [<i>2</i>] [<i>6</i>] onto a programmable button. See page 3-27 for details.</i>	1. Press [<i>Feature</i>] [<i>2</i>] [<i>6</i>]. <i>The last added outside party is dropped.</i>	1. Press the switchhook down once rapidly. <i>The last added party is dropped.</i>
* If you are using an MLC-6 cordless phone, make sure the handset is on before following these instructions. For more information on using the MLC-6 phone, see <i>AT&T MLC-6 Cordless Telephone Quick Reference: Display and Controls</i>.		

Joining a Call

Joining is adding yourself to a call in progress, the same way you do on a home telephone by picking up an extension. (This is different from conferencing, in which the originator “pulls you into” the call.)

If you call on an outside line, up to three more system extensions can join you on the call (for a total of one outside and four inside parties).

	On a System Phone* 	On a Standard Phone 
To join an outside call <i>You can program the Privacy feature onto a system phone button to prevent other extensions from joining a call on your telephone (see page 3-27). In addition, the Automatic Extension Privacy feature can be programmed for an extension to prevent other extensions from joining any calls (see page 3-17).</i> <i>You cannot put a joined call on hold, or join a conference call.</i>	1. Press the line button on which the call is being conducted or dial [<i>Intercom</i>] [<i>Line</i>] [<i>Line</i>] and the two-digit line number. A steady red light at a line button indicates a call is in progress. 2. Lift the handset to speak. The red and green lights alternately flash. You are now joined with the call. You can tell when someone has joined a call of yours when the lights next to the line button change to alternately flashing red and green.	1. Lift the handset. You hear the intercom dial tone. 2. Dial [<i>Line</i>] [<i>Line</i>] and the number of the line on which the call is being conducted. <i>If a system phone joins a call on a standard phone; there is a momentary “break” in the call on the standard phone.</i>
* If you are using an MLC-6 cordless phone, make sure the handset is on before following these instructions. For more information on using the MLC-6 phone, see <i>AT&T MLC-6 Cordless Telephone Quick Reference Display and Controls</i>.		

Forwarding Calls

	On a System Phone* 	On a Standard Phone 
To forward calls to another extension <i>Program this feature on a button with lights so you know when your calls have been forwarded. See page 3-27 for programming instructions.</i> <i>Use this feature to forward outside, intercom, and transferred calls. (You cannot forward group calls.)</i>	<i>To forward calls from your extension or the destination extension ...</i> 1. Press [<i>Feature</i>] [<i>1</i>] [<i>1</i>]. 2. Dial your extension number. 3. Dial the number of the extension at which you want your calls to ring. (The extension numbers being dialed will show on a display phone.) <i>Your system phone will beep once each time a call is forwarded from your extension to indicate that call forwarding is active (unless Do Not Disturb is turned on).</i> <i>To remove call forwarding, use the steps above, but dial your extension number in both steps 2 and 3.</i>	1. Lift the handset. You hear the intercom dial tone. 2. Dial [<i>#</i>] [<i>1</i>] [<i>1</i>]. 3. Dial your extension number. 4. Dial the number of the extension at which you want your calls to ring. <i>To remove call forwarding, use the steps above, but dial your extension number in both steps 3 and 4.</i>

Loudspeaker Paging

	On a System Phone* 	On a Standard Phone 
To make an announcement over a loudspeaker paging system <i>The system supports all AT&T paging systems.</i> <i>If you have a paging system other than an AT&T PagePac6® or PagePac6 Plus, follow the manufacturer's instructions.</i> <i>You can program [intercom] [z][2] on a system phone, see page 3-27.</i>	1. Lift the handset and press [intercom] (in either order). 2. Dial [z][2]. 3. If you have an AT&T PagePac6 paging system, speak into the handset. <i>Your voice is heard through the loudspeaker system.</i> or If you have an A&T PagePac6 Plus system: press [1] to make an announcement in zone 1; press [2] for zone 2; press [3] for zone 3; press [4] for zones 2 and 3; press [5] for zones 1 and 3; press [6] for zones 1 and 2; press [z] for all zones, then speak into the handset.	<i>On a touch-tone phone only:</i> 1. Lift the handset and dial [z][2]. 2. If you have an AT&T PagePac 6 paging system, speak into the handset. <i>Your voice is heard through the loudspeaker system.</i> or If you have an AT&T PagePac6 Plus system: press [1] to make an announcement in zone 1; press [2] for zone 2; press [3] for zone 3; press [4] for zones 2 and 3; press [5] for zones 1 and 3; press [6] for zones 1 and 2; press [z] for all zones, then speak into the handset.
* If you are using an MLC-6 cordless phone, make sure the handset is on before following these instructions. For more information on using the MLC-6 phone, see <i>AT&T MLC-6 Cordless Telephone Quick Reference: Display and Controls</i>.		

Using Night Service

	On a System Phone 	On a Standard Phone 
To turn on Night Service <i>Before using this feature, you must program a Night Service Button (#503) for extension 10 and assign extensions to the Night Service Group (#504); see page 3-19 for instructions.</i>	1. Press the Night Service button on extension 10. <i>If a System Password* is programmed, the light next to the button flashes green; you must go on to step 2. If no System Password is programmed, the light is steady green and Night Service is on.</i> 2. Enter the password. <i>The light is steady green. Night Service is on.</i>	This feature is not available.
To turn off Night Service <i>Night Service can only be turned on and off from the system display phone at extension 10.</i>	1. Press the Night Service button on extension 10. <i>If a System Password is programmed, the light next to the button flashes green; you must go on to step 2. If no System Password is programmed, the light is steady green and Night Service is on.</i> 2. Enter the password. <i>The green light goes off. Night Service is off.</i>	This feature is not available.
* If you use the Night Service feature and a System Password has been programmed, a user who knows the password can enter it when Night Service is on to override calling restrictions (only for the duration of a call). See page 4-16 for instructions on entering a System Password.		

Using Auxiliary Equipment

5

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There are many ways to set up auxiliary equipment—the setup you choose depends upon your needs and the number of devices you have. This chapter presents the most common setups.

This chapter does not cover how to physically connect the equipment, or how to perform each programming procedure. See Chapter 2 for installation instructions and Chapter 3 for programming instructions.

Fax Machines

This section presents several ways that you can set up fax machines to work with your system. It includes instructions for programming and using a Fax Management button on a system phone (in order to monitor the status of a fax machine and transfer calls to it with a single touch), transferring calls to the fax machine extension, and using an AT&T fax machine's Notify button.

Using Fax Machines

Fax Management Feature

On any system phone, you can program a button with a light to serve as a Fax Management button. The light next to this button can tell you when the fax machine is in use, when it is available, or when it is not answering (for example, when it is out of paper). You can also use the button to transfer calls from your extension to the fax machine with a single touch.

Programming for Fax Management

To program a Fax Management button, first designate the fax machine extension using the Fax Machine Extensions procedure (#601). (See Chapter 3 for more details.) Then program an Intercom Auto Dial button for the fax machine extension. See "Telephone Programming" in Chapter 3.

Using the Fax Management Button

The light next to the Fax Management button shows what is happening at the fax machine. See Table 5-1 on the next page.

Table 5-1. Fax Management Button Light Patterns

Light Pattern	Indicates...
Off	Fax idle.
Red broken flutter	Fax trouble. The fax machine is not answering. If broken flutter occurs because the fax machine is out of paper, refill the paper. The light clears the next time the machine transmits or receives a call. If the machine takes longer than four rings to answer, the light shows fax trouble ; when the machine does answer, the light changes to fax busy (steady red).
Red steady	Fax busy. The fax machine is busy transmitting or receiving a call.
Green flash	Fax calling. The green flash indicates that the fax machine extension is calling you. An AT&T fax machine with the "Notify" feature can call you automatically after it receives a transmission. See "Using the Fax Machine's Notify Feature" on the next page.
Green flutter	Fax transfer return. A call you transferred to the fax machine is returning to you.

Transferring a Call to the Fax Machine

There are two situations where you would want to transfer a call to your fax machine:

- You might answer an outside call and hear a fax machine signaling. (A fax signal is a single beep sequence—*beep beep beep*). If you hear this, you should transfer the call immediately to the fax machine extension.
- You might be on a call and the person to whom you are speaking has a fax machine connected to his or her phone and wants to fax you something. You can receive the fax by transferring the call to the fax extension. Tell the other party to wait until he or she hears the fax tone before pressing the [*Start*] button on the fax machine.

There are three ways to transfer the call to the fax extension:

- If you have a Fax Management button, simply press the button and when the fax machine answers, hang up.
- If you do not have a Fax Management button, press [*Transfer*] plus the fax machine's extension number. When the fax machine answers, hang up.
- On a standard phone, rapidly press and release the switchhook to place the call on hold, then dial the fax extension number and hang up.

Using the Fax Machine's Notify Feature

Some AT&T fax machines (for example, models 5300, 5350, 9025 Plus, and 9035 Plus) have a feature called *Notify*. After such a machine receives a fax call, it automatically dials a number and plays a recorded message, such as, "You have just received a fax." If you need to know exactly when a fax comes in, or if your fax machine is located in an isolated part of your building, you can use Notify in any of the following ways:

- Program the fax machine to make a ringing or voice-signaled intercom call to an individual extension or to a Group. (Program the fax machine to dial [*] plus the extension number for a voice-signaled call; [z] and a group number (1–4) for a call to a Calling Group; [z] [z] and a group number (1–6) for a call to a Hunt Group.)
- Program the fax machine to turn on the Message light at someone's extension by dialing [#] [0] [0] plus the extension number.
- Program the fax machine to dial [z] [0] to make its recorded announcement over your loudspeaker paging system.

For all of the above examples, program the fax machine extension's Automatic Line Selection for "Intercom first," followed by whatever outside lines you want to assign to it. If the machine has an auto dial feature, program [0] [*Pause*] [*Pause*] before each Auto Dial number. When manually making a call, dial [0] to get an outside line. For instructions on how to set the Automatic Line Selection, see Chapter 3.

Setting Up Fax Machines

There are many ways to set up fax machines. The following configurations are basic and easy to use:

- **Single fax machine.** Good for light or moderate fax traffic. This basic setup uses a published fax number.
- **Fax machine line saver.** Good for light fax traffic, with no need for a published fax number.
- **Send and receive fax machines.** Good for high-volume fax traffic. One machine sends, the other receives.

You can install both a telephone and a fax machine on the same extension using an AT&T 267F2 bridging adapter (see Figure 2-2 in Chapter 2). This lets you receive both voice and fax calls on the same line (but not at the same time). If you pick up the phone and hear a fax signal, push the [*Start*] button on your fax machine and then hang up.

Restricting Dialing from a Fax Machine

You can use dialing restrictions to restrict calling activity on a fax machine. For example, you can use the Outgoing Call Restriction (#401) procedure to restrict the fax machine to local calls only. For a more detailed discussion of dialing restrictions, see Chapter 3.

Single Fax Machine

The single fax machine setup (shown in Figure 5-1) is good for moderate traffic. The fax machine has its own line (Line A), the number of which is published as the fax number. (The fax line can be used by other phones when all other lines are busy.) The fax machine is connected to its own extension (extension X).

To use:

The fax machine automatically answers all calls that come in on the fax line. If a call comes in on another line, you can transfer the call to the fax extension (see “Transferring a Call to the Fax Machine”).

When you pick up the handset to send a fax, the system automatically selects the fax line. If you have programmed a Fax Management button, you can transfer a call to the fax machine with a single touch, as well as monitor the status of the fax machine (see “Fax Management Feature” earlier in this chapter).

Fax Line Saver

If you don't use your fax machine enough to justify paying for its own outside line, you can put the machine on its own extension. With this setup, you must transfer calls to it manually. If you have programmed a Fax Management button, you can transfer a call to the fax machine with a single touch, as well as monitor the status of the fax machine (see “Fax Management Feature” earlier in this chapter). Figure 5-2 shows the setup.

To use:

The person at extension X answers a call and hears a fax machine signaling on the other end. Realizing that a fax call is coming in, this person transfers the call to extension Y—the fax machine extension. To send a fax transmission in this setup, simply lift the handset on the fax machine—an outside line will be automatically selected.

Send and Receive Fax Machines

If your business has high-volume fax traffic, you can set up two fax machines, one that only sends and the other that only receives. For example, in Figure 5-3, there are two fax machines. Fax 1 is the *send* machine, fax 2 is the *receive* machine. Line A is the fax line, the number of which is published as the fax number. If fax 2 doesn't answer line A, fax 1 will.

To use:

When you want to send a fax, just lift the handset of fax 1 and an outside line will be automatically selected. Incoming fax calls on the fax line are answered automatically by fax 2. If a fax comes in on a line other than line A, you can transfer the call to fax 2 (see “Transferring a Call to the Fax Machine”). If you have programmed a Fax Management button, you can transfer a call to the fax machine with a single touch, as well as monitor the status of the fax machine (see “Fax Management Feature” earlier in this chapter). If fax 1 is set for “delayed” ring on line A, fax 1 can pick up fax transmissions when fax 2 does not answer.

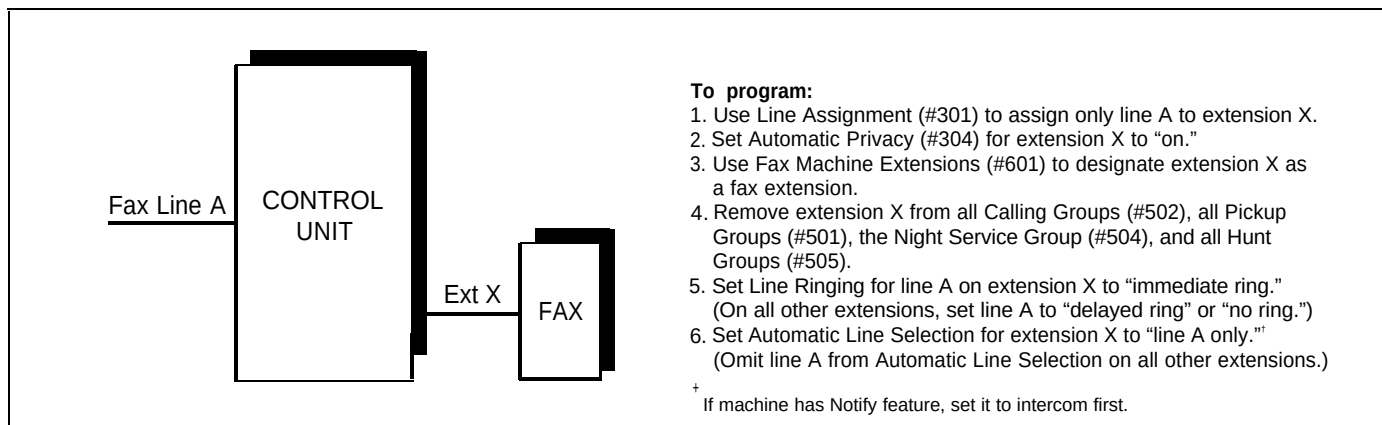


Figure 5-1. Single Fax Machine

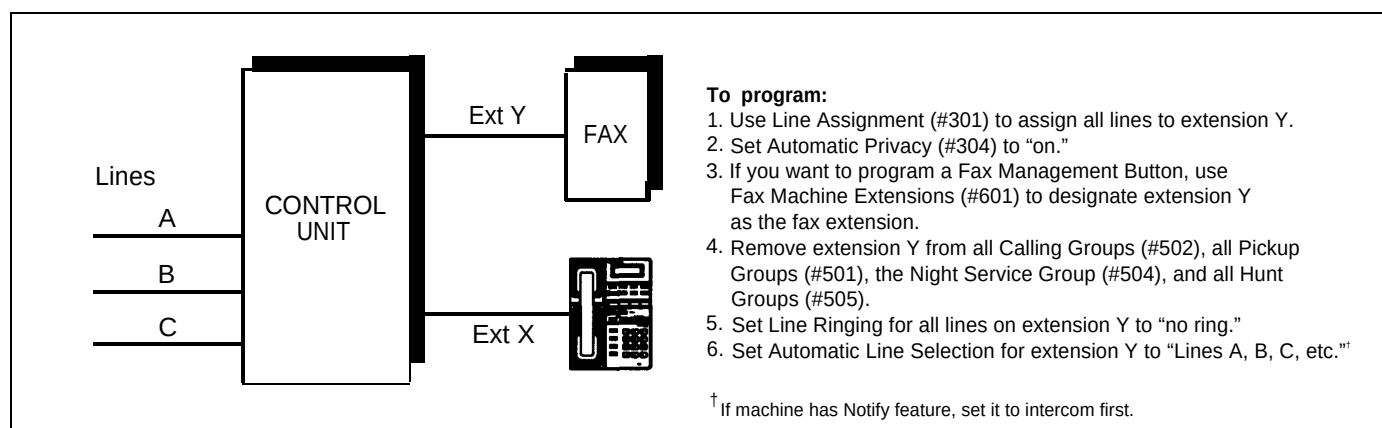


Figure 5-2. Fax Line Saver Setup

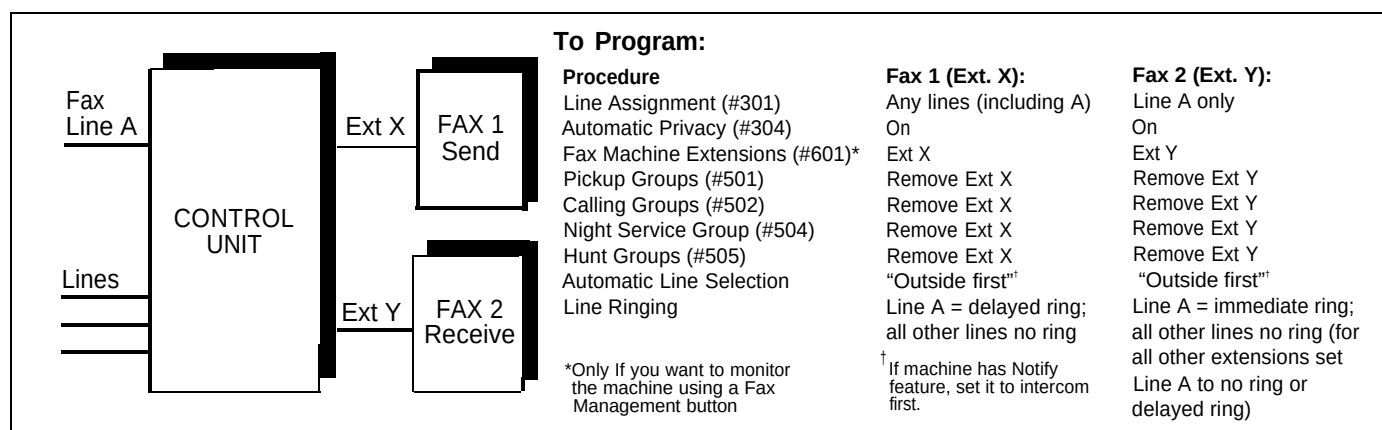


Figure 5-3. Send and Receive Fax Machines

Answering Machines

You can use an answering machine to answer calls at night when no one is around, or during business hours when no one can get to the phone. If you have an AT&T answering machine with the Call Intercept feature, you can pick up a call that has been answered by the answering machine by joining the call from any system phone. When you do so, the system sends the answering machine a signal that makes it hang up.

The following are ways you can connect answering machines to your system:

- **Single answering machine.** This basic setup can cover all the lines in the system. Anyone on the system can call the machine to retrieve messages.
- **Multiple answering machines.** If you get too many calls for one machine to cover, connect two or more machines to cover all calls.
- **Personal answering machine.** An answering machine can share an extension with a phone (via a bridging adapter) to answer calls to the extension.

Single Answering Machine

The single answering machine setup (Figure 5-4) serves the entire system. The answering machine is connected to its own extension, and can cover all the lines in the system, or as many lines as you assign to it.

To retrieve messages:

- Go to the machine to manually play back messages.
- From inside the system, make an intercom call to the answering machine extension. When the machine answers, dial its message retrieval code.
- From outside the system, call in on any line assigned to the machine. When the machine answers, dial its message retrieval code.

Multiple Answering Machines

If a single answering machine cannot handle all your calls, you can set up two or more machines (Figure 5-5) so that a call does not go unanswered. If the answering machine is busy, a second call will be answered. A setup such as this might be used by a movie theater to announce movie times to people calling for information.

To retrieve messages:

- Go to the machines to manually play back messages.
- From any system extension, make an intercom call to an answering machine extension. When the machine answers, dial its message retrieval code.

- From outside the system, call in on any line assigned to the machine. When the machine answers, dial its message retrieval code. Note, however, that when calling in from outside, you can only retrieve messages from the first machine that answers.

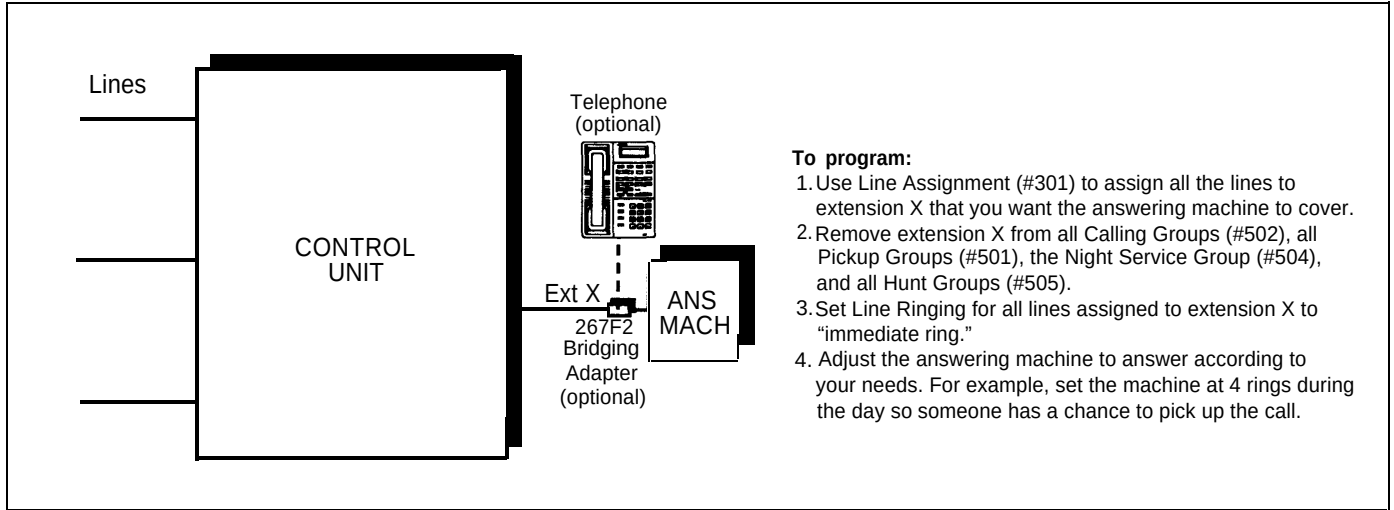


Figure 5-4. Single Answering Machine

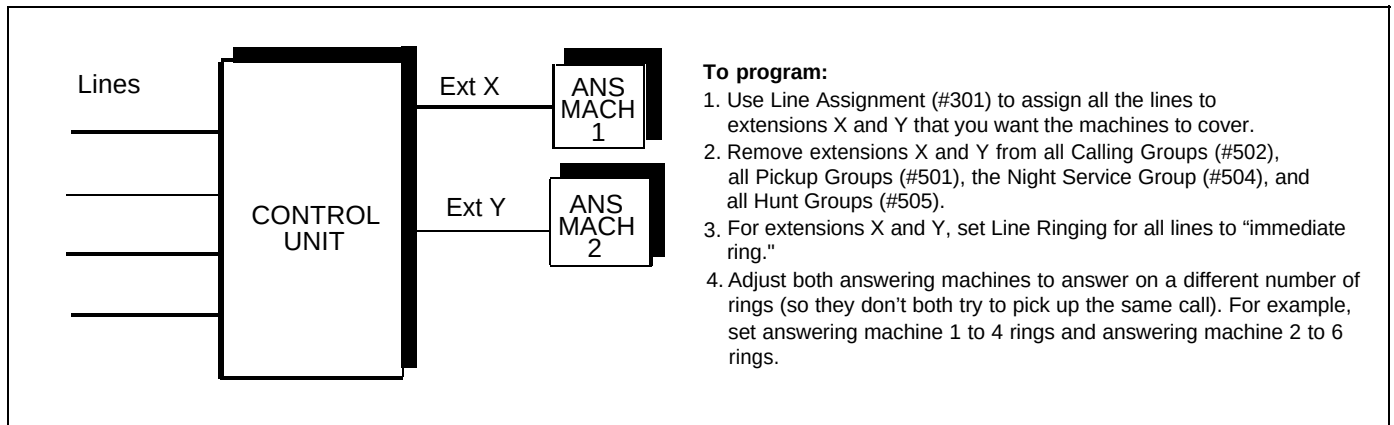


Figure 5-5. Multiple Answering machines

Personal Answering Machine

A personal answering machine is used to answer all the calls that ring on the lines at a certain extension (Figure 5-6). It is useful for the following situations:

- When you don't want to dedicate an extension to an answering machine
- When the extension receives a lot of intercom calls
- When outside calls come through a receptionist and are transferred to the extension
- When an extension has a private line

To retrieve messages:

- Go to the machine to manually retrieve messages.
- From inside the system, make an intercom call to the extension. When the machine answers, dial the retrieval code.
- From outside the system, call in and have someone transfer you to the extension. When the machine answers, dial the message retrieval code. Or, call in when no one will answer before the answering machine does.

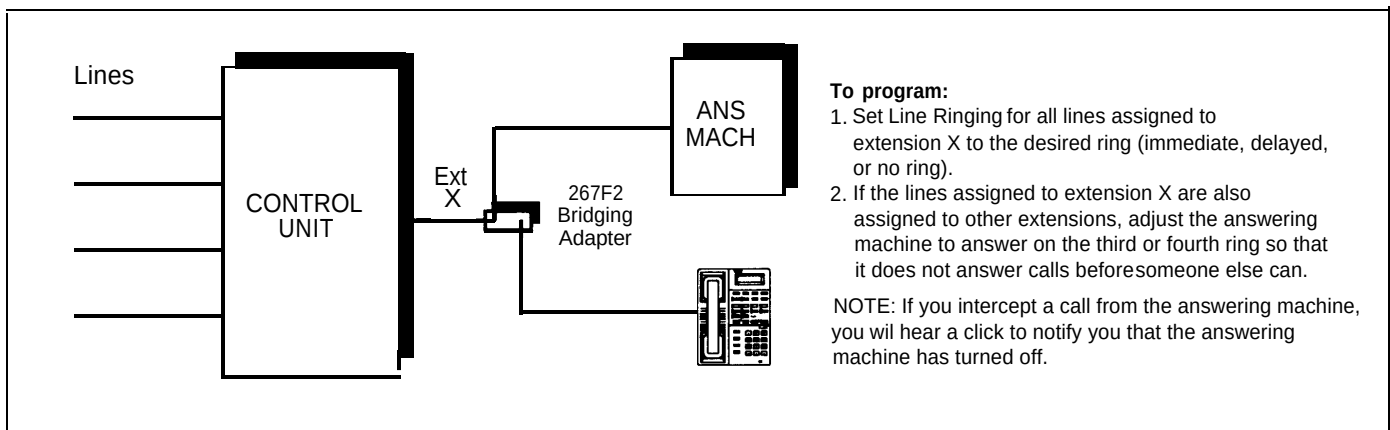


Figure 5-6. Personal Answering Machine

Modems

There are several ways to use modems with your system, as described below.

Note:

Modems can connect directly to an extension jack without an adapter.

Stand-Alone Modem for Placing Calls Only

A modem and a terminal allow you to dial out and connect to computer bulletin boards and other data services. This setup, which lets you dial out but not receive calls, is shown in Figure 5-7. Note that the 267F2 bridging adapter and telephone are optional and can be used if you want the terminal to share an extension with a phone.

To use:

Follow the modem manufacturer's instructions.

Send and Receive Modem

If you need to place *and* receive calls with the modem, use the setup shown in Figure 5-8. This setup makes line A the primary modem line, but keeps the line available for users at other extensions when all other lines are busy.

To use:

Calls on the modem line (line A) ring only at extension X. Likewise, line A is the *last* line selected by other extensions in the system, so the modem line is unavailable for the modem *only when all other lines in the system are being used*.

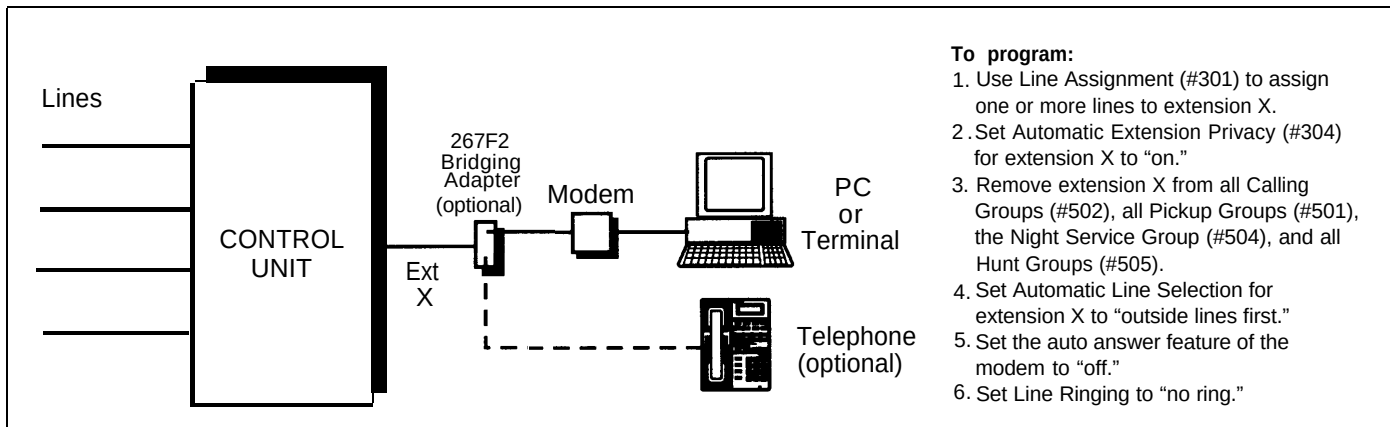


Figure 5-7. Stand-Alone Modem for Placing Calls Only

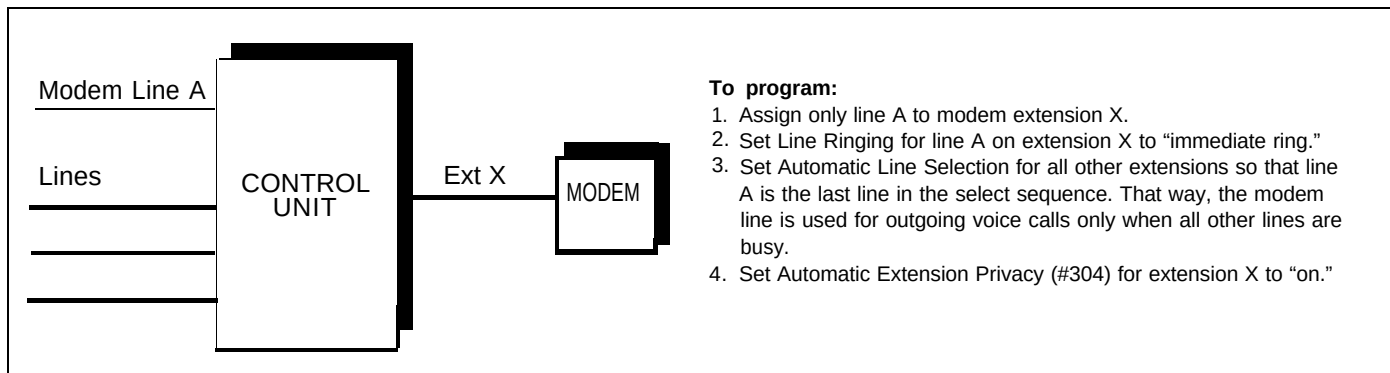


Figure 5-8. Send and Receive Modem

Automated Attendants

An automated attendant answers calls and redirects them to a specified extension or to a Hunt Group (based on the digits a caller dials after listening to a list of choices in a recorded greeting). For example, your company might have an automated attendant answer calls and tell callers to press 1 for Sales, 2 for Parts, 3 for Service, and so on.

Automated Attendant Used as Backup for Receptionist

One common use of an automated attendant is as a backup for a receptionist. In this situation, the automated attendant handles any calls that the receptionist cannot pick up within a specified number of rings. This prevents calls from going unanswered. Figure 5-9 shows how the automated attendant would be connected to your system. In this example, the receptionist is at extension 10 and the automated attendant is at extension X.

To install:

Follow the instructions packaged with the automated attendant. Make sure that the automated attendant is in backup call answering mode.

To use:

When callers call the main number for your company, the receptionist normally picks up the call. If the receptionist is busy, the automated attendant answers and plays a pre-recorded message. For example, the automated attendant might play the following message:

"Please hold for the receptionist or dial an extension number now."

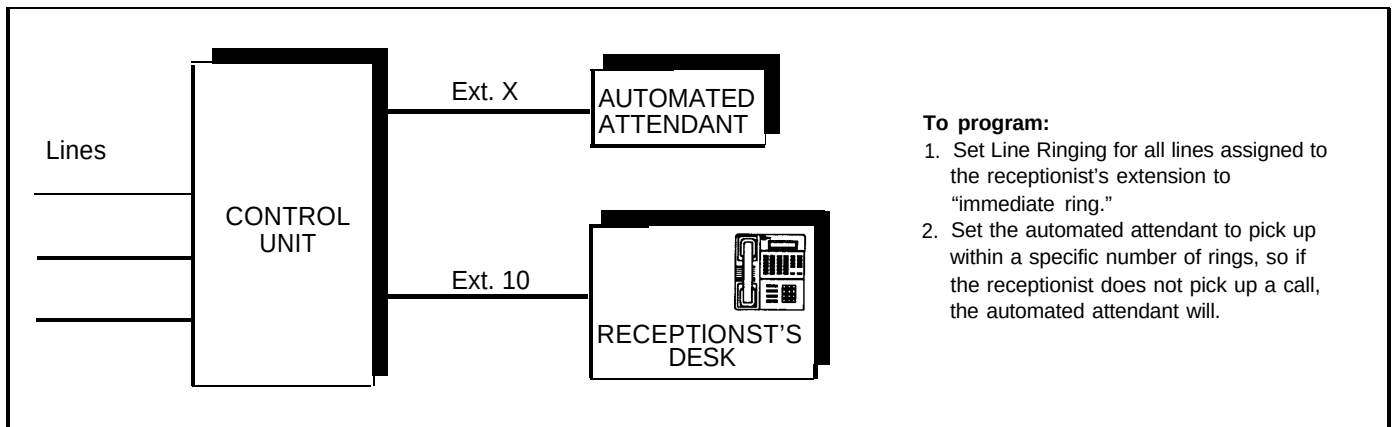


Figure 5-9. Automated Attendant Used as Backup for Receptionist

Credit Card Scanners

Many retail businesses and restaurants use credit card scanners to get instant approval of credit card purchases. The system allows your credit card scanners to share the lines in your system (as shown in Figure 5-10). You can install the credit card scanner on an extension by itself, or combine it with a system phone or a standard phone on the same extension.

To use:

When you make a call on the credit card scanner, an outside line is automatically selected.

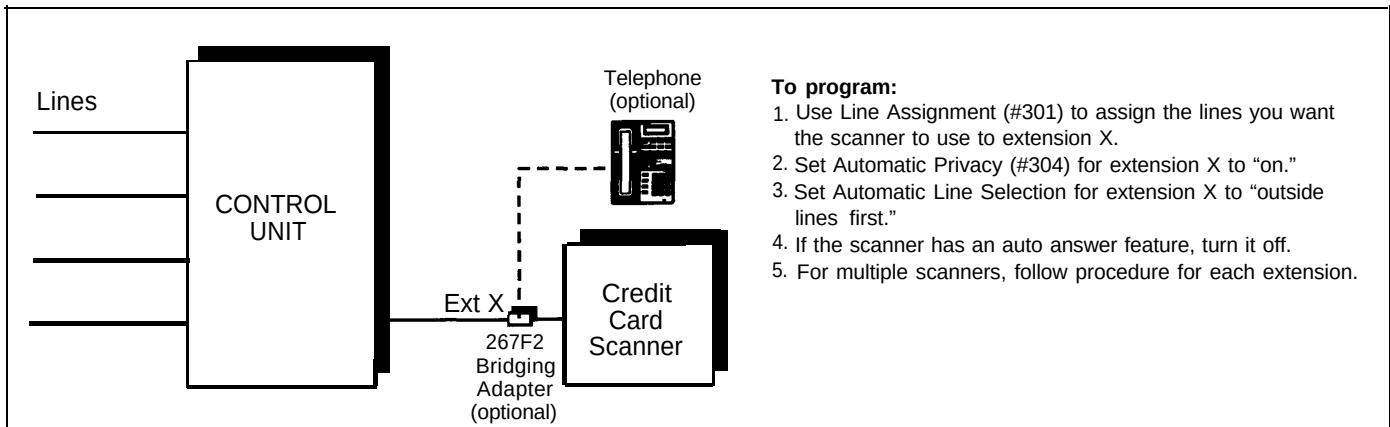


Figure 5-10. Credit Card Scanner

Night Service with Auxiliary Equipment

You can set up modems, fax machines, and answering machines to receive calls automatically after hours. When Night Service is on, calls ring immediately at the appropriate extensions, so that no human intervention is required to transfer calls to the fax, modem, or answering machine. When Night Service is off, you can use the auxiliary equipment lines for normal business purposes, so that lines are dedicated to auxiliary equipment *only* after hours.

By putting auxiliary equipment in the Night Service Group as described in this section, auxiliary equipment can start ringing and answering calls whenever you turn Night Service on. In other words, the Night Service button at extension 10 acts as a switch, turning auxiliary equipment on and off, as well as putting the system into Night Service.

Figure 5-11 shows a system with a fax machine and a modem connected to separate extensions. Line A is published as the fax line, and line B is published as the modem line.

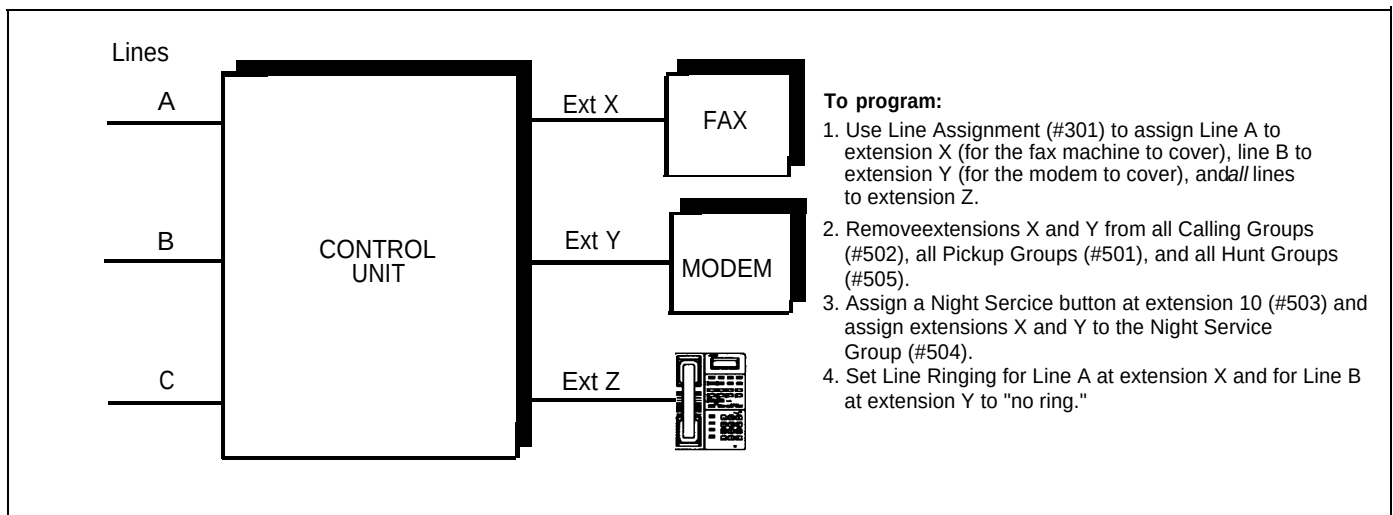


Figure 5-11. Night Service with Fax Machine and Modem

To Use:

During the day, lines A and B do not ring at extensions X and Y (according to Line Ringing settings). When you turn Night Service on, calls on line A ring immediately at the fax (extension X). Since that line is not assigned to any other extension in the Night Service Group, only extension X receives fax transmissions. Likewise, with Night Service on, calls on line B ring immediately at the modem (extension Y). All lines ring at the system phone at extension Z.

If answering machines are connected to Night Service extensions, you can join a call that was already answered by an answering machine from any system phone. If you have an AT&T answering machine with the Call Intercept feature, the answering machine drops off the call when you join it.

Call Reporting Devices (SMDR)

SMDR (Station Message Detail Recording) is a *call reporting* feature that provides records of call activity. Call reporting information provides you with the ability to:

- Detect any unauthorized calls
- Bill clients or projects
- Reduce telephone costs by identifying the need to change telecommunications services (like adding a WATS line for calls to a particular area code)

Call reporting information is recorded as calls occur. The system sends the information via a 1200-baud serial interface to either a serial printer or a call accounting device.

The device connects directly to the SMDR jack on the primary processor module. The system records information for each call that lasts at least 10 seconds. For outgoing calls, the timing begins when you get a dial tone. For incoming calls, the timing begins when you answer the call. Timing stops when the call is disconnected.

Call Reports

A *call report* is a page of information that begins with a header. The header includes field names that describe the information in each *call record*. The call record is a line of information that includes the fields shown in Figure 5-12.

	DATE	TIME	CALLED NUMBER	DUR.	LINE	STN.
C	05/02/91	11:11	12015558014	00:01:40	08	48
C	05/02/91	11:34	19085556036	00:04:28	02	32
I	05/02/91	12:35	IN	00:02:12	01	10

Figure 5-12. Sample Call Report

Each page includes 59 records. The report has the following fields.

- **Call Type.** "C" indicates outgoing calls; "I" indicates incoming calls. (System Programming procedure #607 defines whether or not incoming calls are reported.)
- **Date.** The date of the call is shown in mm/dd/yy format, where mm is the month, dd is the day, and yy is the year. The system uses the date set with System Date (#101).
- **Time.** The time of the connection is shown in hh:mm format, where hh is the hour and mm is the minute. The system uses the time set with System Time (#103) and is shown in 24-hour (military) time.
- **Called Number.** For an outgoing call, this is the dialed number (first 15 digits only) or the speed dial code of a Marked System Speed Dial number (preceded by an "F"). For an incoming call, "IN" appears in this field.

A "*" character prints as the last digit of a dialed number if the called party hangs up before the originator, or a "?" prints if the number of digits dialed exceeds the 15 digits that the Called Number field can hold.

- **Duration.** The duration of the call is shown in hh:mm:ss format, where hh is the hour, mm is the minutes, and ss is the seconds.
- **Line Number.** This is the outside line (01–24) that was used to make or receive the call.
- **Station (Extension).** In general, this is the extension that answered or placed the call. For redirected calls, the extension shown on the report is as follows:
 - For transferred calls: the destination extension.
 - For pickup calls: the extension picking up the call.
 - For forwarded calls: the extension answering the forwarded call.

Considerations

- The System Date (#101) and System Time (#103) must be set correctly to ensure accurate call reports.
- If a report cannot print because the printer is jammed or out of paper, the system will store up to 45 records in its memory until they can be printed. Additional calls will not be recorded.
- In the event of a power failure, any calls in progress are lost; call records for those calls are also lost.
- Inside (intercom) calls are not recorded.
- If you place a call on hold and the caller hangs up, the call is considered complete and the record is sent to the call reporting device.
- Conference calls appear as two outside calls. (This means two records will be generated on the report.)

Serial Printers

A 355AF adapter lets you connect a serial printer, such as AT&T's 572 Serial Printer, to the primary processor module. If you connect a printer, make sure the printer's switches are set as follows (refer to the printer's instructions if you need help):

- 1200 baud
- no parity
- 8 data bits
- 2 stop bits

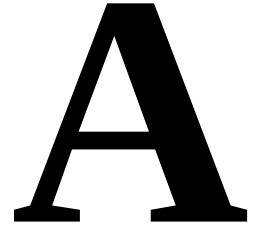
(The call reporting feature also supports XON/XOFF protocol, carriage returns, and line feeds.)

Call Accounting Devices

You can send call information to a call accounting device if you want to further analyze call activity. The device stores rate table information and processes the information it receives into meaningful reports that can help you optimize your communications system. For example, you can use it to determine the best combination of local and long distance lines for your business.

The call accounting device connects directly to the SMDR jack on the primary processor module and can also print out reports that include summaries by hour, line, and extension. Refer to the manual provided with the call accounting device for instructions on connecting it to your system.

Speed Dial Form



This appendix contains a Speed Dial Form to be photocopied and handed out to system users. It provides space on which to write System and Personal Speed Dial numbers. For instructions on programming System Speed Dial numbers, see Chapter 3 in this guide.

We suggest you fill in a *photocopy* of the form, leaving the blank original in the book, in case you need to distribute revisions in the future.



PARTNER™ II Communications System

To Dial • On MLS- or MLC-model telephone, press [*Feature*] + **Code** • On standard touch-tone telephone, press [#] + **Code** while receiving intercom dial tone.

System Speed Dial Numbers

Code	Name/Company	*	Telephone Number	Code	Name/Company	*	Telephone Number	Code	Name/Company	*	Telephone Number
20				40				60			
21				41				61			
22				42				62			
23				43				63			
24				44				64			
25				45				65			
26				46				66			
27				47				67			
28				48				68			
29				49				69			
30				50				70			
31				51				71			
32				52				72			
33				53				73			
34				54				74			
35				55				75			
36				56				76			
37				57				77			
38				58				78			
39				59				79			

* You can dial System Speed Dial codes with a (*) at any time, regardless of dialing restrictions placed on your extension. System Speed Dial numbers are programmed by the System Manager (report problems and suggested revisions to your System Manager).

Personal Speed Dial Numbers

Code	Name/Company	Telephone Number	Code	Name/Company	Telephone Number
80			90		
81			91		
82			92		
83			93		
84			94		
85			95		
86			96		
87			97		
88			98		
89			99		

To program Personal Speed Dial Numbers, see the *Quick Reference* card.

Maintenance

Your system is designed to provide trouble-free performance without any special maintenance procedures. To reduce the risk of accidental damage:

- Keep the system modules in an area free of dust, smoke, and moisture, and do not block the air vents by placing objects on top of the system carriers.
- Do not place telephones near a heating duct, radiator, or other heat source, and do not drop or expose them to excessive shock or vibration.
- Unplug the telephone if its cord is damaged, if liquid is spilled into it, or if its housing becomes cracked or otherwise damaged.
- To clean your telephone, wipe the outside housing with a soft, dust-free cloth. If absolutely necessary, you may use a cloth *slightly* dampened with a mild soap and water solution. Dry quickly with a soft cloth.



CAUTION:

Your telephone contains sensitive electronic parts. Never submerge it in any kind of liquid, and never use detergents, alcohols, solvents, abrasive cleaners, or an excessive amount of water when cleaning the housing and faceplate. To do so could result in irreparable damage.

In Case of Difficulty

If you should have a problem with your system, you may be able to solve it yourself by following the appropriate troubleshooting procedures described in this appendix. If you still need help, call the appropriate Helpline toll-free number 24 hours a day:

United States: 1 800 628-2888

Canada:

Eastern Canada and Ottawa: 1 800 363-1882

Ontario: 1 800 387-4268

Central and Western Canada: 1 800 663-9817

If you call, have the following information ready so that the representatives can better help you:

- The kind of system you have (for example, PARTNER II, Release 1)
- The number of lines and extensions in your system
- The model number of the problem phone, if applicable (located on the upper right-hand corner of the phone—MLS-34D, MLS-12D, MLS-12, MLS-6, or MLC-6).

If you followed a troubleshooting procedure and need more help, tell the representative what you did.

Power Failure Operation

When power to the system is cut off, the first line on each 206 module automatically connects to the first extension on the module. For example: line 1 connects to extension 10; line 3 connects to extension 16; line 5 connects to extension 22; line 7 connects to extension 28; line 9 connects to extension 34; line 11 connects to extension 40; line 13 connects to extension 46; and line 15 connects to extension 52. This allows the system to maintain telephone service during a power outage.

To make and answer calls during a power failure, *you must use a standard touch-tone or rotary telephone at extensions 10, 16, 22, 28, 34, 40, 46, and 52.* For this reason, *it is strongly suggested* that you have a standard telephone connected—either directly or by a 267F2 bridging adapter—to the first extension jack of every 206 module (extensions 10, 16, 22, 28, 34, 40, 46, and 52). The standard phone *must not* have its own power supply.

NOTE:

During a power failure, standard phones can only make and receive calls. Other system features are not available.

The system can stay programmed for approximately four days after it stops receiving power. After four days elapse, all of the system's programmed settings return to the factory settings.

Troubleshooting

The charts on pages B-3 to B-7 describe various difficulties that might occur, possible causes for the difficulty, and procedures you can follow to try to solve the problem yourself.

Table B-2. Troubleshooting

Problem	Possible Cause	Do This	If...	Then...
1. All Phones Dead: No Dial Tone or Lights	1. Control unit not receiving power.	Make sure the control unit's power cord is plugged securely into the wall outlet. Also make sure all circuit breakers (little plastic pop-up tabs shown in Figure 1-1) are in the "ON" position (pushed down). To see circuit breakers, remove the control unit's cover.	The green indicator lights on the modules are "ON" and the trouble is gone. The green indicator lights on the modules are "ON" but the trouble remains. The green indicator lights on the modules are "OFF," The green indicator lights on the modules are "FLASHING,"	The problem is corrected. Call 1 800 628-2888. Go to Possible Cause 2. Call 1 800 628-2888.
	2. The power outlet may be faulty.	Test the outlet by plugging in an appliance, like a lamp or radio.	The appliance does not work, The appliance works,	The outlet is faulty. Plug the control unit into a different outlet, check fuse box, or call an electrician. Call 1 800 628-2888.
2. Multiple Phones Dead: No Dial Tone or Lights	1. One system module out.	Check the LEDs on the front of the system modules. If a single green LED is out, try reseating the module in the carrier (see page 2-7).	LEDs light, Problem remains,	Problem is solved, Call 1 800 628-2888.
	2. Several system modules out.	If several LEDs are out, try reseating the leftmost module of the ones with the lights out.	LEDs light, Problem remains,	Problem is solved. Go to Possible Cause 3.
	3. Expansion cable not properly connected.	Check the connection. Make sure the cable is secure at both ends.	The LEDs light, The problem remains,	Problem is solved. Go to Possible Cause 4.
	4. Expansion carrier not receiving power.	Make sure the power cord is plugged into the wall outlet and all circuit breakers are in the "ON" position. Power up the expansion carrier first, then the primary carrier.	The LEDs light, The problem remains,	Problem is solved. Call 1 800 628-2888.

Problem	Possible Cause	Do This	If...	Then...
3. Trouble Making Outside Calls Trouble could be any of the following: You hear a dial tone, but it continues as you try to dial. You hear a dial tone and it cuts off when you dial, but the line does not ring. You hear a busy signal as you dial. You hear nothing at all.	1. Dial Mode is incorrectly set.	Find out if you have touch-tone or rotary service and set the Dial Mode (#201) to "touch-tone" or "rotary."	You can make a call, The Dial Mode is already set correctly,	The problem is solved. Go to Possible Cause 2.
	2. Someone changed your Outgoing Call Restriction settings.	Find out: were you able to make a call without any trouble before?	You were able to call on the phone before and no one changed your Outgoing Call Restriction settings,	Go to Possible Cause 3.
	3. Local phone company is not accurately receiving the dialing signals.	Isolate the problem. Use the telephone to make calls on different lines. Then, make calls on different phones using the same line.	You cannot make calls from one phone on all lines, You cannot make calls using different phones,	Follow the procedure for "Other Problems with Phones," page B-7, Possible Cause 2. Go to Possible Cause 4.
	4. Too many standard devices trying to dial simultaneously. (If the problem is on a system phone, go to Possible Cause 5.)	Stay on the line and wait for dial tone, or try your call later.	You can make a call, You wait 30 seconds and still do not hear a dial tone,	You may want to expand system capacity to avoid future problems. Call 1 800 628-2888. Go to Possible Cause 5.
	5. Local phone company line is faulty.	One at a time, unplug each outside line from the 206, 400, or 200 module inside the control unit. Plug it into a standard telephone and try to make a call.	The trouble appears on the standard phone, The trouble does not appear on the standard phone,	Try another line cord; if trouble persists, report it to your local phone company. The trouble is with your control unit. Call 1 800 628-2888.
4. Phone Does Not Ring	1. Volume control is set too low (system phone) or turned off (standard phone).	Press the volume control button to increase ringer volume, or turn ringer on.	Phone rings increasingly louder, Phone still does not ring,	Problem is solved. Go to Possible Cause 2.
	2. Do Not Disturb or Call Forwarding feature is turned on.	Check to see if Do Not Disturb or Call Forwarding is turned on.	Do Not Disturb or Call Forwarding is turned on, Do Not Disturb or Call Forwarding is not turned on,	Turn it off by pressing the programmed button. Go to Possible Cause 3.
	3. Phone's Line Ringing may be programmed for "no ring" or "delayed ring."	Check to see if the phone's Line Ringing is programmed for "no ring" or "delayed ring." Refer to "Telephone Programming" in Chapter 3.	Line Ringing is set for "no ring" or "delayed ring," Line Ringing is set for "immediate ring,"	Change programming if necessary. Phone may be faulty. Follow troubleshooting procedure for "Other Problems with Phones," page B-7.

Problem	Possible Cause	Do This	If...	Then...
5. Calls are Answered Automatically A call rings once, then disappears as though it was answered.	An optional device, such as a fax machine, answering machine, or modem answers when it should not.	Be sure the device is set to answer correctly. If the device answers before it should, adjust it to answer on a later ring. If the device should not answer calls at all, turn its auto-answer feature off. Refer to the device's user manual. For every optional device connected to your system, either set the device itself to answer on a later ring (when the Line Ringing for the device's extension is set to "immediate ring") or set the extensions Line Ringing to "delayed ring."	The optional device was set properly, The optional device was set improperly,	Check Line Ringing. Reset device. If problem remains, call 1 800 628-2888.
6. Trouble Hearing Called Party Answer	1. If you are using a speakerphone, there may be environmental factors that affect the performance of the speaker or microphone (for example, too much background noise).	See "Speakerphone Performance Tips" on page 4-6 for suggestions on the proper use of the speakerphone.	The problem is not solved,	Go to Possible Cause 2.
	2. If the system is set for rotary dialing, the Rotary Dialing Timeout interval is too long. (If the system is set for touch-tone dialing, you could have a faulty phone or cord. See "Other Problems with Phones," page B-7.)	Reset the Rotary Dialing Timeout (#108) interval. Refer to "System Programming" in Chapter 3.	You can hear the called party answer, The problem is not solved,	The problem is solved. Call 1 800 628-2888.
7. Using the Recall Feature Has No Effect	Recall Timer Duration set too short.	Increase the Recall Timer Duration (#107) by 100 milliseconds. See "System Programming" in Chapter 3.	The Recall feature works, The Recall feature still has no effect,	The problem is solved. Continue increasing the Recall Timer Duration by increments of 100 milliseconds until the problem is solved.
8. Using the Recall Feature Disconnects Call This problem applies if system is installed behind a PBX or with the phone company's "Call Waiting."	Recall Timer Duration set too long.	Decrease the Recall Timer Duration (#107) by 100 milliseconds. See "System Programming" in Chapter 3.	The Recall feature works, The Recall feature still disconnects calls,	The problem is solved. Continue decreasing the Recall Timer duration by increments of 100 milliseconds until the problem is solved.

Problem	Possible Cause	Do This	If...	Then...
9. Phone Rings Back After Intercom Call with No One at Other End	1. The switchhook on a standard phone is accidentally pressed and released, causing a call to ring back.	Always replace the handset carefully.	The problem is not solved,	Go to Possible Cause 2.
	2. Automatic Line Selection is programmed incorrectly.	If one of the phones involved is a standard single-line rotary or touch-tone phone, program its Automatic Line Selection to "intercom first."	The problem is not solved,	Call 1 800 628-2888.
10. Combination Extension Problem: Phone Does Not Ring Properly	1. Ringer equivalents are too high for the extension.	Check the total of the Ringer Equivalence Numbers (REN) at the extension. If it exceeds 2.0, unplug one of the devices.	The ringer functions properly,	Problem is with optional device; the system is okay.
	2. Optional device (fax, answering machine, etc.) is faulty.	Remove the optional device from the extension and plug in an optional device that you know rings properly.	The ringer functions properly,	The problem is with optional device; the system is okay.
	3. Bad adapter or combination device.	Make sure the standard device in the combination is plugged into the correct slot on the 267F2 bridging adapter (see Figure 2-2). If the extension still does not work properly, unplug the adapter from the wall jack. Unplug the phone's cord from the adapter and plug it into the jack.	The phone works,	There is a problem with the optional device attached to the extension or bridging adapter. Replace the optional device. If the problem persists, call 1 800 628-2888.
11. Calls on Hold Hangs Up, but Line Does Not Disconnect	1. Hold Disconnect Time is programmed incorrectly—too long.	Change the Hold Disconnect Time (#203) from "long" to "short." See Chapter 3.	Abandoned calls on hold are disconnected,	The problem is solved.
	2. Local phone company does not send hold release signal.	Call phone company to find out whether they send a hold release signal.	Abandoned calls on hold still do not disconnect, or the Hold Disconnect Time was already "short,"	Go to Possible Cause 2.
12. Calls on Hold Are Disconnected	1. Hold Disconnect Time is programmed incorrectly—too short.	Change the Hold Disconnect Time (#203) from "short" to "long." See Chapter 3.	If they do not, or if they do but the problem still occurs,	Call 1 800 628-2888.
			Calls on hold no longer disconnect,	The problem is solved.
			Calls on hold still get disconnected, or the Hold Disconnect Time was already set to "long."	Call 1 800 628-2888.

Problem	Possible Cause	Do This	If...	Then...
13. Phone Display Does Not Work	Date, day, and time do not display properly.	Re-enter the date, day, and time using System Programming (#101, #102, and #103).	The display works, The display still does not work,	Problem is solved. Follow procedure for "Other Problems with Phones."
14. System Phone in Combination, Extension Does Not Work	1. System phone is plugged into wrong jack of bridging adapter.	Plug system phone into the correct jack (see Fig. 2-2 on page 2-3).	The system phone works properly, The problem remains,	Problem is solved. Go to Possible Cause 2.
	2. Wrong cord and wrong bridging adapter used to connect standard phone.	First, unplug the bridging adapter from the wall jack. Then, unplug the system phone from the adapter and plug it into the wall jack.	The system phone works properly,	Either the cord or the adapter must be replaced. (Use only an AT&T 267F2 bridging adapter.) Call 1 800 628-2888 for details.
15. Other Problems with Phones	1. Phone needs to be reset.	Unplug the cord from the bottom of the phone and (with the handset hung up) plug the cord in again.	The problem remains,	Go to Possible Cause 2.
	2. Possible faulty telephone.	Unplug the cord from the base of the problem phone and plug it into a phone that works.	The other phone works, The other phone does not work,	The old phone was faulty. Call 1 800 628-2888 to arrange for a replacement. Go to Possible Cause 3.
	3. Defective telephone cord.	Unplug the cord from the base of the phone and the wall jack. Replace it with a cord that works.	If the phone works, If the phone does not work, and it is part of a combination extension, If the phone does not work, and it is not part of a combination extension,	The cord is faulty. Call 1 800 628-2888 to arrange for a replacement. See "Combination Extension Problem: Phone Does Not Ring Properly," Possible Cause 3. Call 1 800 628-2888.
16. Other Problems with the System	System needs a hardware reset.	Unplug the control unit's power cord(s). Wait 10 seconds and plug back in. Make sure the expansion carrier is powered up first, then the primary carrier.	The problem is not solved,	Call 1 800 628-2888.

Repair Information

In-Warranty Repairs

If you purchased or leased your system directly from AT&T, AT&T will repair it free of charge during the one-year warranty period. Simply call the Helpline at 1 800 628-2888 and ask for service.

Business-Day service is standard during the warranty period for both the control unit and system phones. Business-Day service is performed during normal business hours. However, if you need 24-hour service protection during the warranty period on the control unit in case there is a major system failure, you can purchase an Around-the-Clock service contract from your local AT&T sales office (1 800 247-7000). (Around-the-Clock service is not available for phones.)

If you purchased or leased your system through an AT&T authorized dealer, contact your dealer for repairs.

Post-Warranty Repairs

If you purchased your system from AT&T and you have a post-warranty service contract, AT&T service is provided under the terms of that contract.

To eliminate unexpected repair costs after the warranty period, you can purchase a post-warranty service contract from AT&T. If you do not have a contract, AT&T service is provided on a time-and-materials basis by calling the Helpline at 1 800 628-2888. A contract entitles you to unlimited service calls with no charge for parts and labor, plus preferred dispatch priority. Both Business-Day and Around-the-Clock coverages of varying lengths are available. To order a post-warranty service contract, call 1 800 247-7000.

If you leased your system from AT&T, Business-Day service is included in your lease. To upgrade to Around-the-Clock service, call 1 800-247-7000.

If you purchased or leased your system through an AT&T-authorized dealer, contact your dealer for repairs.

AT&T Limited Warranty and Limitation of Liability

AT&T warrants to you, the customer, that your system will be in good working order on the date AT&T or its authorized reseller delivers or installs the system, whichever is later ("Warranty Date"). If you notify AT&T or its authorized reseller within one year of the Warranty Date that your system is not in good working order, AT&T will without charge to you repair or replace, at its option, the system components that are not in good working order. Repair or replacement parts may be new or refurbished and will be provided on an exchange basis. If AT&T determines that your system cannot be repaired or replaced, AT&T will remove the system and, at your option, refund the purchase price of your system or apply the purchase price towards the purchase of another AT&T system.

If you purchased your system directly from AT&T, AT&T will perform warranty repair in accordance with the terms and conditions of the specific type of AT&T maintenance coverage you selected. A written explanation of AT&T's types of maintenance coverage may be obtained from AT&T by calling 1 800 247-7000. If you purchased your system from an AT&T-authorized reseller, contact your reseller for the details of the maintenance plan applicable to your system.

This AT&T limited warranty covers damage to the system caused by power surges, including lightning.

Unless otherwise expressly agreed to in a written agreement signed by AT&T, AT&T will not be responsible under this limited warranty for damages resulting from:

- Failure to follow AT&T's installation, operation, or maintenance instructions;
- Unauthorized system modification, movement, or alteration;
- Unauthorized use of common carrier communication services accessed through the system;
- Abuse, misuse, or negligent acts or omissions of the customer and persons under the customer's control; or
- Acts of third parties and acts of God.

AT&T's obligation to repair, replace, or refund, as set forth above, is your exclusive remedy.

Except as specifically set forth above, AT&T, its affiliates, suppliers, and dealers make no warranties, express or implied, and specifically disclaim any warranties of merchantability or fitness for a particular purpose.

Limitation of Liability

Except for personal injury, direct damages to tangible personal property proximately caused by AT&T and liability otherwise expressly assumed in a written agreement signed by AT&T, the liability of AT&T, its affiliates, suppliers, and authorized resellers for any claims, losses, damages, or expenses from any cause whatsoever (including acts of omissions of third parties), regardless of the form of action, whether in contract, tort, or otherwise, shall not exceed an amount equal to the lesser of the direct damages proven or the purchase price of the system. In no event shall AT&T or its affiliates, suppliers, or authorized resellers be liable for incidental, reliance, consequential, or any other indirect loss or damage (including lost profits or revenues) incurred in connection with the system. This limitation of liability shall survive failure of the exclusive remedy set forth in the limited warranty above.

Product Ordering Information

Ordering additional telephones and modules, accessories, and replacement parts for your system is convenient. Table B-1 (on the next page) shows where you can buy system components in the United States.

To take full advantage of your system, the sources shown below can also provide you with the optional equipment you might want for your system, such as AT&T fax machines, answering machines, standard phones, modems, paging systems, doorphones, headsets, bells, lights, strobes, music-on-hold systems, and printers.

You can obtain most items from more than one source, either directly from AT&T or from authorized dealers. Sources in the United States are:

- **AT&T Catalog Sales.** This source is AT&T's national phone/mail sales center in Cincinnati. A Catalog Associate will place your order, including AT&T installation if you need it. Or you can charge your order on a VISA, Mastercard, or American Express card. The Catalog Associate can also give you sales advice and mail you AT&T's "Sourcebook" catalog of systems, telephones, and accessories. Call 1 800 451-2100.
- **AT&T Sales Offices.** Sales offices to serve the small business customer are located throughout the country. To contact the office closest to you, call 1 800 247-7000. A representative will place your order, including AT&T installation if you need it.
- **AT&T Authorized Dealers.** You can also buy most items from one of AT&T's authorized dealers. To find the dealer nearest you, call 1 800 247-1212.
- **AT&T PhoneCenter Stores.** Your local PhoneCenter Store carries most items. To locate the nearest store, call 1 800 222-3111 or see your local white pages under "AT&T PhoneCenter Store."
- **AT&T National Parts Sales Center.** This national sales center, located in Denver, stocks replacement parts for the control carrier and telephones. Telephone orders can be placed by calling 1 800 222-PART.

In Canada, order these items from AT&T Canada:

Eastern Canada and Ottawa:	1 514 335-7200
Ontario:	1 416 756-5236
Central and Western Canada:	1 800 561-5165

To use Table B-1, first locate the item you want. A triangle (▲) indicates where you can obtain it.

	SOURCE (U.S.)				
	AT&T Catalog Sales (Sourcebook) (800) 451-2100	AT&T Sales Office (800) 247-7000	AT&T PhoneCenter Store *	AT&T Authorized Dealer **	AT&T National Parts Sales Center (800) 222-PART
System Modules and Wiring:					
Primary Processor module				▲	▲
Expansion Processor module				▲	▲
Line/Extension module (206) Includes 206 module, two 7-ft line cords, two 267F2 bridging adapters, and installation instructions	▲	▲	▲	▲	▲
Line module (400) Includes 400 module, four 7-ft. line cords, and instruction	▲	▲	▲	▲	▲
Backplane				▲	▲
System cover				▲	▲
AC power cord				▲	▲
Line cord (D2R) Connects 206/400 modules to network interface (clear color) Specify length: 7 (standard length), 14, or 25 ft.	▲			▲	▲
267F2 bridging adapter Connects two devices to one extension	▲		▲	▲	▲
In-Range Out-of-Building (IROB) protector (504A1) Required when Installing extensions in another building from the control unit (two required per MLS-model telephone, one per standard phone or device)		▲	▲	▲	▲
Z300A Electromagnetic Interference (EMI) Filter Includes filter, 7-ft. line cord, and installation instructions		▲		▲	▲
267C line adapter Splits two outside lines from an RJ14 network interface jack, so that each line has its own modular plug (do not use at extension tacks)	▲		▲	▲	
355A/355AF adapter Connects call reporting device to primary processor module		▲		▲	
System Telephones and Accessories:					
MLS-34D corded telephone, black or white	▲	▲	▲	▲	
MLS-12D corded telephone, black or white	▲	▲	▲	▲	
MLS-12 corded telephone, black or white	▲	▲	▲	▲	
MLS-6 corded telephone, black or white	▲	▲	▲	▲	
MLC-6 cordless telephone, black or white	▲	▲	▲	▲	
MLS-CA24 Intercom Autodialer	▲	▲	▲	▲	
Telephone stand, black or white	▲			▲	▲
Button label package (specify telephone model)	▲			▲	▲
Button label package (MLS-CA24 Intercom Autodialer)	▲			▲	▲
Handset (K2S1), black or white Standard for MLS-model phones	▲			▲	▲
Amplified handset (K6S), black or white Optional for hard-of-hearing users with MLS-model phones	▲	▲		▲	▲
Handset cord, 9 ft., black or white, coiled Connects handset to telephone	▲		▲	▲	▲
Telephone mounting cord (D4BU) Connects phone to wall jack, jack panel, or 206 module ext. jack. Specify length: 2, 7, or 14 ft.	▲		▲	▲	▲
Modular telephone extension cord—8-connector Extends the D4BU mounting cords Specify length 14, 25, 50, 75, or 100 ft.	▲			▲	
*To locate the AT&T PhoneCenter Store nearest you, see the listing in your local telephone directory's white pages (under AT&T), or call 1 800 222-3111.					
**To locate the nearest AT&T Authorized Dealer, call 1 800 247-1212.					

Table B-1 Sources of Additional Equipment and Replacement Parts (U.S.)

Specifications

C

Capacities	System ■ 24 outside lines via line jacks on eight 206 or 400 modules ■ 48 extensions via extension jacks on eight 206 modules ■ 1 loudspeaker paging system via PAGE jack on processor module ■ 1 audio source via MUSIC ON HOLD jack on processor module (RCA phono plug required) ■ 1 call reporting device via SMDR jack on processor module (355A/F adapter required) ■ 2 doorphones, using 2 extension jacks	206 Module ■ 2 outside lines ■ 6 extensions 400 Module 4 outside lines	Extension Jack ■ Maximum 2 devices per extension jack, total REN on jack not to exceed 2.0* (2 devices require AT&T 267F2 bridging adapter) System phone REN: 0 (zero) ■ No more than one system phone per jack <i>For programming, a system display phone must be connected to extension 10 or 11.</i>																																
Dimensions and Weights (approx.)	<table><tr><td>■ Primary Proc. Mod.</td><td>11"(D) x 17"(H) x 1.5"(W) or 27.9 x 43.2 x 3.8 cm</td><td>4.0 lbs or 1.8 kgs</td></tr><tr><td>■ Exp. Proc. Mod.</td><td>11"(D) x 17"(H) x 1.5"(W) or 27.9 x 43.2 x 3.8 cm</td><td>4.0 lbs or 1.8 kgs</td></tr><tr><td>■ 206 module</td><td>11"(D) x 17"(H) x 1.5"(W) or 27.9 x 43.2 x 3.8 cm</td><td>4.5 lbs or 2.0 kgs</td></tr><tr><td>■ 400 module</td><td>11"(D) x 17"(H) x 1.5"(W) or 27.9 x 43.2 x 3.8 cm</td><td>4.0 lbs or 1.8 kgs</td></tr><tr><td>■ Backplane & cover</td><td>12"(D) x 19"(H) x 11"(W) or 30.5 x 48.3 x 27.9 cm</td><td>5.5 lbs or 2.5 kgs</td></tr><tr><td>■ MLS-34D phone</td><td>9.7"(D) x 5.3"(H) x 10"(W) or 24.6 x 13.5 x 25.4 cm</td><td>2.9 lbs or 1.2 kgs</td></tr><tr><td>■ MLS-12D phone</td><td>9.5"(D) x 5"(H) x 6.75"(W) or 24.1 x 12.7 x 17.1 cm</td><td>1.8 lbs or 1.0 kgs</td></tr><tr><td>■ MLS-12 phone</td><td>9.5"(D) x 5"(H) x 6.75"(W) or 24.1 x 12.7 x 17.1 cm</td><td>2.0 lbs or 0.9 kgs</td></tr><tr><td>■ MLS-6 phone</td><td>9.5"(D) x 5"(H) x 6.75"(W) or 24.1 x 12.7 x 17.1 cm</td><td>2.1 lbs or 0.8 kgs</td></tr><tr><td>■ MLC-6 phone</td><td>9.4"(D) x 3.4"(H) x 7"(W) or 23.9 x 8.6 x 17.8 cm</td><td>2.6 lbs or 1.3 kgs</td></tr><tr><td>■ MLS-CA24 Intercom Autodialer</td><td>9.7"(D) x 5.3"(H) x 3.4"(W) or 24.6x 13.5 x8.6 cm</td><td>1.3 lbs or 0.6 kgs</td></tr></table>	■ Primary Proc. Mod.	11"(D) x 17"(H) x 1.5"(W) or 27.9 x 43.2 x 3.8 cm	4.0 lbs or 1.8 kgs	■ Exp. Proc. Mod.	11"(D) x 17"(H) x 1.5"(W) or 27.9 x 43.2 x 3.8 cm	4.0 lbs or 1.8 kgs	■ 206 module	11"(D) x 17"(H) x 1.5"(W) or 27.9 x 43.2 x 3.8 cm	4.5 lbs or 2.0 kgs	■ 400 module	11"(D) x 17"(H) x 1.5"(W) or 27.9 x 43.2 x 3.8 cm	4.0 lbs or 1.8 kgs	■ Backplane & cover	12"(D) x 19"(H) x 11"(W) or 30.5 x 48.3 x 27.9 cm	5.5 lbs or 2.5 kgs	■ MLS-34D phone	9.7"(D) x 5.3"(H) x 10"(W) or 24.6 x 13.5 x 25.4 cm	2.9 lbs or 1.2 kgs	■ MLS-12D phone	9.5"(D) x 5"(H) x 6.75"(W) or 24.1 x 12.7 x 17.1 cm	1.8 lbs or 1.0 kgs	■ MLS-12 phone	9.5"(D) x 5"(H) x 6.75"(W) or 24.1 x 12.7 x 17.1 cm	2.0 lbs or 0.9 kgs	■ MLS-6 phone	9.5"(D) x 5"(H) x 6.75"(W) or 24.1 x 12.7 x 17.1 cm	2.1 lbs or 0.8 kgs	■ MLC-6 phone	9.4"(D) x 3.4"(H) x 7"(W) or 23.9 x 8.6 x 17.8 cm	2.6 lbs or 1.3 kgs	■ MLS-CA24 Intercom Autodialer	9.7"(D) x 5.3"(H) x 3.4"(W) or 24.6x 13.5 x8.6 cm	1.3 lbs or 0.6 kgs	
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Switch Fabric	■ Full digital, nonblocking																																		
Electrical Specifications	■ 10 Watts (35 BTUs/hour) per 400 module, normal and peak power consumption ■ 65 Watts (225 BTUs/hour) per 206 module during normal operation ■ 100 Watts (350 BTUs/hour) per 206 module during peak power consumption ■ 4 Amps peak current at full system capacity (processor module and four 206 modules) ■ 4-day memory backup (96 hours)																																		

* The two devices combined on an extension jack can be a system phone with a standard device, or two standard devices; DO NOT connect two system phones to the same extension jack. If a device lists two RENs, use the higher number when adding up RENs.

Extension Jack Specifications	■ Ringing voltage: +5VDC, -140 VDC peak to peak; trapezoidal wave shaping ■ 35- to 38-Volt talk battery ■ Ringing frequency: 20 Hz
PAGE Jack Specifications	■ Draws current on inner wire pair ■ Provides contact closure on outer wire pair ■ 600 Ohm impedance
Environmental Requirements—Control Unit	■ Mount on a wall at least 2 feet (0.6 meters) from the floor (wall mounting required) ■ Locate within 5 feet (1.5 meters) of the network interface jacks and an electrical outlet not controlled by a switch, using supplied 7-foot (2.1-meter) cords ■ Mount the Expansion Carrier at least 6" and not more than 24" away from the primary carrier ■ Operating temperature 32° to +104°F (0° to +40°C), not in direct sunlight ■ Humidity 15%–90%, noncondensing ■ For proper ventilation and easy replacement of modules, provide at least 6" (2.34cm) clearance at the top and sides and 2 feet (0.6 meters) at the front and bottom of the control unit. ■ Locate in an area free of excess moisture, corrosive gases, dust, and chemicals
Electrical Requirements	■ 90–130 VAC, 50–60 Hz, 3-prong outlet separate ground, separately fused at 15 Amps ■ Outlet must not be controlled by an on/off switch ■ Grounding to comply with Underwriters Laboratories (UL) 1459: A. An insulated grounding conductor that is not smaller in size and equivalent in insulation material and thickness to the grounded and ungrounded branch circuit supply conductors, except that it is green with or without one or more yellow stripes, is to be installed as part of the circuit that supplies the product or system. B. The grounding conductor mentioned in item A is to be connected to ground at the service equipment. C. The attachment-plus receptacles in the vicinity of the product or system are all to be of a grounding type, and the grounding conductors serving these receptacles are to be connected to earth ground at the service equipment.
Requirements for Out-of-Building Extensions	Installation of a telephone or other standard (tip/ring) device in another building requires the following In-Range Out-of-Building (IROB) protectors to protect the control unit and device from electrical surges: ■ MLS-model telephone: two AT&T 504A1 protectors ■ Standard device: one AT&T 504A1 protector plus one carbon block protector
Wiring	■ MLS-model phones: AT&T SYSTIMAX™ or at least 2-pair (4-wire) star ("home run" not "loop") ■ Other standard telecommunications equipment (single-line phones, fax machines, answering machines, etc.): 1-pair (2-wire) mounting cords (AT&T D2R mounting cords recommended) ■ Bridging adapter: AT&T 267F2 ■ Range: 1,000 feet (305 meters) for MLS phones; 3,000 feet (915 meters) for standard devices
Primary Proc. Module Specifications	■ 68000 microprocessor, 64K RAM, 256K ROM
Expansion Proc. Module Specifications	■ 12 mHz, 128K RAM, 64K ROM ■ ■
Local Phone Company Information	■ FCC registration number: AS5 USA-61630-KF-E ■ REN (outside line jack): 0.9A per line jack ■ Jack type: RJ11C ■ Loop start lines

**Federal Communications
Commission (FCC) Interference
Information**

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manuals, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will have to correct the interference at his or her own expense.

FCC Notification and Repair Information

This equipment is registered with the FCC in accordance with Part 68 of its rules. In compliance with those rules, you are advised of the following:

- **Means of Connection:** Connection to the telephone network shall be through a standard network interface jack USOC RJ11C. These USOCs must be ordered from your local telephone company.

This equipment may not be used with party lines or coin telephone lines.

- **Notification to the Telephone Companies:** Before connecting this equipment, you or your equipment supplier must notify your local telephone company's business office of the following:
 - The telephone number(s) you will be using with this equipment.

-
- The appropriate registration number and ringer equivalence number (REN), which can be found on the right hand side of the primary carrier.
 - The facility interface code, which is O2LS2.

You must also notify your local telephone company if and when this equipment is permanently disconnected from the line(s).

- **Repair Instructions:** If you experience trouble because your equipment is malfunctioning, the FCC requires that you disconnect the equipment from the network and not use it until the problem has been corrected. Repairs to this equipment can only be made by the manufacturer, its authorized agents, or by others who may be authorized by the FCC. In the event repairs are needed on this equipment, please contact the AT&T National Service Assistance Center (NSAC) at 1 800 628-2888. For warranty information, see Appendix B.

- **Rights of the Local Telephone Company:** If this equipment causes harm to the telephone network, the local telephone company may discontinue your service temporarily. If possible, they will notify you in advance. But if advance notice is not practical, you will be notified as soon as possible. You will also be advised of your right to file a complaint with the FCC.

Your local telephone company may make changes in its facilities, equipment, operations, or procedures that affect the proper functioning of this equipment. If they do, you will be notified in advance to give you an opportunity to maintain uninterrupted telephone service.

- **Hearing Aid Compatibility:** The custom telephones for this system are compatible with inductively coupled hearing aids as prescribed by the FCC.

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Centralized Telephone Programming Quick Reference

Place the Programming Overlay on the dial pad of the system display phone at extension 10 or 11

TO ENTER PROGRAM MODE

PRESS [*Feature*] [0] [0]

PRESS [*System Program*]

PRESS [*System Program*]

PRESS [*Central Tel Program*]

DIAL the extension number to be preprogrammed

Buttons on which lines are assigned for the extension light up to show the current Line Ringing setting; remaining buttons can be programmed with Auto Dial numbers or features

TO PROGRAM ANOTHER FEATURE AT THE SAME EXTENSION

After you finish changing a setting, simply continue with the instructions in the box shown for the new feature on this page

TO CHANGE SETTING FOR ANOTHER EXTENSION

PRESS [*Central Tel Program*]

DIAL the new extension's number

TO ERASE A FEATURE OR AUTO DIAL BUTTON

PRESS the programmed button

PRESS [*Mic*]

TO END PROGRAMING MODE

PRESS [*Feature*] [0] [0]

NOTE: Program Automatic Line Selection first.

AUTOMATIC LINE SELECTION (p. 3-26)

PRESS [1] [1]

PRESS the line/intercom buttons in the desired order

PRESS [1] [1]

LINE RINGING (p. 3-26)

PRESS each line button until the desired ringing option appears in the display

- Immediate ring (*green steady*) ✓
- Delayed ring—starts ringing after 20 seconds (*green slow flashing*)
- No ring (*green fast flutter*)

PERSONAL SPEED DIAL NUMBERS (p. 3-26)

PRESS [*Feature*]

DIAL a 2-digit code (80 to 99)

DIAL the phone number—up to 20 digits including special functions (see "Entering Special Dialing Characters" on page 3-20)

AUTO DIAL NUMBERS—INSIDE (INTERCOM) AND OUTSIDE (p. 3-26)

PRESS a programmable button

To program an outside number:

DIAL the number (up to 20 digits, including special dialing functions—see "Entering Special Dialing Characters" on page 3-20)

To program an extension number:

PRESS left [*Intercom*]

PRESS the extension number (to *voice-signal* the extension when the Auto Dial button is pressed) or [1] plus the extension number (to *ring* the extension when the Auto Dial button is pressed)

DO NOT DISTURB (p. 3-26)

PRESS a programmable button with lights

PRESS [*Feature*] [0] [1]

EXCLUSIVE HOLD (p. 3-26)

PRESS a programmable button

PRESS [*Feature*] [0] [2]

RECALL (p. 3-26)

PRESS a programmable button

PRESS [*Feature*] [0] [3]

SAVE NUMBER REDIAL (p. 3-26)

PRESS a programmable button

PRESS [*Feature*] [0] [4]

LAST NUMBER REDIAL (p. 3-27)

PRESS a programmable button

PRESS [*Feature*] [0] [5]

CONFERENCE DROP (p. 3-27)

PRESS a programmable button

PRESS [*Feature*] [0] [6]

PRIVACY (p. 3-27)

PRESS a programmable button with lights

PRESS [*Feature*] [0] [7]

TOUCH-TONE ENABLE (p. 3-27)

PRESS a programmable button

PRESS [*Feature*] [0] [8]

MESSAGE LIGHT ON (p. 3-27)

PRESS a programmable button

PRESS [*Feature*] [0] [9]

MESSAGE LIGHT OFF (p. 3-27)

PRESS a programmable button

PRESS [*Feature*] [1] [0]

CALL FORWARDING (p. 3-27)

PRESS a programmable button

PRESS [*Feature*] [1] [1]

CALL PICKUP (p. 3-27)

PRESS a programmable button

PRESS left [*Intercom*] [6]

DIAL the extension number

GROUP PICKUP (p. 3-27)

PRESS a programmable button

PRESS left [*Intercom*] [6] [6]

DIAL a Pickup Group number (1-4)

LOUDSPEAKER PAGING (p. 3-27)

PRESS a programmable button

PRESS left [*Intercom*] [7] [0]

GROUP CALLING (p. 3-27)

PRESS a programmable button

PRESS left [*Intercom*] [7] [1]

DIAL a Calling Group number (1-4)

GROUP PAGING (p. 3-27)

PRESS a programmable button

PRESS left [*Intercom*] [1] [7] [1]

DIAL a Calling Group number (1-4)

EXTENSION HUNT GROUP (P. 3-27)

For ringing the first available extension:

PRESS a programmable button

PRESS left [*Intercom*] [7] [7]

DIAL a Hunt Group number (1-6)

For paging the first available extension:

PRESS a programmable button

PRESS left [*Intercom*] [1] [7] [7]

DIAL a Hunt Group number (1-6)

DIRECT LINE PICKUP (P. 3-27)

PRESS a programmable button

For picking up an idle line:

DIAL left [*Intercom*] [8]

For picking up an active line:

DIAL left [*Intercom*] [6] [8]

 = Requires a button with lights

System Programming Quick Reerence

Place the Programming Overlay on the dial pad of the system display phone at extension 10 or 11

TO START SYSTEM PROGRAMMING

PRESS [*Feature*] [0] [0]

PRESS [*System Program*]

PRESS [*System Program*]

TO END SYSTEM PROGRAMMING

PRESS [*Feature*] [0] [0]

TO USE A SPECIFIC PROCEDURE

DIAL [#] and three-digit procedure code
Example: [#] [1] [0] [1] for System Date

TO CYCLE THROUGH SYSTEM PROGRAMMING PROCEDURES

PRESS [*Next Procedure*] or [*Prev Procedure*]

NOTE: Procedures #399, #609, and #728—shown below in dashed boxes—are skipped when cycling.

TO CYCLE THROUGH AVAILABLE SETTINGS

PRESS [*Next Data*] or [*Prev Data*]

TO RETURN TO FACTORY SETTING

PRESS [*Remove*]

System

SYSTEM DATE (p. 3-16)

DIAL #101

DIAL the date in MMDDYY form

SYSTEM DAY (p. 3-16)

DIAL #102

DIAL 1 = Sunday ✓
2 = Monday
3 = Tuesday
4 = Wednesday
5 = Thursday
6 = Friday
7 = Saturday

SYSTEM TIME (p. 3-16)

DIAL #103

DIAL the time in HHMM form

NUMBER OF LINES (p. 3-16)

DIAL #104

DIAL two digits for the number of outside lines in the system (01–24)

✓ 2 per 206 module
4 per 400 module

TRANSFER RETURN RINGS (p. 3-16)

DIAL #105

DIAL one digit for the number of rings before the call returns (0–9)

✓ = 4 rings
0 rings = no return

RECALL TIMER DURATION (p. 3-16)

DIAL #107

DIAL two digits to set the length of a switchhook flash (01–80)

✓ = 18 (450 msec)

ROTARY DIALING TIMEOUT (p. 3-16)

DIAL #108

DIAL 1 = 4 seconds
2 = 8 seconds ✓
3 = 12 seconds

OUTSIDE CONFERENCE (p. 3-16)

DIAL #109

DIAL 1 = Allowed ✓
2 = Disallowed

Lines

DIAL MODE (p. 3-17)

DIAL #201

DIAL a line number

DIAL 1 = Touch-Tone ✓
2 = Rotary

PRESS [*Next Item*] to program another line

HOLD DISCONNECT TIME (p. 3-17)

DIAL #203

DIAL a line number

DIAL 1 = Long (450 msec) ✓
2 = Short (50 msec)

PRESS [*Next Item*] to program another line

IMPORTANT: This procedure changes Line Access Restriction. Automatic Line Selection, Line Ringing and Hold Disconnect Time (#203) to factory settings. To change line assignments without affecting other settings, use Line Assignment (#301).

Extensions

LINE ASSIGNMENT (p. 3-17)

DIAL #301

DIAL an extension number

To remove all existing line assignments, press [*Remove*] before selecting a line.

DIAL a line number (01-24)

DIAL 1 = Assigned ✓
2 = Not Assigned

3 = Select Button then
PRESS a line button to assign the line to that button
If you use option 3 after a line has been assigned, the line moves from the old button to the new button you select.

PRESS [*Next Item*] to program another line for this extension.

To program another extension:

PRESS [*Next Procedure*] [*Prev Procedure*], enter a new extension number, and repeat above steps

LINE ACCESS RESTRICTION (p. 3-17)

DIAL #302

DIAL an extension number

DIAL a line number

DIAL 1 = No Restriction ✓
2 = Outgoing Only
3 = Incoming Only
4 = No Access (line appears on button, but you can use line only to pick up a transferred or held call)

PRESS [*Next Item*] to program another line

To program another extension:

PRESS [*Next Procedure*] [*Prev Procedure*], enter a new extension number, and repeat above steps

DISPLAY LANGUAGE (p. 3-17)

DIAL #303

DIAL an extension number

DIAL 1 = English ✓
2 = Spanish
3 = French

PRESS [*Next Item*] to program another extension

AUTOMATIC EXTENSION PRIVACY (p. 3-17)

DIAL #304

DIAL an extension number

DIAL 1 = Assigned
2 = Not Assigned ✓

PRESS [*Next Item*] to program another extension

ABBREVIATED RINGING (p. 3-17)

DIAL #305

DIAL an extension number

DIAL 1 = Active (1 ring) ✓
2 = Not Active (repeated ringing)

PRESS [*Next Item*] to program another extension

TRANSFER RETURN EXTENSION (p. 3-17)

DIAL #306

DIAL an extension number

DIAL number of the extension to which call should return if not answered

✓ Extension transferring call

PRESS [*Next Item*] to program another extension

COPY SETTINGS (p. 3-17)

DIAL #399

DIAL a source extension number

DIAL target extension numbers

System Speed Dial Numbers (p. 3-20)

To program a number:

PRESS [*Feature*] [0] [0] to enter program mode

PRESS [*Feature*]

DIAL a two-digit code (20-79)

DIAL the telephone number—up to 20 digits including special characters (see page 3-20)
To “mark” it (to override restrictions), dial [*] before the telephone number

To program another number, or to change a number, repeat

PRESS [*Feature*] [0] [0] to exit program mode

To remove a number:

PRESS [*Feature*] [0] [0] to enter program mode

PRESS [*Feature*]

DIAL the System Speed Dial number's code (20-79)

PRESS [*Mic*]

To remove another number, repeat

PRESS [*Feature*] [0] [0] to exit program mode

SYSTEM RESET – PROGRAMMING SAVED

IMPORTANT: Using this procedure disconnects any active calls but retains system settings. Use it only if the system fails to function correctly after a power failure or down period.

DIAL #728

Dialing Restrictions and Permissions**OUTGOING CALL RESTRICTION**
(p. 3-18)

DIAL #401

DIAL an extension number

DIAL 1 = No Restriction ✓
2 = Inside (intercom) Only
3 = Local (intercom and local) Only

PRESS [*Next Item*] to program another extension

TOLL CALL PREFIX (p. 3-18)

DIAL #402

DIAL 1 = 0/1 plus Area Code and Number ✓

2 = Area Code and Number Only

SYSTEM PASSWORD (p. 3-18)

DIAL #403

DIAL 4 digits to set the password

DISALLOWED PHONE NUMBER LISTS (p. 3-18)

DIAL #404

DIAL a list number (1 to 4)

DIAL a list entry (01 to 10)

To add entry:

DIAL the phone number (up to 12 digits)

PRESS [*Enter*]

PRESS [*Remove*] to remove a list entry

PRESS [*Next Item*] to select another list entry

To program another list:

PRESS [*Next Procedure*] [*Prev Procedure*], enter a new list number, and repeat above steps

DISALLOWED LIST ASSIGNMENT (p. 3-18)

DIAL #405

DIAL an extension number

DIAL a list number

DIAL 1 = Assigned ✓
2 = Not Assigned ✓

PRESS [*Next Item*] to program another list

To program another extension:

PRESS [*Next Procedure*] [*Prev Procedure*], enter a new extension number, and repeat above steps

EMERGENCY PHONE NUMBER LIST (p. 3-18)

DIAL #406

DIAL a list entry (01 to 10)

To add entry:

DIAL the telephone number (up to 12 digits)

PRESS [*Feature*]

PRESS [*Remove*] to remove a list entry

PRESS [*Next Item*] to program another list entry

ALLOWED PHONE NUMBER LISTS (p. 3-18)

DIAL #407

DIAL a list number (1 to 4)

DIAL a list entry (01 to 10)

To add entry:

DIAL the telephone number (up to 12 digits)

PRESS [*Feature*]

PRESS [*Remove*] to remove a list entry

PRESS [*Next Item*] to select another list entry

To program another list:

PRESS [*Next Procedure*] [*Prev Procedure*], enter a new list number, and repeat above steps

ALLOWED LIST ASSIGNMENTS (p. 3-18)

DIAL #408

DIAL an extension number

DIAL a list number

DIAL 1 = Assigned ✓
2 = Not Assigned ✓

PRESS [*Next Item*] to select another list

To program another extension:

PRESS [*Next Procedure*] [*Prev Procedure*], enter a new extension number, and repeat above steps

Groups**PICKUP GROUP EXTENSIONS**

(p. 3-19)

DIAL #501

DIAL a group number 1-4)

DIAL an extension number

DIAL 1 = Assigned to group ✓
2 = Not assigned to group ✓

PRESS [*Next Item*] to assign another extension

CALLING GROUP EXTENSIONS (p. 3-19)

DIAL #502

DIAL a group number (1-4)

DIAL an extension number

DIAL 1 = Assigned to group ✓
2 = Not assigned to group ✓

PRESS [*Next Item*] to assign another extension

NIGHT SERVICE BUTTON (p. 3-19)

DIAL #503

DIAL 1 = Assigned to standard button on phone at ext 10

2 = Not assigned ✓

3 = Select button *then*

PRESS a programmable button (to assign Night Service to a different button)

If you use option 3 after a Night Service button has been assigned, the Night Service button moves from the old button to the new button you select

NIGHT SERVICE GROUP EXTENSIONS (p. 3-19)

DIAL #504

DIAL an extension number

DIAL 1 = Assigned to group ✓
2 = Not assigned to group ✓

PRESS [*Next Item*] to assign another extension

HUNT GROUP EXTENSIONS (p. 3-19)

DIAL #505

DIAL a group number (1-6)

DIAL an extension number

DIAL 1 = Assigned to group ✓
2 = Not assigned to group ✓

PRESS [*Next Item*] to assign another extension

SMDR TOP OF PAGE (p. 3-19)

DIAL #609

Auxiliary Equipment**FAX MACHINE EXTENSIONS**

(p. 3-19)

DIAL #601

DIAL an extension number

DIAL 1 = Assigned ✓
2 = Not Assigned ✓

PRESS [*Next Item*] to identify another extension

MUSIC ON HOLD (p. 3-19)

DIAL #602

DIAL 1 = Active ✓

2 = Not Active

HOTLINE (p. 3-19)

DIAL #603

DIAL the hotline extension number (*not* ext. 10 or 11)

DIAL the alerted extension number (*not* the hotline) or [*z*] [*z*] to paging system

To remove the hotline and alert:

PRESS [*Remove*]

DORRPHONE 1 EXTENSION (p. 3-19)

DIAL #604

DIAL an extension number (12–15, 18–21, 24–27, 30–33, 36–39, 42–45, 48–51, or 54–57)

DOORPHONE 2 EXTENSION (p. 3-19)

DIAL #605

DIAL an extension number (12–15, 18–21, 24–27, 30–33, 36–39, 42–45, 48–51, or 54–57)

DOORPHONEALERT EXTENSIONS (p. 3-19)

DIAL #606

DIAL an extension number (except a doorphone extension)

DIAL 1 = Not an alert ✓
2 = Doorphone 1 alert
3 = Doorphone 2 alert
4 = Doorphones 1 and 2

PRESS [*Next Item*] to identify another extension (up to 5 alert extensions per doorphone)

AA/VMS EXTENSIONS (p. 3-19)

DIAL #607

DIAL an extension number

DIAL 1 = Assigned ✓
2 = Not Assigned ✓

PRESS [*Next Item*] to identify another extension

SMDR RECORD TYPE (p. 3-19)

DIAL #608

DIAL 1 = All calls ✓
2 = Outgoing calls only

✓ = Factory Setting

518-455-310

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