



AT&T

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MERLIN II
COMMUNICATIONS SYSTEM
System Manual



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About the MERLIN II Communications System

Your MERLIN® II Communications System offers features and options available until recently only on much larger systems. In fact, you can choose from among more than one hundred systemwide options and programmable features to customize your system to your specific business needs. Some are designed specifically to make call handling easier and call traffic more manageable, while others can help you lower communications costs. And to accommodate your growing communications needs, the system can expand to support up to 32 outside telephone lines and 72 voice terminals.

EASY TO USE

Talking with clients across the country or co-workers in the next office is quick and easy with such features as:

- System and Personal Speed Dial
- Saved Number and Last Number Redial
- Notify
- Intercom
- Group Page

EFFICIENT

Heavy call traffic becomes easily manageable with such features as:

- Line Pools
- Group Call Distribution
- Call Transfer
- Transfer Return Identification
- Line and Call Pickup
- Conference Calling
- Call Coverage

COST EFFECTIVE

And your system administrator can combine some or all of the following options to control costs without placing unreasonable constraints on the people in your business:

- Customized Line Assignments
- Automatic Route Selection
- Call Restriction
- Allowed Lists
- Enhanced Night Service
- Call Report (SMDR)
- Account Number Entry

These and the many other features and options available with your MERLIN II system are explained in detail in upcoming sections of this manual.

What's in This Manual

You'll find the information in this *MERLIN II Communications System Manual* conveniently divided into eight sections, as described below. You'll also find copies of quick reference cards for users and attendants in the back of this binder.

SECTION 1: INTRODUCTION

This section tells you what's in the manual and how to use it.

SECTION 2: PLANNING THE SYSTEM

Use the information in this section to make key decisions about how you want the system to operate. This section includes planning forms to record your decisions. If someone else will be system administrator, have that person fill out the planning forms.

SECTION 3: ADMINISTERING THE SYSTEM

This section tells you how to use the information on the planning forms to customize the system to your business needs. If someone else will be system administrator, have that person administer the system following the steps in this section.

SECTION 4: USING THE VOICE TERMINAL

This section describes the unique MERLIN II system voice terminals (telephones). It describes both the voice terminal's fixed features, which you can use right away, and the various optional features that you can program onto the voice terminal.

SECTION 5: USING THE ATTENDANT CONSOLE

System attendants can find helpful information in this section about using the attendant console to manage incoming call traffic.

SECTION 6: REFERENCE

This section contains a detailed discussion of every component, option, and feature in the MERLIN II system. The entries are organized alphabetically to help you find the information you need quickly. As you become familiar with the system, you'll probably go to this section first when you want to change a system setting or a voice terminal feature, or when you simply want to find out more about some aspect of the system.

SECTION 7: QUICK REFERENCE GUIDES

The guides in this section offer quick access to administration and programming procedures. Use them when you want to find a particular procedure fast.

SECTION 8: TROUBLESHOOTING

The tables in this section can help you isolate and solve technical problems that may cause your system to malfunction.

SECTION 9: INSTALLATION

This is a technical reference section. It provides information about MERLIN II system wiring and installation requirements for an installer or technician.

How to Use This Manual

How you should use this manual at any particular time depends on what you want to do, as the following information suggests.

ADMINISTERING A NEW SYSTEM?

Use the information in Section 2, "Planning the System," to decide which options and features you want for your system. Then follow the instructions in Section 3, "Administering the System," and in Section 6, "Reference," to set up the system with the options and features you've selected.

MAKING CHANGES TO A RUNNING SYSTEM?

Change the planning forms to reflect the changes you want to make. Then see the relevant entries in Section 6, "Reference," and the Quick Reference Guide to System Administration at the end of Section 3 to make the changes.

MANAGING INCOMING CALL TRAFFIC AS A SYSTEM ATTENDANT?

See Section 5, "Using the Attendant Console," and the *MERLIN II System Attendant's Card* for information on how to use the attendant console to handle calls.

USING A VOICE TERMINAL FOR THE FIRST TIME?

See Section 4, "Using the Voice Terminal," for instructions about programming and using the voice terminal features. You can also refer to the appropriate User's Card for help in using and programming a voice terminal.

HAVING TROUBLE WITH THE SYSTEM?

Find the symptom of your problem in Section 8, "Troubleshooting." Then follow the suggestions for solving the problem.

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Overview

A well-planned MERLIN[®] II Communications System is easy to administer and use. Planning your system involves making basic decisions about how you want some of the system's key components connected and how you want the system to operate once it's installed.

FILLING OUT THE FORMS

As you plan your system, you record your decisions on a set of planning forms. You'll use these forms later when you administer the system.

If you got a planning guide when you ordered your system, you may have already filled out all the forms you need for your system. If so, go now to Section 3, "Administering the System." If you don't have the forms you need filled out, this section will tell you how to complete them.

NOTE: If your system has digital data capability, refer to the *Data Communications Guide for the MERLIN II System* for instructions on planning your system. If you have the Call Management System (CMS) for the MERLIN II system, refer to the *Planning Guide for the Call Management System*, for planning instructions.

A list of the planning forms appears below. You must fill out the Master Planning Form, System Configuration Form, and Voice Terminal Configuration Forms so you can perform basic administration procedures to get the system running. The remaining forms apply to *options* you may want to select for your system. If your system will not use Automatic Route Selection, for example, then you don't have to fill out the forms for that feature.

- Master Planning Form
- System Configuration Form
- Voice Terminal Configuration Forms
- Enhanced Night Service Forms
- Call Restrictions and Allowed-Lists Forms
- Group Page Form
- Group Call Distribution Forms
- System Speed Dial Form
- Automatic Route Selection Forms

You'll find copies of the forms at the end of this section of the manual. Remove them now, make a photocopy of each, including a copy of the appropriate Voice Terminal Configuration Form for each voice terminal in your system, and put the originals back in this binder. Keep the copies at hand so you can fill them out as you plan your system.

HOW TO USE THIS SECTION OF THE MANUAL

Knowing how this section of the manual is organized will help you to find the information you need quickly. The title of each planning form appears at the top of a page and has a line under it. Items on the form are listed on the left side of the page. Instructions for completing each item include:

- General information to help you make decisions
- Boxed instructions for recording your decisions on the form

Some items have the following additional information, as appropriate:

- Considerations to keep in mind as you plan for the system setting or feature
- Examples that illustrate system settings or features through typical business applications

If you want more information about a particular feature as you plan your system, consult the entry for that feature in Section 6, "Reference."

Fill Out the Master Planning Form

The MERLIN II system control unit manages all call traffic for the system and controls all system responses. As the master component in the system, the control unit is the focus of this first phase of planning.

During this phase of planning you'll be deciding how you want other key components connected to the control unit, reserving jacks for specific functions, and recording your decisions on the Master Planning Form. You'll use this form as you complete the remaining planning forms and administer the system.

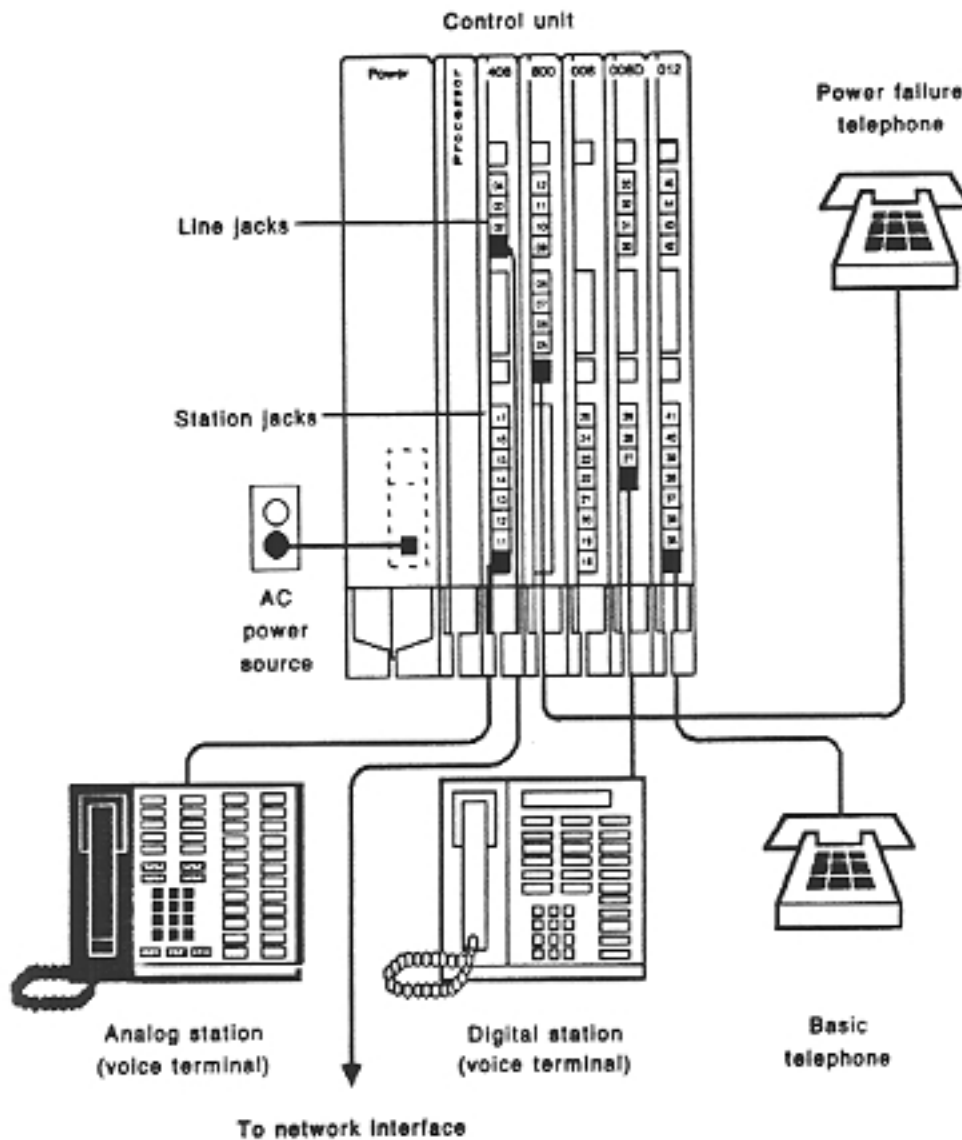
NOTE: If you have digital data equipment, see the *Data Communications Guide for the MERLIN II System* for instructions on filling out a Master Planning Form for your system.

Some or all of the information you'll need to fill out the Master Planning Form may already be available to you. If your system is installed, look inside the front cover of the control unit to see if a System Directory has been attached to it. If so, copy the information it contains onto the Master Planning Form and go on to "Fill Out the System Configuration Form." If there is no System Directory, you can look at the control unit modules or the jack field to see which jacks are used for each line and station in your system.

COMPONENTS OF THE MERLIN II SYSTEM

If you aren't familiar with the MERLIN II system, study Figure 2-1. Then read the definitions of basic terms that follow.

FIGURE 2-1 Basic MERLIN II System Components.



- **Control Unit:** When the system is installed, modules containing a power source; a processor; and jack connections for outside lines, MERLIN II system telephones, and other devices are mounted on a carrier. The resulting assembly is called the control unit.
- **Line Jacks:** The line jacks on the control unit modules connect outside lines or optional paging or music equipment to the system. The system can accommodate up to 32 outside lines.
- **Voice Terminal:** A voice terminal is a programmable MERLIN II system telephone.

-
- *Station:* A station is the endpoint of any connection within the MERLIN II system. It can be a voice terminal, a basic telephone, a General Purpose Adapter (GPA), a modem, a data terminal, or a personal computer.
 - *Analog Station:* An analog station is one with an analog voice terminal, data device, and/or accessory. Analog voice terminals such as the 10-button and 34-button models can be directly connected only to analog station jacks on the control unit.
 - *Digital Station:* A digital station is one with a digital voice terminal or data device. Digital voice terminals, such as the 7406 model, can be directly connected only to digital station jacks on the control unit.
 - *Basic Telephone:* A basic telephone is a standard Touch-Tone or rotary telephone. Basic telephones can be directly connected only to basic telephone jacks on the control unit. Basic telephones are used as Power Failure Telephones.
 - *Station Jacks:* The station jacks are those jacks on the modules in the control unit that connect stations to the system. The system can accommodate up to 72 stations.

Control Unit Jacks

The jacks on the control unit modules provide points of connection for the system's outside lines and stations. The system's outside telephone lines connect to line jacks, as do loudspeaker paging equipment and the music source for Music-on-Hold, if your system has these options. Voice terminals and data equipment connect to the station jacks.

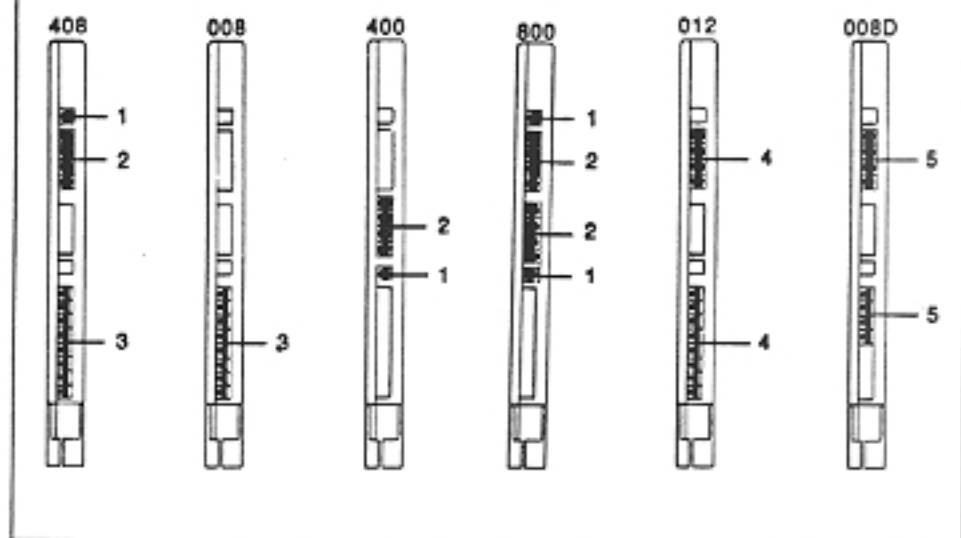
The Master Planning Form reflects the division between line jacks and station jacks. One side of the form is for recording information about line jack connections; the other side is for recording information about station jack connections. (The line jack side is also used for recording the order in which modules are installed in the control unit.)

Before you can fill out the form, you need to decide what line and station modules will appear in each slot in your control unit. You also need to know the numbering sequence for the jacks on the modules. The various types of modules are described below and shown in Figure 2-2. The discussion under "Automatic Numbering of Control Unit Jacks," which follows, explains how the system assigns numbers to lines and station jacks on these modules.

- The 4-Line/8-Analog Voice Terminal (408) Module has four line jacks near the top of the module and eight station jacks on the bottom portion of the module.
- The 8-Analog Voice Terminal (008) Module has eight station jacks at the bottom.
- The 4-Line (400) and 8-Line (800) modules have line jacks on their top portions.
- The 12-Basic Telephone (012) Module has 12 station jacks— four at the top and eight at the bottom.
- The 8-Digital Station (008D) Module has four station jacks at the top and four near the bottom.

There is a power failure jack for every four outside line jacks on a module.

FIGURE 2-2 The MERLIN II system modules and their jack positions.



The numbers in Figure 2-2 correspond to the following list of jack functions:

- 1 *Power failure jacks:* These jacks are used with basic telephones only. In case of a power outage, basic telephones plugged into these jacks become operational. Do not use MERLIN II system voice terminals as power failure telephones.
- 2 *Outside line jacks:* These jacks are for the outside lines provided by the telephone company. You can also connect an optional loudspeaker paging system and/or a music source to a line jack.
- 3 *Analog station jacks:* These jacks are for MERLIN II system analog voice terminals, analog data devices, or accessories only.
- 4 *Basic telephone jacks:* These jacks are for basic telephones only.
- 5 *Digital station jacks:* These jacks are for digital voice terminals or data devices only.

Line and station modules must be installed in slots on the control unit sequentially, from left to right, with no empty slots left between modules. (Slots to the right of the last module can be left empty.) Figure 2-3 shows a typical installation.

On the line jack side of the Master Planning Form on the drawing labeled "Module Location," identify the type of module in each slot on your control unit by recording its 3-digit number in the appropriate place. Keep in mind that the module in slot 1 of the basic unit *must* be a 4-Line/8-Analog Voice Terminal (408) Module or an 8-Analog Voice Terminal (008) Module.

Automatic Numbering of Control Unit Jacks

When you turn the power on at the power supply module, the system scans the modules from left to right and from bottom to top. As it does so, it identifies the type of module installed in each slot in the control unit. Beginning with line 01 and station 10, the system numbers the line jacks and station jacks from the bottom to the top of each module, and from left to right across the control unit.

Labels for the control unit jacks are provided with the system. The station jack labels are numbered 10 through 79, 800 and 801. The line jack labels are numbered 01 through 32. Once the control unit is assembled and these labels affixed to the modules, you can tell at a glance which jacks are for outside lines and which are for stations.

If you later replace a module with one of a different type, the system continues to operate as though the original module were still in place. You must perform a special administration procedure to change your system's line and/or station numbers and relabel the jacks accordingly. Refer to Section 3, "Administering the System," for details.

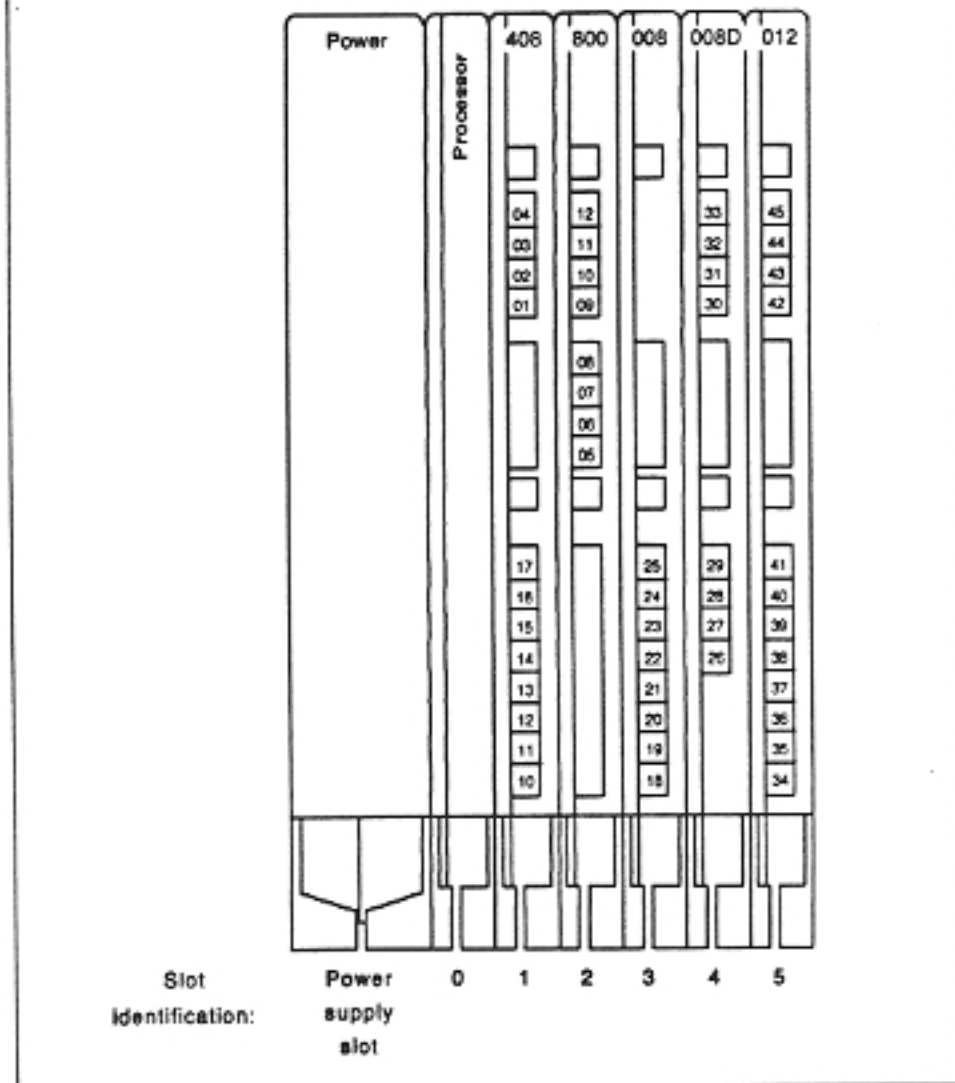
Figure 2-3 shows a typical control unit consisting of the following modules:

- Power Supply Module (leftmost slot)
- Processor Module (slot 0)
- 4-Line/8-Analog Voice Terminal (408) Module (slot 1)
- 8-Line (800) Module (slot 2)
- 8-Analog Voice Terminal (008) Module (slot 3)
- 8-Digital Station (008D) Module (slot 4)
- 12-Basic Telephone (012) Module (slot 5)

The system shown in Figure 2-3 has enough jacks for 12 outside lines and 36 stations. The labels identify each jack number.

The line jacks are labeled 01-04 on the 408 module in slot 1 and continue with 05-12 on the 800 module in slot 2. The station jacks are labeled 10-17 on the 408 module in slot 1. They continue with 18-25 on the 008 module in slot 3 and 26-33 on the 008D module in slot 4. They finish with 34-45 on the 012 module in slot 5.

FIGURE 2-3 Typical MERLIN II system control unit with line and station jacks labeled.



Line Jacks

The "Line Jacks" side of the Master Planning Form has four columns. The first and third columns, headed "Line Jack," list all the possible line jack numbers (01 through 32). In the columns headed "Telephone No. or Equipment," you identify the outside telephone line or piece of equipment connected to each line jack on your control unit.

Telephone Number To simplify system administration, you should plan to connect your outside telephone lines to an unbroken sequence of line jacks on the control unit, beginning with line jack 01. You should also plan to group your lines together according to type. Reserve the line jacks at the beginning of the sequence for your local lines, and reserve jacks later in the sequence for special-purpose lines such as WATS and foreign exchange (FX) lines.

If you know the telephone numbers for your system's outside lines, do the following:

- 1 Match each outside line with a line jack on the control unit.
- 2 Under "Telephone No. or Equipment," enter the telephone number for each outside line next to the number for its line jack.

If you don't yet know the telephone numbers for your system's outside lines, do the following:

- 1 Enter the type of line (local, WATS, etc.) you plan to connect to each line jack next to the number for that line jack.
- 2 When you find out the telephone numbers for your outside lines, enter them next to the appropriate line jack numbers.

Equipment Now that you've reserved enough line jacks on the control unit for your outside telephone lines, you can reserve a line jack for any optional equipment that requires one. If you use the Music-on-Hold feature, you need to reserve a line jack for a music source such as a radio, tape player, or stereo system. If your business has a loudspeaker paging system, you need to reserve a line jack for the paging equipment.

To make it easier to add outside lines in the future, use the last line jack(s) on your control unit for the Music-on-Hold and/or Loudspeaker Page connection.

If your system has Music-on-Hold, write "music source" on the line next to the number of the line jack used to connect the music source to the system.

If your system has loudspeaker paging, write "paging system" next to the number of the line jack used to connect the paging equipment to the system.

Station Jacks

The first and fourth columns on the "Station Jacks" side of the Master Planning Form list the numbers (10 through 79, 800 and 801) for all possible station jacks on the control unit.

In the second and fifth columns, you record the jack type for each station jack on your control unit: "A" for analog, "D" for digital, or "B" for basic telephone. Note that "A" is preprinted on the form for station numbers 10 through 17, since the first eight station jacks are always analog jacks.

You use the third and sixth columns to identify by person, location (such as "mail room"), or function (such as "voice/voice pair") the station connected to each station jack on your control unit.

Filling out the "Station Jacks" side of the Master Planning Form is mostly a matter of assigning intercom numbers to stations by matching station jack numbers with people or locations. But the following require some special consideration:

- Attendant stations
- Stations with the Simultaneous Voice and Data feature
- Stations with the Voice Announcement to Busy Voice Terminal feature

In the "Jack Type" column, indicate the jack type for each station jack on your control unit: "A" for analog, "D" for digital, "B" for basic telephone.

Attendant Station 10 In every system, the station connected to station jack number 10 on the control unit is the primary attendant station and central administration point. The voice terminal at that station is called the administrator/attendant console and is assigned intercom number 10.

On the row for station jack 10 on the Master Planning Form, identify the primary attendant station as follows:

- 1 In the "Station Jack" column, write "Att" next to the preprinted "10" to identify this as an attendant station.
- 2 In the "Person, Location, or Function" column, write in the name or location of the primary attendant.

Other Attendant Stations Certain stations in addition to station 10 can serve as attendant stations. They are the stations connected to every fourth *analog* station jack after number 10 on the control unit. For example, if the first 24 station jacks on your control unit are on analog station modules, the possible attendant stations (in addition to station 10) are those connected to jacks 14, 18, 22, 26, and 30. Your system can have as many as eight attendant stations, depending on the number of analog station modules you have.

Identify other possible attendant stations in your system as follows:

- 1 In the "Station Jack" column, write "Att" next to the number for every fourth *analog* station jack after station jack number 10.
- 2 Fill in the "Person, Location, or Function" column for those stations you know will be attendant stations when your system is running.
- 3 Be sure to remove the "Att" designation from those station jacks that you won't use as an attendant position.

Station Jack Pairs Among the many optional features you can choose for one or more stations in your system are the following:

- Voice Announcement to Busy Voice Terminal

A person whose voice terminal has this feature can hear an announcement through the speaker even though he or she is on a call. To provide this feature, you assign the voice terminal two station jacks, called a *voice/voice pair*, as explained below. (Digital 7406 voice terminals can't use this feature, since they don't receive voice announcements over their speakers.)

- **Simultaneous Voice and Data**

A station with this option has a voice terminal and a data terminal that can be used at the same time. For analog stations with this feature, the equipment is connected to the control unit through two station jacks called a *voice/data pair*, as explained below. (Digital stations don't need a second jack to provide simultaneous voice and data capability.)

An analog station with either one of these options requires two consecutive analog station jacks on the control unit. The jacks are an even-numbered analog station jack and the next higher (odd-numbered) analog station jack. This requires special wiring. (See Section 9, "Installation.") You can assign either of these options to any of the stations in your system, but you *cannot* assign both options to the same station.

Voice/Voice Pairs. The first (even-numbered) station jack in the pair provides the station's intercom number. Calls can't be placed to the intercom number associated with the odd-numbered jack.

To reserve pairs of jacks for analog stations that will have the Voice Announcement to Busy Voice Terminal feature, do the following:

- 1 In the "Station Jack" column, draw a box around the pair of jack numbers that you plan to assign to each analog station with this feature.

NOTE: You can assign this feature to an attendant position.

- 2 In the "Person, Location, or Function" column, next to the first (even) number of each boxed pair, identify the station by person or location.
- 3 In the "Person, Location, or Function" column, next to the second (odd) number of each boxed pair, write "VVP" (for voice/voice pair).

Voice/Data Pairs. The first (even-numbered) station jack of the pair assigned to a station equipped for Simultaneous Voice and Data provides the intercom number for that station. Calls can't be placed to the intercom number associated with the odd-numbered jack.

Assign pairs of jacks to analog stations that will have the Simultaneous Voice and Data feature as follows:

- 1 In the "Station Jack" column, draw a box around each pair of numbers representing analog station jacks that you plan to assign to these stations.

NOTE: You can assign this option to an attendant station.

- 2 In the "Person, Location, or Function" column, next to the first (even) number in each boxed pair, identify the station by person or location.
- 3 In the "Person, Location, or Function" column, next to the second (odd) number in each boxed pair, write "VDP" for (voice/data pair).

Remaining Station Jacks Now that you've reserved station jacks on the control unit for stations that need special consideration, you can assign station jacks to the other stations in your system.

Remaining Analog Stations. You can reserve station jacks on a 4-Line/8-Analog Voice Terminal (408) Module or an 8-Analog Voice Terminal (008) Module for any other analog stations in your system.

To reserve station jacks for the remaining analog stations in your system, do the following:

- 1 In the "Person, Location, or Function" column, identify each station in your system by person or location.

NOTE: You might not have an analog station associated with each analog station jack on your control unit. If so, just reserve the station numbers associated with those jacks for future use. You can't use the station number associated with an analog station jack for a digital station or a basic telephone.

If you don't have any digital stations or basic telephones, you've completed your Master Planning Form. Go on to "Fill Out the System Configuration Form."

Digital Stations. If you have any digital stations in your system, make sure you reserve jacks for them on an 8-Digital Station (008D) Module.

To reserve station jacks for digital voice terminals, do the following:

- 1 In the "Jack Type" column, make sure there is a "D" next to the number for each digital station jack.
- 2 In the "Person, Location, or Function" column, identify each digital station in your system by person, location, or function.

Basic Telephones. If you have basic telephones, make sure you reserve jacks for them on a 12-Basic Telephone (012) Module.

To reserve station jacks for basic telephones, do the following:

- 1 In the "Jack Type" column, make sure there is a "B" next to the number for each basic telephone jack on your control unit.
- 2 In the "Person, Location, or Function" column, identify each basic telephone in your system by person or location.

You should now have completed the Master Planning Form. Keep it where you can find it easily when you want to administer your system.

Fill Out the System Configuration Form

In filling out the System Configuration Form, you'll be making decisions about basic operating conditions of your MERLIN II system, such as how people will access outside lines. You'll also make decisions about systemwide features, such as how calls are transferred. The following information should help you make the appropriate entries for your system on the System Configuration Form.

SYSTEM SIZE

A MERLIN II system can be either large or small. A small system accommodates up to eight outside lines and 20 or fewer voice terminals. A large system controls more than eight outside lines or more than 20 voice terminals.

Considerations

The system size you select doesn't have to correspond to the number of outside lines you actually have. If you have eight or fewer lines, but plan to grow beyond eight lines within a year or two, selecting "Large" initially makes it easier to readminister the system when you add lines.

If your MERLIN II system controls more than eight outside lines, or if you have more than 20 voice terminals, check "Large" under the heading "System Size." Otherwise, check "Small." Remember to take into consideration the number of outside lines and voice terminals you may add to the system in the next year or two.

LINE REPRESENTATION

For systems that have just been installed, you have to make a decision about a basic system characteristic — how people access outside lines. You have the option of administering your system to be either *square* or *pooled*.

About Square Systems

In the MERLIN II system, a square configuration is one in which outside lines are represented by separate buttons at voice terminals. You may know this type of system as a *key* telephone system, such as a Com Key® or 1A2 Key system.

You can choose between two kinds of square configurations: *standard* or *customized*. In the standard configuration, you give all voice terminals in the system access to the same lines — every line in the system appears at the same position of each voice terminal that has enough buttons to accommodate that number of lines. In the customized arrangement, you assign specific lines or sets of lines to selected groups of voice terminals, or to individual voice terminals.

If your system is going to be operated as a square system, you need to make a number of modifications to the processor module. Refer to "Square (Key) Systems" in Section 9, "Installation," for instructions on setting up your square system.

About Pooled Systems

In a pooled configuration, you group several outside lines together into a pool that people access by touching a button on their voice terminals. You may know this type of system as a nonkey or hybrid system, such as a Horizon® system.

Access to Line Pools There are three ways people can access line pools:

- **Button Access.** People simply touch the button to which a particular line pool is assigned, and the system selects a free line from that pool.
- **Dial Access.** People touch one of two Pool Access buttons, then dial a line pool code. The system selects a free line from the designated pool.
- **Access through Automatic Route Selection (ARS).** People touch one of two Pool Access buttons, then dial a call. The system routes the call to the line pool you've specified through the ARS feature to be the best one for that type of call.

If you plan to use the ARS feature, you *must* choose access to line pools through Automatic Route Selection.

If you do not plan to use the ARS feature in your system, consider the following:

- Button Access is the best option for your pooled system if you have only one or two line pools.
- If your system has several line pools, Dial Access is preferable because it provides access to all pools using only two buttons on each voice terminal. This leaves more buttons available for features. Dial access is also the best option if you want basic telephones to have access to pools or special lines, or if you want 5-button voice terminals to have access to more than one special pool.

Make selections under the heading "Line Representation" as follows:

Check "Square" if you want outside lines represented by separate buttons on every voice terminal.

Check "Pooled" if you want to group outside lines together into pools that people can access with a button on their voice terminals. If you choose a pooled system, people can still have individual lines, called personal lines, assigned to their voice terminals.

If you checked "Pooled," next indicate the way people will access line pools.

- Check "Button Access" if you want to dedicate one button to each group of lines.
- Check "Dial Access" if you want people to touch a Pool Access button; then dial an access code to get a line in a line pool.
- Check "Automatic Route Selection" if you want to use the ARS feature.

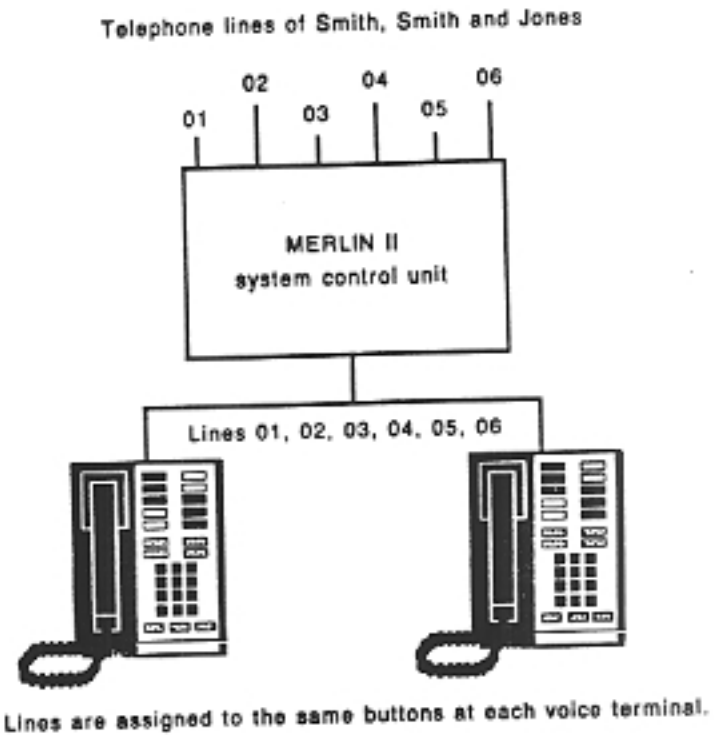
Examples

The following examples show how three typical businesses selected the method of line representation best suited to their communications needs.

Standard Square Configuration In the law office of Smith, Smith, and Jones, the receptionist answers all the calls, then transfers them to the lawyers or to the legal assistants. The office has six local lines and ten voice terminals. Since the lawyers and staff use the same lines to make and receive calls, a standard square configuration serves this law firm's needs.

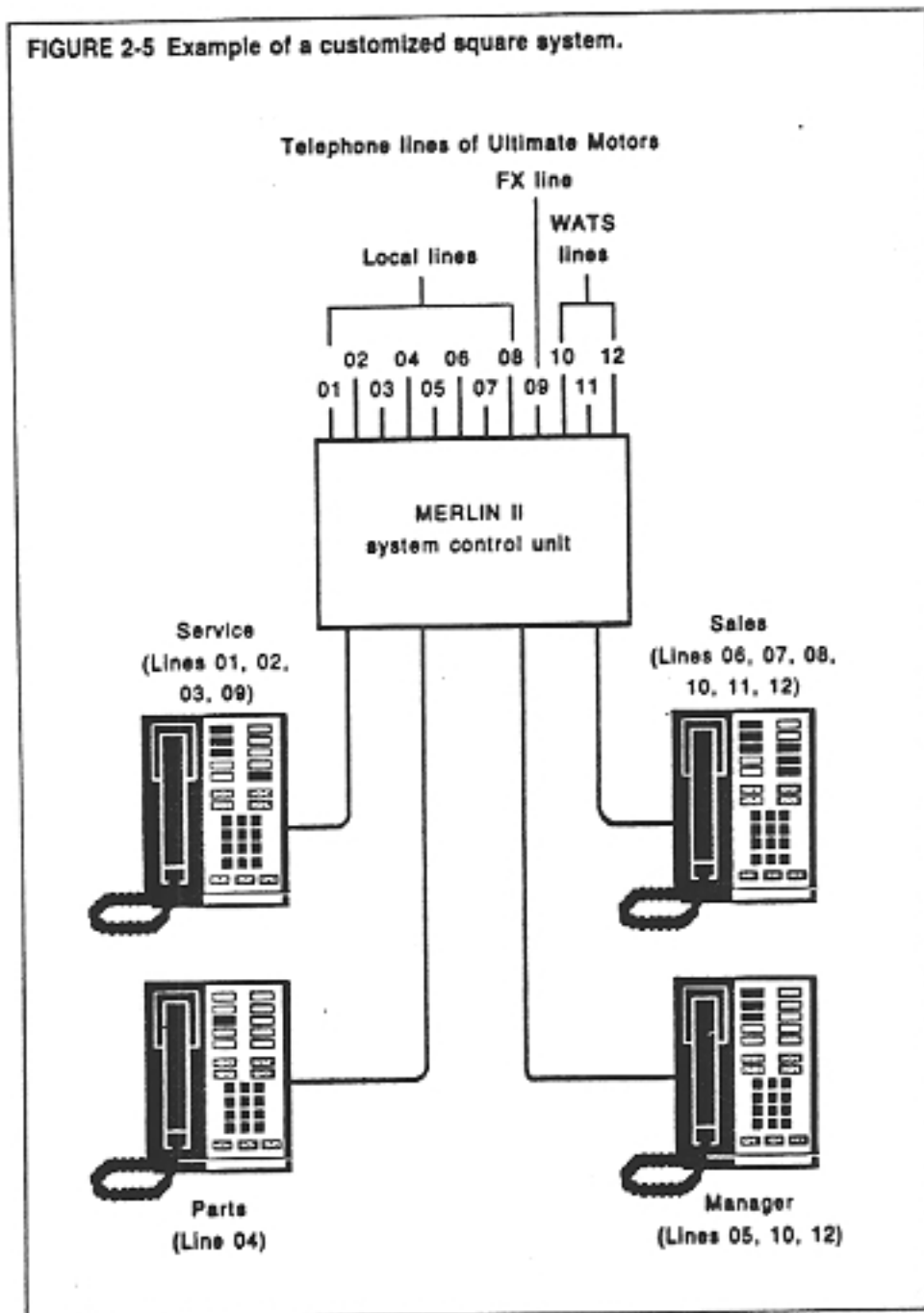
Figure 2-4 illustrates two of the voice terminals in the office. Since the system has a standard square configuration, the lines appear at the same positions at each person's voice terminal.

FIGURE 2-4 Example of a standard square system.



Customized Square Configuration Ultimate Motors, a car dealership, has different calling needs. Ultimate's administrator decides that a customized square configuration will provide its various departments the flexibility needed for efficient use of their eight local lines, three WATS lines, and one Foreign Exchange (FX) line. Figure 2-5 illustrates the assignment of these lines.

FIGURE 2-5 Example of a customized square system.



The Service Department makes mostly local calls to customers and parts suppliers. However, their major parts supplier is located outside the local calling area. Three local lines (01, 02, and 03) and a special FX line (09) to the supplier's telephone exchange are assigned to voice terminals in this department.

The Sales Department frequently calls manufacturers, haulers, and other dealerships out of the state, as well as customers, vendors, and the Department of Motor Vehicles locally and within the state. They also receive calls from customers who live in the state but outside their local calling area. Three local lines (06, 07, and 08), an in-state WATS line (10), an incoming in-state WATS line that can only be used for incoming calls (11), and a regional WATS line (12) are assigned to voice terminals in this department.

The Parts Department makes local calls and handles incoming calls. One local line (04) is assigned to the Parts Department.

The manager handles confidential negotiations over the phone, so one local line (05) is assigned exclusively to the manager. The manager also has access to both outgoing WATS lines.

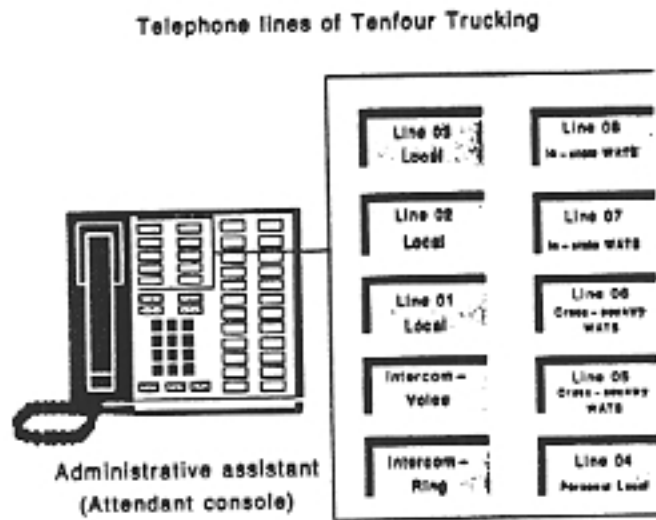
The manager or any other person in the dealership can answer a call that is ringing, parked, or held on any line by using the Call Pickup or Line Pickup feature, even if there is no button for that line assigned to his or her voice terminal.

Pooled Configuration with Button Access to Line Pools At Tenfour Trucking, the office manager, shipping clerks, and administrative assistant conduct most of their business by telephone. The company has four local lines, two cross-country WATS lines for out-of-state calls, and two in-state WATS lines for calls within the state that are outside the local calling area.

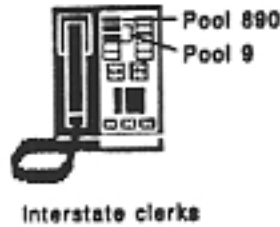
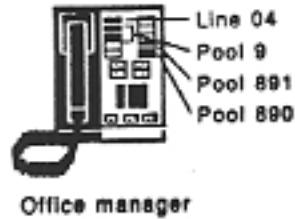
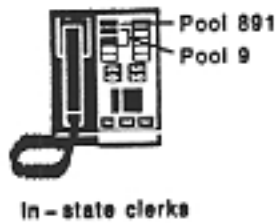
Tenfour chooses to pool its outside lines. They create three pools: a main pool (pool 9) for local lines, pool 890 for cross-country WATS lines, and pool 891 for in-state WATS lines. With just three line pools, Tenfour chooses Button Access to Line Pools. This configuration provides convenient access to the line pools, yet leaves several buttons available on each voice terminal to use for other features.

Figure 2-6 shows how lines and line pools are assigned at Tenfour Trucking.

FIGURE 2-6 Example of a pooled system with Button Access to Line Pools.



- Pool 9 = Lines 01, 02, 03 (Local lines)
- Pool 890 = Lines 05, 06 (Cross-country WATS lines)
- Pool 891 = Lines 07, 08 (In-state WATS lines)
- Line not assigned to pool = Line 04 (Personal local line)



The administrative assistant answers and transfers incoming calls from the attendant console. Even in pooled systems, lines appear on separate buttons on the attendant's console.

Shipping clerks who handle in-state shipments speak to customers and vendors within the local calling area and throughout the rest of the state. Button Access to pool 891 (in-state WATS lines 07 and 08) and to pool 9 (local lines 01, 02, and 03) is assigned to in-state clerks.

The office manager speaks to customers and vendors within the local calling area, throughout the state, and throughout the country, and also requires a personal line on which to place and receive important calls. Button Access to a personal local line (04), to line pool 09 (local lines 01, 02, and 03), to line pool 890 (cross-country WATS lines 05 and 06), and to line pool 891 (in-state WATS lines 07 and 08) is assigned to the manager.

Shipping clerks who handle interstate shipments speak to customers and vendors locally and throughout the country. Button Access to line pool 890 (cross-country WATS lines 05 and 06) and to line pool 09 (local lines 01, 02, and 03) is assigned to interstate clerks.

ATTENDANT STATIONS

Attendants typically handle calls that come in to a business or to a particular department within a business. The primary attendant uses the administrator/attendant console, which is connected to station jack number 10 on the control unit. Your system can have up to seven other attendant stations. Look on the Master Planning Form to see which intercom numbers are assigned to attendant stations.

Under the heading "Attendant Stations," fill in the intercom numbers of the attendant stations(s) you will have in your system.

ADMINISTRATOR/ ATTENDANT CONSOLE

The type of administrator/attendant console you need depends primarily on the number of voice terminals and lines in your system.

There are four types of consoles:

- 34-button console for small systems, a 34-button deluxe voice terminal
- 34-button console for large systems, a 34-button deluxe voice terminal. When used with large systems, a 34-button console is considered an economy console.
- Console with Attendant Intercom Selector, a 34-button deluxe voice terminal with attached Attendant Intercom Selector
- Display console

Under the heading "Administrator/Attendant Console," check the appropriate box for the type of console you will use for your administrator/attendant console.

CALL REPORT OPTIONS

Call Report, also called Station Message Detail Recording (SMDR), enables your business to keep records of incoming and outgoing calls. If you're going to use this feature, you need a 1200-baud serial printer (AT&T 475 or equivalent) with an RS-232-C interface connector. If you're not going to use this feature, skip this discussion and go on to "Transfer Return Interval."

The Call Report feature gives you information in a report that is printed automatically as the calls occur. As Figure 2-7 shows, the report includes the date and time of each call, the number dialed (if the call is outgoing), its duration, and the line and voice terminal on which the call is made. An account code is printed if the user entered one when the call was made. (See "Account Number Entry" in Section 6, "Reference".)

FIGURE 2-7 Example of a Call Report.

DATE	TIME	CALLED NUMBER	DUR.	LINE	STN.	ACCOUNT
C 01/25/84	02:01	5553587	00:00:00	8	11	
C 01/25/84	02:27	5553587	00:05:00	7	11	
C 01/25/84	02:29	5553608	00:02:17	5	12	
C 01/26/84	05:00	5551234	00:05:00	1	20	
C 01/26/84	06:30	IN	00:13:23	4	13	
C 01/27/84	14:01	5555678	00:13:00	4	29	
C 01/27/84	16:17	2125551212	00:16:28	5	11	
C 01/27/84	23:59	5551597	00:03:05	2	28	123456789
C 01/30/84	19:00	5551212	00:44:31	2	10	987654321
C 01/30/84	22:44	2125551212	00:01:00	1	15	765214329
C 01/30/84	23:59	IN	00:06:00	6	27	
C 02/01/84	08:56	9145551234	00:00:00	1	25	
C 02/01/84	08:56	2125554968	00:01:00	1	15	
C 02/01/84	08:54	2125552626	00:05:00	3	19	
C 02/01/84	08:59	5554357	00:03:00	4	14	383843879246
C 02/01/84	09:01	46701105551261?	00:02:00	3	28	
C 02/01/84	10:10	94670115550126	03:17:00	3	22	
C 02/01/84	09:00	94670115550156	01:15:00	8	17	
C 02/02/84	09:05	5557777	00:05:00	1	12	
C 02/02/84	11:22	3155551212	00:17:00	5	25	
C 02/02/84	12:33	5553489	00:12:59	2	10	6373934904847748

The information gathered in call reports helps you to develop records of your telephone traffic patterns and identify abuses in phone privileges so you can use your system efficiently. For example, account codes are helpful in billing customers and different departments of your company for telephone calls that should be charged to them.

If you plan to use Call Report, you have to make decisions about the types of calls you want reported and the minimum length of recorded calls.

Calls Recorded

During system administration you can set your system to generate call records for outgoing calls only, or for both incoming and outgoing calls.

If you want only outgoing calls reported, check the box next to "Outgoing Calls Only" under "Call Report Options."

If you want records of both incoming and outgoing calls, check the box next to "Incoming and Outgoing Calls."

Minimum Length of Recorded Calls

The system is factory-set to record calls that last at least 1 minute. During system administration you can choose a new setting from 0 to 99 minutes as the minimum length for recorded calls in your system.

NOTE: When you choose a setting, the system automatically adds 10 seconds to the setting to avoid recording busy or unanswered calls. This also allows for the time it takes to connect the call to the right person. This means that a system set to 0 minutes will generate call reports on calls that last at least 10 seconds.

Write the number of minutes you've chosen as the minimum length of reported calls on the line next to "Minimum Length of Calls Recorded" under "Call Report Options."

TRANSFER RETURN INTERVAL

When someone transfers a call to another voice terminal, the call will ring at that voice terminal a set number of times before it returns to the original voice terminal. The system is factory-set (default) to return transferred calls after four rings. But you can choose another transfer return interval (any number of rings from one to nine), or you can choose not to have unanswered transferred calls return at all.

Record the number of times you want a transferred call to ring on the line next to "Number of Rings" under "Transfer Return Interval." You can select from one to nine rings, with a default transfer return interval of four rings.

If you don't want transferred calls returned at all, write "0" on the line next to "Number of Rings."

ONE-TOUCH CALL HANDLING

You need to decide which of two call-handling shortcuts to provide for people in your business. You can set your system for either One-Touch Transfer or One-Touch Hold with Call Announcement.

Your MERLIN II system is factory-set for One-Touch Transfer. With One-Touch Transfer, a person can transfer an outside call to a co-worker by touching the co-worker's Auto Intercom button.

With One-Touch Hold with Call Announcement, a person can put an outside call on hold and place an intercom call to a co-worker by touching the co-worker's Auto Intercom button.

If you want to keep the factory-set (default) option that lets people use an Auto Intercom button to transfer an outside call, check the box next to "One-Touch Transfer."

If you want people to be able to use an Auto Intercom button to put an outside call on hold and place an intercom call, check the box next to "One-Touch Hold with Call Announcement."

TELEPHONE NUMBER OR EQUIPMENT

Your Master Planning Form should show the telephone number of an outside line, or the paging equipment or music-on-hold music source, that is assigned to each outside line jack next to the corresponding jack number in the "Line Jack" column.

Write the telephone number or type of equipment associated with each outside line in the "Telephone No. or Equipment" column next to its corresponding line jack number.

LINE TYPE

Your system may include special-purpose lines, such as WATS or FX lines, or lines for outward or incoming calls only.

Write the special line type in the "Line Type" column next to the telephone number for the line.

LINE POOLS

If your system is square, skip this item and see "Rotary Lines" below.

If your system is pooled, you need to group identical types of outside lines into line pools. For example, you might group five local lines into one pool, three in-state WATS lines into a second pool, and two cross-country WATS lines into a third pool. In a pooled system, you will probably want to pool all your lines except single, special-purpose lines and those that are needed as personal lines.

Once you have grouped your lines into pools, you need to assign a pool number, which is also the pool access code, to each pool. The pool numbers are 9 for the main pool and 890 through 899 for the other pools.

Group the lines for your main pool first. This pool should contain the lines your business uses most often, which usually consists of local lines. Note, however, that if your system has ARS, the main pool *must* contain local lines.

Considerations

Consider the following as you decide how to group lines into line pools:

- **Types of Lines.** Since you cannot control which line people will get when they use a pool, group lines that can be used interchangeably for placing calls. In other words, group lines of the same type together. For example, regular telephone lines and WATS lines should be in separate pools. Even within a WATS line pool, do not mix different bands of WATS lines or include both inbound and outbound lines.
- **Number of Lines You Can Pool.** The number of lines available for pooling is affected by the number of lines you must reserve for personal or special-purpose use. For example, if you have ten outside lines and two people need personal lines, there are eight lines left for pooling.
- **Maximum Number of Pools.** You can have up to 11 pools. Note that each pool can have as many or as few lines as you like, but a line can be in only one pool.

Assign the pool number 9 to the lines you want in your main pool. In the space provided for each line, write "9" in the column headed "Line Pool."

Assign a pool number (890 through 899) to each of the other groups of lines and enter that number in the column headed "Line Pool."

ROTARY LINES

The MERLIN II system is factory-set to generate Touch-Tone signals when you dial an outside call. This means that if one or more of your outside telephone lines can transmit only rotary signals, you have to designate specific lines as rotary lines during system administration. Otherwise, you won't be able to dial out over the rotary-only lines. If you know that your system has only Touch-Tone lines, you can stop reading this item and go on to "Long Distance Dialing." Continue reading here if you have rotary lines or if you aren't sure what kinds of lines you have.

If you don't know whether your outside telephone lines are Touch-Tone or rotary-only lines, ask your local telephone company. If your system is installed, you can make the following simple test at the administrator/attendant console to determine whether a line is Touch-Tone or rotary: Make sure the T/P switch (on the left side of the console) is in the center position. Then touch each line button and dial out. If a line is Touch-Tone, you hear tones and the dial tone stops. If a line is rotary, you hear tones but the dial tone is not interrupted.

Fill out the "Rotary?" column by placing a check mark in the space opposite the line jack number of each rotary line.

LONG DISTANCE DIALING

In most areas of the country, people have to dial a toll prefix (1 or 0) before dialing the area code and telephone number for a long distance call. For this item, you need to indicate whether or not people need to dial a toll prefix to place long distance calls. This is determined by the type of line an individual is using to place the call.

Under the "Toll Prefix Not Needed for Long Dist?" column, place a check mark next to those lines on which people do not need to dial a toll prefix when placing long distance calls.

You should now have a completed System Configuration Form. Keep it where you can find it easily when you want to administer your system.

Fill Out the Voice Terminal Configuration Forms

Your next step in the planning process is to fill out a Voice Terminal Configuration Form for each voice terminal in your system. On each form, you need to record the line and feature assignments for that voice terminal. You'll use these forms during system administration to assign lines to voice terminals and set up various system options.

Line assignments must be set up for all attendant consoles and voice terminals. Configuration forms for attendant consoles and for voice terminals in square systems and pooled systems are provided at the end of this section of the manual. Make enough photocopies of the appropriate forms so you can fill out one for each attendant console and voice terminal in your system.

NOTE: There are different forms for analog and digital voice terminals. For your basic telephones, use an analog voice terminal form.

Following the boxed instructions below, fill out a Voice Terminal Configuration Form for your:

- Primary attendant console (intercom number 10)
- Any other attendant console(s)
- Each analog voice terminal in your system
- Each digital voice terminal in your system

Identification

Follow the instructions below to first complete the identification information on each Voice Terminal Configuration Form. Then, follow the instructions to enter the line assignments information on each Voice Terminal Configuration Form. Finally, if you want to customize some of your voice terminals with additional features, read the instructions under "Feature Assignments for Office Priorities" and enter the appropriate information on the Voice Terminal Configuration Forms.

INTERCOM NUMBER AND IDENTIFICATION

Use the information under "Station Jacks," on the Master Planning Form, to complete these items on each Voice Terminal Configuration Form.

On the line next to "Intercom Number," write the intercom number for this voice terminal. Then next to "Identification," write the name of the person or location of this voice terminal.

Voice Terminal Model And Accessories

Record the appropriate information in these categories.

Check the appropriate boxes under "Model" and "Accessories."

Line Assignments

When your system is installed and you've administered it to square or pooled, the system automatically assigns lines to buttons on attendant consoles and voice terminals. You can, however, change these default line assignments for individual attendant consoles or voice terminals.

As you fill out this part of the form, refer to the appropriate discussion below, depending on whether you are filling out the form for an attendant console or for a voice terminal in a square system or a voice terminal in a pooled system.

ATTENDANT CONSOLES

The default line assignments for an attendant console are the same whether a system is square or pooled. The default is that all lines are assigned to the console and each line appears on a separate button. The initial line and feature assignments for the four types of consoles are shown in Figures 2-8 through 2-11. These diagrams illustrate the order in which lines are assigned to buttons on attendant consoles when your system is first set up. These diagrams also show the features that the system assigns automatically to attendant consoles.

FIGURE 2-8 Initial line and feature assignments for a 34-button console for small systems.

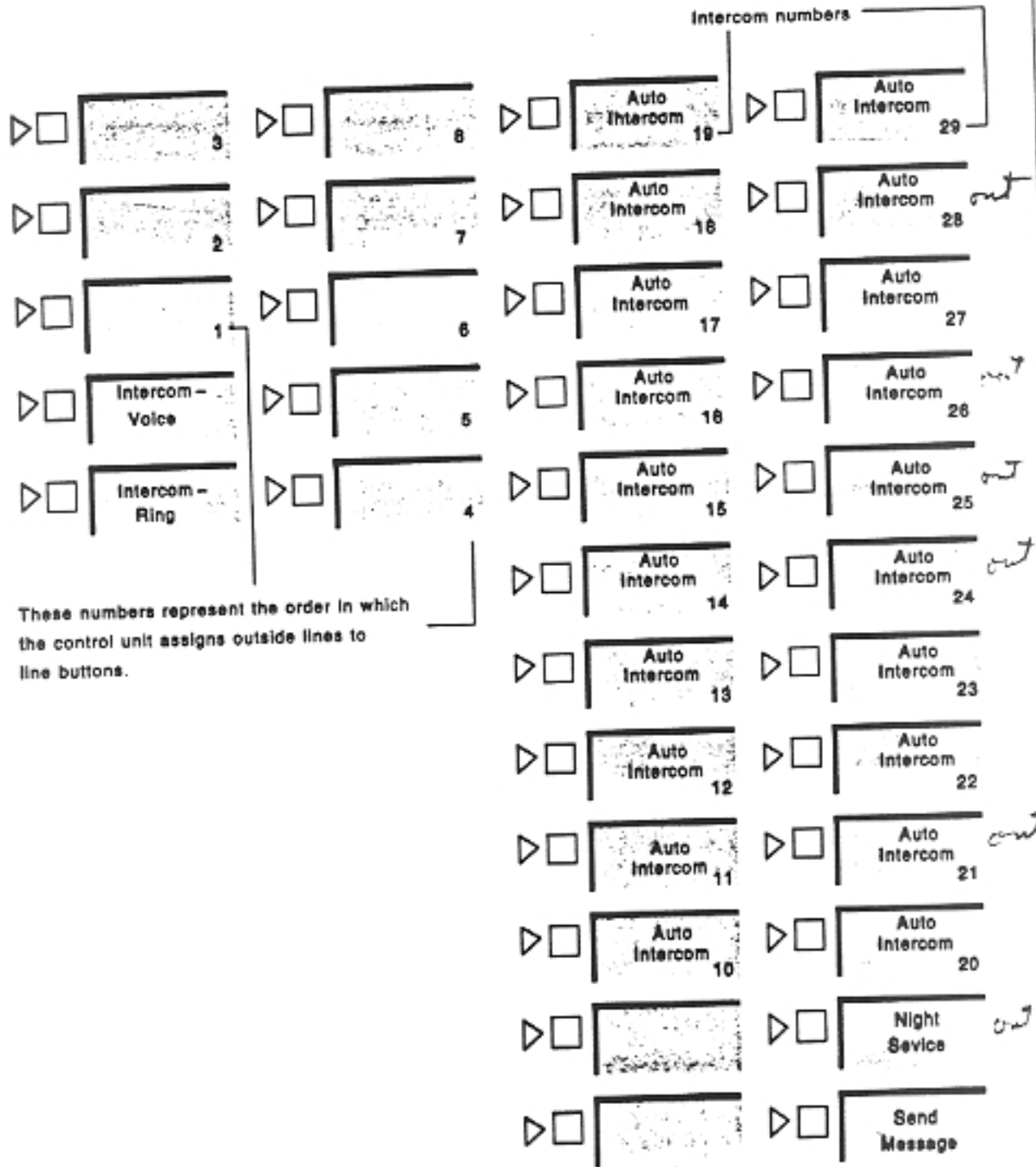


FIGURE 2-9 Initial line and feature assignments for a 34-button console for large systems.

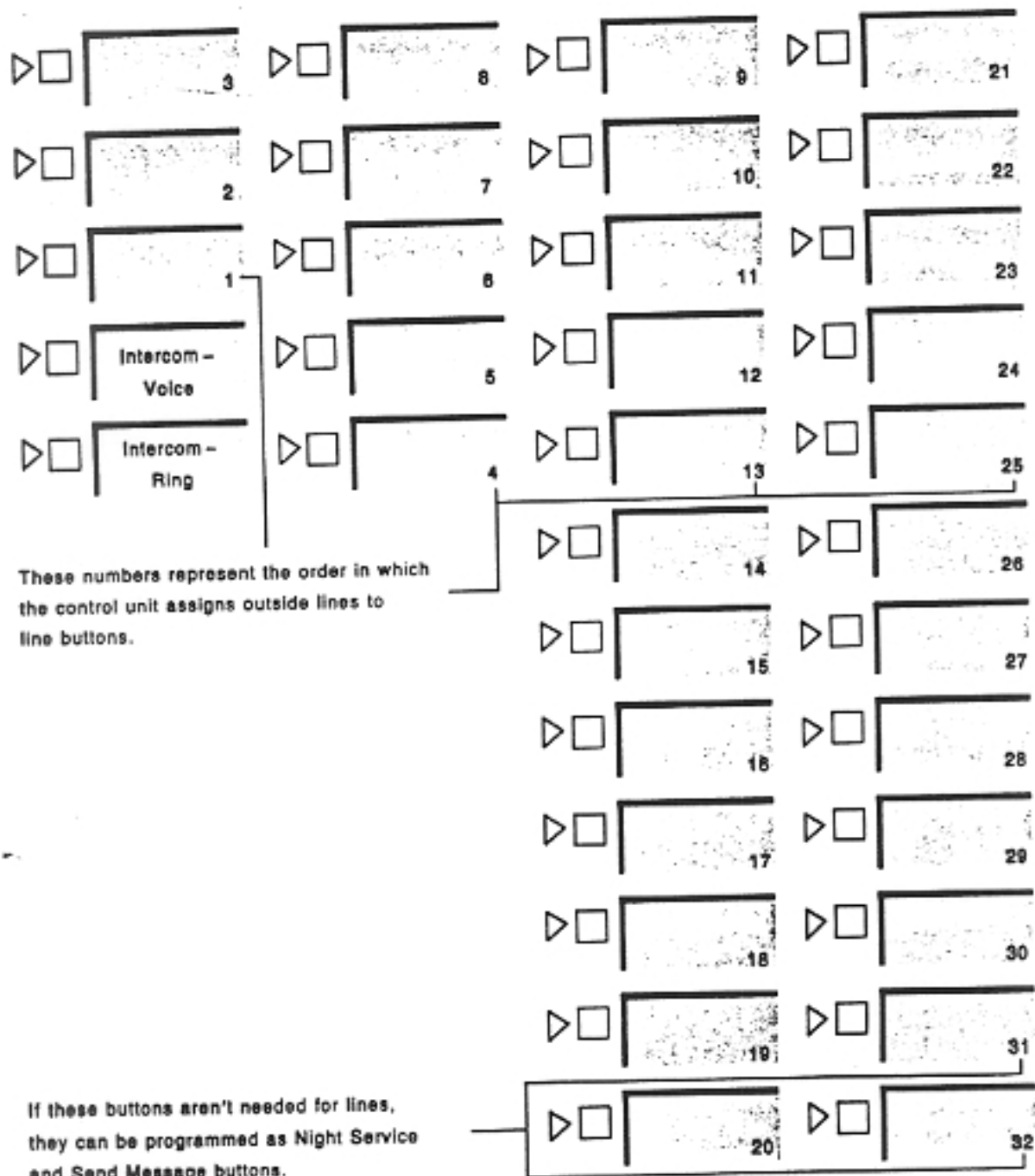
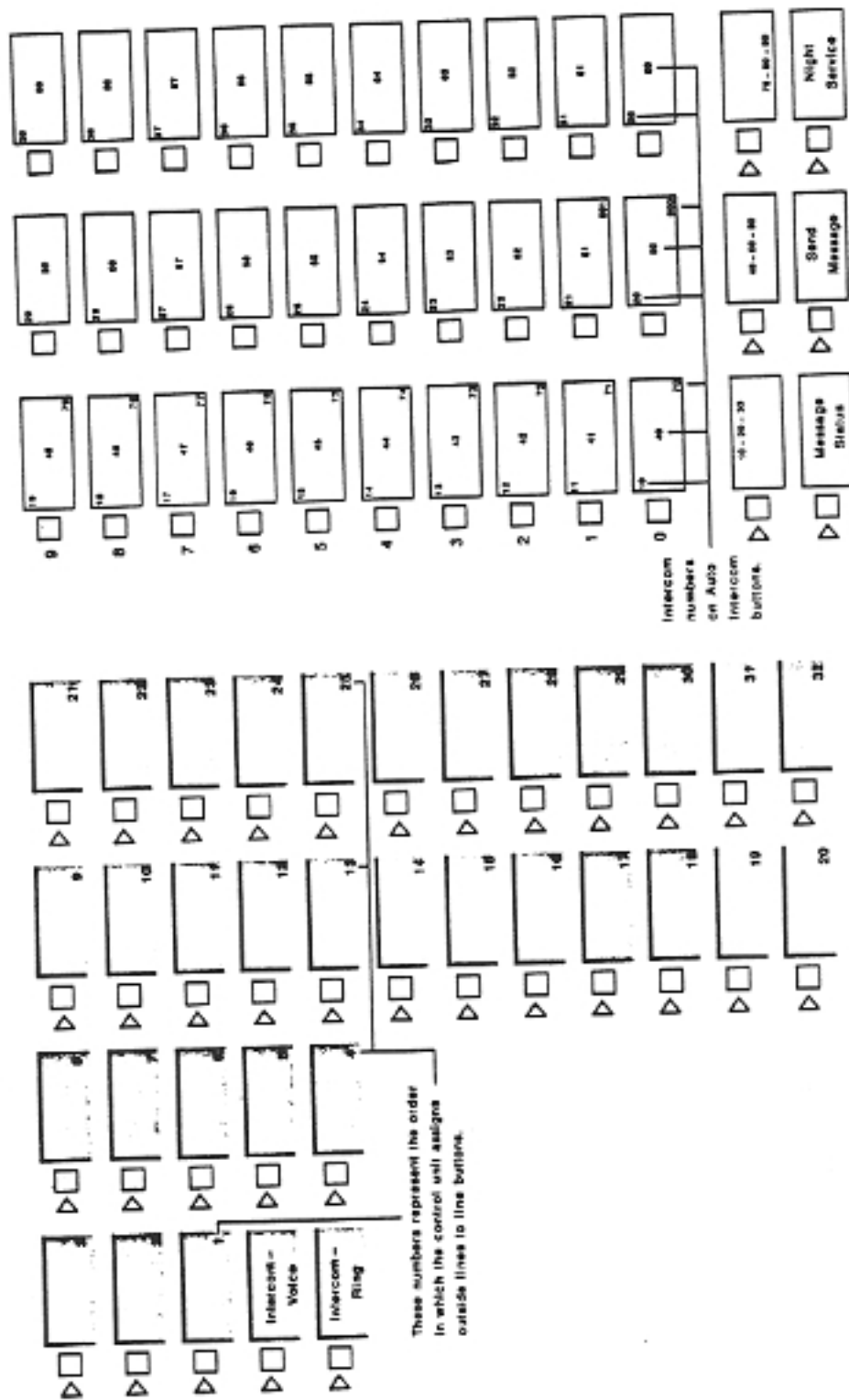
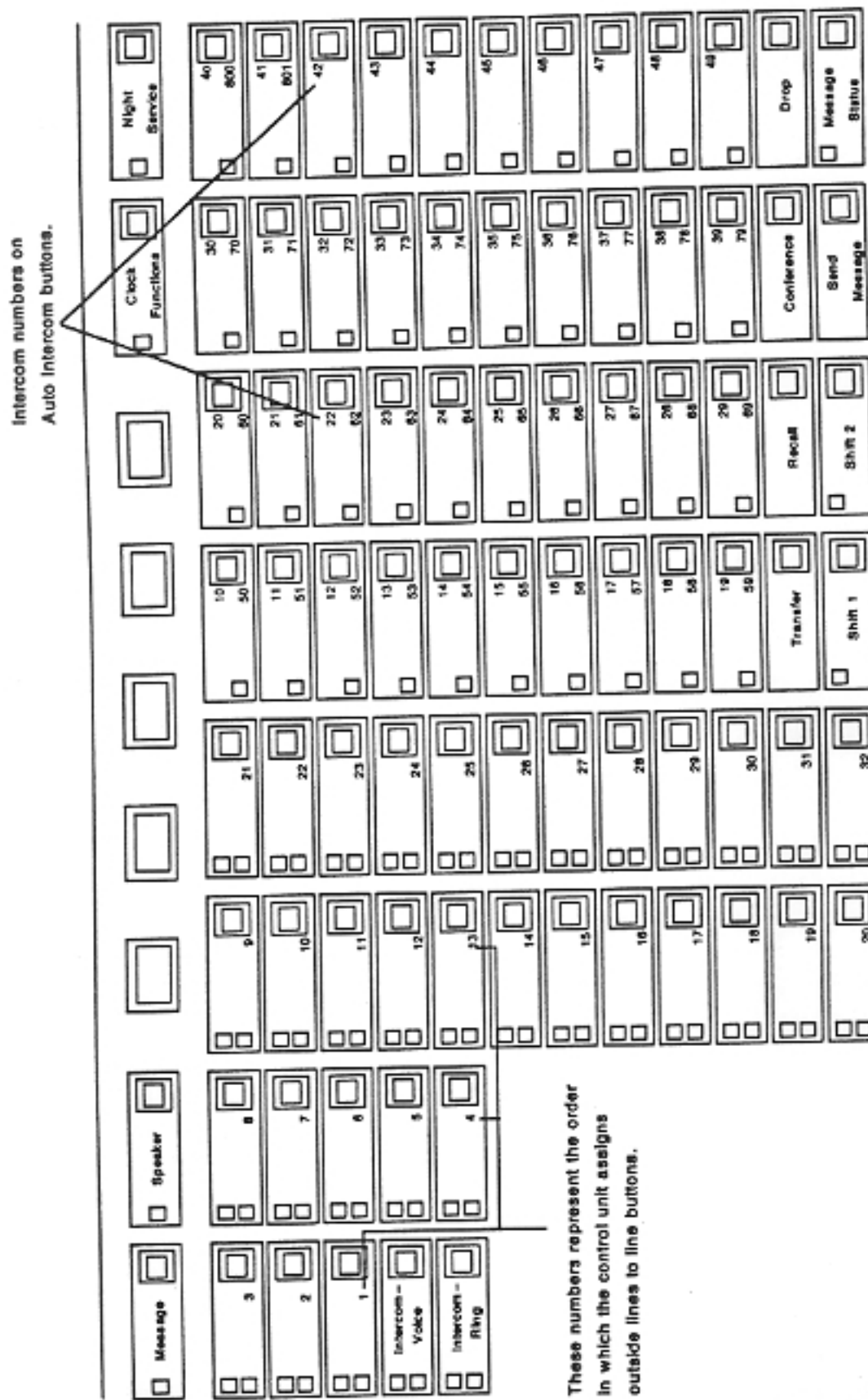


FIGURE 2-10 Initial line and feature assignments for a console with Attendant Intercom Selector.



These numbers represent the order in which the control unit assigns outside lines to line buttons.

FIGURE 2-11 Initial line and feature assignments for a display console.



These numbers represent the order in which the control unit assigns outside lines to line buttons.

Line Buttons

The system automatically assigns all your lines to buttons on the attendant console in the order in which the lines are plugged into the control unit. You can change the default arrangement by removing lines or changing the order in which lines are assigned to buttons so that each attendant has the appropriate line assignments.

All the attendants in your system may not need the same line assignments. For example, the receptionist needs all the lines except, perhaps, personal lines. A group secretary, on the other hand, only needs lines on which calls come in for his or her group, or lines that group members use to make calls. Members of a sales group, for example, might be assigned certain published local lines and WATS lines that aren't used by other groups in the company.

Based on the call-handling responsibilities of your attendants, decide what lines should appear on buttons on their consoles. If two or more attendants have the same call-handling responsibilities, be sure to assign identical line arrangements to their consoles.

It's a good idea to record the two-digit line codes on the line buttons on the attendant console. You can get this information from the System Configuration Form.

Write the telephone number or name of each line to which this attendant needs access on the appropriate buttons. Follow the order shown in either Figure 2-8, 2-9, 2-10, or 2-11, depending on the type of console you have. Repeat this procedure for each attendant console.

If you are using a 34-button console for large systems, read the discussion "Auto Intercom Buttons" below.

Auto Intercom Buttons

As Figure 2-9 shows, the system doesn't automatically assign any Auto Intercom buttons to the 34-button console for large systems. You can, however, program Auto Intercom buttons on this console, but they can only be used for call handling, not for system administration.

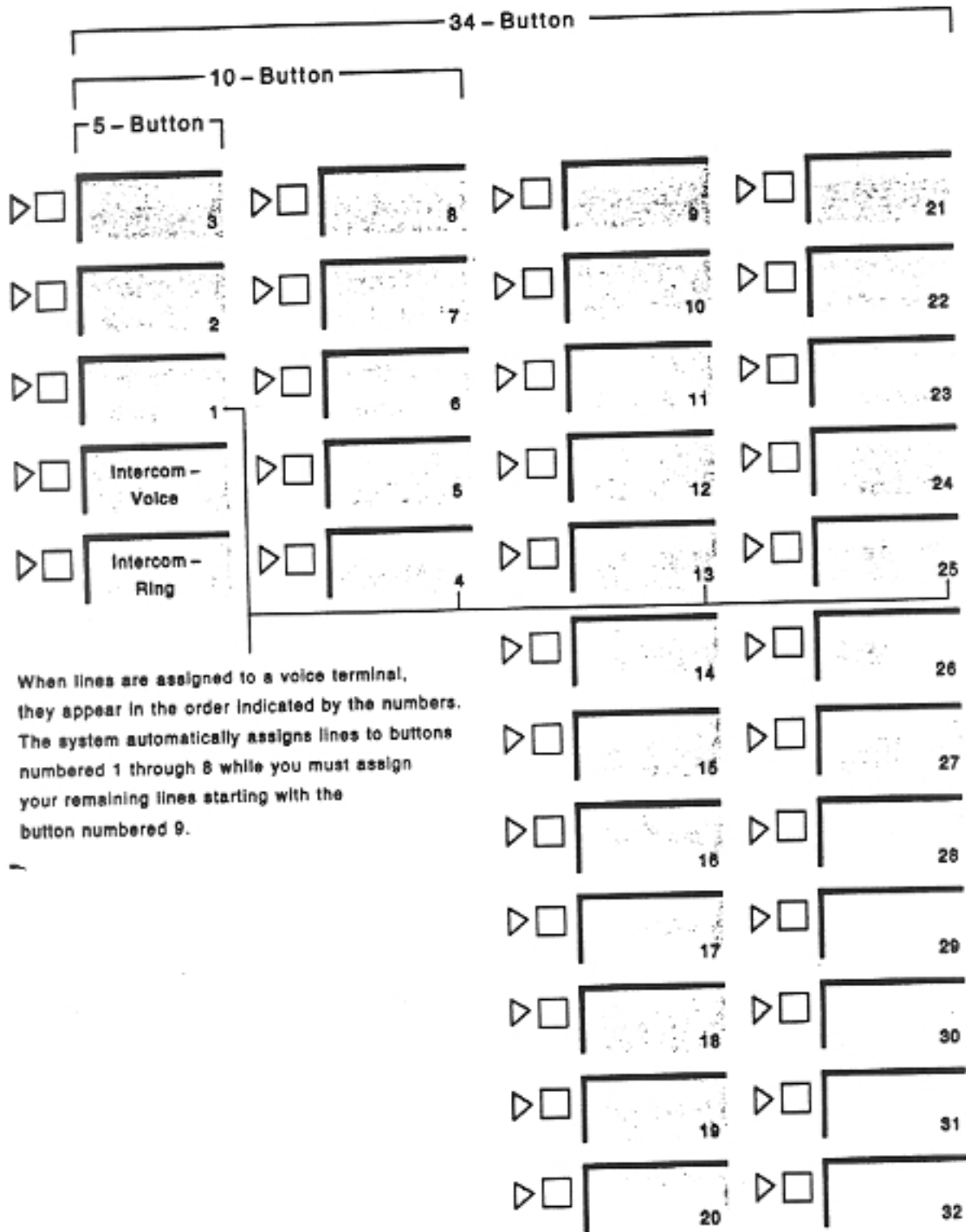
Fill in the intercom number and name or location for each Auto Intercom button you want to appear on this attendant console.

Continue with "Voice Terminals in Square Systems" or "Voice Terminals in Pooled Systems," as appropriate, to plan line assignments for the voice terminals in your system.

When lines are assigned to a voice terminal, they appear on the buttons indicated by the numbers in Figure 2-12. When a square system is set up, the system automatically assigns lines to the buttons numbered 1 through 8. You can customize this arrangement to better suit your business' needs by removing lines, changing the order of lines, or adding lines to voice terminals.

VOICE TERMINALS IN SQUARE SYSTEMS

FIGURE 2-12 Order in which lines are assigned to buttons in square systems.



When lines are assigned to a voice terminal, they appear in the order indicated by the numbers. The system automatically assigns lines to buttons numbered 1 through 8 while you must assign your remaining lines starting with the button numbered 9.

In a standard square system, every line appears on each voice terminal. If you want a standard square system, and your system has more than eight lines, you need to assign the additional lines to any 34-button deluxe voice terminals in your system.

In a customized square system, individuals or groups of employees have particular combinations of lines to suit their needs. If you want to set up a customized square system, assign the particular lines according to each individual's needs, in the order in which you want them to appear on the voice terminal.

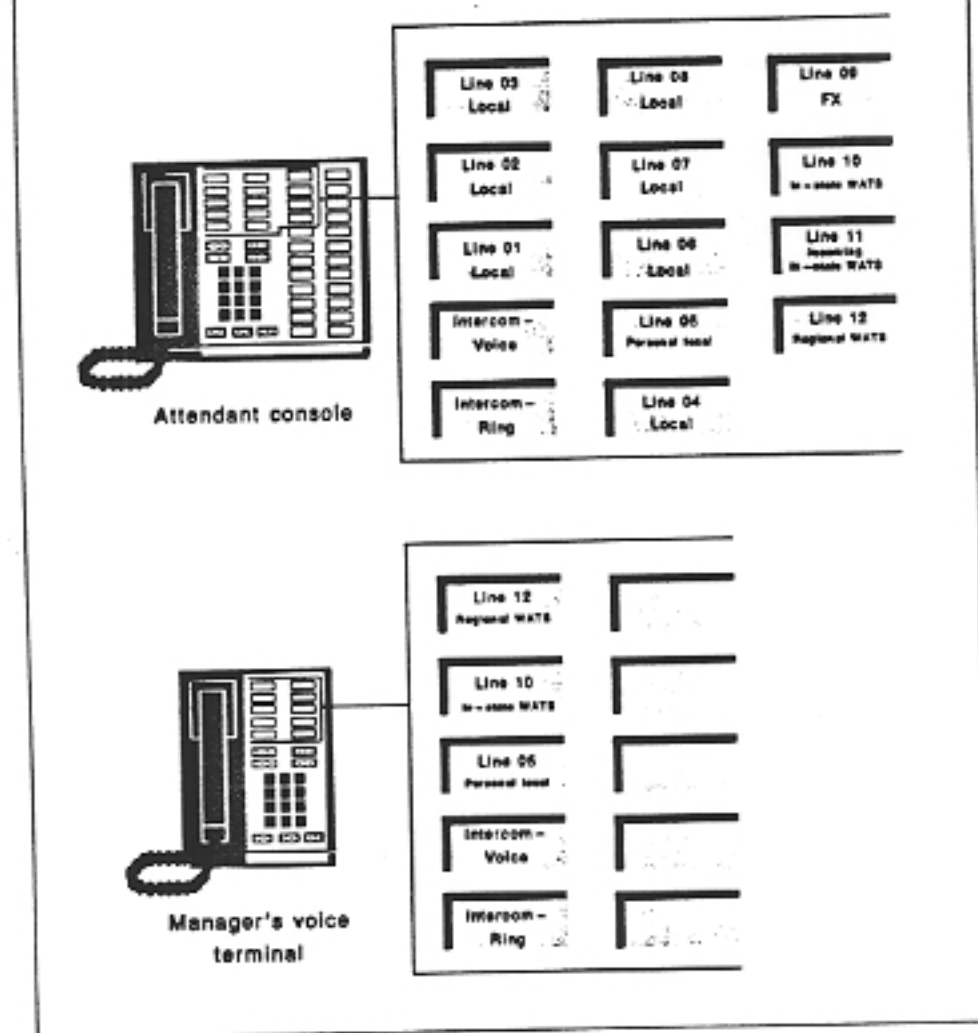
Think about the calling patterns and individual responsibilities of the people in your business as you decide what lines should appear on each person's voice terminal buttons. Figure 2-13 shows how a typical business customizes its line assignments.

When you have decided on line assignments for each voice terminal, write the telephone numbers in the numbered boxes on the Voice Terminal Configuration Form, beginning with the button above **Intercom-Voice**. Fill in the button labeled "1" first, then "2," then "3," and so on. The numbers on the form are there for your convenience. They don't appear on the voice terminal.

Example

At Ultimate Motors, there are twelve lines assigned to the receptionist's console. The manager needs access to three of those lines: a personal line, the in-state WATS line, and the regional WATS line. The administrator assigns these lines to the first three line buttons on the manager's voice terminal, as shown in Figure 2-13. The buttons in the second column on the manager's voice terminal are available for custom features.

FIGURE 2-13 Line assignment for a voice terminal at Ultimate Motors.



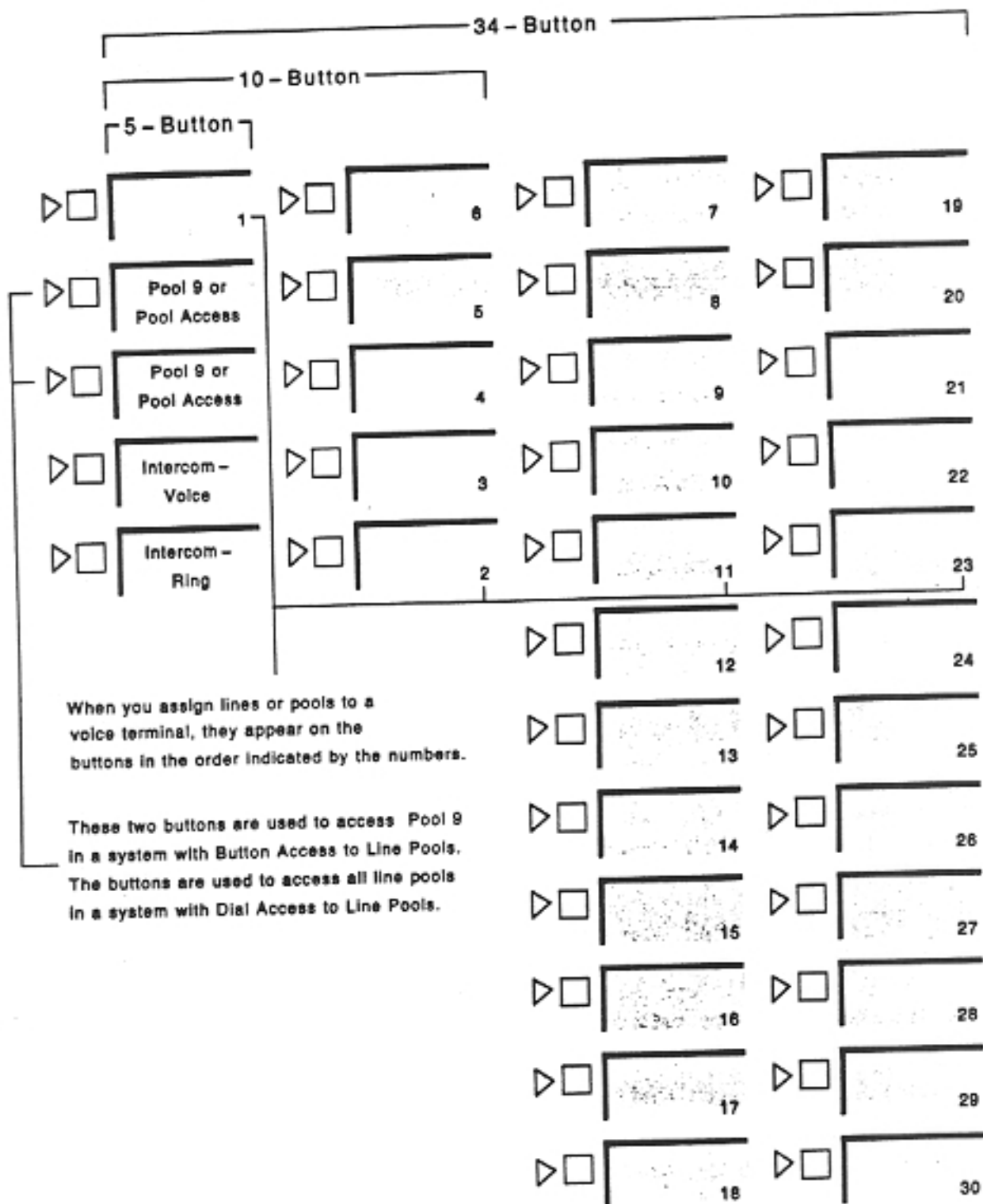
VOICE TERMINALS IN POOLED SYSTEMS

The system initially assigns lines to voice terminals in pooled systems in one of two ways, depending on the pool access method that was chosen. In a system with Button Access, pool 9 is assigned to the first two buttons above Intercom-Voice. You can customize line assignments in a Button Access system by assigning other line pools and/or individual lines to buttons on selected voice terminals.

In a system with Dial Access or ARS, the first two buttons above Intercom-Voice are pool access buttons. These buttons provide access to all line pools. You can customize line assignments in a Dial Access or ARS system by assigning individual lines or line pools to buttons on selected voice terminals, or by removing access to certain line pools.

The default line assignments for pooled systems are illustrated in Figure 2-14.

FIGURE 2-14 The order in which lines and/or line pools are assigned in pooled systems.



When you assign lines or pools to a voice terminal, they appear on the buttons in the order indicated by the numbers.

These two buttons are used to access Pool 9 in a system with Button Access to Line Pools. The buttons are used to access all line pools in a system with Dial Access to Line Pools.

Review the responsibilities of the people in your business and the special characteristics of your outside lines. Then decide which line pools and individual lines, if any, to assign to each voice terminal.

On each voice terminal configuration form, cross out "Pool 9 or" if you have Dial Access to Line Pools or ARS. Likewise, if you have Button Access to Line Pools, cross out "or Pool Access" on each form.

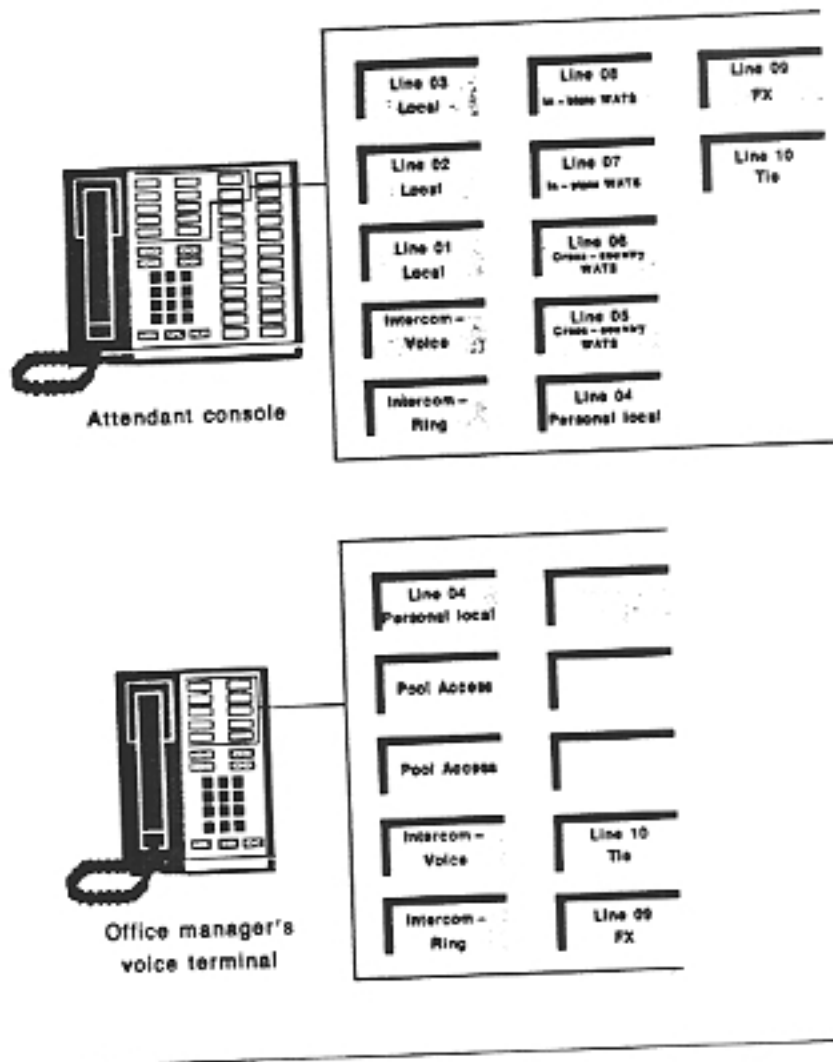
If you plan to assign individual lines or line pools to buttons on this voice terminal, write the line or pool numbers in the numbered boxes representing the buttons on the voice terminal, beginning with the button above Intercom-Voice. Fill in the button labeled "1" first, then "2", then "3", and so on. The numbers on the form are there for your convenience and don't appear on the voice terminal.

If you selected Dial Access to Line Pools, list the dial codes of the line pools this voice terminal should be able to use under "Dial Access to Pools (9, 890-899)."

Example

The Tenfour Trucking business has expanded and has added an FX and a tie line, and changed their pool access method from Button Access to Dial Access. People now use pool access buttons to get all the line pools. The administrator assigns the manager buttons for a personal line, the tie line, and the FX line, as shown in Figure 2-15.

FIGURE 2-15 Line assignments for a voice terminal at Tenfour Trucking.



Feature Assignments For Office Priorities

When you've finished planning line assignments for your voice terminals, you can stop here and begin administering your system. Continue with the discussions below, however, if you want to customize some voice terminals with features that affect the calling patterns of your business. The rest of the planning forms in this section are optional and apply to options you may want to add to your system.

FEATURE ASSIGNMENTS

When your system is first set up, it assigns certain features to all attendant consoles, as shown in Figures 2-8 through 2-11. For a 34-button deluxe console for large systems, however, the system does not automatically assign Night Service and Send Message. On this console, you need to program

these features yourself (see "Program" in Section 6, "Reference," for instructions on programming features onto buttons). Nonattendant voice terminals don't have any features assigned to them initially.

Most MERLIN II system features are designed solely for the convenience of the person using them and don't affect the system as a whole. Individuals can program those features onto available buttons on their voice terminals at any time to suit their needs.

Some features, however, have a broader application because they can affect the calling patterns of your business. These features include

- Ringing Options
- Call Coverage
- Line Pickup
- Automatic Line Selection

You can let people select these features for their own voice terminals or you can decide now which voice terminals should have these features.

RINGING OPTIONS

The Ringing Options feature lets you customize the ringing on line buttons, pool buttons, and Cover buttons on your voice terminals. You can have incoming calls on these lines ring in one of three different ways: immediate ring, delayed ring, or no ring.

When your system is installed, all lines at attendant consoles are set to ring immediately. On nonattendant voice terminals, the initial (default) line ringing assignments are as follows:

- All individual lines are set to "immediate ring."
- All lines assigned to pool buttons are set to "no ring."

Customizing line ringing on selected voice terminals is especially useful for Cover buttons and personal lines, as explained below.

Considerations

- **Immediate ring.** Assign immediate ring to the line of anyone responsible for answering that line first (for example, the attendant, a secretary, or a receptionist). This option is also useful for personal lines that should not be screened or for people who answer their own calls.
- **Delayed ring.** Delayed ring provides backup coverage on shared lines. The voice terminal assigned delayed ringing for a certain line doesn't ring unless someone else fails to answer after two rings. Assign delayed ring to a line of anyone who is responsible for answering a shared line if someone else doesn't pick it up, such as a group secretary. Delayed ring may also be useful on an attendant console that backs up your primary attendant console. Also, people may want the attendant to answer calls on their personal lines when they aren't available. In that case, you would set the personal lines for delayed ring at the attendant console.

-
- **No ring.** Assign no ring to lines on a voice terminal that are always screened first at another voice terminal, such as pooled lines or lines that are answered by a group secretary. This option is also appropriate for voice terminals with no regular users or voice terminals in public places such as lobbies or conference rooms. When you assign no ring to an individual line, the green light next to the line button still flashes when a call comes in on the line. However, if you assign no ring to a pool button, the green light next to the button doesn't flash.

Of the lines assigned to the voice terminal, determine which ones should ring immediately at the voice terminal, which should ring after a delay, and which should not ring at all.

Decide which voice terminals require special ringing options. On the Voice Terminal Configuration Form for each voice terminal identified, indicate the type of line ringing by writing "R" (for immediate ringing) or "D" (for delayed ringing), on the line to the left of each line button. If a line shouldn't ring at the voice terminal, write "N" for no ring on the line next to its button. Calls *transferred* on this line will still ring.

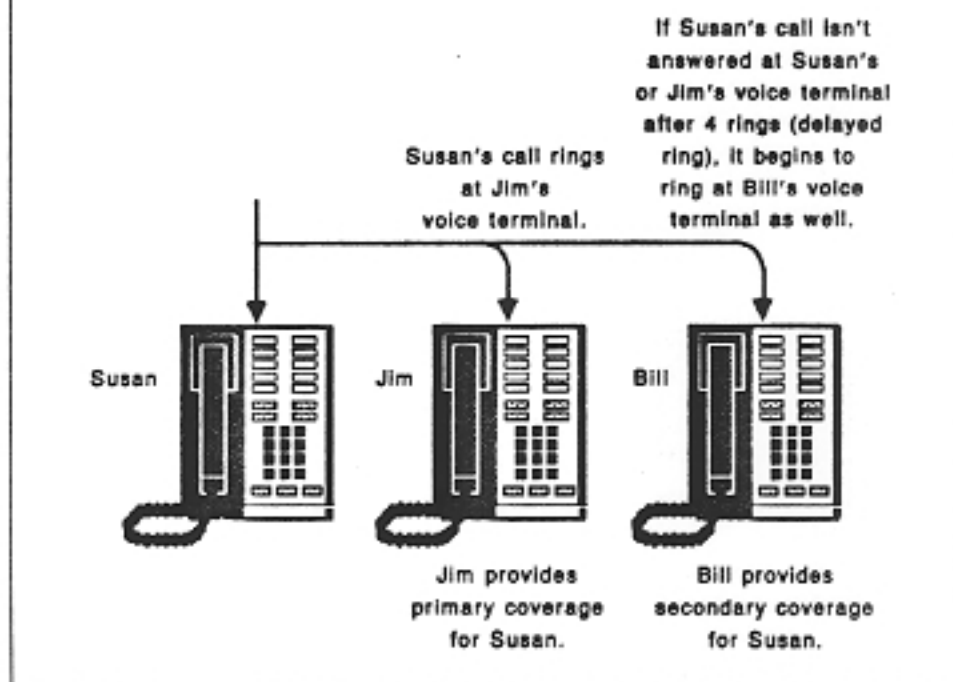
CALL COVERAGE

The Call Coverage feature allows individuals to pick up calls for co-workers with whom they don't share lines by using Cover buttons. This feature is especially useful for attendant consoles, because it lets an attendant cover lines, such as personal lines, that don't appear on his or her console.

Call Coverage is also useful to people who frequently work when the attendant is not on duty. If that person has a Cover button for the attendant console, he or she can answer all incoming calls when the attendant isn't there.

There are two kinds of coverage: primary and secondary. Assign primary coverage to someone who must answer a co-worker's calls, but doesn't share lines with that person. A secretary who screens someone's calls, for example, would be assigned primary coverage of that person's voice terminal. Assign secondary coverage to anyone who is a second backup for the covered voice terminal. Figure 2-16 illustrates the use of primary and secondary coverage:

FIGURE 2-16 Call coverage at a typical business.



You can program a primary Cover button for immediate ring, delayed ring, or no ring, depending on the situation and personal preferences. In most cases, a secondary Cover button would be programmed for delayed ring. For more information about line ringing options, see "Ringing Options."

Considerations

- The attendant needs a Cover button if he or she covers intercom or transferred calls for anyone.
- You can assign a maximum of six Call Coverage buttons to a voice terminal.
- Use only a button with red and green lights next to it.
- The lights next to a Cover button work like those next to any line button, but you cannot use a Cover button to make a call.

Decide which voice terminals require call coverage. On the Voice Terminal Configuration Form for each voice terminal identified, find an available button, write "Cover" and the name or intercom number of the person whose calls are to be covered. Write "P" or "S" on the button to indicate primary or secondary coverage. On the line to the left of the button, write "R" for immediate ringing, "D" for delayed ringing, or "N" for no ring.

LINE PICKUP

The Line Pickup feature allows a person to pick up a ringing, parked, or held call at any voice terminal. The attendant or another voice terminal user simply announces the call by intercom or by page, specifying the line number to be picked up. If a voice terminal doesn't have this line number, the person using that voice terminal can still pick up the call using a 2-digit line code, or a code and a button.

This feature offers three options:

- Program *individual* Line Pickup buttons to pick up specific lines. This places an outward call restriction on the line because the person can pick up calls on that line but cannot make calls.
- Program a *general* Line Pickup button that the person can use with a 2-digit line code to pick up any line.
- Dial *99 and a 2-digit line code to pick up a line.

If you want everyone to use the third option, you don't need to plan Line Pickup for your system.

Determine which voice terminals require this feature. On the Voice Terminal Configuration Form for each voice terminal identified, check "General" or "Individual" under "Line Pickup," depending on the type of button(s) the voice terminal should have.

For the general Line Pickup feature, write "Line Pickup" on an available button. On any individual Line Pickup buttons you've selected, write "Pick Up," then the name or number of the line.

AUTOMATIC LINE SELECTION

When a person lifts the handset to make an outside call, the system automatically checks the outside lines and makes them available in the order in which they were assigned to individual voice terminals. The red light next to that line button shows which line the system will provide when the handset is lifted. The system checks the lines in the order in which they appear on the line buttons on the voice terminal. If you prefer, you can rearrange the line selection sequence if the lines don't appear on the voice terminal in the order in which they are most likely to be used. For example, you may have a standard square system in which the first few lines are all local lines. However, an individual may use a WATS line, personal line, or intercom line most often. You can plan to administer that individual's voice terminal to select automatically the user's preferred line first when he or she picks up the handset.

Considerations

You may include a maximum of eight lines in an Automatic Line Selection sequence.

Determine which voice terminals require a rearrangement of the initial line selection sequence. On the Voice Terminal Configuration Form for each voice terminal identified, enter the preferred sequence of lines under "Automatic Line Selection."

Keep your completed Voice Terminal Configuration Forms where you can find them easily when you administer the system.

You've now completed the basic planning for your MERLIN II system, and can stop here and begin administering your system. The rest of the planning forms apply to options you may want to add to your system. These include forms for:

- Enhanced Night Service
- Call Restrictions and Allowed Lists
- Group Page
- Group Call Distribution
- System Speed Dial
- Automatic Route Selection

Fill Out Enhanced Night Service Forms

The MERLIN II system offers several options for after-hours telephone operation. You can administer these features in any combination to meet the current needs of your business.

The three Enhanced Night Service options are summarized below, then explained in more detail in the following pages. Take a few minutes now to read this information to help you decide how you want your system to work. Then fill out the appropriate forms for the Enhanced Night Service option you want.

- Night Service with Group Assignment lets you specify which voice terminals should ring immediately when after-hours calls come in to an attendant console with which they share lines. For this Night Service option you need to fill out the Enhanced Night Service with Group Assignment Form.
- Night Service with Outward Restriction lets you set your system so that only authorized users can place nonemergency calls when Night Service is in effect. For this Night Service option you need to fill out the Emergency Allowed List and/or the Exclusion List on the Enhanced Night Service with Outward Restriction Form.
- Night Service with Time Set lets you set the system to turn Night Service on and off automatically at the times you specify. For this Night Service option you need to fill out the Enhanced Night Service with Time Set Form.

NIGHT SERVICE WITH GROUP ASSIGNMENT

To make it easier for people in your business to answer after-hours calls, you can assign all the voice terminals associated with a particular attendant console to a Night Service group. Any call that comes in to the attendant console while Night Service is in effect rings at each available voice terminal in the group that has access to that particular line. Calls ring immediately on lines set for delayed ring or no ring at the voice terminals in the group.

Considerations

As you plan your Night Service groups, keep these points in mind:

- You can create up to eight Night Service groups.
- To receive calls, the voice terminals in the group must share lines with the attendant console.
- You can assign voice terminals to more than one Night Service group.
- You can put as many voice terminals as you want into a single Night Service group.

If your system will have groups of voice terminals associated with attendant positions for answering calls after normal business hours, fill out the Enhanced Night Service with Group Assignment Form.

Examples

Pooled System Primo Foods has a pooled system, with attendant consoles in the sales, administration, and finance departments. Most of the sales representatives have four line pools assigned to their voice terminals. These line pools are set to "no ring" for their voice terminals so that the group secretary can screen their calls. The sales director has a personal line that also appears on the secretary's attendant console.

Primo's administrator has assigned each sales representative's voice terminal to the Sales Night Service Group. Whenever the group secretary activates Night Service, any call that comes in to the attendant console, except a call on the sales director's personal line, rings immediately at all the voice terminals in the group. The only exception is a voice terminal where the Do Not Disturb feature is in use.

Square System The law firm of Smith, Smith, and Jones has a standard square system with only one attendant console. The administrator has set up a single Night Service group containing all the voice terminals. After-hours calls that ring at the receptionist's attendant console ring immediately at all the voice terminals, since each has access to all the lines that appear on the receptionist's console.

NIGHT SERVICE WITH OUTWARD RESTRICTION

This Night Service feature prevents unauthorized after-hours use of your business' telephones. When Night Service with Outward Restriction is in effect, staff members who need to make calls must first enter a password. People who don't know the password can dial only emergency numbers that you specify, such as the telephone numbers for your local police and fire departments. If someone tries to dial a nonemergency number without dialing the password first, the call won't go through.

You can create an Exclusion List for voice terminals of people who need to make after-hours calls and prefer not to enter a password.

Considerations

- Once you have administered a password, Night Service with Outward Restriction will be activated for *all* your voice terminals whenever Night Service is turned on at any attendant console.
- The password must be four digits. You may use the digits 0 through 9 in any combination.
- You can include up to ten telephone numbers on the Night Service Emergency Allowed List. Each number can have a maximum of 12 digits.
- If you assign a voice terminal to the Exclusion List, it keeps its normal call restrictions, if any, while Night Service is in effect. However, it is *not* protected in any other way from unauthorized after-hours use.

Get the Enhanced Night Service with Outward Restriction Form. On the Emergency Allowed List, enter the numbers you want everyone to be able to call, such as local police and fire departments and ambulance services.

On the Exclusion List, enter the intercom numbers of any voice terminals that will be excluded from Night Service protection.

Example

Primo Foods has Night Service with Outward Restriction. All the voice terminals are restricted while Night Service is in effect except the plant manager's. Because the plant manager would rather not enter a password when he makes after-hours calls, the administrator has assigned the manager's voice terminal to the Exclusion List.

Barbara, who manages the Finance Department, often places calls to Primo's West Coast distributors after the department's attendant has left for the day. To do this while Night Service is in effect, Barbara just touches Recall, then dials the 4-digit Night Service password, without lifting her handset. Then she lifts her handset and dials her call.

NIGHT SERVICE WITH TIME SET

You can administer your system to turn Night Service on and off automatically for all your voice terminals. All you need to do is enter the times at which you want Night Service to go on and off each day. Attendants can override timer-controlled operation and turn Night Service on or off manually if they prefer. In case of shutdowns or midweek holidays, you can suspend Night Service with Time Set indefinitely, then reactivate it.

If you want your system to turn Night Service on and off automatically, fill in the "on" and "off" times for each day on the Enhanced Night Service with Time Set Table. Use the 24-hour military numbering. If you want Night Service to remain on throughout the day, on Sunday for example, don't enter "on" or "off" times for that day.

Example

Primo Foods' hours of business are 8:00 a.m. to 5:30 p.m., Monday through Friday. The administrator has set Night Service with Time Set to turn Night Service off and on at these times and to leave Night Service on continuously from Friday evening until Monday morning.

Because New Year's Day falls on a Wednesday, Primo's administrator needs to suspend Night Service with Time Set temporarily and keep Night Service in effect from Tuesday night through Thursday morning. He suspends Night Service with Time Set and activates Night Service manually at 5:30 p.m. on Tuesday. It stays on until Thursday morning, when the administrator turns it off manually. During that day, he reactivates Night Service with Time Set. The system resumes automatic control of Night Service and turns it on as usual at 5:30 p.m.

You should now have made your decisions about which Enhanced Night Service options you want to use with your system and filled in the forms that pertain to those options. Keep your Night Service forms where you can find them easily when you want to administer your system.

Fill Out the Call Restrictions and Allowed-Lists Form

CALL RESTRICTIONS

When your system is first installed, all voice terminals are unrestricted. This means people can place local and toll calls on all voice terminals. If you want, you can restrict selected voice terminals to intercom or local calls only. If those restrictions are too extreme, you can set up allowed lists, which contain groups of numbers that can be dialed regardless of a voice terminal's call restrictions. You can assign these allowed lists to people who need to call numbers that are outside the general restrictions placed on their voice terminals. Thus, voice terminals can be either unrestricted, outward call restricted, or toll call restricted.

Outward Restrictions

If you want to allow people to make only internal (intercom) calls, you can place an outward call restriction on their voice terminals. If you want these people to be able to make local calls to certain exchanges, you can set up an allowed list of specific local exchanges. Then you can assign the allowed list to the restricted voice terminals during system administration. The system will then allow calls from the restricted voice terminals to the numbers on the allowed list.

NOTE: Outward restricted voice terminals can't be used for emergency calls unless you assign an allowed list of emergency numbers.

Toll Call Restrictions

If you want to allow people to make only local calls, you can place a toll call restriction on their voice terminals. If there are certain areas of the country to which they may need to place business calls, you can set up allowed lists of those area codes and assign them to the toll restricted voice terminals.

Decide which voice terminals should be restricted to intercom calling or local calling. Mark the type of call restriction on the Call Restrictions Form.

ALLOWED LISTS

Assigning an allowed list adds a group of permitted numbers to the calling range of an outward or toll restricted voice terminal. Permitted numbers consist of an area code, an exchange code (the first three digits of a 7-digit telephone number), both codes, or an emergency number such as 911.

Considerations

- Each entry on an Allowed List can have up to six digits (for example, an area code followed by an exchange).
- You can create up to eight lists, each containing a maximum of ten allowed numbers.
- A restricted voice terminal can have access to more than one allowed list.
- If you want people with restricted voice terminals to be able to place calls to another area code on an FX line or a tie line, enter just the exchange in the Allowed-List Directory. For example, if you have an FX line to the 477 exchange in the 201 area code, you record "477" as the allowed list entry, not "201477."

If you want restricted voice terminals to be able to call specific area codes or exchanges, group those allowed area codes and/or exchanges into lists. Record the lists of permitted area codes and/or exchanges in the "Allowed Lists" section of the Call Restrictions and Allowed List Form. Then, on the "Call Restrictions" part of that form, record the number(s)— 0 through 7— of the allowed list(s) each person will have access to on the line for their intercom number.

Examples

Toll Restricted Voice Terminal A customer service representative in New York City (area code 212) with a toll restricted voice terminal needs to speak with customers in New Jersey (area codes 201 and 609). She is assigned access to Allowed List 2, the New Jersey list, which contains those area codes as shown in Figure 2-17.

FIGURE 2-17 An allowed list for a typical toll-restricted voice terminal

Allowed Lists			
		List 2 <u>NJ</u>	
Entry	Entry No.	Entry	
	0	201	
	1	609	
	2		
	3		
	4		
	5		
	6		
	7		
	8		
	9		

Outward Restricted Voice Terminal A clerk in Houston with an outward restricted voice terminal needs to call several local vendors and the company's headquarters in Chicago. He is assigned Allowed List 3, which includes the first three digits of the local vendors' telephone numbers. He is also assigned Allowed List 4, which contains the area code and first three digits of the firm's Chicago telephone number as shown in Figure 2-18.

FIGURE 2-18 An allowed list for a typical outward restricted voice terminal.

List 6 <i>Local Vendors</i>		List 7 <i>HDQRS</i>	
Entry No.	Entry	Entry No.	Entry
0	819	0	312536
1	492	1	
2	831	2	
3		3	
4		4	
5		5	
6		6	
7		7	
8		8	
9		9	

Keep your completed Call Restrictions and Allowed Lists Form where you can find them easily when you administer the system.

Fill Out the Group Page Form

It may be convenient to page a particular group of employees such as department heads, committee members, or a project team without disturbing the entire staff. The MERLIN II system allows people in your business to page co-workers through their voice terminal speakers. Your business does not need an external paging system for this feature.

Considerations

- You can create up to seven paging groups.
- Each group can contain as many as ten voice terminals.
- You can assign a voice terminal to more than one paging group.

If you plan to use the Group Page feature, fill in the intercom numbers and names of people assigned to each group. Space is provided next to the group number to write the name of the group.

When you have completed the Group Page Form, keep it with the other forms for system administration.

Fill Out the Group Call Distribution Forms

Your business may have groups of employees with similar responsibilities, any one of whom can provide information or some other service to callers from inside or outside your business. If you assign their voice terminals to a Call Distribution group, any intercom call to the group rings at the voice terminal of the person whose turn it is to take the next call. If you also assign lines and/or line pools to a Call Distribution group, incoming calls on those outside lines ring at each voice terminal in turn. This feature allows group members to share call-handling responsibilities.

Considerations

Call Distribution Groups

- You can establish up to six groups, each containing a maximum of 15 intercom numbers.
- Voice terminals can belong to more than one group.

On the Call Distribution Groups Form, fill in the intercom numbers and names or locations of the members of each group. Space is provided following the group number to identify the group by name.

Call Distribution Groups Line/Line Pools Assignments

- You can assign up to 32 lines or 11 line pools to a Call Distribution Group.
- All the lines and/or line pools assigned to a Call Distribution Group must appear on all the voice terminals in the group.
- A line or line pool can be assigned to only one Call Distribution Group.

If you plan to assign lines and/or line pools to Call Distribution groups, fill in the lines and/or line pools that will be associated with each group on the Call Distribution Groups Line/Line Pool Assignments Form.

Examples

Intercom Calls At Primo Foods, order-entry agents handle telephone orders and inquiries about products in the company's retail catalog. Agents often put customers on hold while they get billing information from Accounting or check the status of back-ordered items with Shipping. Because people in those departments belong to Call Distribution groups, an order-entry agent just touches the button for that group. Agents get the information they need without having to look up individuals' intercom numbers or make a series of calls because several voice terminals are busy.

Outside Calls At Ultimate Motors, many calls come in daily from people who have questions about the cars the dealership has on its lot and on order. Ultimate's administrator has created a Sales Call Distribution Group consisting of salespeople Joe, Don, Maureen, and Phil. Whenever a call comes in on one of Ultimate's sales lines, the system determines which voice terminal received the last call. If Joe took that call, the system directs the new call to Don's voice terminal. If Don's voice terminal is busy, the call rings at Maureen's voice terminal. The receptionist, whose console is set for delayed ring on this line, answers the call if nobody is available to take it. This arrangement equalizes the salespeople's responsibility for handling inquiries and opportunity to bring new customers in for themselves.

When you have completed your Group Call Distribution Forms, keep them with the other forms for system administration.

Fill Out the System Speed Dial Form

People in your business may dial certain numbers frequently, such as numbers of major clients, suppliers, or branch offices. You can assign System Speed Dial codes to these frequently called numbers and store them in your system. To call these numbers, people just dial the 3-character codes.

TELEPHONE NUMBER PRIVACY

You may want to assign System Speed Dial codes to telephone numbers that shouldn't be printed in full on call reports, such as numbers that contain access codes. You can mark these numbers as private on the planning form to remind you to encode them as private during system administration.

When you list a telephone number on the System Speed Dial Form that you want to mark as private, begin the number with a star. For example, say that you want to assign the code #62 to the number 1-201-555-5062. If you want the code rather than the number to print on call reports, enter *12015555062 next to #62 on the form.

Enter the telephone numbers you want to store under System Speed Dial codes in the "Telephone Number" column of the directory. Enter an identifying name associated with each telephone number in the "Name" column next to the number.

Keep your completed System Speed Dial Form where you can find it easily when you want to administer the system.

Fill Out the Forms for Automatic Route Selection

Using the most economical method available to place each business call can mean significant savings for your company. Routing calls efficiently is especially important if you have several different types of lines, such as local, WATS, Foreign Exchange (FX), or tie line pools, or if you use an alternate long distance company. If your system is pooled, you can use the Automatic Route Selection (ARS) feature to specify which line pool should be used for each call, depending on the telephone number the caller dials.

To plan ARS, you first decide what types of calls should be placed on each of your line pools. You record that information on the Automatic Route Selection Worksheet and the Forms for Automatic Route Selection Tables. Later, when you administer your system, you'll enter information from those forms into ARS tables that are stored in your MERLIN II system.

HOW ARS WORKS

With ARS in place, people just touch the Pool Access button and dial the telephone number they want to reach, without selecting a line pool or dialing special routing digits. Your MERLIN II system places the call using the line pool that you've designated in your ARS tables as the preferred line pool for a call to that particular area code or exchange. (An exchange is the first three digits of a 7-digit number.) If all the lines in your first-choice line pool are busy, the system routes the call to the second-choice line pool, if you've specified one, and so on.

ARS WORKSHEET

Filling out the ARS Worksheet helps you decide how best to route calls, considering the types of line pools you have available. To fill out your ARS Worksheet, follow these steps:

- 1 In the blank provided at the top of the worksheet, record the number of exchanges in your local calling area. If you aren't sure how many exchanges there are, consult your telephone directory.
- 2 In the column headed "Line Pool Number," enter the number (9, 890 through 899) of each of your line pools.

Some line pools, such as in-state WATS line pools, can be used for both toll and local calls. (Note that with ARS a local call is any call that doesn't require dialing an area code.) If you use a particular line pool for both toll and local calls, enter the number of that line pool in your worksheet twice, with explanatory notes.

For example, Sherman Builders Supply is based in Atlanta, Georgia (404 area code). Sherman has a local line pool, an in-state WATS line pool, and a cross-country WATS line pool. Because Georgia has two area codes, 404 and 912, the in-state WATS line can be used for both toll and local calls. Therefore, the company's administrator makes two entries for Pool 890 on the ARS Worksheet.

Figure 2-19 shows the completed ARS Worksheet for this company. You may find it useful to consult the illustration as you continue filling out your own ARS Worksheet.

FIGURE 2-19 A completed ARS worksheet for a typical company.

Automatic Route Selection Worksheet

Number of exchanges in your calling area 20

Line Pool Number	Line Type	Type of Dialing	Number of Area Codes or Exchanges for which Line Pool is Used
9	Local	T (L)	20 Exchanges (Those in our local calling area)
890 for area code 404	In-state WATS	T (L)	All exchanges in area code 404 minus 20 in local calling area
890 for area code 912	In-state WATS	(T) L	1 area code
891	Cross-country WATS	(T) L	All area codes in U.S. minus 2 in Georgia
		T L	
		T L	
		T L	
		T L	

T = Toll, L = Local

Default line pool for toll calls: 891

Default line pool for local calls: 890

- In the column headed "Line Type," record the type of line (local, FX, regional WATS, etc.) for each line pool number you've entered.
- In the column headed "Type of Dialing," circle the appropriate letter, T or L, for the type of call that should be dialed on each line pool.

T = Toll A toll call is a series of digits that begins with a 1, followed by an area code. When placing a toll call using ARS, callers dial 11 digits (1 + 3 [area code] + 3 [exchange] + 4 [last four digits of number]). Keep in mind that, with ARS, callers must dial 1 before dialing the area code, even if they don't normally need to dial a toll prefix to make a long distance call.

L = Local Any call that does not fall under the definition of toll. This includes both 7-digit dialing and 1 + 7-digit dialing.

- In the column headed "Number of Area Codes or Exchanges for which Line Pool is Used," enter the total number of different area codes or exchanges that each of your line pools should serve. If you don't know the exact number of exchanges or area codes for which you want a line pool to be used, enter a phrase such as "All area codes in the U.S. except the 15 served by the regional WATS lines." Keep in mind that you're recording *how many different area codes or exchanges each line pool should access*, not the area codes or exchanges themselves.

This step helps you identify your most general-purpose line pools, that is, the line pools used for calls to many different area codes or exchanges. You need to identify your most general-purpose line pools in order to select default line pools for toll and local calls. Default line pools are the line pools on which the system places each call unless a different route has been specified for that particular type of call.

- Determine which of your toll line pools is used for calls to the greatest number of different area codes. Write the number of that line pool in the blank next to "Default line pool for toll calls:"

In the example, the cross-country WATS line pool serves the greatest number of different area codes. It is the preferred line pool for calls to every area code in the country except the two area codes in Georgia. Therefore, the administrator makes it the default line pool for toll calls.

- Determine which of your local line pools is used for calls to the greatest number of different exchanges. Write the number of that line pool in the blank next to "Default line pool for local calls:"

In the example, the in-state WATS line pool serves the largest number of different exchanges. It's the preferred line pool for calls to every exchange in area code 404 except the 20 exchanges in the local calling area. Therefore, the administrator makes it the default line pool for local calls.

ABOUT ARS TABLES

You'll use the information you recorded on your ARS Worksheet to prepare Forms for Automatic Route Selection Tables. When you administer ARS, you'll enter information from these forms into ARS tables stored in your MERLIN II system. These tables tell the system which line pool to use to place each outgoing call.

Before you go on to "Forms for ARS Tables" to begin filling out these forms for your business, review the following general information about ARS tables.

Tables 0 through 7

You can set up as many as eight tables, numbered 0 through 7, to route calls to specific area codes and exchanges for which you have economical line pools, such as in-state or regional WATS, FX, or tie line pools. How many of these tables you'll need depends on the number of different routing patterns you want to set up to make the best use of your different line pools.

The forms for Tables 0 through 7 have two sections: an Area Code/Exchanges section and a Pool, Other Digits, and Absorb section.

Tables 8 and 9, the Default Tables

You'll set up two default tables, one for toll calls and the other for local calls. Having these default tables minimizes the time it takes to plan and administer ARS, since you don't have to record the area codes and exchanges served by your most general-purpose line pools.

- Table 8, the Default Toll Table, routes toll calls to all area codes that aren't listed in Tables 0 through 7.
- Table 9, the Default Local Table, routes local calls to all exchanges that aren't listed in Tables 0 through 7.

Since the default function makes it unnecessary to record all the possible area codes and exchanges served by these line pools, the forms for these tables have just one section, a Pool, Other Digits, and Absorb section.

The Special Number Table

The Special Number Table routes calls to these numbers: 0, 411, 611, 911, 800, and 900. If people in your business must dial an access number such as 9 in order to dial one of these special numbers, you'll need to enter that information in the form for the Special Number Table, in the column headed "Other Digits."

3-Digit vs. 6-digit Tables

Many businesses use only one type of line, such as a regional WATS line, for all calls placed to a particular area code. These calls are routed according to tables that associate the area code with the preferred line pool. They are called 3-digit tables because the system needs to scan only the area code of the number being dialed in order to route the call properly.

For some businesses, however, the cost of long distance calls to telephone numbers in another area code varies according to the exchange the caller dials. In these cases, the system may be set up to place calls to numbers in a particular area code on different line pools, depending on the exchange to which the call is placed. These calls are routed according to tables that associate an area code *and* one or more exchanges with the preferred line pool. They are called 6-digit tables because the system needs to scan both the area code and the exchange of the number being dialed in order to route the call properly.

Tables that route local calls are always 3-digit tables, since the system needs to scan only the exchange in order to place the call on the preferred line pool. In summary:

- A 3-digit table lists *either area codes or exchanges*, then specifies the line pool(s) on which the system should place calls to those area codes or exchanges.
- A 6-digit table lists *a single area code, followed by one or more exchanges within that area code*, then specifies the line pool(s) on which the system should place calls to those exchanges.

Digit Absorption

The column headed "Absorb" on the Forms for Automatic Route Selection Tables specifies how many, if any, of the digits dialed by the caller should be absorbed (not dialed) by the system when it places these calls. This is done to be sure you get the full benefit from any special-purpose lines in your system such as FX lines and tie lines. You include an absorption type (see list below) in your tables so that the system can route all appropriate calls to these lower-cost line pools.

Digit absorption doesn't interfere with Call Report or Call Restriction, if you administer those features. The digits dialed by the caller are recorded on call reports, while the digits dialed by the system are checked to be sure the call is allowed.

The factory-set value for the absorption type is 0, which means the system places a call using all the digits that the caller dialed. The other five absorption types tell the system *not* to dial certain digits dialed by the caller. The six possible absorption types are:

- No absorption (absorption type 0, the default setting)
- The leading 1 (absorption type 1)
- The area code (absorption type 2)
- 1 plus the area code (absorption type 3)
- 1 plus the exchange (absorption type 4)
- 1 plus the area code plus the exchange (absorption type 5)

For example, a branch office in Bowling Green, Ohio has a tie line pool to company headquarters in Detroit, Michigan. The complete telephone number at headquarters is an 11-digit number, 1 + the area code + the 7-digit number. People in the branch office dial all eleven digits, but the system dials only the last four digits to place these calls. This happens because the branch office administrator has associated absorption type 5 with the tie line pool in the ARS table that routes calls to this area code and exchange. The absorption type entry in the table tells the system to absorb the 1, the area code, and the exchange, so that the call can be placed on one of the tie lines.

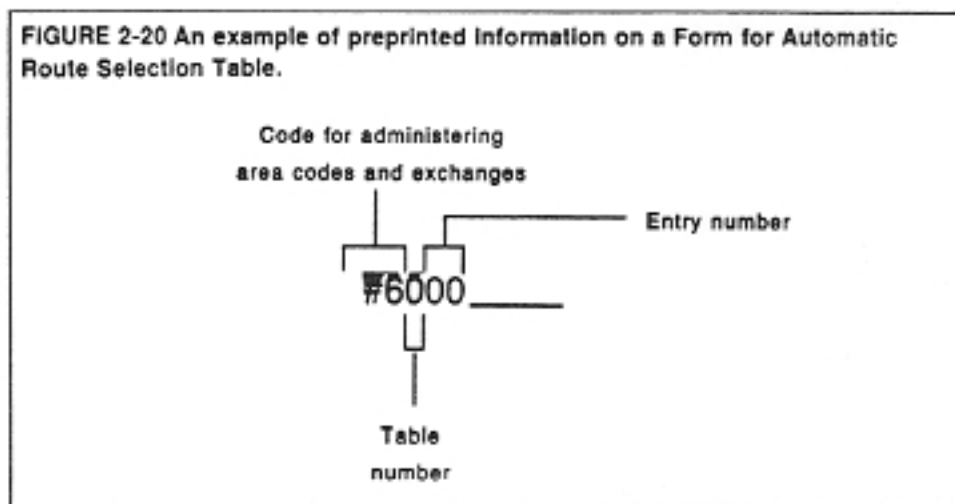
FORMS FOR ARS TABLES

Now you're ready to fill out your Forms for Automatic Route Selection Tables. If you haven't already done so, get the 9 pages of forms for ARS tables provided at the end of this section of the manual. Make copies of the forms and return the originals to the manual. Keep your completed ARS Worksheet handy too. You'll probably need to refer to your worksheet as you fill out forms for the tables that you need.

About the Forms

Forms are provided for Tables 0 through 9 and for the Special Numbers Table. Note that 3-character administration codes (shaded) and either 2-digit entry numbers (00 through 99) or 1-digit entry numbers (0 through 5) are preprinted on the forms. This is done to save you time when you enter the information from your forms into your MERLIN II system.

For example, the preprinted information for the first entry in the Area Code/Exchanges section of Table 0 is shown in Figure 2-20.



Considerations

Keep these points in mind as you fill out forms for ARS tables:

- Remember to number your tables to allow for future growth. Use the Form for Automatic Route Selection Table 0 to plan your first 6-digit table and fill out forms for any other 6-digit tables so that the tables are numbered sequentially in ascending order (Table 1, Table 2, etc.). Use the Form for Automatic Route Selection Table 7 to plan your first 3-digit table and fill out forms for any other 3-digit tables so that the tables are numbered sequentially in descending order (Table 6, Table 5, etc.).

This makes it possible for your system to distinguish between the two types of tables. This numbering system also lets you add 3-digit or 6-digit tables later without having to change your existing tables.

- In the "Area Code/Exchanges" section of a form for a 3-digit table, you can list up to 100 area codes or exchanges, in any order. On the form for a 6-digit table, you record an area code as the first entry, followed by up to 99 exchanges, listed in any order. If you need to list more area codes or exchanges, prepare a form for a second table.

Procedure for Filling Out Forms for ARS Tables

Follow these steps to fill out your Forms for Automatic Route Selection Tables:

- 1 Get the Form for Automatic Route Selection Table 0. Decide how many 6-digit tables you need (you can have none or as many as eight). Enter that number (0 through 8) at the top of the form, in the blank next to "Total number of 6-digit tables:"
- 2 If you plan to have one or more 6-digit tables, go on to step 3 to continue filling out the form for Table 0. If you don't need any 6-digit tables, put the form for Table 0 aside, get the form for Table 7, and go on to step 3.
- 3 On the line next to "Is this a 6-digit table?", circle "y" for "yes" or "n" for "no" as appropriate.
- 4 To fill out the section of the form headed "Area Code/Exchanges," perform one of the following actions:
 - If this is a form for a 6-digit table, write the area code in the blank provided for the first entry, entry 00. Then write each exchange within that area code that your people would call in the numbered blanks, beginning with the blank for entry 01.

For example, say that an administrator plans to use Table 0 to route calls to exchanges 333, 444, and 523 in area code 816. The upper section of the completed form looks similar to the one shown in Figure 2-21.

FIGURE 2-21 An example of an area code and exchanges entered in a 6-digit table.

Form for Automatic Route Selection Table 0									
Total number of 6-digit tables: <u>1</u>									
Is this a 6-digit table? <input checked="" type="radio"/> Y <input type="radio"/> N									
Area Code/Exchanges									
#000	<u>816</u>	#001	<u>333</u>	#002	<u>444</u>	#003	<u>523</u>	#004	___
#005	___	#006	___	#007	___	#008	___	#009	___
#010	___	#011	___	#012	___	#013	___		

- If this is a form for a 3-digit table, write the area codes or exchanges in the blanks provided, beginning with the blank for the first entry, entry 00. For example, say that an administrator plans to use Table 7 to route calls to the Northeastern (Band 1) WATS lines. The administrator records the 13 area codes served by the Northeastern WATS lines as entries 00 through 12. The upper section of the completed form looks similar to the one shown in Figure 2-22.

FIGURE 2-22 An example of area codes in a 3-digit table.

Form for Automatic Route Selection Table 7

Is this a 6-digit table? Y N

Area Code/Exchanges

#5700 <u>413</u>	#5701 <u>617</u>	#5702 <u>401</u>	#5703 <u>203</u>	#5704 <u>212</u>
#5705 <u>516</u>	#5706 <u>518</u>	#5707 <u>714</u>	#5708 <u>717</u>	#5709 <u>214</u>
#5710 <u>302</u>	#5711 <u>301</u>	#5712 <u>202</u>	#5713	#5714

- 5 To fill out the column headed "Pool," write the number of the preferred line pool in the space provided for the first entry, entry 0. This is the line pool on which calls to the area codes or exchanges listed in the Area Code/Exchanges section of this form should be placed. If you want to designate a backup line pool in case all the lines in your first-choice line pool are busy, write the number of the backup line pool in the blank for the second entry, and so on.

For example, on the form for a typical 3-digit table illustrated in step 4 (Figure 2-22), the administrator is planning a table to route calls to the 13 area codes served by the Northeastern (Band 1) WATS lines. To specify the Northeastern WATS line pool as the pool of choice for calls to these area codes, the administrator records as entry 0 in the column headed "Pool" the number of the Northeastern WATS line pool, 891. See Figure 2-23.

FIGURE 2-23 An example of entering line pool numbers in a 3-digit table.

Form for Automatic Route Selection Table 7

Is this a 6-digit table? Y N

Area Code/Exchanges

#6700 413	#6701 617	#6702 401	#6703 203	#6704 212
#6705 516	#6706 518	#6707 914	#6708 717	#6709 215
#6710 302	#6711 301	#6712 202	#6713	#6714
#6715	#6716	#6717	#6718	#6719

Pool	Other Digits	Absorb
#770 891	_____	#770 _____
#771 892	_____	#771 _____
#772 _____	_____	#772 _____
#773 _____	_____	#773 _____
#774 _____	_____	#774 _____
#775 _____	_____	#775 _____

Because calls to these 13 area codes should be placed on the cross-country WATS lines if all the Northeastern WATS lines are busy, the administrator records as entry 1 the number of the cross-country WATS line pool, Pool 892.

- Extra digits or special characters may be required in order for your system to place a call on a particular line pool. If so, enter the digits or characters in the same row as the pool number, in the column headed "Other Digits." These special access or account codes can range from a single digit, such as 9, to a maximum of 20 characters, including symbols for pause (p), switchhook flash (r), and Touch-Tone enable (t). (See "Special Characters in Programmed Dialing Sequences" in Section 6, "Reference.")

For example, say that a firm uses an alternate long distance company for calls to nine area codes in Canada. Accessing the alternate long distance company lines requires getting a local line, dialing seven digits, waiting for a dial tone, then dialing six more digits and waiting for a dial tone again. The administrator records the digits and a "p" (pause) for each second that the system should wait before continuing the dialing sequence. The completed form for the 3-digit table that routes these calls to the alternate long distance company lines is shown in Figure 2-24.

FIGURE 2-24 An example of other digits needed to access line pools on a 3-digit table.

Form for Automatic Route Selection Table 6

Is this a 6-digit table? Y N

Area Code/Exchanges

#6600 <u>604</u>	#6601 <u>403</u>	#6602 <u>514</u>	#6603 <u>819</u>	#6604 <u>718</u>
#6605 <u>416</u>	#6606 <u>613</u>	#6607 <u>902</u>	#6608 <u>506</u>	#6609 _____
#6610 _____	#6611 _____	#6612 _____	#6613 _____	#6614 _____
#6615 _____	#6616 _____	#6617 _____		

Pool	Other Digits	Absorb
#760 <u>9</u>	<u>9501099pppp123781p</u>	#760 _____
#761 _____	_____	#761 _____
#762 _____	_____	#762 _____
#763 _____	_____	#763 _____
#764 _____	_____	#764 _____
#765 _____	_____	#765 _____

7 If your system needs to absorb certain digits dialed by callers in order to place calls on a particular line pool, enter the appropriate absorption number in the same row as the pool number, in the column headed "Absorb." These are the absorption numbers:

- 0 = No absorption
- 1 = Leading 1
- 2 = Area code only
- 3 = 1 + area code
- 4 = 1 + exchange
- 5 = 1 + area code + exchange

For example, say that a company has FX lines for the 686 exchange in the 901 area code. To allow people to dial those calls the same way they dial toll calls to other area codes, the administrator associates absorption number 3 with the FX line pool, Pool 893. The completed form for the 6-digit table that routes calls to the FX line pool is shown in Figure 2-25.

FIGURE 2-25 An example of absorption numbers needed to access line pools on a 6-digit table.

Form for Automatic Route Selection Table 1				
Is this a 6-digit table? <input checked="" type="radio"/> Y <input type="radio"/> N				
Area Code/Exchanges				
#6100 <u>901</u>	#6101 <u>686</u>	#6102 _____	#6103 _____	#6104 _____
#6105 _____	#6106 _____	#6107 _____	#6108 _____	#6109 _____
#6110 _____	#6111 _____	#6112 _____	#6113 _____	#6114 _____
Pool Other Digits Absorb				
#710 <u>893</u>	_____	#710 <u>3</u>		
#711 _____	_____	#711 _____		
#712 _____	_____	#712 _____		
#713 _____	_____	#713 _____		
#714 _____	_____	#714 _____		
#715 _____	_____	#715 _____		

After ARS is administered, people in this company dial 1 + 901 + 686-XXXX to make these calls. The system absorbs the leading 1 and the area code and dials only the 7-digit number in order to place these calls on one of the FX lines.

- 8 Repeat steps 3 through 7 to fill out a form for each nondefault table (Tables 0 through 7) that you need.
- 9 Turn to the Forms for Automatic Route Selection Default and Special Numbers Tables. Referring to your ARS Worksheet, perform steps 5 through 7 to fill out the forms for the Default Toll Table (Table 8) and the Default Local Table (Table 9).
- 10 People in your business may need to dial an access code in order to make calls to the special numbers 0, 411, 611, 911, 800 and 900. If so, record that code on the form for the Special Number Table, in the blank under the heading "Other Digits."

You now have all the information you need to set up ARS for your business. Place your completed ARS forms where you can find them easily when you're ready to administer your system.

Station Jacks (Continued)

Station Jack	Jack Type (A,D,B)	Default loom No.	Label	FACE	Person, Location, or Function	Station Jack	Jack Type (A,D,B)	Default loom No.	Label	FACE	Person, Location, or Function
61		700				75		714			
62		701				76		715			
63		702				77		716			
64		703				78		717			
65		704				79		718			
66		705				80		719			
67		706				81		720			
68		707				82		721			
69		708				83		722			
70		719				84		723			
71		710				85		724			
72		711				86		725			
73		712				87		726			
74		713				88		727			

Master Planning Form

Station Jacks

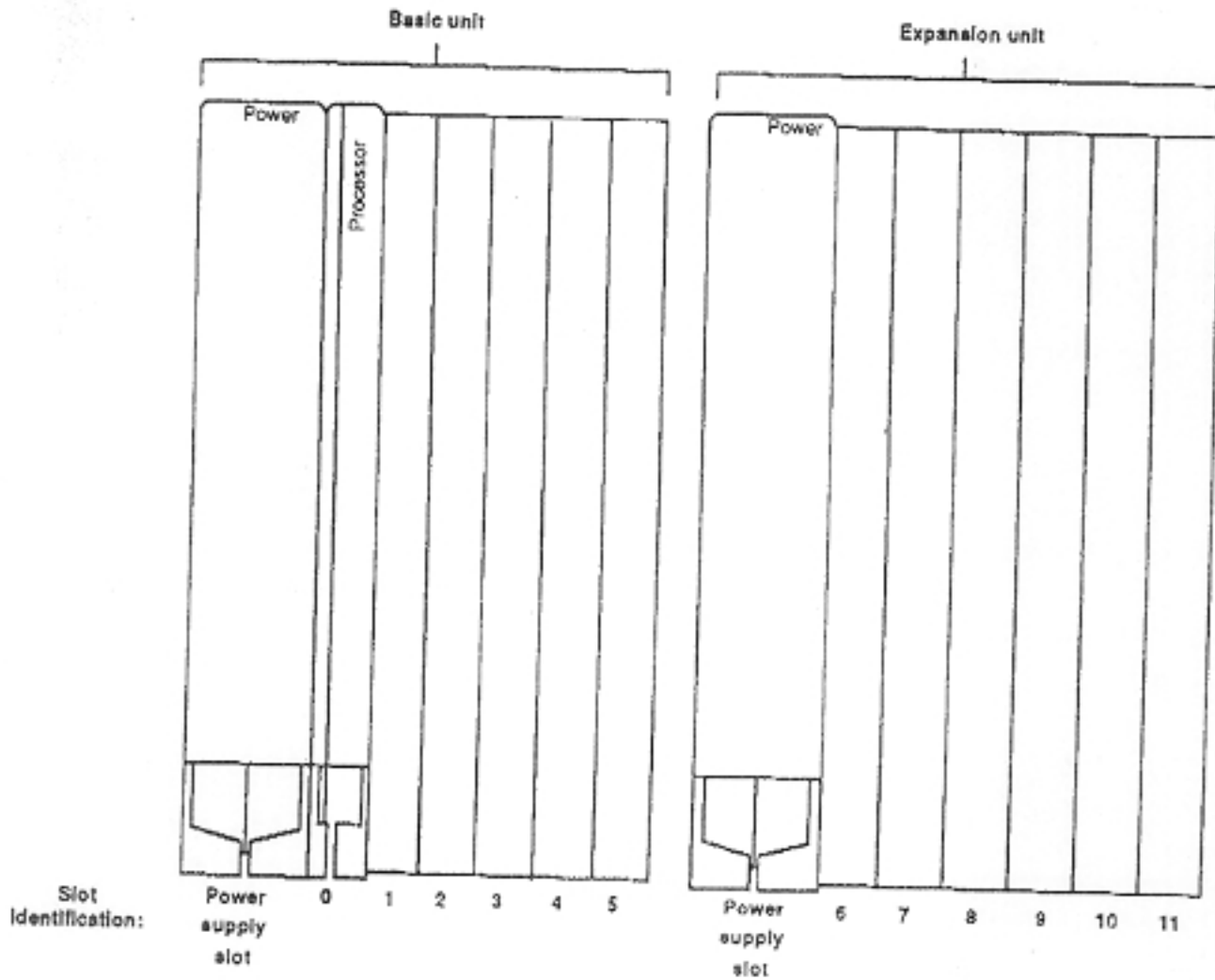
Station Jack	Jack Type (A,D,B)	Default Icom No.	Label	FACE	Person, Location, or Function	Station Jack	Jack Type (A,D,B)	Default Icom No.	Label	FACE	Person, Location, or Function
01	A	10				31		40			
02	A	11				32		41			
03	A	12				33		42			
04	A	13				34		43			
05	A	14				35		44			
06	A	15				36		45			
07	A	16				37		46			
08	A	17				38		47			
09		18				39		48			
10		19				40		49			
11		20				41		50			
12		21				42		51			
13		22				43		52			
14		23				44		53			
15		24				45		54			
16		25				46		55			
17		26				47		56			
18		27				48		57			
19		28				49		58			
20		29				50		59			
21		30				51		60			
22		31				52		61			
23		32				53		62			
24		33				54		63			
25		34				55		64			
26		35				56		65			
27		36				57		66			
28		37				58		67			
29		38				59		68			
30		39				60		69			

*Flexible numbering applies:

- Yes
 No

Master Planning Form

Module Location



Master Planning Form

Line Jacks

Line Jack	Default Line No.*	Telephone No. or Equipment	Line Jack	Default Line No.*	Telephone No. or Equipment
01	801		29	829	
02	802		30	830	
03	803		31	831	
04	804		32	832	
05	805		33	833	
06	806		34	834	
07	807		35	835	
08	808		36	836	
09	809		37	837	
10	810		38	838	
11	811		39	839	
12	812		40	840	
13	813		41	841	
14	814		42	842	
15	815		43	843	
16	816		44	844	
17	817		45	845	
18	818		46	846	
19	819		47	847	
20	820		48	848	
21	821		49	849	
22	822		50	850	
23	823		51	851	
24	824		52	852	
25	825		53	853	
26	826		54	854	
27	827		55	855	
28	828		56	856	

*Flexible numbering applies:

Yes

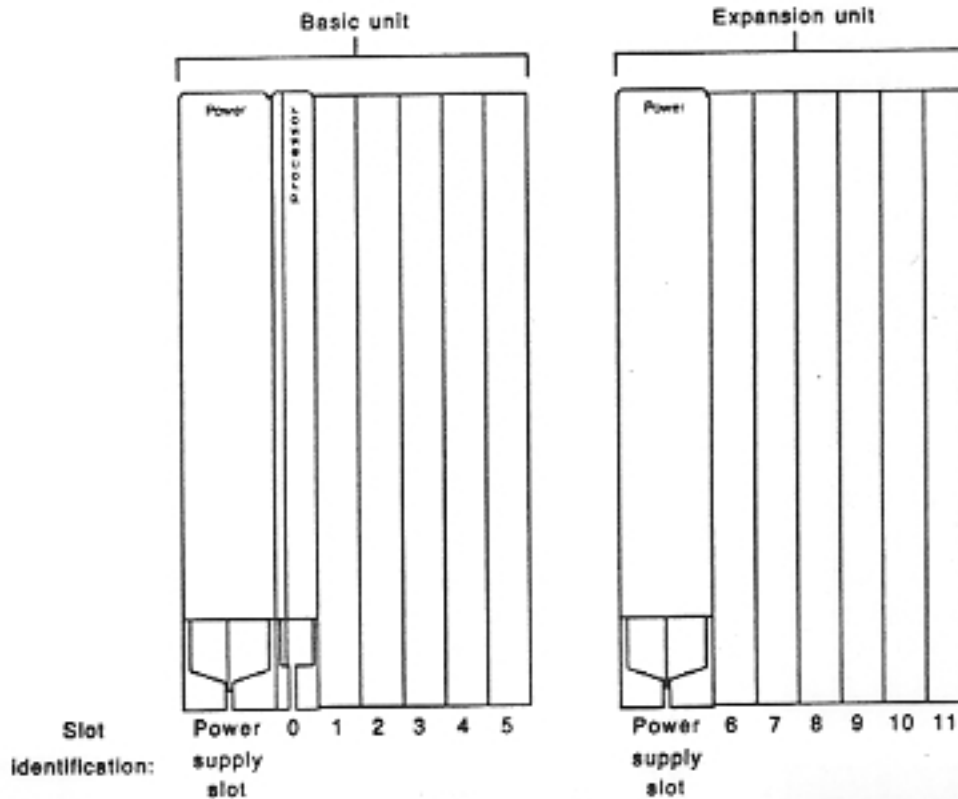
No

Master Planning Form

Line Jacks

Line Jack	Telephone No. or Equipment	Line Jack	Telephone No. or Equipment
01		17	
02		18	
03		19	
04		20	
05		21	
06		22	
07		23	
08		24	
09		25	
10		26	
11		27	
12		28	
13		29	
14		30	
15		31	
16		32	

Module location



Master Planning Form

Station Jacks

Station Jack	Jack Type (A,D,B)	Person, Location, or Function	Station Jack	Jack Type (A,D,B)	Person, Location, or Function
10	A		46		
11	A		47		
12	A		48		
13	A		49		
14	A		50		
15	A		51		
16	A		52		
17	A		53		
18			54		
19			55		
20			56		
21			57		
22			58		
23			59		
24			60		
25			61		
26			62		
27			63		
28			64		
29			65		
30			66		
31			67		
32			68		
33			69		
34			70		
35			71		
36			72		
37			73		
38			74		
39			75		
40			76		
41			77		
42			78		
43			79		
44			800		
45			801		

System Configuration Form

System Size:

- Small (1-8 Lines)
- Large (>8 Lines)

Line Representation:

- Square
- Pooled
 - Button Access
 - Dial Access
 - Automatic Route Selection

Attendant Stations: _____

Administrator/Attendant Console:

- 34-Button Console for Small Systems
- 34-Button Console for Large Systems
- 34-Button Console with AIS
- Display Console

Call Report Options:

- Outgoing Calls Only
 - Incoming and Outgoing Calls
- Minimum Length of Calls Recorded (Minutes) _____

Transfer Return Interval:

Number of Rings _____

One-Touch Call Handling:

- One-Touch Transfer
- One-Touch Hold with Call Announcement

Line Jack	Telephone No. or Equipment	Line Type if Other than Local	Line Pool (9, 890-899)	Rotary?	Toll Prefix not needed for Long Dist?
01					
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					

Line Jack	Telephone No. or Equipment	Line Type if Other than Local	DISA Line?	Line Pool (Default 9, 890-899)	Rotary?	Toll Prefix not Needed for Long Dist?
29						
30						
31						
32						
33						
34						
35						
36						
37						
38						
39						
40						
41						
42						
43						
44						
45						
46						
47						
48						
49						
50						
51						
52						
53						
54						
55						
56						

System Configuration Form

System Size:

- Small (1-8 Lines)
- Large (> 8 Lines)

System Type:

- Square
- Behind-switch
 - Tfr _____
 - Cont _____
 - Drop _____
- Pooled
 - Button Access
 - Dial Access
 - Automatic Route Selection

Attendant Positions: _____

Administrator/Attendant Console:

- BIS-34D Console
- MERLIN II System Display Console

Call Report Options:

- Outgoing Calls Only
 - Incoming and Outgoing Calls
- Minimum Length of Calls Recorded (Minutes) _____

Transfer Return Interval:

No. of Rings _____

Transfer Feedback:

- Music
- Ringback

Camp On Return Interval:

No. of Minutes _____

One-Touch Call Handling:

- One-Touch Transfer
- One-Touch Hold with Call Announcement

Reminder Service

Cancel - All:
Time _____

Direct Inward System

Access:

- Password?
- Yes _____
 - No
- Outward Restricted?
- Yes
 - No

Extended Station Status:

- CMS Mode
- Hotel/Motel Mode
ESS Attendant _____

Line Jack	Telephone No. or Equipment	Line Type if Other than Local	DISA Line?	Line Pool (Default 9, 890-899)	Rotary?	Toll Prefix not Needed for Long Dist?
01						
02						
03						
04						
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						

Station Configuration Form

Attendant Consoles

Intercom No. _____

Identification _____

Console Model:

- BIS-34D Console
 MERLIN II System
 Display Console

Accessories:

- General Purpose Adapter
 Headset
 Headset Adapter
 Hands-Free Unit
 Extra-Long Cord
 Acoustic Coupler Adapter
- Hearing-Impaired Handset
 Push-to-Listen Handset
 Voice Terminal Power Supply
 Supplemental Alert Adapter and
 Extra Alert Devices

On the BIS-34D console for small systems, the system automatically assigns the Auto Intercom features to buttons, as shown by the labels in the upper left-hand corner. If some of these buttons aren't needed as Auto Intercom buttons, you can assign other features to them.

		IC 19	IC 29
3	8	9	21
2	7	IC 18	IC 28
		10	22
1	6	IC 17	IC 27
		11	23
Intercom-Voice	5	IC 16	IC 26
		12	24
Intercom-Ring	4	IC 15	IC 25
		13	25
		IC 14	IC 24
		14	26
		IC 13	IC 23
		15	27
		IC 12	IC 22
		16	28
		IC 11	IC 21
		17	29
		IC 10	IC 20
		18	30
		19	Night Svc 31
		20	Send Msg 32

When lines are assigned to a console, they appear on buttons in the order indicated by the numbers in the lower right-hand corner. The system automatically assigns lines to the buttons numbered 1 through 8, as shown. For large systems, the system automatically assigns the remaining lines as shown, beginning with the button numbered 9. If large systems have 30 or fewer lines, Night Service and Send Message appear on the buttons numbered 31 and 32.

Automatic Line Selection:

Extended Station Status:

Display Mode

- Yes
 No

Forced Account Code Entry:

- Yes
 No

Station Configuration Form

Analog Stations and Basic Telephones* (Square Systems)

Intercom No. _____

Identification _____

Station Model:

- | | |
|---|--|
| <input type="checkbox"/> 5-Button | <input type="checkbox"/> 34-Button (SP-34) |
| <input type="checkbox"/> 10-Button | <input type="checkbox"/> 34-Button (SP-34D) with Display |
| <input type="checkbox"/> 10-Button HFAI | <input type="checkbox"/> 34-Button Deluxe |
| <input type="checkbox"/> BIS-10 | <input type="checkbox"/> BIS-34 |
| <input type="checkbox"/> BIS-22 | <input type="checkbox"/> BIS-34D with Display |
| <input type="checkbox"/> 34-Button | <input type="checkbox"/> Basic Telephone |

Accessories:

- | | |
|---|---|
| <input type="checkbox"/> General Purpose Adapter | <input type="checkbox"/> Hearing-Impaired Handset |
| <input type="checkbox"/> Headset | <input type="checkbox"/> Push-to-Listen Handset |
| <input type="checkbox"/> Headset Adapter | <input type="checkbox"/> Voice Terminal Power |
| <input type="checkbox"/> Hands-Free Unit | <input type="checkbox"/> BTMI |
| <input type="checkbox"/> Extra-Long Cord | <input type="checkbox"/> OPTI |
| <input type="checkbox"/> Acoustic Coupler Adapter | |

34-Button			
22-Button			
10-Button			
5-Button			
3	8	9	21
2	7	10	22
1	6	11	23
Intercom-Voice	5	12	24
Intercom-Ring	4	13	25
		14	26
		15	27
		16	28
		17	29
		18	30
		19	31
		20	32

When lines are assigned to a voice terminal, they appear in the numbered order shown. The system assigns lines to buttons numbered 1 through 8; you must assign any additional lines, starting with the button numbered 9.

Automatic Line Selection:

Night Service Exclusion:

- Yes
 No

Forced Account Code Entry:

- Yes
 No

Call Restriction (See forms):

- Outward
 Toll
 Unrestricted

* For use with Basic Telephones connected to BTMIs or OPTIs.

Station Configuration Form

Digital Stations (Square Systems)

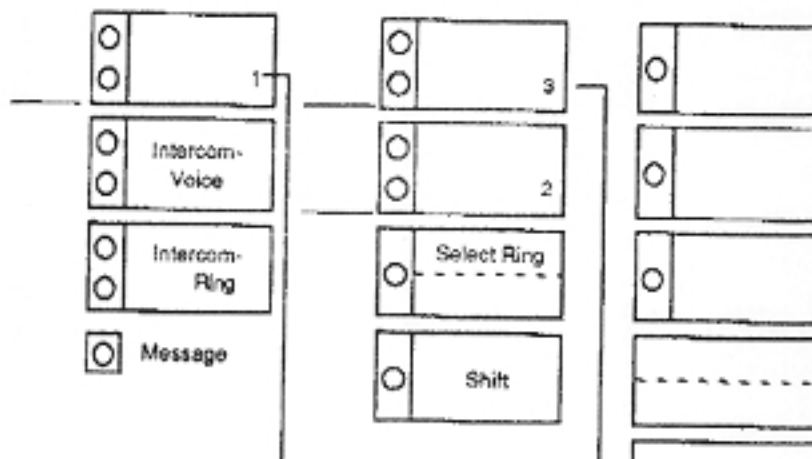
Intercom No. _____ Identification _____

Station Model:

- 7406
- 7406D with Display

Accessories:

- General Purpose Adapter
- Headset
- Headset Adapter
- Hands-Free Unit
- Acoustic Coupler Adapter
- Hearing-Impaired Handset
- Push-to-Listen Handset
- Voice Terminal Power Supply



When lines are assigned to a voice terminal, they appear in the order indicated by the numbers.

Automatic Line Selection:

Night Service Exclusion:

- Yes
- No

Forced Account Code Entry:

- Yes
- No

Call Restriction (See forms):

- Outward
- Toll
- Unrestricted

Speaker

Station Configuration Form

Basic Telephones* (Square Systems)

Line Assignments		Personal Speed Dial	
Line	Dial Code	Code	Feature
1†	#42	#01	
2	#43	#02	
3	#44	#03	
4	#45	#04	
5	#46	#05	
6	#47	#06	
7	#48	#07	
8	#49	#08	
		#09	
		#10	
		#11	
		#12	
		#13	
		#14	
		#15	
		#16	
		#17	
		#18	
		#19	
		#20	
		#21	
		#22	Account Code Entry
		#23	Saved Number Redial
		#24	Last Number Redial

†Lines are assigned to dial codes
in the order shown by the numbers.

Night Service Exclusion:

- Yes
 No

Forced Account Code Entry:

- Yes
 No

Call Restriction (See forms):

- Outward
 Toll
 Unrestricted

* For use with basic telephones connected to Basic Telephone Modules only. If the Basic telephone is connected to a BTMI or an OPTI, use the analog station configuration form.

Station Configuration Form

Basic Telephones* (Pooled Systems)

Line Assignments

Line or Line Pool

Dial Code

	Modem Pool (default pool 9) or Pool Access	
	Modem Pool (default pool 9) or Pool Access	
1		#44
2		#45
3		#46
4		#47
5		#48
6		#49

Personal Speed Dial

Code	Feature
#01	
#02	
#03	
#04	
#05	
#06	
#07	
#08	
#09	
#10	
#11	
#12	
#13	
#14	
#15	
#16	
#17	
#18	
#19	
#20	
#21	
#22	Account Code Entry
#23	Saved Number Redial
#24	Last Number Redial

Lines or line pools are assigned to dial codes in the order shown by the numbers.

Night Service Exclusion:

- Yes
 No

Forced Account Code Entry:

- Yes
 No

Call Restriction (See forms):

- Outward
 Toll
 Unrestricted

* For use with basic telephones connected to Basic Telephone Modules only. If the Basic telephone is connected to a BTMI or an OPTI, use the analog station configuration form.

Station Configuration Form

Analog Stations and Basic Telephones* (Pooled Systems)

Intercom No. _____

Identification _____

Station Model:

- | | |
|---|--|
| <input type="checkbox"/> 5-Button | <input type="checkbox"/> 34-Button (SP-34) |
| <input type="checkbox"/> 10-Button | <input type="checkbox"/> 34-Button (SP-34D) with Display |
| <input type="checkbox"/> 10-Button HFAI | <input type="checkbox"/> 34-Button Deluxe |
| <input type="checkbox"/> BIS-10 | <input type="checkbox"/> BIS-34 |
| <input type="checkbox"/> BIS-22 | <input type="checkbox"/> BIS-34D with Display |
| <input type="checkbox"/> 34-Button | <input type="checkbox"/> Basic Telephone |

Accessories:

- | | |
|---|--|
| <input type="checkbox"/> General Purpose Adapter | <input type="checkbox"/> Hearing-Impaired Handset |
| <input type="checkbox"/> Headset | <input type="checkbox"/> Push-to-Listen Handset |
| <input type="checkbox"/> Headset Adapter | <input type="checkbox"/> Voice Terminal Power Supply |
| <input type="checkbox"/> Hands-Free Unit | <input type="checkbox"/> BTM |
| <input type="checkbox"/> Extra-Long Cord | <input type="checkbox"/> OPTI |
| <input type="checkbox"/> Acoustic Coupler Adapter | |

34-Button			
22-Button			
10-Button			
5-Button			
1	6	7	19
Main Pool or Pool Access	5	8	20
Main Pool or Pool Access	4	9	21
Intercom-Voice	3	10	22
Intercom-Ring	2	11	23
		12	24
		13	25
		14	26
		15	27
		16	28
		17	29
		18	30

When line pools or lines are assigned to a voice terminal, they appear on buttons in the order indicated.

Dial Access to Pools (Default 9, 890-899):

Automatic Line Selection:

Night Service Exclusion:

- Yes
 No

Forced Account Code Entry:

- Yes
 No

Call Restriction (See forms):

- Outward
 Toll
 Unrestricted

* For use with Basic Telephones connected to BTMs or OPTIs.

Voice Terminal Configuration Form

Attendant Consoles

Intercom No. _____ Identification _____

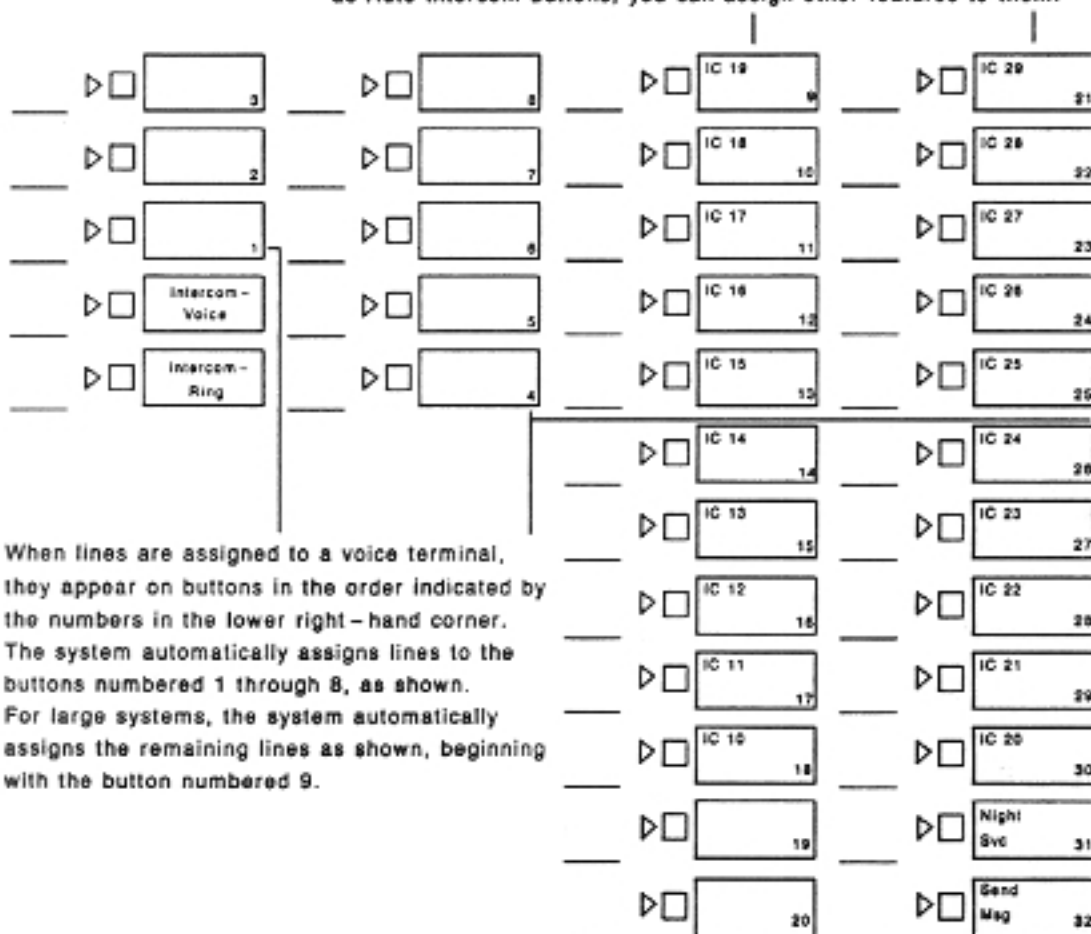
Console Model:

- 34-Button Deluxe
- 34-Button Deluxe with AIS
- Display Console

Accessories:

- General Purpose Adapter
- Headset
- Headset Adapter
- Hands-Free Unit
- Extra-Long Cord
- Acoustic Coupler Adapter
- Hearing-Impaired Handset
- Push-to-Listen Handset
- Voice Terminal Power Supply

On the 34-button console for small systems, the system automatically assigns the Auto Intercom, Night Service, and Send Message features to buttons, as shown by the labels in the upper left-hand corner. If some of these buttons aren't needed as Auto Intercom buttons, you can assign other features to them.



When lines are assigned to a voice terminal, they appear on buttons in the order indicated by the numbers in the lower right-hand corner. The system automatically assigns lines to the buttons numbered 1 through 8, as shown. For large systems, the system automatically assigns the remaining lines as shown, beginning with the button numbered 9.

Automatic Line Selection:

Voice Terminal Configuration Form

Analog Voice Terminals (Square Systems)

Intercom No. _____ Identification _____

Voice Terminal Model:

- 5-Button
- 10-Button
- 10-Button HFAI
- 34-Button Deluxe
- 34-Button BIS
- 34-Button BIS with Display
- Basic Touch-Tone or Rotary Telephone

Accessories:

- General Purpose Adapter
- Headset
- Headset Adapter
- Hands-Free Unit
- Extra-Long Cord
- Acoustic Coupler Adapter
- Hearing-Impaired Handset
- Push-to-Listen Handset
- Voice Terminal Power Supply

34 - Button

10 - Button

5 - Button

<input type="checkbox"/> 3	<input type="checkbox"/> 8	<input type="checkbox"/> 9	<input type="checkbox"/> 21
<input type="checkbox"/> 2	<input type="checkbox"/> 7	<input type="checkbox"/> 10	<input type="checkbox"/> 22
<input type="checkbox"/> 1	<input type="checkbox"/> 6	<input type="checkbox"/> 11	<input type="checkbox"/> 23
<input type="checkbox"/> Intercom - Voice	<input type="checkbox"/> 5	<input type="checkbox"/> 12	<input type="checkbox"/> 24
<input type="checkbox"/> Intercom - Ring	<input type="checkbox"/> 4	<input type="checkbox"/> 13	<input type="checkbox"/> 25
		<input type="checkbox"/> 14	<input type="checkbox"/> 26
		<input type="checkbox"/> 15	<input type="checkbox"/> 27
		<input type="checkbox"/> 16	<input type="checkbox"/> 28
		<input type="checkbox"/> 17	<input type="checkbox"/> 29
		<input type="checkbox"/> 18	<input type="checkbox"/> 30
		<input type="checkbox"/> 19	<input type="checkbox"/> 31
		<input type="checkbox"/> 20	<input type="checkbox"/> 32

When lines are assigned to a voice terminal, they appear in the order indicated by the numbers. The system automatically assigns lines to buttons numbered 1 through 8 while you must assign your remaining lines starting with the button numbered 9.

Line Pickup:

- General
- Individual

Automatic Line Selection:

Night Service Exclusion:

- Yes
- No

Voice Terminal Configuration Form

Digital Voice Terminals (Square Systems)

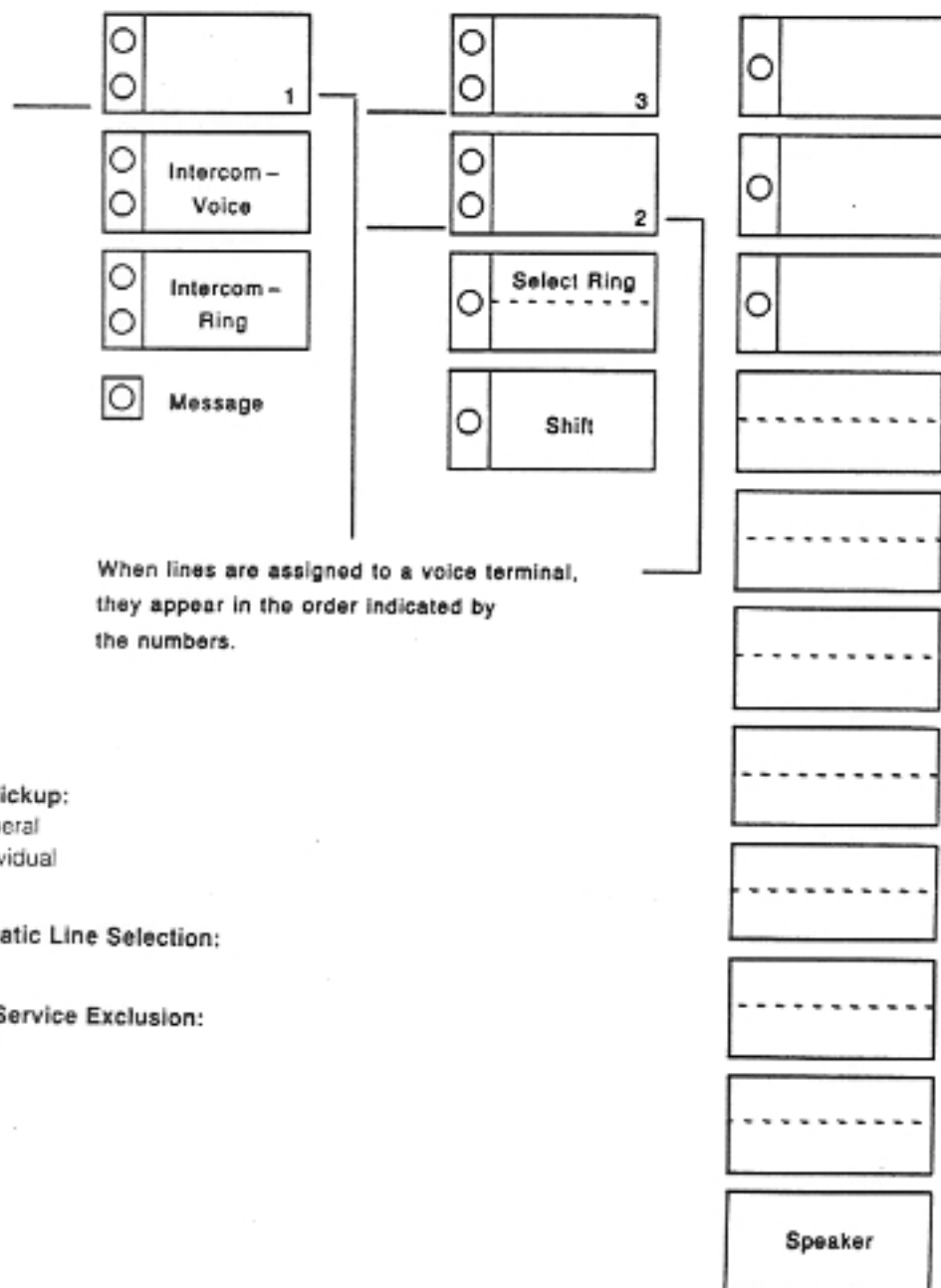
Intercom No. _____ Identification _____

Voice Terminal Model:

- 7406B
 7406D

Accessories:

- General Purpose Adapter
 Headset
 Headset Adapter
 Hands-Free Unit
 Acoustic Coupler Adapter
 Hearing-Impaired Handset
 Push-to-Listen Handset
 Voice Terminal Power Supply



Line Pickup:

- General
 Individual

Automatic Line Selection:

Night Service Exclusion:

- Yes
 No

Voice Terminal Configuration Form

Analog Voice Terminals (Pooled Systems)

Intercom No. _____ Identification _____

Voice Terminal Model:

- 5-Button
- 10-Button
- 10-Button HFAI
- 34-Button Deluxe
- 34-Button Deluxe BIS
- 34-Button Deluxe BIS with Display
- Basic Touch-Tone or Rotary Telephone

Accessories:

- General Purpose Adapter
- Headset
- Headset Adapter
- Hands-Free Unit
- Extra-Long Cord
- Acoustic Coupler Adapter
- Hearing-Impaired Handset
- Push-to-Listen Handset
- Voice Terminal Power Supply

34 - Button			
10 - Button			
5 - Button			
▶ <input type="checkbox"/> 1	▶ <input type="checkbox"/> 6	▶ <input type="checkbox"/> 7	▶ <input type="checkbox"/> 18
▶ <input type="checkbox"/> Pool 9 or Pool Access	▶ <input type="checkbox"/> 5	▶ <input type="checkbox"/> 8	▶ <input type="checkbox"/> 20
▶ <input type="checkbox"/> Pool 9 or Pool Access	▶ <input type="checkbox"/> 4	▶ <input type="checkbox"/> 9	▶ <input type="checkbox"/> 21
▶ <input type="checkbox"/> Intercom-Voice	▶ <input type="checkbox"/> 3	▶ <input type="checkbox"/> 10	▶ <input type="checkbox"/> 22
▶ <input type="checkbox"/> Intercom-Ring	▶ <input type="checkbox"/> 2	▶ <input type="checkbox"/> 11	▶ <input type="checkbox"/> 23
		▶ <input type="checkbox"/> 12	▶ <input type="checkbox"/> 24
		▶ <input type="checkbox"/> 13	▶ <input type="checkbox"/> 25
		▶ <input type="checkbox"/> 14	▶ <input type="checkbox"/> 26
		▶ <input type="checkbox"/> 15	▶ <input type="checkbox"/> 27
		▶ <input type="checkbox"/> 16	▶ <input type="checkbox"/> 28
		▶ <input type="checkbox"/> 17	▶ <input type="checkbox"/> 29
		▶ <input type="checkbox"/> 18	▶ <input type="checkbox"/> 30

When line pools or lines are assigned to a voice terminal, they appear on buttons in the order indicated.

Dial Access to Pools (9, 890-899):

Line Pickup:

- General
- Individual

Automatic Line Selection:

Night Service Exclusion:

- Yes
- No

Voice Terminal Configuration Form

Digital Voice Terminals (Pooled Systems)

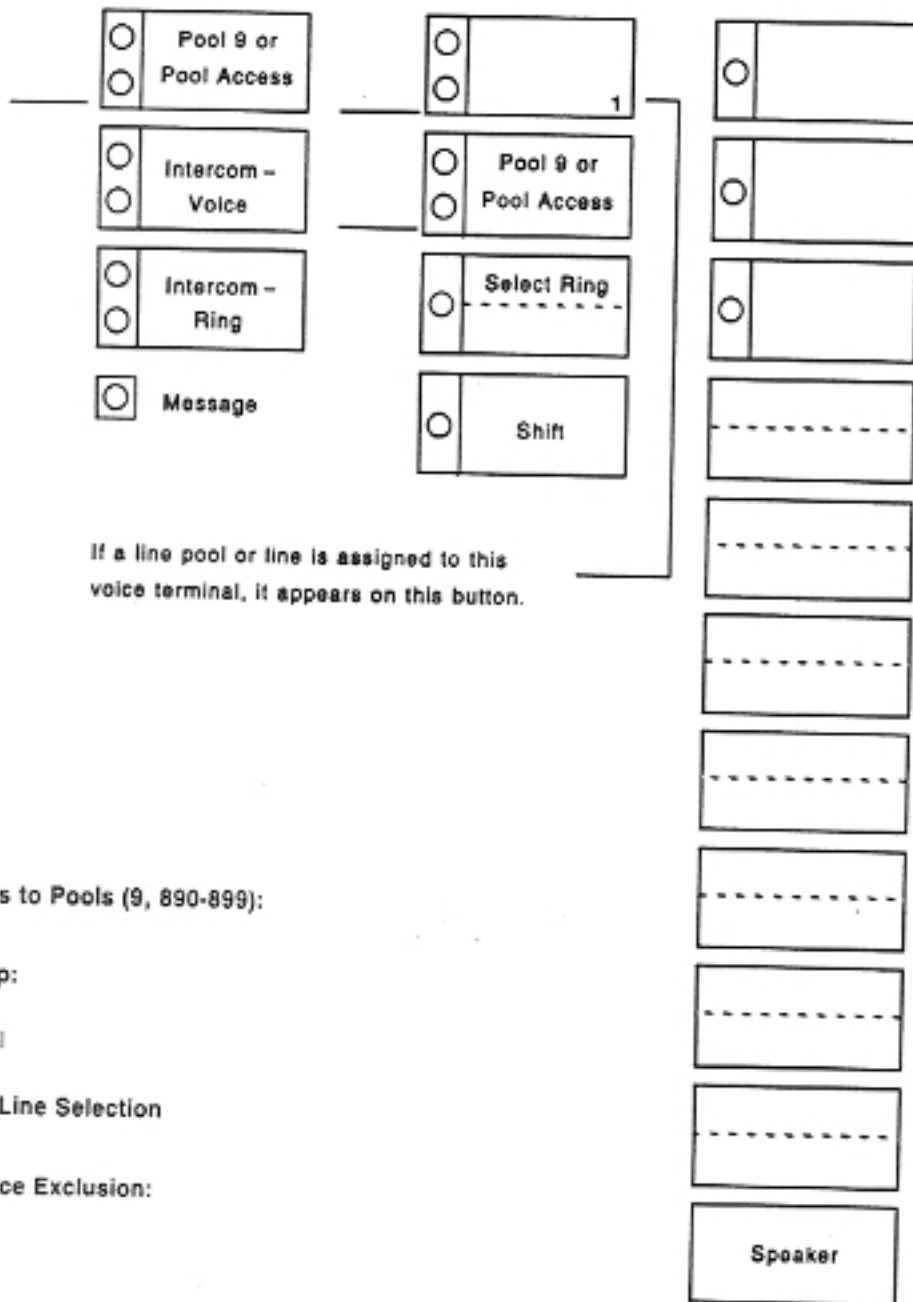
Intercom No. _____ Identification _____

Voice Terminal Model:

- 7406B
- 7406D

Accessories:

- General Purpose Adapter
- Headset
- Headset Adapter
- Hands-Free Unit
- Acoustic Coupler Adapter
- Hearing-Impaired Handset
- Push-to-Listen Handset
- Voice Terminal Power Supply



If a line pool or line is assigned to this voice terminal, it appears on this button.

Dial Access to Pools (9, 890-899):

Line Pickup:

- General
- Individual

Automatic Line Selection

Night Service Exclusion:

- Yes
- No

Enhanced Night Service with Group Assignment Form

Attendant _____			Attendant _____			Attendant _____			Attendant _____		
✓	Icom No.	Name	✓	Icom No.	Name	✓	Icom No.	Name	✓	Icom No.	Name
	10			10			10			10	
	11			11			11			11	
	12			12			12			12	
	13			13			13			13	
	14			14			14			14	
	15			15			15			15	
	16			16			16			16	
	17			17			17			17	
	18			18			18			18	
	19			19			19			19	
	20			20			20			20	
	21			21			21			21	
	22			22			22			22	
	23			23			23			23	
	24			24			24			24	
	25			25			25			25	
	26			26			26			26	
	27			27			27			27	
	28			28			28			28	
	29			29			29			29	
	30			30			30			30	
	31			31			31			31	
	32			32			32			32	
	33			33			33			33	
	34			34			34			34	
	35			35			35			35	
	36			36			36			36	
	37			37			37			37	
	38			38			38			38	
	39			39			39			39	
	40			40			40			40	
	41			41			41			41	
	42			42			42			42	
	43			43			43			43	
	44			44			44			44	
	45			45			45			45	

Enhanced Night Service with Group Assignment Form

(Continued)

Attendant _____			Attendant _____			Attendant _____			Attendant _____		
✓	Icom No.	Name	✓	Icom No.	Name	✓	Icom No.	Name	✓	Icom No.	Name
	46			46			46			46	
	47			47			47			47	
	48			48			48			48	
	49			49			49			49	
	50			50			50			50	
	51			51			51			51	
	52			52			52			52	
	53			53			53			53	
	54			54			54			54	
	55			55			55			55	
	56			56			56			56	
	57			57			57			57	
	58			58			58			58	
	59			59			59			59	
	60			60			60			60	
	61			61			61			61	
	62			62			62			62	
	63			63			63			63	
	64			64			64			64	
	65			65			65			65	
	66			66			66			66	
	67			67			67			67	
	68			68			68			68	
	69			69			69			69	
	70			70			70			70	
	71			71			71			71	
	72			72			72			72	
	73			73			73			73	
	74			74			74			74	
	75			75			75			75	
	76			76			76			76	
	77			77			77			77	
	78			78			78			78	
	79			79			79			79	
	800			800			800			800	
	801			801			801			801	

Enhanced Night Service with Outward Restriction Form

Password: _____ (Note: If you want to keep your password private, do not fill in the blank.)

Emergency Allowed List

Entry	Telephone No.
0	
1	
2	
3	
4	
5	
6	
7	
8	
9	

Exclusion List (Voice Terminals not Restricted During Night Service)

✓	Icom No.	Name	✓	Icom No.	Name	✓	Icom No.	Name
	10			34			58	
	11			35			59	
	12			36			60	
	13			37			61	
	14			38			62	
	15			39			63	
	16			40			64	
	17			41			65	
	18			42			66	
	19			43			67	
	20			44			68	
	21			45			69	
	22			46			70	
	23			47			71	
	24			48			72	
	25			49			73	
	26			50			74	
	27			51			75	
	28			52			76	
	29			53			77	
	30			54			78	
	31			55			79	
	32			56			800	
	33			57			801	

Enhanced Night Service with Time Set Form

Day	Service Off	Service On
Sunday		
Monday		
Tuesday		
Wednesday		
Thursday		
Friday		
Saturday		

Enhanced Night Service with Time Set activated on (day of week): _____

Call Restrictions and Allowed Lists Forms

Call Restrictions

Icom No.	Outward Restricted	Toll Restricted	Unrestricted	Allowed Lists Assigned	Icom No.	Outward Restricted	Toll Restricted	Unrestricted	Allowed Lists Assigned
10					46				
11					47				
12					48				
13					49				
14					50				
15					51				
16					52				
17					53				
18					54				
19					55				
20					56				
21					57				
22					58				
23					59				
24					60				
25					61				
26					62				
27					63				
28					64				
29					65				
30					66				
31					67				
32					68				
33					69				
34					70				
35					71				
36					72				
37					73				
38					74				
39					75				
40					76				
41					77				
42					78				
43					79				
44					800				
45					801				

Allowed Lists

List 0 _____		List 1 _____		List 2 _____		List 3 _____	
Entry No.	Entry	Entry No.	Entry	Entry No.	Entry	Entry No.	Entry
0		0		0		0	
1		1		1		1	
2		2		2		2	
3		3		3		3	
4		4		4		4	
5		5		5		5	
6		6		6		6	
7		7		7		7	
8		8		8		8	
9		9		9		9	

List 4 _____		List 5 _____		List 6 _____		List 7 _____	
Entry No.	Entry	Entry No.	Entry	Entry No.	Entry	Entry No.	Entry
0		0		0		0	
1		1		1		1	
2		2		2		2	
3		3		3		3	
4		4		4		4	
5		5		5		5	
6		6		6		6	
7		7		7		7	
8		8		8		8	
9		9		9		9	

Group Page Form

Group 1 _____			Group 2 _____		
	Icom No.	Name or Location		Icom No.	Name or Location
1			1		
2			2		
3			3		
4			4		
5			5		
6			6		
7			7		
8			8		
9			9		
10			10		

Group 3 _____			Group 4 _____		
	Icom No.	Name or Location		Icom No.	Name or Location
1			1		
2			2		
3			3		
4			4		
5			5		
6			6		
7			7		
8			8		
9			9		
10			10		

Group 5 _____			Group 6 _____		
	Icom No.	Name or Location		Icom No.	Name or Location
1			1		
2			2		
3			3		
4			4		
5			5		
6			6		
7			7		
8			8		
9			9		
10			10		

Group 7 _____		
	Icom No.	Name or Location
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

Group Call Distribution Forms

Call Distribution Groups

Group 0 _____			Group 1 _____			Group 2 _____		
	Icom No.	Identification		Icom No.	Identification		Icom No.	Identification
1			1			1		
2			2			2		
3			3			3		
4			4			4		
5			5			5		
6			6			6		
7			7			7		
8			8			8		
9			9			9		
10			10			10		
11			11			11		
12			12			12		
13			13			13		
14			14			14		
15			15			15		

Group 3 _____			Group 4 _____			Group 5 _____		
	Icom No.	Identification		Icom No.	Identification		Icom No.	Identification
1			1			1		
2			2			2		
3			3			3		
4			4			4		
5			5			5		
6			6			6		
7			7			7		
8			8			8		
9			9			9		
10			10			10		
11			11			11		
12			12			12		
13			13			13		
14			14			14		
15			15			15		

Group Call Distribution Forms

Call Distribution Groups Line/Line Pool Assignments

Group 0 _____		Group 1 _____		Group 2 _____	
	Line or Line Pool No.		Line or Line Pool No.		Line or Line Pool No.
1		1		1	
2		2		2	
3		3		3	
4		4		4	
5		5		5	
6		6		6	
7		7		7	
8		8		8	
9		9		9	
10		10		10	
11		11		11	
12		12		12	
13		13		13	
14		14		14	
15		15		15	
16		16		16	
17		17		17	
18		18		18	
19		19		19	
20		20		20	
21		21		21	
22		22		22	
23		23		23	
24		24		24	
25		25		25	
26		26		26	
27		27		27	
28		28		28	
29		29		29	
30		30		30	
31		31		31	
32		32		32	

Group Call Distribution Forms

Call Distribution Groups Line/Line Pool Assignments (Continued)

Group 3 _____		Group 4 _____		Group 5 _____	
	Line or Line Pool No.		Line or Line Pool No.		Line or Line Pool No.
1		1		1	
2		2		2	
3		3		3	
4		4		4	
5		5		5	
6		6		6	
7		7		7	
8		8		8	
9		9		9	
10		10		10	
11		11		11	
12		12		12	
13		13		13	
14		14		14	
15		15		15	
16		16		16	
17		17		17	
18		18		18	
19		19		19	
20		20		20	
21		21		21	
22		22		22	
23		23		23	
24		24		24	
25		25		25	
26		26		26	
27		27		27	
28		28		28	
29		29		29	
30		30		30	
31		31		31	
32		32		32	

System Speed Dial Form

Dial Code	Telephone Number	Name
#60		
#61		
#62		
#63		
#64		
#65		
#66		
#67		
#68		
#69		
#70		
#71		
#72		
#73		
#74		
#75		
#76		
#77		
#78		
#79		
#80		
#81		
#82		
#83		
#84		
#85		
#86		
#87		
#88		
#89		
#90		
#91		
#92		
#93		
#94		
#95		
#96		
#97		
#98		
#99		

Automatic Route Selection Worksheet

Number of exchanges in your calling area _____

Line Pool Number	Line Type	Type of Dialing	Number of Area Codes or Exchanges for which Line Pool is Used
		T L	
		T L	
		T L	
		T L	
		T L	
		T L	
		T L	
		T L	

T = Toll, L = Local

Default line pool for toll calls: _____

Default line pool for local calls: _____

Form for Automatic Route Selection Table 0

Total number of 6-digit tables: _____

Is this a 6-digit table? Y N

Area Code/Exchanges

#6000	#6001	#6002	#6003	#6004
#6005	#6006	#6007	#6008	#6009
#6010	#6011	#6012	#6013	#6014
#6015	#6016	#6017	#6018	#6019
#6020	#6021	#6022	#6023	#6024
#6025	#6026	#6027	#6028	#6029
#6030	#6031	#6032	#6033	#6034
#6035	#6036	#6037	#6038	#6039
#6040	#6041	#6042	#6043	#6044
#6045	#6046	#6047	#6048	#6049
#6050	#6051	#6052	#6053	#6054
#6055	#6056	#6057	#6058	#6059
#6060	#6061	#6062	#6063	#6064
#6065	#6066	#6067	#6068	#6069
#6070	#6071	#6072	#6073	#6074
#6075	#6076	#6077	#6078	#6079
#6080	#6081	#6082	#6083	#6084
#6085	#6086	#6087	#6088	#6089
#6090	#6091	#6092	#6093	#6094
#6095	#6096	#6097	#6098	#6099

Pool	Other Digits	Absorb
#700	_____	#700
#701	_____	#701
#702	_____	#702
#703	_____	#703
#704	_____	#704
#705	_____	#705

Form for Automatic Route Selection Table 1

Is this a 6-digit table? Y N

Area Code/Exchanges

#6100	___	#6101	___	#6102	___	#6103	___	#6104	___
#6105	___	#6106	___	#6107	___	#6108	___	#6109	___
#6110	___	#6111	___	#6112	___	#6113	___	#6114	___
#6115	___	#6116	___	#6117	___	#6118	___	#6119	___
#6120	___	#6121	___	#6122	___	#6123	___	#6124	___
#6125	___	#6126	___	#6127	___	#6128	___	#6129	___
#6130	___	#6131	___	#6132	___	#6133	___	#6134	___
#6135	___	#6136	___	#6137	___	#6138	___	#6139	___
#6140	___	#6141	___	#6142	___	#6143	___	#6144	___
#6145	___	#6146	___	#6147	___	#6148	___	#6149	___
#6150	___	#6151	___	#6152	___	#6153	___	#6154	___
#6155	___	#6156	___	#6157	___	#6158	___	#6159	___
#6160	___	#6161	___	#6162	___	#6163	___	#6164	___
#6165	___	#6166	___	#6167	___	#6168	___	#6169	___
#6170	___	#6171	___	#6172	___	#6173	___	#6174	___
#6175	___	#6176	___	#6177	___	#6178	___	#6179	___
#6180	___	#6181	___	#6182	___	#6183	___	#6184	___
#6185	___	#6186	___	#6187	___	#6188	___	#6189	___
#6190	___	#6191	___	#6192	___	#6193	___	#6194	___
#6195	___	#6196	___	#6197	___	#6198	___	#6199	___

Pool	Other Digits	Absorb
#710	_____	#710
#711	_____	#711
#712	_____	#712
#713	_____	#713
#714	_____	#714
#715	_____	#715

Form for Automatic Route Selection Table 2

Is this a 6-digit table? Y N

Area Code/Exchanges

#6200	#6201	#6202	#6203	#6204
#6205	#6206	#6207	#6208	#6209
#6210	#6211	#6212	#6213	#6214
#6215	#6216	#6217	#6218	#6219
#6220	#6221	#6222	#6223	#6224
#6225	#6226	#6227	#6228	#6229
#6230	#6231	#6232	#6233	#6234
#6235	#6236	#6237	#6238	#6239
#6240	#6241	#6242	#6243	#6244
#6245	#6246	#6247	#6248	#6249
#6250	#6251	#6252	#6253	#6254
#6255	#6256	#6257	#6258	#6259
#6260	#6261	#6262	#6263	#6264
#6265	#6266	#6267	#6268	#6269
#6270	#6271	#6272	#6273	#6274
#6275	#6276	#6277	#6278	#6279
#6280	#6281	#6282	#6283	#6284
#6285	#6286	#6287	#6288	#6289
#6290	#6291	#6292	#6293	#6294
#6295	#6296	#6297	#6298	#6299

Pool	Other Digits	Absorb
#720	_____	#720
#721	_____	#721
#722	_____	#722
#723	_____	#723
#724	_____	#724
#725	_____	#725

Form for Automatic Route Selection Table 3

Is this a 6-digit table? Y N

Area Code/Exchanges

#6300	#6301	#6302	#6303	#6304
#6305	#6306	#6307	#6308	#6309
#6310	#6311	#6312	#6313	#6314
#6315	#6316	#6317	#6318	#6319
#6320	#6321	#6322	#6323	#6324
#6325	#6326	#6327	#6328	#6329
#6330	#6331	#6332	#6333	#6334
#6335	#6336	#6337	#6338	#6339
#6340	#6341	#6342	#6343	#6344
#6345	#6346	#6347	#6348	#6349
#6350	#6351	#6352	#6353	#6354
#6355	#6356	#6357	#6358	#6359
#6360	#6361	#6362	#6363	#6364
#6365	#6366	#6367	#6368	#6369
#6370	#6371	#6372	#6373	#6374
#6375	#6376	#6377	#6378	#6379
#6380	#6381	#6382	#6383	#6384
#6385	#6386	#6387	#6388	#6389
#6390	#6391	#6392	#6393	#6394
#6395	#6396	#6397	#6398	#6399

Pool	Other Digits	Absorb
#730	_____	#730
#731	_____	#731
#732	_____	#732
#733	_____	#733
#734	_____	#734
#735	_____	#735

Form for Automatic Route Selection Table 4

Is this a 6-digit table? . Y N

Area Code/Exchanges

#6400	#6401	#6402	#6403	#6404
#6405	#6406	#6407	#6408	#6409
#6410	#6411	#6412	#6413	#6414
#6415	#6416	#6417	#6418	#6419
#6420	#6421	#6422	#6423	#6424
#6425	#6426	#6427	#6428	#6429
#6430	#6431	#6432	#6433	#6434
#6435	#6436	#6437	#6438	#6439
#6440	#6441	#6442	#6443	#6444
#6445	#6446	#6447	#6448	#6449
#6450	#6451	#6452	#6453	#6454
#6455	#6456	#6457	#6458	#6459
#6460	#6461	#6462	#6463	#6464
#6465	#6466	#6467	#6468	#6469
#6470	#6471	#6472	#6473	#6474
#6475	#6476	#6477	#6478	#6479
#6480	#6481	#6482	#6483	#6484
#6485	#6486	#6487	#6488	#6489
#6490	#6491	#6492	#6493	#6494
#6495	#6496	#6497	#6498	#6499

Pool

Other Digits

Absorb

#740	_____	#740
#741	_____	#741
#742	_____	#742
#743	_____	#743
#744	_____	#744
#745	_____	#745

Form for Automatic Route Selection Table 5

Is this a 6-digit table? Y N

Area Code/Exchanges

#6500	___	#6501	___	#6502	___	#6503	___	#6504	___
#6505	___	#6506	___	#6507	___	#6508	___	#6509	___
#6510	___	#6511	___	#6512	___	#6513	___	#6514	___
#6515	___	#6516	___	#6517	___	#6518	___	#6519	___
#6520	___	#6521	___	#6522	___	#6523	___	#6524	___
#6525	___	#6526	___	#6527	___	#6528	___	#6529	___
#6530	___	#6531	___	#6532	___	#6533	___	#6534	___
#6535	___	#6536	___	#6537	___	#6538	___	#6539	___
#6540	___	#6541	___	#6542	___	#6543	___	#6544	___
#6545	___	#6546	___	#6547	___	#6548	___	#6549	___
#6550	___	#6551	___	#6552	___	#6553	___	#6554	___
#6555	___	#6556	___	#6557	___	#6558	___	#6559	___
#6560	___	#6561	___	#6562	___	#6563	___	#6564	___
#6565	___	#6566	___	#6567	___	#6568	___	#6569	___
#6570	___	#6571	___	#6572	___	#6573	___	#6574	___
#6575	___	#6576	___	#6577	___	#6578	___	#6579	___
#6580	___	#6581	___	#6582	___	#6583	___	#6584	___
#6585	___	#6586	___	#6587	___	#6588	___	#6589	___
#6590	___	#6591	___	#6592	___	#6593	___	#6594	___
#6595	___	#6596	___	#6597	___	#6598	___	#6599	___

Pool	Other Digits	Absorb
#750	_____	#750
#751	_____	#751
#752	_____	#752
#753	_____	#753
#754	_____	#754
#755	_____	#755

Form for Automatic Route Selection Table 6

Is this a 6-digit table? Y N

Area Code/Exchanges

#6600	#6601	#6602	#6603	#6604
#6605	#6606	#6607	#6608	#6609
#6610	#6611	#6612	#6613	#6614
#6615	#6616	#6617	#6618	#6619
#6620	#6621	#6622	#6623	#6624
#6625	#6626	#6627	#6628	#6629
#6630	#6631	#6632	#6633	#6634
#6635	#6636	#6637	#6638	#6639
#6640	#6641	#6642	#6643	#6644
#6645	#6646	#6647	#6648	#6649
#6650	#6651	#6652	#6653	#6654
#6655	#6656	#6657	#6658	#6659
#6660	#6661	#6662	#6663	#6664
#6665	#6666	#6667	#6668	#6669
#6670	#6671	#6672	#6673	#6674
#6675	#6676	#6677	#6678	#6679
#6680	#6681	#6682	#6683	#6684
#6685	#6686	#6687	#6688	#6689
#6690	#6691	#6692	#6693	#6694
#6695	#6696	#6697	#6698	#6699

Pool

Other Digits

Absorb

#760	_____	#760
#761	_____	#761
#762	_____	#762
#763	_____	#763
#764	_____	#764
#765	_____	#765

Form for Automatic Route Selection Table 7

Is this a 6-digit table? Y N

Area Code/Exchanges

#6700	#6701	#6702	#6703	#6704
#6705	#6706	#6707	#6708	#6709
#6710	#6711	#6712	#6713	#6714
#6715	#6716	#6717	#6718	#6719
#6720	#6721	#6722	#6723	#6724
#6725	#6726	#6727	#6728	#6729
#6730	#6731	#6732	#6733	#6734
#6735	#6736	#6737	#6738	#6739
#6740	#6741	#6742	#6743	#6744
#6745	#6746	#6747	#6748	#6749
#6750	#6751	#6752	#6753	#6754
#6755	#6756	#6757	#6758	#6759
#6760	#6761	#6762	#6763	#6764
#6765	#6766	#6767	#6768	#6769
#6770	#6771	#6772	#6773	#6774
#6775	#6776	#6777	#6778	#6779
#6780	#6781	#6782	#6783	#6784
#6785	#6786	#6787	#6788	#6789
#6790	#6791	#6792	#6793	#6794
#6795	#6796	#6797	#6798	#6799

Pool	Other Digits	Absorb
#770	_____	#770
#771	_____	#771
#772	_____	#772
#773	_____	#773
#774	_____	#774
#775	_____	#775

Form for ARS Default and Special Number Tables

FORM FOR TABLE 8: DEFAULT TOLL TABLE

Pool	Other Digits	Absorb
#780	_____	#780
#781	_____	#781
#782	_____	#782
#783	_____	#783
#784	_____	#784
#785	_____	#785

FORM FOR TABLE 9: DEFAULT LOCAL TABLE

Pool	Other Digits	Absorb
#790	_____	#790
#791	_____	#791
#792	_____	#792
#793	_____	#793
#794	_____	#794
#795	_____	#795

FORM FOR SPECIAL NUMBERS TABLE (411, 611, 911, 800, 900, 0)

Pool	Other Digits	Absorb
9	#800 _____	0

Flexible Numbering Form

Default Line No.	Flexible No.	Default Line No.	Flexible No.	Default Line Pool No.	Flexible No.	Default Paging Group No.	Flexible No.	Default Group Call Distribution Group No.*	Flexible No.
801		829		9		881		870	
802		830		890		882		871	
803		831		891		883		872	
804		832		892		884		873	
805		833		893		885		874	
806		834		894		886		875	
807		835		895		887			
808		836		896					
809		837		897					
810		838		898					
811		839		899					
812		840							
813		841							
814		842							
815		843							
816		844							
817		845							
818		846							
819		847							
820		848							
821		849							
822		850							
823		851							
824		852							
825		853							
826		854							
827		855							
828		856							

*If you change these numbers and have Data Hunt Groups, the Data Hunt Group numbers change also but with an * preceding those numbers.

Note: Agent splits for the MERLIN II Call Management System (CMS) are assigned numbers 780 through 783 by default

Flexible Numbering Form

Station Jack No.	Default Intercom No.	Init SP No.	Flexible No.	Station Jack No.	Default Intercom No.	Init SP No.	Flexible No.	Station Jack No.	Default Intercom No.	Init SP No.	Flexible No.
1	10	7010		31	40	7040		61	700	7700	
2	11	7011		32	41	7041		62	701	7701	
3	12	7012		33	42	7042		63	702	7702	
4	13	7013		34	43	7043		64	703	7703	
5	14	7014		35	44	7044		65	704	7704	
6	15	7015		36	45	7045		66	705	7705	
7	16	7016		37	46	7046		67	706	7706	
8	17	7017		38	47	7047		68	707	7707	
9	18	7018		39	48	7048		69	708	7708	
10	19	7019		40	49	7049		70	709	7709	
11	20	7020		41	50	7050		71	710	7710	
12	21	7021		42	51	7051		72	711	7711	
13	22	7022		43	52	7052		73	712	7712	
14	23	7023		44	53	7053		74	713	7713	
15	24	7024		45	54	7054		75	714	7714	
16	25	7025		46	55	7055		76	715	7715	
17	26	7026		47	56	7056		77	716	7716	
18	27	7027		48	57	7057		78	717	7717	
19	28	7028		49	58	7058		79	718	7718	
20	29	7029		50	59	7059		80	719	7719	
21	30	7030		51	60	7060		81	720	7720	
22	31	7031		52	61	7061		82	721	7721	
23	32	7032		53	62	7062		83	722	7722	
24	33	7033		54	63	7063		84	723	7723	
25	34	7034		55	64	7064		85	724	7724	
26	35	7035		56	65	7065		86	725	7725	
27	36	7036		57	66	7066		87	726	7726	
28	37	7037		58	67	7067		88	727	7727	
29	38	7038		59	68	7068					
30	39	7039		60	69	7069					

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The advanced technology of the MERLIN[®] II Communications System allows you to customize the system to meet your particular business communication needs. As system administrator, you'll probably be responsible for establishing the basic operating conditions of your MERLIN II system right after installation. This includes such essential steps as setting the system size and assigning lines to voice terminals.

You can set up optional systemwide features such as Call Restriction, Group Page, and Automatic Route Selection during your first administration session. Or, if you prefer, you can add them later, according to your business priorities. And if your needs change over time, you can easily alter your MERLIN II system to meet your new communication requirements.

THE DIFFERENCE BETWEEN ADMINISTRATION AND PROGRAMMING

Because the effects of system administration are wide-ranging, only you or someone you delegate should perform administration procedures. It's important to understand the difference between the changes you make to the system when you administer it and changes that people make to their own voice terminals when they program them.

- The term *administer* as used in this manual refers to the act of setting up options and features that have systemwide impact or that provide telephone security. This includes such actions as creating line pools and restricting the dialing area of selected voice terminals. You use the administrator/attendant console (the voice terminal that has intercom number 10) to administer your system. To perform administration, you put the system in a special state of operation called administration mode.
- The term *program* refers to assigning optional features to an individual voice terminal. Anyone can put a voice terminal in programming mode and assign features to it. Programmable features don't affect the system as a whole or involve calling restrictions.

HOW TO USE THIS SECTION OF THE MANUAL

How you use this section of the manual depends on the type of system you have. If you're administering a newly installed system, follow the steps under "Setting Up a New System." If you're administering an existing system, follow the steps under "Making Changes to a System."

Setting Up a New System

Read the following if your system is newly installed:

- 1 Follow the instructions in "Step 1: Gather the Planning Forms and Label the Buttons." This involves collecting the forms that you filled out in Section 2, "Planning the System," and labeling the buttons on the administrator/attendant console.
- 2 Read through "Step 2: Learn About the System Components," to familiarize yourself with the MERLIN II equipment.
- 3 Read the introductory material in "Step 3: Perform Basic Administration." Then perform the procedures required for your system.
- 4 Get your completed planning forms and review the system options you selected. Turn to "Step 4: Customize with Optional Systemwide Features," and perform the appropriate procedures.

-
- 5 If you want to assign features to individual voice terminals, get your completed Voice Terminal Configuration Forms and review the features you selected. Turn to "Step 5: Program Voice Terminals for Office Priorities," and complete the appropriate procedures.
 - 6 If your system has basic telephones, turn to "Step 6: Administer Basic Telephones," and follow the instructions.

Making Changes to a System

Read the following if you need to change an administered system:

- 1 Locate the completed forms for the system settings or features you plan to change.
- 2 If you aren't familiar with the MERLIN II system, read "Step 2: Learn About the System Components."
- 3 Read "If You Make Basic Changes to an Administered System" in "Step 3: Perform Basic Administration."
- 4 Record the changes you plan to make on the appropriate forms.
- 5 If you need just the steps for changing settings or features, find the appropriate procedures in "Quick Reference Guide to System Administration," found in Section 7, "Quick Reference Guides." If you want complete descriptions and detailed instructions, turn to the appropriate entries in this section of the manual or in Section 6, "Reference."

Step 1: Gather the Planning Forms and Label the Buttons

PLANNING FORMS

When you ordered your MERLIN II system, you may have received a MERLIN II Planning Guide. It contains the forms listed below.

- Master Planning Form
- System Configuration Form
- Voice Terminal Configuration Forms
- Enhanced Night Service Forms
- Call Restrictions and Allowed Lists Forms
- Group Page Form
- Group Call Distribution Forms
- System Speed Dial Form
- Forms for Automatic Route Selection Tables

You use the completed forms to set up your MERLIN II system for the first time and to make changes to your system. If you haven't filled out the forms that apply to your system, do so now. Section 2, "Planning the System," contains copies of the forms and instructions for completing them.

Keep the completed forms handy. You'll refer to them when you perform most administration procedures.

ADMINISTRATOR/ ATTENDANT CONSOLE BUTTON LABELS

Your administrator/attendant console, the voice terminal at intercom number 10, came with a sheet of labels for recording telephone numbers and features assigned to buttons. Before you begin administering your system, you need to label the buttons on your console.

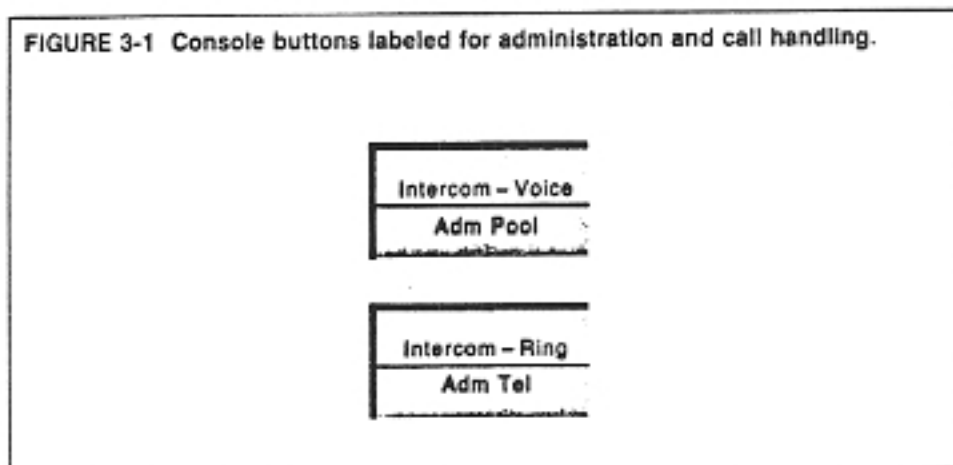
If you haven't already done so, get the Voice Terminal Configuration Form for your administrator/attendant console. It shows what telephone number or feature, if any, should be assigned to each button on the console.

The bottom two buttons in the leftmost column of buttons on the administrator/attendant console have different functions when the console is in the administration mode. Therefore, you need to make two entries on the labels for those buttons, as shown in Figure 3-1, unless you have a display console. Because the display console has an overlay showing the buttons' functions when the system is in the administration mode, you don't need to record administration functions on the button labels for that console.

Label the bottom button in the leftmost column above the dial pad "Intercom-Ring." That is the button's function in regular call-handling mode. On the same label, below "Intercom-Ring," write "Adm Tel," the function the button takes on when the console is in the administration mode. You may want to record "Adm Tel" in a different color from "Intercom-Ring."

Label the button above **Intercom-Ring** "Intercom-Voice." That is the button's function in regular call-handling mode. On the same label, write "Adm Pool," the function the button takes on when the console is in the administration mode. You may want to record "Adm Pool" in a different color from "Intercom-Voice."

FIGURE 3-1 Console buttons labeled for administration and call handling.



Now you're ready to label the other line buttons that you'll use to administer your system. Consulting the Voice Terminal Configuration Form, copy the telephone numbers or names of your outside lines onto the appropriate button labels.

Step 2: Learn About the System Components

The three basic components of the MERLIN II system are the control unit, the administrator/attendant console, and the individual voice terminals. Your system may also include optional equipment that increases its capabilities. Before you administer your system, learn about your system components by reading the following information.

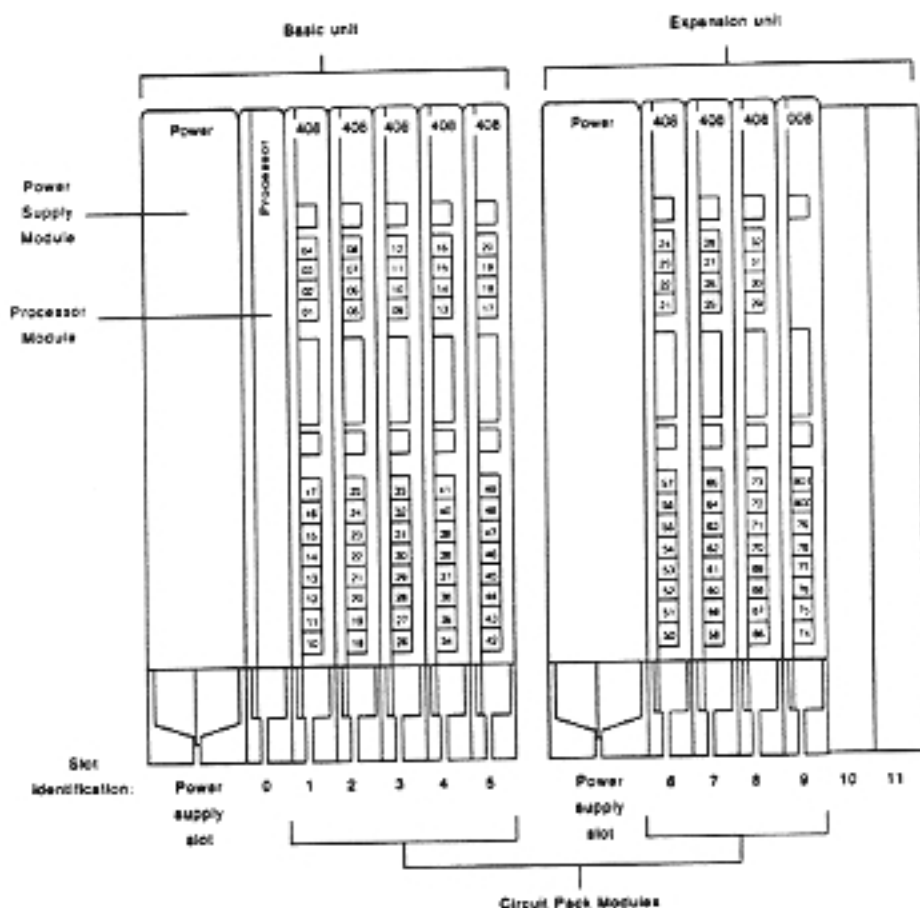
THE CONTROL UNIT

Your control unit consists of either a basic unit or a basic unit plus an expansion unit. The expansion unit provides extra power and additional connections for lines and equipment. See Figure 3-2.

The basic unit has slots for a Power Supply Module and a Processor Module. These modules supply power and direct system operation. The basic unit also has slots for up to five other modules that provide jack connections for telephone lines, voice terminals, and other equipment. The expansion unit has slots for a Power Supply Module and up to six other modules that provide additional jack connections.

Your MERLIN II system may include up to 32 outside lines and as many as 72 connections for voice terminals or other equipment, depending on the combination of modules installed.

FIGURE 3-2 A typical MERLIN II system control unit.



Types of Modules

Each MERLIN II system module is encased in a plastic housing that is labeled to identify the module type. Each jack is accessed through a cutout in the front of the housing.

The following modules are used in the MERLIN II system:

Power Supply Module A Power Supply Module always occupies the leftmost slot on the basic unit and the leftmost slot in the expansion unit, if you have one. It supplies power to the other modules in the unit. There is an on/off switch at the bottom of the module. When the power is on, a green light glows next to the switch.

If you have a power supply module for an expansion unit, keep this in mind:

- Turn the power switch on at the power supply module in the expansion unit *before* you turn the power switch on at the power supply module in the basic unit.
- Turn the power switch off at the power supply module in the expansion unit *after* you turn the power switch off at the power supply module in the basic unit.

If your system has many optional accessories, you may need to plug an auxiliary power supply into the power supply module.

Processor Module The processor module always occupies the second slot (slot 0) in the basic unit (there is no processor module in the expansion unit). This module contains the microprocessor that controls the system's programs and features.

This module has:

- A jack for an optional 1200-baud serial printer. The printer is used for the Call Report feature and for system reports.
- A connector for the optional Diagnostic Module, which tests and isolates module problems.
- A red warning light, which goes on when a problem occurs in the system. The light goes on briefly when the system's power is turned on and during some administration procedures.

Circuit Pack Modules Circuit Pack Modules can occupy slots 1 through 5 in the basic unit and slots 6 through 11 in the expansion unit. The circuit pack modules are interchangeable during installation, with one exception: the module in slot 1 in the basic unit must be a 4-Line/8-Analog Voice Terminal (408) Module or an 8-Analog Voice Terminal (008) Module. Modules for digital stations or basic telephones can't occupy slot 1 in the basic unit.

NOTE: The term "station" refers to the endpoint of any connection within the MERLIN II system. This includes a voice terminal, a General Purpose Adapter (GPA), a modem, a data terminal, or a personal computer.

The various types of circuit pack modules are listed below.

- **4-Line/8-Analog Voice Terminal (408) Module** has jacks for four outside lines and eight analog voice terminals or other stations. This module, which usually occupies the first circuit pack slot in the basic unit, also has an auxiliary line jack. This jack provides the connection for the PFT (Power Failure Telephone), a standard modular telephone to which service is switched automatically if a power outage occurs.
- **8-Analog Voice Terminal (008) Module** has jacks for eight analog stations.
- **8-Digital Station (008D) Module** has jacks for eight digital stations.
- **4-Line (400) Module** has jacks for four outside lines and one PFT jack.
- **8-Line (800) Module** has jacks for eight outside lines and two PFT jacks.
- **12-Basic Telephone (012) Module (With Touch-Tone Receiver)** has jacks for twelve basic telephones with Touch-Tone Receiver capability.

Your system may have any combination of circuit pack modules, depending on the number of lines and stations you have and the types of equipment your MERLIN II system supports.

When your system was installed, the installer should have placed jack labels on each circuit pack module. These labels identify station jacks by station number (0 through 79, 800, and 801) and line jacks by line number (01 through 32).

Module Placement

As mentioned previously, the power supply module and the processor module have slots reserved for them in the basic unit. Slot 1 in the basic unit must contain a 4-line/8-analog voice terminal module or an 8-analog voice terminal module. Other circuit pack modules are installed in the next available slots, starting from the left. If your control unit has any empty slots, an empty module in the rightmost slot, supplied with the system, supports the cover.

Circuit pack modules can be installed in any order. Different types of circuit modules aren't interchangeable, however, once the system is running. When you perform basic administration procedures, the system identifies the location of each module type and assigns lines and intercom numbers accordingly. As a result, replacing a module with one of a different type may require readministration of your entire system.

THE ADMINISTRATOR/ ATTENDANT CONSOLE

The administrator/attendant console is the voice terminal at intercom number 10. The console has two functions:

- It serves as the *administrator console* when you put it into administration mode. In this mode, you use the console to establish the basic operating conditions for your system and to set up optional systemwide features and call restrictions. You can also assign features to individual voice terminals from the console.
- It serves as your *primary attendant console* for day-to-day call handling. You can put the attendant console into programming mode to program features onto it for the attendant's use.

As part of basic administration, you identify your system as small or large. This action determines what lines and features your system automatically assigns to your administrator/attendant console.

There are four types of administrator/attendant consoles. They are:

- **Console for Small Systems.** A 34-button deluxe voice terminal used with systems administered for 8 or fewer lines and 20 or fewer voice terminals (Figure 3-3).
- **Console for Large Systems.** A 34-button deluxe voice terminal used with systems administered for more than 8 lines or more than 20 voice terminals (Figure 3-4).
- **Console with Attendant Intercom Selector.** A 34-button deluxe voice terminal with an attached Attendant Intercom Selector (Figure 3-5).
- **Display Console.** A MERLIN II system display console (Figure 3-6).

Get the Voice Terminal Configuration Form for your administrator/attendant console (intercom number 10). Check to see that the type of administrator/attendant console you're using is recorded correctly on that form and on the System Configuration Form. Get the Master Planning Form as well. If you have a 34-button console for small systems, a console with Attendant Intercom Selector, or a display console, you refer to these forms to label each Auto Intercom button that appears on your console when the system is in administration mode.

34-BUTTON CONSOLE FOR LARGE SYSTEMS

The 34-button console for large systems doesn't have Auto Intercom buttons for voice terminals while in administration mode. With this console, you use the dial pad rather than an Auto Intercom button to specify a particular voice terminal during system administration.

If you have an 34-button console for large systems, look at Figure 3-4, then go on to "Optional Equipment."

OTHER CONSOLES

The 34-button console for small systems, the console with Attendant Intercom Selector, and the display console have Auto Intercom buttons assigned automatically by the system. If you have a console with an Attendant Intercom Selector or a display console, you may use Shift buttons along with your Auto Intercom buttons.

Using Auto Intercom Buttons in Administration Mode

Each voice terminal in your system has a unique intercom number. These intercom numbers are automatically assigned to Auto Intercom buttons on all consoles except the 34-button console for large systems. The lights next to each Auto Intercom button indicate the status of the voice terminal.

Auto Intercom buttons correspond to station jack connections on modules in the control unit. Usually, one station jack is used for each voice terminal, and the Auto Intercom button represents the voice terminal connected to that station jack.

In some cases, however, two station jacks may be used for a single voice terminal. The second jack is used to give the voice terminal access to the Voice Announcement to Busy Voice Terminal feature or the Simultaneous Voice and Data feature.

Your Master Planning Form shows which voice terminals, if any, have two station jacks and thus two intercom numbers. Remember that people can use only the first (lower) intercom number to place calls to that voice terminal.

Labeling Auto Intercom Buttons

Refer to the Station Jacks side of the Master Planning Form, which shows the intercom number assigned to each voice terminal in your system. Copy the name, location, or special purpose of each Auto Intercom button onto the appropriate spaces on the button labels provided for your administrator/attendant console.

If you have a display console, intercom numbers aren't preprinted on the button labels. Refer to figure 3-6 for the correct numbers. Keep in mind that, if you have more than 40 voice terminals in your system, some labels will have two entries. Write the lower intercom number on the top half of the button label and the higher intercom number on the bottom half.

Using Shift Buttons

Consoles with Attendant Intercom Selectors and display consoles have Shift buttons that let you administer as many as 72 stations using just the 30 or 40 Auto Intercom buttons provided.

Console with Attendant Intercom Selector The Attendant Intercom Selector has three Shift buttons and 30 Auto Intercom buttons. When you touch one of the Shift buttons, you change the intercom numbers assigned to the Auto Intercom buttons, as follows:

Button Position	Label	Selects Intercom Numbers
Left	10-20-30	10 through 39 (blue band)
Center	40-50-60	40 through 69 (white band)
Right	70-80	70 through 79, 800, 801 (gray band)

To specify a particular voice terminal, you must have your console in the band (blue, white, or gray) that includes that voice terminal's intercom number. If you don't, you must touch the appropriate Shift button before touching the Auto Intercom button.

For example, if you want to assign lines to the voice terminal represented by intercom number 41, touch the center Shift button. The light next to that Shift button comes on, and the Auto Intercom buttons now represent intercom numbers 40 through 69, in the white band.

Console with Display Display consoles have two Shift buttons, Shift 1 and Shift 2. When you touch one of the Shift buttons, you change the intercom numbers assigned to the Auto Intercom buttons, as follows:

Button Position	Label	Selects Intercom Numbers
Left	Shift 1	10 through 49
Right	Shift 2	50 through 79, 800, 801

If you want to specify a particular voice terminal, the light must be on next to the Shift button for the group (1 or 2) that contains that voice terminal's intercom number. If it isn't, be sure to touch the appropriate Shift button before touching the Auto Intercom button.

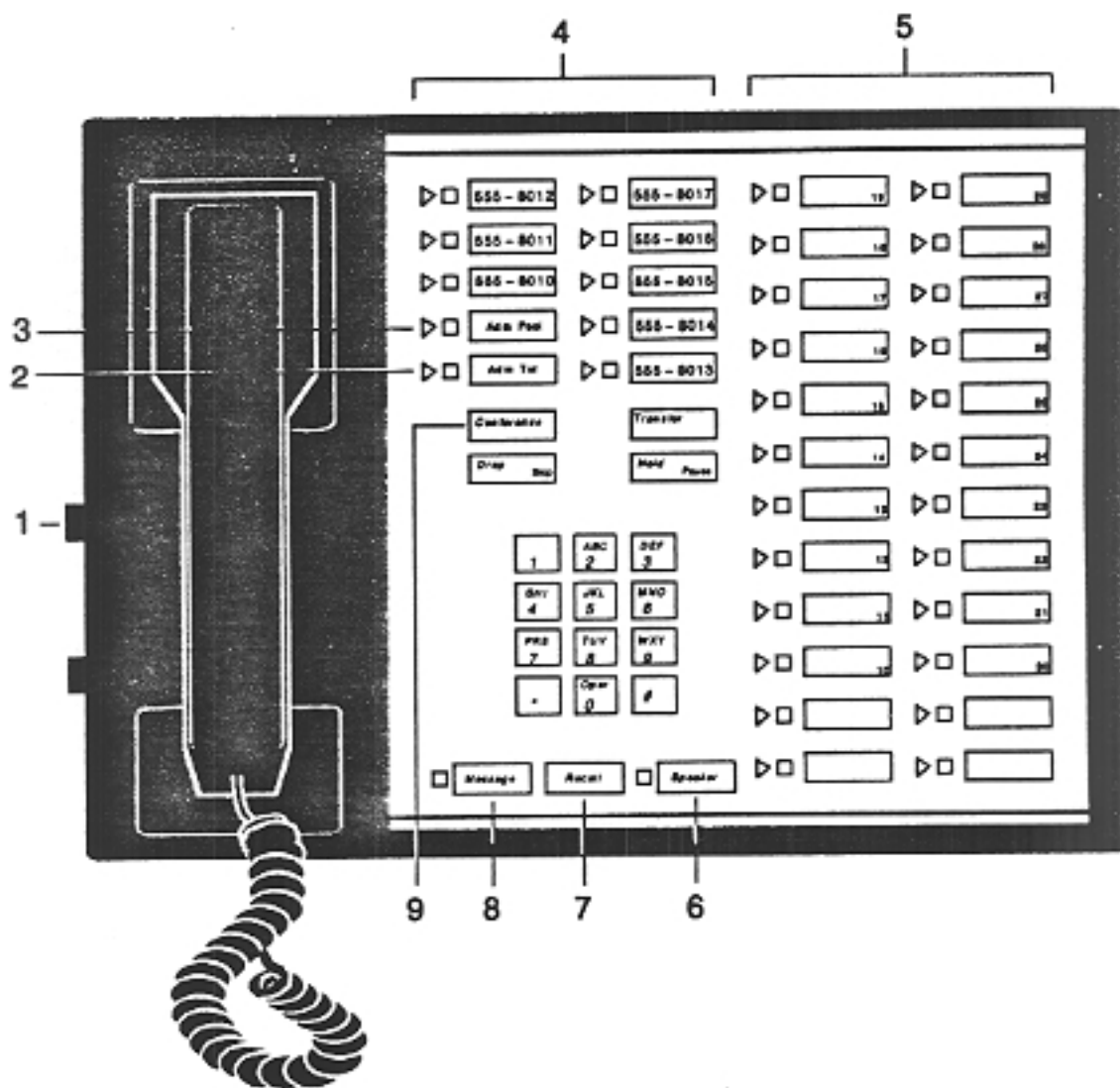
For example, if you want to assign lines to the voice terminal represented by intercom number 61, touch **Shift 2**. The light next to **Shift 2** comes on, and the Auto Intercom buttons now represent intercom numbers 50 through 79, 800, and 801.

Figures 3-3 through 3-6 show the administrator/attendant console in administration mode. Note that the Speaker, Recall, Message, and Conference buttons serve different functions in administration mode than they do during regular call-handling mode.

How you use the information that follows the figures depends on the type of console you have.

- If you have a 34-button console for small systems, look at Figure 3-3, then go on to "Optional Equipment."
- If you have a console with Attendant Intercom Selector, look at Figure 3-5, then go on to "Optional Equipment."
- If you have a display console, look at Figure 3-6, then read "Using the Display During Administration."

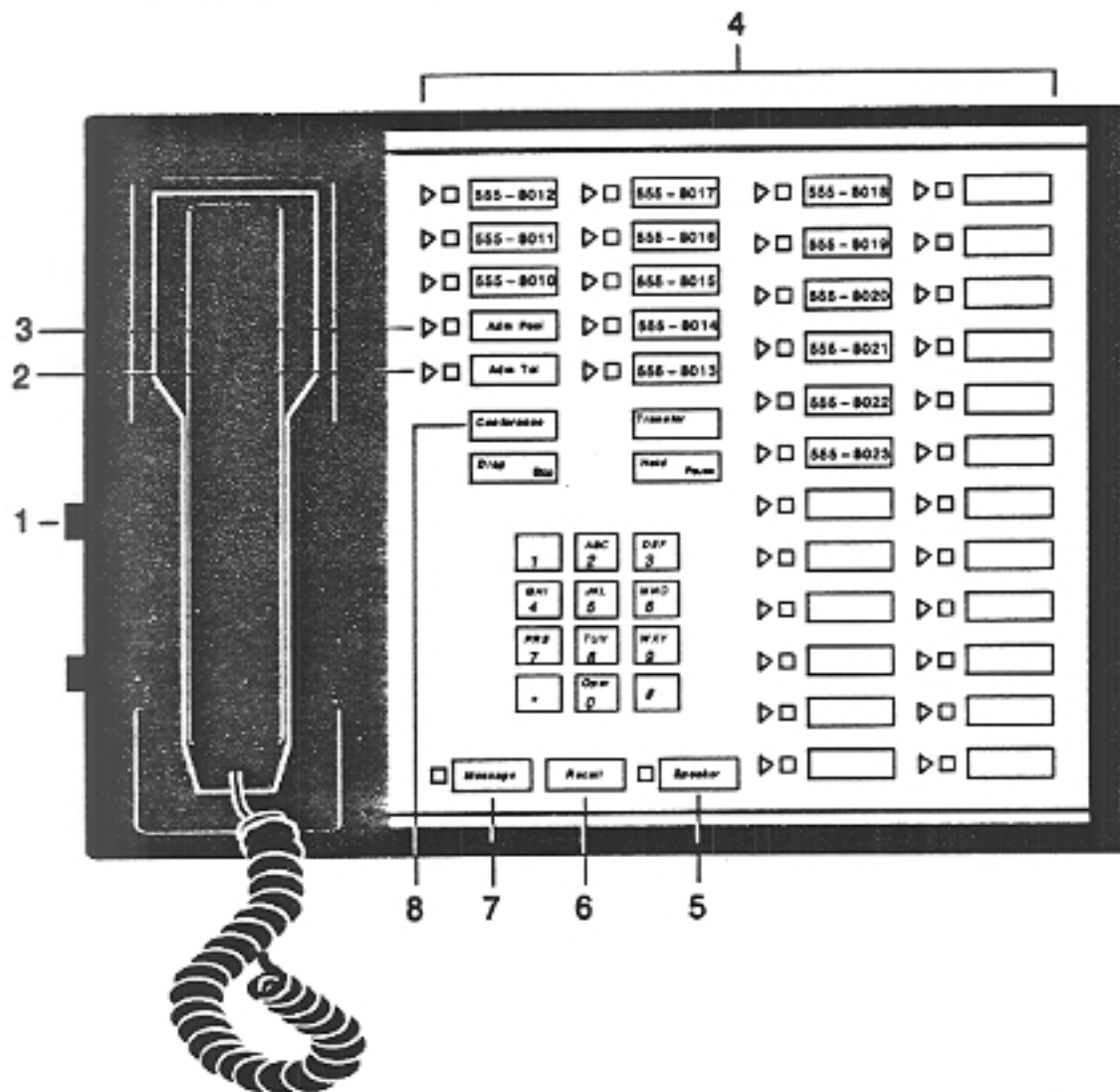
FIGURE 3-3 A 34-button console for small systems* in administration mode.



- 1 **T/P switch**—set to *P* when performing system administration.
- 2 **Adm Tel button**—used when assigning lines to voice terminals and assigning voice terminals Dial Access to Line Pools.
- 3 **Adm Pool button**—used when setting up line pools.
- 4 **Line buttons**—used when assigning lines and line pools to voice terminals and administering certain features. Buttons represent buttons on voice terminals during Centralized Programming.
- 5 **Auto Intercom buttons** (intercom numbers 10 through 29)—used to specify the piece of equipment, usually a voice terminal, connected to the corresponding station jack at the control unit.
- 6 **Speaker button**—used when setting lines to identify a long distance call by toll prefix or area code only and when assigning outward and toll call restrictions.
- 7 **Recall button**—used when giving a voice terminal the same assignments as one that has already been administered.
- 8 **Message button**—used when specifying Touch-Tone or rotary dialing, assigning allowed-list call restrictions, and administering other system options.
- 9 **Conference button**—used to enter administration mode and to assign features to voice terminals from the console (Centralized Programming).

*Systems configured for 8 or fewer lines and 20 or fewer voice terminals

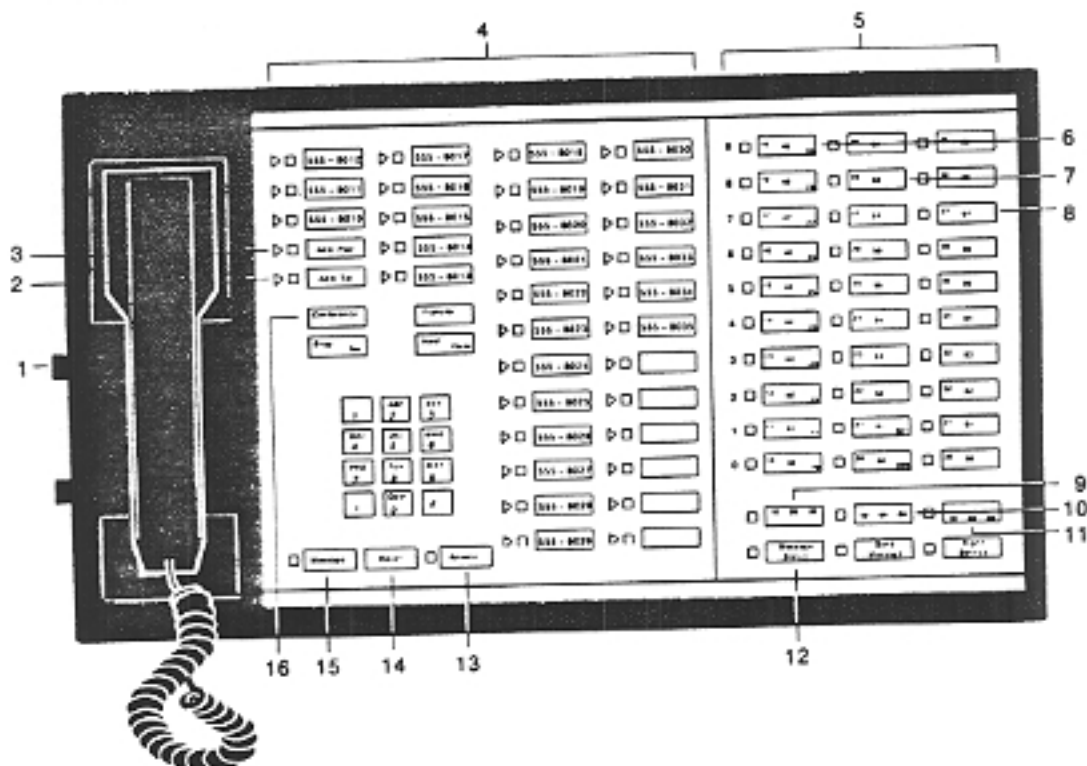
FIGURE 3-4 A 34-button console for large systems* in administration mode.



- 1 **T/P switch**—set to *P* when performing system administration.
- 2 **Adm Tel button**—used when assigning lines to voice terminals and assigning voice terminals Dial Access to Line Pools.
- 3 **Adm Pool button**—used when setting up line pools.
- 4 **Line buttons**—used when assigning lines and line pools to voice terminals and administering certain features. Buttons represent buttons on voice terminals during Centralized Programming.
- 5 **Speaker button**—used when setting lines to identify a long distance call by toll prefix or area code only and when assigning outward and toll call restrictions.
- 6 **Recall button**—used when giving a voice terminal the same assignments as one that has already been administered.
- 7 **Message button**—used when specifying Touch-Tone or rotary dialing, assigning allowed-list call restrictions, and administering other system options.
- 8 **Conference button**—used to enter administration mode and to assign features to individual voice terminals from the administrator/attendant console.

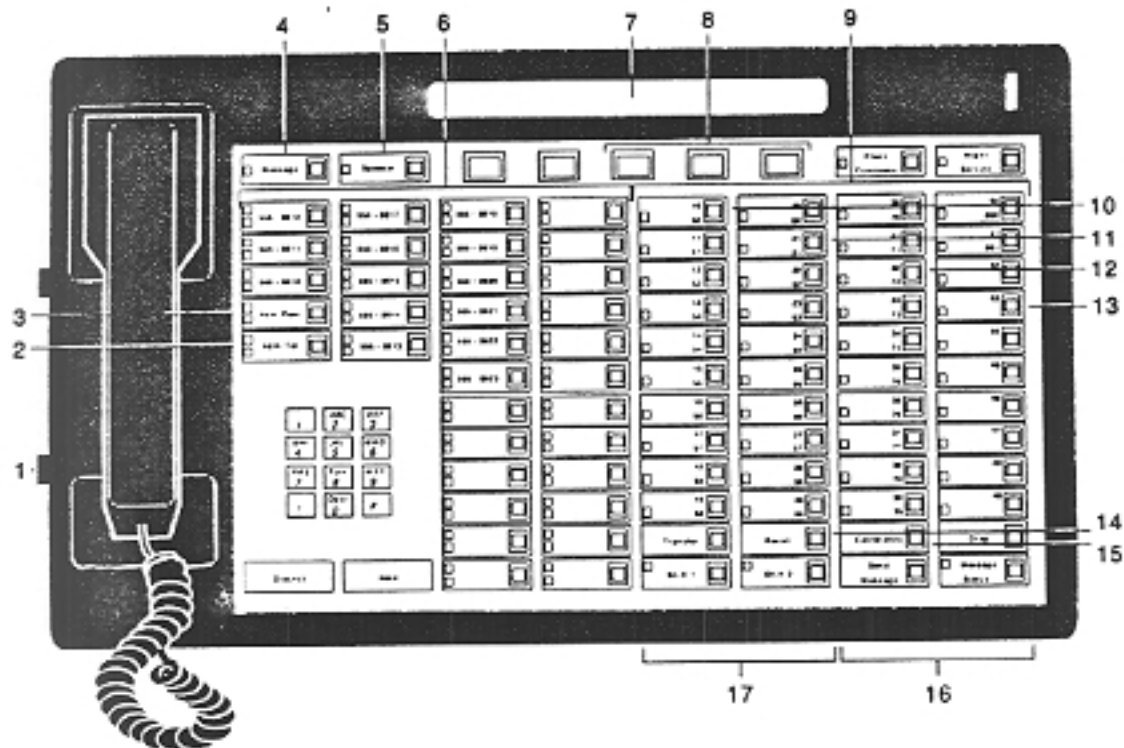
*Systems configured for more than 8 lines or more than 20 voice terminals

FIGURE 3-5 A console with Attendant Intercom Selector in administration mode.



- 1 T/P switch—set to P when performing system administration.
- 2 Adm Tel button—used when assigning lines to voice terminals and assigning voice terminals Dial Access to Line Pools.
- 3 Adm Pool button—used when setting up line pools.
- 4 Line buttons—used when assigning lines and line pools to voice terminals and administering certain features. Buttons represent buttons on voice terminals during Centralized Programming.
- 5 Auto Intercom buttons (intercom numbers 10 through 79, 800, and 801)—used to specify the piece of equipment, usually a voice terminal, connected to the corresponding station jack at the control unit.
- 6 Buttons in this column represent intercom numbers 10 through 19, 40 through 49, or 70 through 79, depending on which Shift button you touch.
- 7 Buttons in this column represent intercom numbers 20 through 29, 50 through 59, or 800 and 801, depending on which Shift button you touch.
- 8 Buttons in this column represent intercom numbers 30 through 39 or 60 through 69, depending on which Shift button you touch.
- 9 10 20 30 Shift button—used to access Auto Intercom buttons for intercom numbers 10 through 39.
- 10 40 50 60 Shift button—used to access Auto Intercom buttons for intercom numbers 40 through 69.
- 11 70 80 90 Shift Button—used to access Auto Intercom buttons for intercom numbers 70 through 79, 800, and 801.
- 12 Message Status button—not used during administration. Be sure the light next to the button remains off while the console is in administration mode.
- 13 Speaker button—used when setting lines to identify a long distance call by toll prefix or area code only and when assigning outward and toll call restrictions to voice terminals.
- 14 Recall button—used when giving a voice terminal the same assignments as one that has already been administered.
- 15 Message button—used when specifying Touch-Tone or rotary dialing, assigning allowed-list call restrictions, and administering other system options.
- 16 Conference button—used to enter administration mode and to assign features to voice terminals from the console (Centralized Programming).

FIGURE 3-6 A display console in administration mode.



- 1 **T/P switch**—set to *P* when performing system administration.
- 2 **Adm Tel button**—used when assigning lines to voice terminals and assigning voice terminals Dial Access to Line Pools.
- 3 **Adm Pool button**—used when setting up line pools.
- 4 **Message button**—used when specifying Touch-Tone or rotary dialing, assigning allowed-list call restrictions, and administering other system options.
- 5 **Speaker button**—used when setting lines to identify a long distance call by toll prefix or area code only and when assigning outward and toll call restrictions to voice terminals.
- 6 **Line buttons**—used when assigning lines and line pools to voice terminals and administering certain features. Buttons represent buttons on voice terminals during Centralized Programming.
- 7 **Display**—provides feedback during administration, including current mode and feature and “wait” messages, and echoes what you dial.
- 8 **Editing buttons**—used, for certain features, to delete characters shown on the display and to enter information.
- 9 **Auto Intercom buttons** (intercom numbers 10 through 79, 800, and 801).
- 10 **Buttons in this column** represent intercom numbers 10 through 19 (Shift 1 button) and 50 through 59 (Shift 2 button).
- 11 **Buttons in this column** represent intercom numbers 20 through 29 (Shift 1 button) and 60 through 69 (Shift 2 button).
- 12 **Buttons in this column** represent intercom numbers 30 through 39 (Shift 1 button) and 70 through 79 (Shift 2 button).
- 13 **Buttons in this column** represent intercom numbers 40 through 49 (Shift 1 button) and 800 and 801 (Shift 2 button).
- 14 **Recall button**—used when giving a voice terminal the same assignments as one that has already been administered.
- 15 **Conference button**—used when entering administration mode and assigning features to voice terminals from the console (Centralized Programming).
- 16 **Send Message and Message Status buttons**—these buttons aren’t used during administration. Be sure the light next to **Message Status** remains off while the console is in administration mode.
- 17 **Shift buttons**—used to access Auto Intercom buttons for intercom numbers 10 through 49 (Shift 1) and for intercom numbers 50 through 79, 800, and 801 (Shift 2).

USING THE DISPLAY DURING ADMINISTRATION

The console's 2-line, 40-character display provides helpful feedback while you're administering your system. The display:

- Shows which administration mode you're in.
- Gives you a "wait" message if the entire system or an individual voice terminal can't be administered.
- Shows which feature you're administering.
- Echoes what you dial and, where appropriate, prompts you to enter additional information.
- For some features, lets you review and change what you've dialed before you enter the information in the system.

Display Messages

Display messages appear at each stage of the administration process. The table below shows what you might see on the display during a typical administration procedure. Note that a colon (:) follows the display message when you need to enter additional digits or characters to administer a feature.

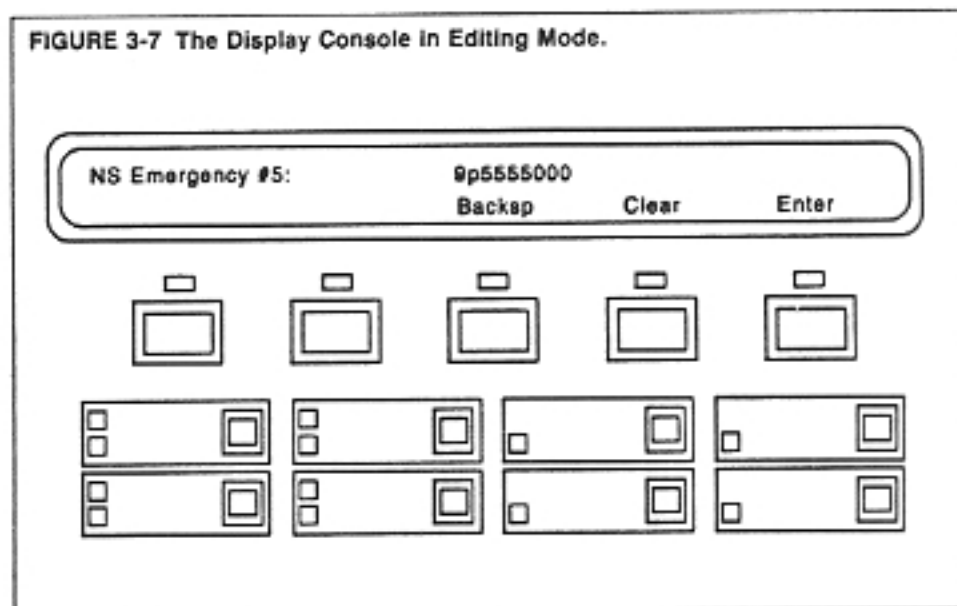
When:	The Display Shows:
You slide the T/P switch to P.	Program Mode 10
You touch Conference twice.	Administration
You touch Message.	Administer Misc:
You dial #203, the code for administering attendant positions, while someone is making a call.	WAIT: System Busy
The person hangs up, which makes it possible for you to administer attendant positions.	Answer Positions
You touch the appropriate Auto Intercom button, then press #.	# Restart . . .
You touch Message.	Administer Misc:

Editing the Display

For some administration procedures, you type strings of numbers, such as the current date or a telephone number. When you dial the code for these procedures, your console automatically enters editing mode.

You use the three rightmost buttons just below the display to change what you dialed, if necessary, then enter the information into your system. The second line of the display identifies the three buttons: **Backsp**, **Clear**, and **Enter**.

FIGURE 3-7 The Display Console in Editing Mode.



Use the editing buttons as follows:

- If the information shown on the display is correct, touch **Enter** to send it to the control unit.
- If the information isn't correct, take one of these actions:
 - Touch **Backsp** to erase incorrect characters, one at a time, beginning with the last character. Then dial the correct characters and touch **Enter**.
 - If you need to redial your entire entry, touch **Clear** to erase it. Then dial the entry again and touch **Enter**.

For example,

When:	The Display Shows:
You slide the T/P switch to P.	Program Mode 10
You touch Conference twice.	Administration
You touch Message.	Administer Misc:
You dial #3105 to add a new number (entry 5) to your list of Night Service emergency numbers.	#3105 NS Emergency #5:
Intending to enter the number 555-6000 you dial 5555000.	NS Emergency #5: 5555000
You notice the error and touch Backsp four times to get to the incorrect number.	NS Emergency #5: 555
You dial 6000.	NS Emergency #5: 5556000
You touch Enter.	NS Emergency #5:5556000

The system enters editing mode automatically during the following administration procedures:

- Set the time and date
- Add or remove an entry in an allowed list
- Administer Automatic Route Selection
- Administer Night Service
- Assign System Speed Dial codes

The administration procedures for those features explain how to use the editing buttons to change and record information.

OPTIONAL EQUIPMENT

Your MERLIN II system may include optional equipment that provides additional features or increases system capacity. The most common types of equipment are listed below. See "Accessory Equipment" in Section 6, "Reference" for full descriptions of these and other accessories.

- **Basic Telephone and Modem Interface (BTMI).** Connects telephones and data communication devices such as autodialers, answering machines, cordless telephones, facsimile machines, and auto-answer or originating modems to your MERLIN II system. A timer may be connected to a Basic Telephone and Modem Interface for automatic answering based on time of day.
- **Basic Telephone Module.** Permits connection of basic Touch-Tone and rotary telephones, as well as the devices listed above for the Basic Telephone and Modem Interface.

-
- **General Purpose Adapter (GPA).** Makes it possible to connect accessories such as data terminals, cordless telephones, and autodialers to a MERLIN II system voice terminal. (For use only with 10-button and 34-button voice terminals.)
 - **Hands-Free Unit (HFU).** Provides the voice terminal user with full speakerphone capability. This includes hands-free telephone conversation, On-Hook Dialing, Monitor-on-Hold, and teleconferencing. (For use only with 10-button and 34-button voice terminals.)
 - **Headset and Headset Adapter.** Enables a person to answer and listen to calls without lifting the handset. (For use only with 10-button and 34-button voice terminals.)
 - **In-Range, Out-of-Building (IROB) Voice Terminal Protectors.** Protect the control unit and a voice terminal which is in another location, outside the main building. IROB protectors provide protection from exposure to lightning, contact with power lines, or power currents induced by nearby power lines.
 - **Loudspeaker Paging System.** Allows people with MERLIN II system voice terminals to page co-workers and make announcements in all sections of your building where paging system speakers are located.
 - **Music Coupler.** Connects a music source such as a cassette player to the MERLIN II system. It provides a secondary bridged connection so that the music source can also be connected to a loudspeaker paging system to provide background music.
 - **Off-Premises Telephone Interface (OPTI).** Connects off-premises Touch-Tone basic telephones to your MERLIN II system.
 - **Power Failure Telephone.** Makes it possible to make and receive calls in case of a power failure. The basic Touch-Tone or rotary telephone connected to a Power Failure Telephone jack on a module in the control unit goes on when a power outage occurs.

Step 3: Perform Basic Administration

Once your system planning and paperwork are complete, you can perform the basic administration procedures listed below.

If you're administering a new system that's just been installed, perform the procedures listed under "Set Basic Operating Conditions for Your System" before you do any other system administration.

Basic Administration Procedures

Set Basic Operating Conditions for Your System

- Set the system size.
- Set the system line representation.
- Designate attendant stations.
- Specify Touch-Tone or rotary signaling.

Set Operating Conditions for Selected Analog Voice Terminals

- Identify any paired station jacks used for the Voice Announcement to Busy Voice Terminal feature.
- Identify any paired station jacks used for the Simultaneous Voice and Data feature.
- Distinguish between Built-In Speakerphone (BIS) or Hands-Free Answer on Intercom (HFAI) voice terminals and other analog voice terminals in your system.

Identify Jacks for Optional Equipment

- Identify the Music-on-Hold line jack (requires a Music Coupler).
- Identify the Loudspeaker Page line jack.

Give Voice Terminals Access to Selected Lines and Line Pools

- If you have a square system, assign lines to buttons on voice terminals.
- If you have a pooled system, set up line pools and give voice terminals access to line pools and individual lines.

CHOOSE A TIME TO ADMINISTER YOUR SYSTEM

You put your console into administration mode to set up or change systemwide options or to assign features to individual voice terminals from the administrator/attendant console. You must leave administration mode in order to resume normal call handling with the console. You can't administer voice terminals that are in use, and people can't place or receive calls on lines and voice terminals that you're administering.

Therefore, it's best to administer your system when no one is using it. If that isn't possible, perform administration at the time of day when call traffic is lowest.

IF YOU MAKE BASIC CHANGES TO AN ADMINISTERED SYSTEM

Performing basic administration on a running system involves some special considerations.

IMPORTANT: Read the following information carefully before you move modules or change the basic settings for a MERLIN II system that's already in use. You may erase important system administration if you:

- Change the modules in the control unit.
- Change your system's size (small or large) or type of line representation (square or pooled).
- Change a standard voice terminal to an attendant station or vice versa.

Renumbering after Changing Modules

At some point, you may need to change modules in the control unit. If you replace a module with one of a different type, you must readminister the system to reassign numbers to lines and stations.

The procedure for renumbering your system appears below. *Remember that changing station modules may require readministration of features that are related to particular types of stations.* For example, you might replace an analog station module that contained jacks used for attendant stations with a digital station module. Since digital voice terminals can't be attendant stations, you would need to reassign those attendant stations to analog station jacks on a different module.

If you add more modules without changing the modules that are already in place, the system assigns numbers to the additional lines and/or stations automatically. In that case, the numbers for the lines and stations that you've already administered don't change, so you don't need to perform the renumbering procedure. (If you expand your system, be sure not to leave any empty slots between modules.)

Follow this procedure to renumber your system. Be sure to update your Master Planning Form, System Configuration Form, and other forms to show the new numbers for lines and stations.

- 1 Slide the T/P switch on the left side of the console to P.
- 2 Touch **Conference** twice.
Lights flash next to Adm Pool, Adm Tel, Message, and Speaker.
- 3 Touch **Message**.
The lights next to Adm Pool, Adm Tel and Speaker stop flashing. The green light next to Message remains on.
- 4 Dial the 4-character code #299.

NOTE: If the light next to **Message** flashes, you can't perform this procedure now because one or more calls are in progress. Take one of these actions:

- Wait for the light to become steady, then perform step 5.
- Leave administration mode by sliding the T/P switch to the center position and try this procedure again later.

- 5 Wait for the lights next to **Adm Pool**, **Adm Tel**, **Message**, and **Speaker** to begin flashing as they did in Step 2. This shows that the renumbering process is complete.
- 6 Slide the T/P switch to the center position to leave administration mode.

Changing Basic System Operating Conditions

If you change the basic operating conditions for a system that's already been administered, you'll probably have to make other changes as well. Keep the following in mind:

- **System Size.** If you change the system size designation from small to large, or vice versa, line and feature assignments change on all attendant consoles.
- **Line Representation.** If you change your system from square to pooled, or vice versa, *you erase all system line administration and voice terminal programming that was formerly in place.* You'll have to reassign your lines and reprogram all your voice terminals.

If you have a pooled system and you change from Button Access to either Dial Access or Automatic Route Selection (ARS), or vice versa, the system automatically assigns a different function to the two buttons above **Intercom-Voice** on voice terminals. If you have Dial Access or ARS and you change to Button Access, for example, the system assigns pool 9 to those two buttons. The system automatically removes pool 9 from any other buttons to which it was assigned at voice terminals throughout the system.

- **Attendant Station Designations.** If you change a voice terminal to an attendant station or vice versa, you have to reassign lines and features to it.

NOTE: Whenever you make a change in your system, be sure to record the change on your planning forms. Updated planning forms are your best source of accurate information about how your system is set up.

SET BASIC OPERATING CONDITIONS FOR YOUR SYSTEM

The first step in administering your system is to ensure that its basic operating conditions are set as you want them.

IMPORTANT: If your system has already been administered and you plan to change it, read *"If You Make Basic Changes to an Administered System,"* above, before you proceed.

Before You Begin

Look through the general information that follows before you begin administering your system.

Factory-set Operating Conditions The first three administration procedures in the box *"Basic Administration Procedures"* determine the basic operation of your system. If you're administering a new system, compare what you recorded on your System Configuration Form with the list of default settings for the system, below, to see which, if any, of the factory-set operating conditions you need to change.

The MERLIN II system is factory-set for:

- Large size (more than 8 lines or more than 20 voice terminals).
- Pooled line representation with Button Access to Line Pools.
- The administrator/attendant console, the station with intercom number 10, as the only attendant station.

Which other administration procedures you need to perform, if any, depend on the types of lines you have, the equipment you've selected, and the specific needs of your business.

If You Want to Administer Your System in More than One Session You can leave administration mode before you've finished setting the operating conditions for your system. Just finish the procedure you're performing, then slide the T/P switch to the center position. When you're ready to continue, follow the steps under "Enter Administration Mode," then resume administration at the point where you stopped.

Enter Administration Mode

Follow these steps to get into administration mode:

- 1 If you have an Attendant Intercom Selector and the light is on next to **Message Status**, touch the button to turn the light off.
- 2 Slide the T/P switch on the left side of the console to *P*.
- 3 Touch **Conference** twice.
Lights start flashing next to Adm Pool, Adm Tel, Message, and Speaker.

Set the System Size

Check your System Configuration Form to verify the system size, small or large, that you planned. (The MERLIN II system is factory-set to be a large system.)

Follow these steps if you want to change the existing system size:

- 1 Touch **Message**.
The lights go off next to Adm Pool, Adm Tel, and Speaker.
- 2 Dial the 4-character code #201.
The green light next to Message is steady and you hear two beeps.

NOTE: If the light next to **Message** flashes, you can't perform this procedure right now. Take one of these actions:

- Wait for the light to become steady, then continue with step 3.
 - Leave administration mode by sliding the T/P switch to the center position and try this procedure again later.
- 3 Perform one of the following operations:
 - Dial 0 for a small system.
 - Dial 1 for a large system.
 - 4 Wait for the lights next to **Adm Pool**, **Adm Tel**, **Message**, and **Speaker** to flash. At this signal, go on to another procedure or leave administration mode by sliding the T/P switch to the center position.

Set the System Line Representation

Check the System Configuration Form to verify whether you've planned a square or a pooled system. If you plan to have a pooled system, verify the method of accessing line pools: Button Access, Dial Access, or Automatic Route Selection (ARS). (The system is factory-set to be pooled with Button Access to Line Pools.)

Follow these steps to change the existing line representation:

- 1 **Touch Message.**
The lights go off next to Adm Pool, Adm Tel, and Speaker.
- 2 **Dial the 4-character code #202.**
The green light next to Message is steady and you hear two beeps.

NOTE: If the light next to **Message** flashes, you can't perform this procedure right now. Take one of these actions:
 - Wait for the light to become steady, then perform step 3.
 - Leave administration mode by sliding the T/P switch to the center position and try this procedure again later.
- 3 **Dial one of the following digits to specify the type of line representation you want:**
 - Dial 0 for a square system.
 - Dial 1 for a pooled system with Button Access to Line Pools.
 - Dial 2 for a pooled system with Dial Access to Line Pools.
 - Dial 3 for a pooled system with ARS.
- 4 **Wait for the lights next to Adm Pool, Adm Tel, Message, and Speaker to flash.** At this signal, go on to another procedure or leave administration mode by sliding the T/P switch to the center position.

Designate Attendant Consoles

Check your Master Planning Form or System Configuration Form to see which voice terminals should be attendant consoles. The system is factory-set with the station at intercom number 10 as an attendant station, and this can't be changed. You can designate up to seven other attendant stations.

Keep in mind that you can't have more than eight attendant stations. If you want to designate a new attendant station and you already have the maximum number, you may need to change an existing attendant station to a nonattendant voice terminal *before* you designate a new attendant station.

Follow these steps to designate attendant stations:

- 1 **Touch Message.**
The lights go off next to Adm Pool, Adm Tel, and Speaker.
- 2 **Dial the 4-character code #203.**
The green light next to Message is steady and you hear two beeps.

NOTE: If the light next to **Message** flashes, you can't perform this procedure right now. Take one of these actions:
 - Wait for the light to become steady, then perform step 3.

- Leave administration mode by sliding the T/P switch to the center position and try this procedure again later.
- 3 Perform one of the steps below:
- If your console has Auto Intercom buttons, green lights next to the buttons identify the voice terminals that can serve as attendant stations. No lights show for other voice terminals in your system. Touch the buttons until the green lights show the appropriate code:

<i>Steady green light</i>	=	<i>attendant station</i>
<i>Flashing green light</i>	=	<i>potential attendant station used as nonattendant voice terminal</i>
 - If you don't have Auto Intercom buttons, check your Master Planning Form to see which voice terminals can be attendant stations. Perform one of the following steps:
 - ▶ To designate a voice terminal as an attendant station, touch **Hold**, then dial the voice terminal's intercom number.
 - ▶ To change an attendant station back to a standard voice terminal, touch **Drop**, then dial its intercom number.

When you use **Hold** or **Drop**, your console beeps if it can't perform the operation you specify. For example, it beeps if you try to make a digital voice terminal an attendant position.
- 4 To establish these settings, touch #.
- 5 Wait for the lights next to **Adm Pool**, **Adm Tel**, **Message**, and **Speaker** to flash. At this signal, go on to another procedure or leave administration mode by sliding the T/P switch to the center position.

Specify Touch-Tone or Rotary Signaling

Check your System Configuration Form to see if you have any rotary lines. If so, follow these steps to identify them:

- 1 If lights are flashing next to **Adm Pool**, **Adm Tel**, **Message**, and **Speaker**, touch **Message**.
The green light next to Message becomes steady. The other lights go off.
- 2 Dial the 4-character code #302.
- 3 Touch the button for each line whose status you need to change. Each successive touch of a button gives you one of the following codes:

<i>Steady green light on</i>	=	<i>Touch-Tone signaling</i>
<i>Green light off</i>	=	<i>rotary signaling</i>
- 4 Go on to another procedure or leave administration mode by sliding the T/P switch to the center position.

SET OPERATING CONDITIONS FOR SELECTED ANALOG VOICE TERMINALS

Perform the appropriate procedures below if you:

- Plan to use the Voice Announcement to Busy Voice Terminal feature.
- Plan to use the Simultaneous Voice and Data feature.
- Have any membrane-button analog voice terminals, that is, analog voice terminals *without* the Built-in Speakerphone (BIS) or Hands-Free Answer on Intercom (HFAI) feature.

Identify Jacks for the Voice Announcement to Busy Voice Terminal Feature

Check your Master Planning Form. It shows which analog voice terminals, if any, have been assigned two station jacks so they can use the Voice Announcement to Busy Voice Terminal feature.

Follow these steps to identify any station jacks in voice/voice pairs:

- 1 If lights are flashing next to **Adm Pool**, **Adm Tel**, **Message**, and **Speaker**, touch **Message**.

The green light next to Message becomes steady. The other lights go off.

- 2 Dial the 4-character code #210.

The green light next to Message is steady and you hear two beeps.

NOTE: If the light next to **Message** flashes, you can't perform this procedure right now. Take one of these actions:

- Wait for the light to become steady, then continue with step 3.
- Leave administration mode by sliding the T/P switch to the center position and try this procedure again later.

- 3 Perform the appropriate step below:

- If you have Auto Intercom buttons, green lights appear next to the buttons for any jacks that are already assigned to voice/voice pairs. Touch either Auto Intercom button for the voice/voice pair until the green lights next to both buttons show the appropriate code:

Steady green light on = station jack in voice/voice pair

Green light off = station jack not in voice/voice pair

- If you don't have Auto Intercom buttons, perform one of the following steps:

- ▶ To identify jacks as members of a voice/voice pair, touch **Hold**, then dial the intercom number associated with either jack.
- ▶ To specify that jacks aren't members of a voice/voice pair, touch **Drop**, then dial the intercom number associated with either jack.

When you use **Hold** or **Drop**, the system beeps if it can't perform the operation you specify.

- 4 Go on to another procedure or leave administration mode by sliding the T/P switch to the center position.

Identify Jacks for the Simultaneous Voice and Data Feature

Check your Master Planning Form. It shows whether a second station jack has been assigned to any analog voice terminal to allow simultaneous voice and data calling. Follow these steps to identify any station jacks in voice/data pairs:

- 1 If lights are flashing next to **Adm Pool**, **Adm Tel**, **Message**, and **Speaker**, touch **Message**.

The green light next to Message becomes steady. The other lights go off.

- 2 Dial the 4-character code #211.

The green light next to Message is steady and you hear two beeps.

NOTE: If the light next to **Message** flashes, you can't perform this procedure right now. Take one of these actions:

- Wait for the light to become steady, then continue with step 3.
- Leave administration mode by sliding the T/P switch to the center position and try this procedure again later.

3 Perform the appropriate step below:

- If you have Auto Intercom buttons, green lights appear next to the buttons for any jacks that are assigned to voice/data pairs. Touch either Auto Intercom button for the voice/data pair until the green lights next to both buttons show the appropriate code:

Steady green light on == station jack in voice/data pair

Green light off == station jack not in voice/data pair

- If you don't have Auto Intercom buttons, perform one of the following steps:
 - ▶ To identify station jacks as members of a voice/data pair, touch **Hold**, then dial the intercom number associated with either jack.
 - ▶ To specify that station jacks aren't members of a voice/data pair, touch **Drop**, then dial the intercom number associated with either jack.

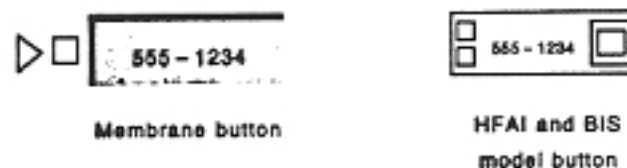
When you use **Hold** or **Drop**, the system beeps if it can't perform the operation you specify.

4 Go on to another procedure or leave administration mode by sliding the T/P switch to the center position.

Set Voice Terminal Type

You must specify the intercom numbers of all membrane-button analog voice terminals. These are the 5-button, 10-button and 34-button deluxe voice terminals, as opposed to the 10-button Hands-Free Answer on Intercom (HFAI) voice terminal and the 34-button Built-in-Speakerphone (BIS) voice terminal. Note the difference between the buttons on the two types of voice terminals, as illustrated below.

FIGURE 3-8 Examples of the buttons found on the two types of analog voice terminals.



If you aren't sure what voice terminal models you have, consult your Master Planning Form or your Voice Terminal Configuration Forms.

Follow these steps to identify any membrane-button voice terminals in your system:

- 1 If lights are flashing next to **Adm Pool**, **Adm Tel**, **Message**, and **Speaker**, touch **Message**.
The green light next to Message becomes steady. The other lights go off.
- 2 Dial the 4-character code #320.
- 3 Check your Voice Terminal Configuration Forms to see which voice terminals are not BIS/HFAI models. Perform the appropriate step below:
 - If you have Auto Intercom buttons and this is a new system, green lights come on next to all the buttons for analog voice terminals except the button for intercom number 10. If you're changing this setting on an administered system, lights come on next to the Auto Intercom buttons for voice terminals previously identified as BIS/HFAI models. Touch the Auto Intercom button for each voice terminal until the green light shows the appropriate code:
 - Steady green light on = BIS or HFAI voice terminal*
 - Green light off = membrane-button voice terminal*
 - If you don't have Auto Intercom buttons, perform one of the following steps:
 - ▶ To identify a voice terminal as a BIS or HFAI model, touch **Hold**, then dial the voice terminal's intercom number.
 - ▶ To identify a voice terminal as a membrane-button model, touch **Drop**, then dial the voice terminal's intercom number.

When you use **Hold** or **Drop**, the system beeps if it can't perform the operation you specify.
- 4 Go on to another procedure or leave administration mode by sliding the T/P switch to the center.

IDENTIFY LINE JACKS FOR OPTIONAL EQUIPMENT

If your system uses the Music-on-Hold or Loudspeaker Page feature, you need to identify the control unit line jack used for that purpose. Consult your Master Planning Form or System Configuration Form to see which line jacks, if any, have been reserved for those features.

Identify the Music-on-Hold Line Jack

If your system has Music-on-Hold, you need to identify the control unit line jack to which your music source is connected. Remember that the Music-on-Hold line can't be placed in a line pool, assigned to a voice terminal, or used for Loudspeaker Page.

Follow these steps to identify the Music-on-Hold line jack:

- 1 If lights are flashing next to **Adm Pool**, **Adm Tel**, **Message**, and **Speaker**, touch **Message**.
The green light next to Message remains on. The other lights go off.
- 2 Dial the 4-character code #204.
The green light next to Message is steady and you hear two beeps.

NOTE: If the light next to **Message** flashes, you can't perform this procedure right now. Take one of these actions:

- Wait for the light to become steady, then go to step 3.
 - Leave administration mode by sliding the T/P switch to the center position and try this procedure again later.
- 3 Check the lights next to the line buttons on your console. A green light identifies the line, if any, set as the Music-on-Hold line.
 - 4 To assign a Music-on-Hold line for the first time or change an existing line assignment, touch the button until the green light shows the appropriate code:

Steady green light on = Music-on-Hold line
Green light off = Standard line or Loudspeaker Page line

NOTE: Assigning a line as the Music-on-Hold line automatically removes it from any voice terminals to which it was assigned.

- 5 Go on to another procedure or leave administration mode by sliding the T/P switch to the center position.

Identify the Loudspeaker Page Line Jack

If your system includes the Loudspeaker Page feature, you need to identify the control unit line jack to which the paging equipment is connected. Keep in mind that the Loudspeaker Page line can't be placed in a line pool or used for Music-on-Hold.

Follow these steps to identify the Loudspeaker Page line jack:

- 1 If lights are flashing next to **Adm Pool**, **Adm Tel**, **Message**, and **Speaker**, touch **Message**.
The green light next to Message stays on. The other lights go off.
- 2 Dial the 4-character code #205.
The green light next to Message is steady and you hear two beeps.

NOTE: If the light next to **Message** flashes, you can't perform this procedure now. Take one of these actions:

- Wait for the light to become steady, then go to step 3.
 - Leave administration mode by sliding the T/P switch to the center position and try this procedure again later.
- 3 Check the lights next to the line buttons on your console. A green light identifies the line, if any, set as the Loudspeaker Page line. To assign a Loudspeaker Page line for the first time or change an existing line assignment, touch the button until the green light shows the appropriate code:

Steady green light on = Loudspeaker Page line
Green light off = Standard line or Music-on-Hold line

- 4 Go on to another procedure or leave administration mode by sliding the T/P switch to the center position.

LABEL LINE AND/OR LINE POOL BUTTONS

Before you begin assigning lines and line pools to voice terminals, get your Voice Terminal Configuration Forms. If this is a new system, get the sets of button labels that came with each of your voice terminals.

The Voice Terminal Configuration Forms show which lines and/or line pools should be assigned to each voice terminal. Before you make or change individual line assignments, write on the button labels for that voice terminal the telephone numbers or names assigned to line buttons. If you have a pooled system, write on the button labels the numbers or names of line pools assigned to line pool buttons.

ASSIGN LINES IN SQUARE SYSTEMS

If you have a pooled system, turn to "Assign Line Pools and Lines in Pooled Systems." If you have a square system, read the considerations below, then follow the procedure to assign lines to buttons on voice terminals. You use the same procedure to remove lines from buttons.

Considerations for Assigning Lines in Square Systems

Consider these points before you assign lines to buttons:

Default Line Assignments When your system was turned on for the first time, it automatically assigned all your outside lines to buttons on your attendant console(s). It also assigned the first eight outside lines plugged into the control unit to the buttons above the dial pad on each of your voice terminals.

- If you planned a *standard square system*, you want each of your lines to appear at the same position at every voice terminal in your system. If you have eight or fewer lines, your system has already been set up for you. If you have more than eight lines, however, you must follow the procedure under "Procedure for Assigning and Removing Lines in Square Systems" to assign those additional lines to buttons to the right of the dial pad at each voice terminal.

Keep in mind that 5-button and 7406 voice terminals don't have enough line buttons for eight line appearances. You must remove any lines that the system assigns to voice terminals which don't have buttons available for those lines.

- You may have planned a *customized square system*, with various combinations of lines assigned to people's voice terminals to meet their particular needs. If so, it's easiest to begin assigning lines by first removing the lines that the system assigned to the voice terminals initially. Then you just touch the buttons for the lines each person needs, in the order shown on his or her Voice Terminal Configuration Form.

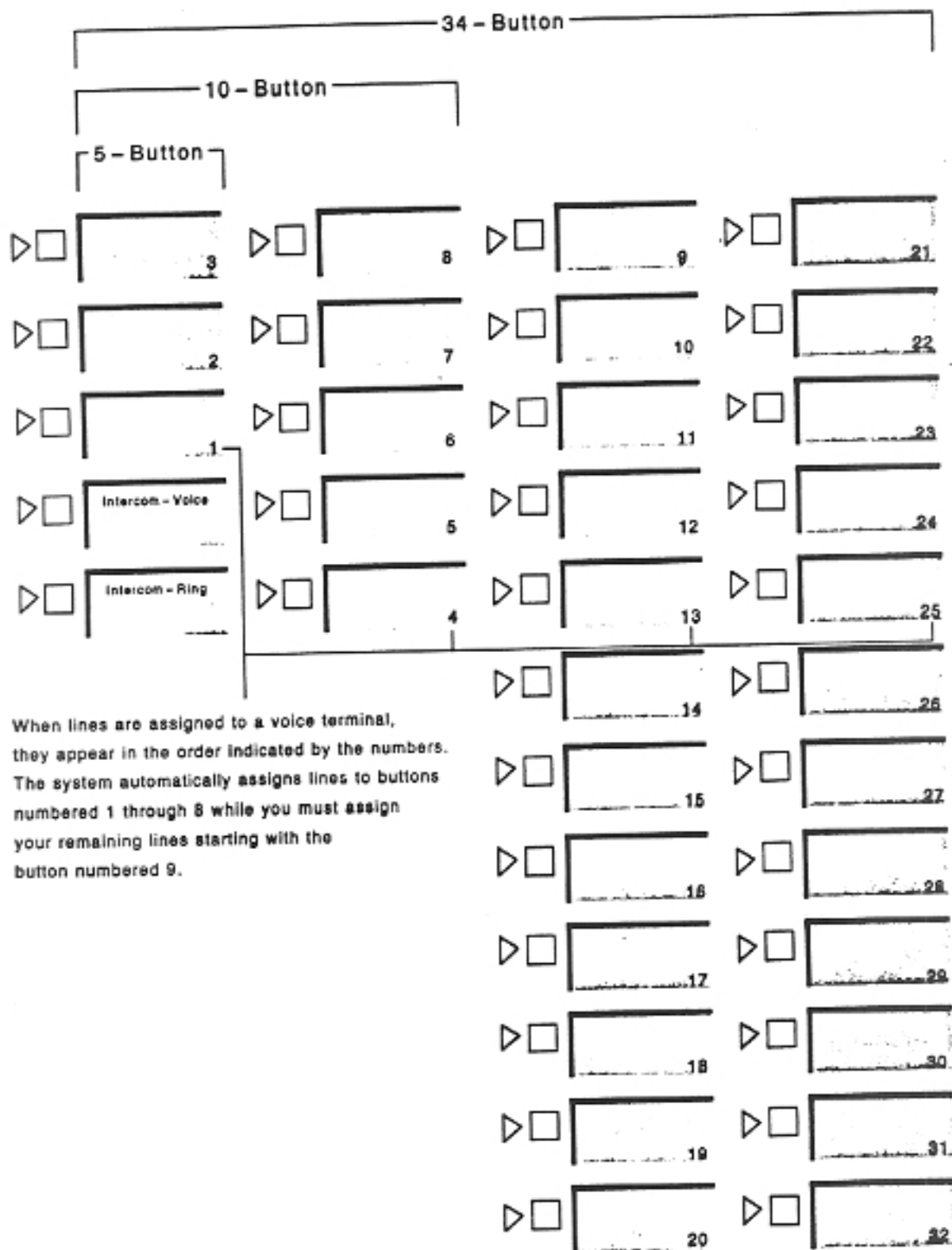
Be sure to assign the Loudspeaker Page line to anyone who needs a button for paging.

Ghost Lines Check your System Configuration Form to see if there is an outside line or piece of equipment connected to each jack in each of your line modules. If you aren't using the full capacity of a line module, the control unit assigns the potential lines as well as the actual lines to buttons on your attendant consoles. If you have fewer than eight lines, the system also assigns these potential lines to buttons above the dial pad on every voice terminal in your system.

A line jack with nothing plugged into it is called a nonequipped line appearance, or "ghost line." If you have any ghost lines, follow the steps given in "Procedure for Assigning and Removing Lines in Square Systems" to remove them.

The Order in which Lines are Assigned When you assign lines to a voice terminal, the system assigns each line to the next available button, in the order shown in Figure 3-9. When you assign lines to a voice terminal, be sure to touch the buttons in the order in which they appear on the Voice Terminal Configuration Form.

FIGURE 3-9 The order in which lines are assigned in square systems.



Procedure for Assigning and Removing Lines in Square Systems

To assign a line to a button on a voice terminal or to remove a line from a button, get your completed Voice Terminal Configuration Forms and follow the steps below.

It's advisable to keep all the line buttons on a voice terminal together. If you remove one or more lines from buttons in the middle of a column of line buttons, reassign the remaining lines so they appear on an unbroken sequence of buttons.

Follow these steps to assign a line to a button or remove it from a button on a voice terminal:

- 1 If you haven't already done so, enter administration mode by sliding the T/P switch to P and touching **Conference** twice.
Lights flash next to Adm Pool, Adm Tel, Message, and Speaker.
- 2 Touch **Adm Tel.** ✓ | R
The green light next to Adm Tel becomes steady. The other lights go off.
- 3 Dial the intercom number or touch the Auto Intercom button of the voice terminal to which you want to assign lines.
A steady green light comes on next to the voice terminal's Auto Intercom button, if you have one. The system gives a 2-beep signal for you to begin.

NOTE: If the voice terminal is being used, the green light next to Adm Tel flashes and you don't hear the 2-beep signal. You *must* wait until the green light becomes steady or else try again later. If you try to assign lines to a busy voice terminal, you'll hear a single beep and won't be able to proceed.

- 4 Refer to the Voice Terminal Configuration Form. It shows which lines should appear on each button on the voice terminal. Steady green lights show next to the buttons for lines already assigned to the voice terminal.
- 5 Touch the appropriate line buttons to add or remove lines from this voice terminal. If you're adding lines, remember to touch the buttons in the order in which they appear on the form. Each successive touch of a line button gives you one of the following codes:
Green light on = line is assigned to this voice terminal
Green light off = line isn't assigned to this voice terminal
- 6 Repeat steps 3 through 5 or use the Copy procedure, below, for each voice terminal to which you want to assign lines.

Admin TEL = ITCM Ring
Admin Pool = ITCM Voice

ITCM V.

Copying Line Assignments

You can use the shortcut procedure below to give another voice terminal the same line assignments as one you've already set up. This copy procedure is especially timesaving if you have a standard square system since all your voice terminals have the same line assignments. Keep in mind that you cannot copy line assignments from attendant consoles to voice terminals or vice versa.

NOTE: When you copy line assignments, you also copy any call restrictions and allowed-list permissions assigned to the original voice terminal. If you've already assigned call restrictions to the original voice terminal, be sure you want the new voice terminal to have identical restrictions before you use this Copy procedure.

- a Dial the intercom number or touch the Auto Intercom button of the new voice terminal.
 - b Touch **Recall**.
The red light next to Adm Tel flashes.
 - c Dial the intercom number or touch the Auto Intercom button of the original voice terminal.
When the copy is complete, the red light stops flashing.
 - d Repeat steps a through c for each voice terminal for which you want to copy line assignments.
- 7 To continue administration, touch **Adm Tel** and go on to another procedure. To leave administration mode, slide the T/P switch to the center position.

ASSIGN LINE POOLS AND LINES IN POOLED SYSTEMS

If you have a pooled system, your system initially assigned each of your outside lines to a separate button on your attendant console(s). On each nonattendant voice terminal, the system assigned the two buttons above **Intercom-Voice** as pool 9 or Pool Access buttons, depending on the type of access you specified. (Pool Access buttons are used with systems set for either Dial Access to Line Pools or ARS.) Finally, the system placed all your lines in pool 9, the main pool.

Your Voice Terminal Configuration Forms show which line pools and individual lines, if any, each voice terminal should have. Perform the procedures below if you want to:

- Set up line pools in addition to pool 9, the main pool.
- Assign line pools and individual lines to buttons on voice terminals.
- Give voice terminals Dial Access to selected line pools, if your system is set for Dial Access to Line Pools.

Before You Begin

Check your System Configuration Form to see whether there is an outside line or piece of equipment connected to each jack in each of your line modules. If you aren't using the full capacity of a line module, the control unit assigns the potential lines as well as the actual lines to buttons on your attendant consoles. It also assigns those lines to pool 9.

A line jack with nothing plugged into it is called a nonequipped line appearance, or "ghost line." If you have any ghost lines, follow the procedure below to remove them from pool 9. Follow the steps under "Procedure for Assigning or Removing Line Pools or Lines (Button Access)" to remove ghost lines from your attendant consoles.

Procedure for Adding or Removing Lines in Line Pools

Your completed System Configuration Form shows the line pools you've planned for your system. Get the form and follow the procedure below to set up or change your line pools. Remember that you won't be able to perform this procedure if any voice or data calls are in progress. The entire system *must* be idle.

If you're administering a new system, all your lines were initially assigned to pool 9. If you want to assign lines to other line pools, you must remove them from pool 9 first.

NOTE: If a line appears as an individual line at a voice terminal in your system, it will disappear from that voice terminal if you add it to a line pool. Before adding lines to pools, make sure they aren't needed as individual lines.

- 1 If you haven't already done so, enter administration mode by sliding the T/P switch to *P* and touching **Conference** twice.
Lights flash next to Adm Pool, Adm Tel, Message, and Speaker.

- 2 **Touch Adm Pool.**
The green light next to Adm Pool becomes steady and you hear two beeps.

NOTE: If the light next to **Adm Pool** flashes, you can't perform this procedure right now. Take one of these actions:

- Wait for the light to become steady, then go to step 3.
 - Leave administration mode by sliding the T/P switch to the center position and try this procedure again later.
- 3 When you entered administration mode and touched **Adm Pool**, the system put you in pool 9. Refer to your System Configuration Form to review the pool numbers that you assigned to the rest of the the line pools you planned. You must dial the appropriate pool numbers (890 through 899) in order to administer other line pools.

If you want to administer pool 9, go on to step 4. If you want to administer a different line pool, dial the number of that pool (890 through 899), then go on to step 4.

- 4 Steady red lights appear next to each line assigned to the pool you're administering. Referring to your completed System Configuration Form, touch the button of any line whose pool assignment you want to change. Each touch of the button gives you one of these codes:

Steady red light on = line is assigned to line pool
Red light off = line isn't assigned to line pool

NOTE: If you hear a beep, the line you're trying to administer is assigned to another pool. You must remove the line from that pool before you can assign it to the pool you're setting up.

- 5 To administer additional line pools, dial the appropriate pool number (9 or 890 through 899) and repeat step 4.
- 6 To make sure that your line pools are set up as you want them, dial the access code of each line pool in turn. Check to be sure steady red lights are on next to the appropriate line buttons.
- 7 Touch Adm Pool and go on to another procedure or leave administration mode by sliding the T/P switch to the center position.

Considerations for Assigning Line Pools and Lines to Voice Terminals

Once you've set up line pools, you can assign line pools and individual lines, if you have any, to voice terminals in your system. If you want line pools or individual lines to appear on buttons at any voice terminals in your system, read the considerations below. If you don't plan to assign any line pools or individual lines to buttons, do this:

- If you selected Dial Access to Line Pools, turn to "Procedure for Assigning Dial Access to Line Pools."
- If you selected ARS, go on to "Step 4: Customize with Optional Systemwide Features."

Consider these points before you assign line pools or individual lines to buttons:

Default Line Pool and Line Assignments When your system was turned on for the first time, it automatically assigned all your outside lines to separate buttons on your attendant console(s). It also created one line pool, pool 9, containing all your outside lines.

If you chose Button Access to Line Pools, the system initially gave all your voice terminals access to pool 9 only, using the two Pool 9 buttons above Intercom-Voice. If you chose Dial Access to Line Pools or access through ARS, the system initially gave all your voice terminals access to pool 9 and any other line pools that might be set up, using the two Pool Access buttons above Intercom-Voice.

If you want to change the default line pool and line assignments, you use the procedures that follow to:

- Provide or remove access to particular line pools.
- Assign individual lines to buttons on nonattendant voice terminals.

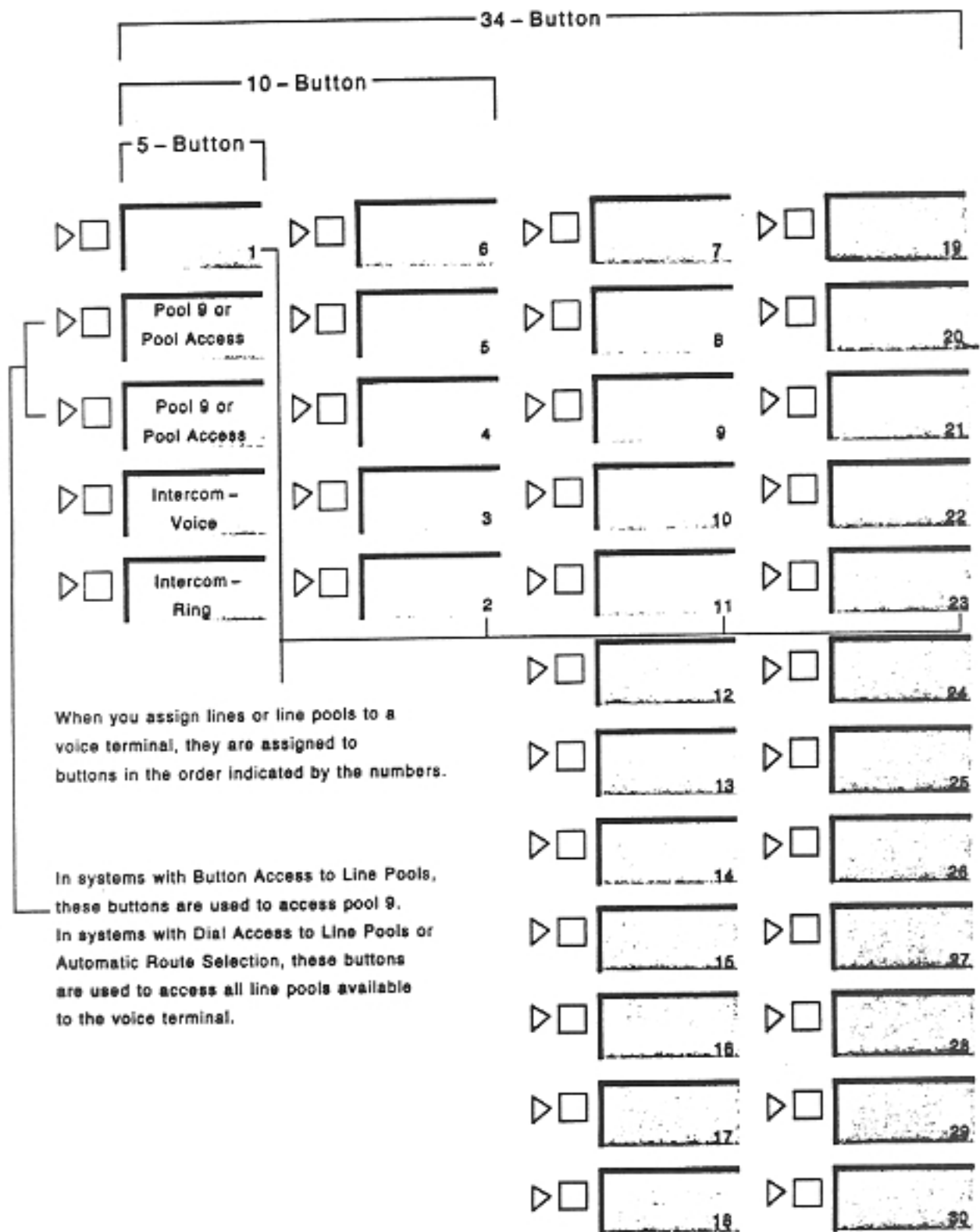
Be sure to assign the Loudspeaker Page line to anyone who needs a button for paging.

The Order in which Line Pools and/or Lines are Assigned You can assign line pools only or a combination of line pools and individual lines to each voice terminal in your system. When you assign a line pool or line to a voice terminal, the system automatically assigns it to the first available button.

The assignments are made in the order shown in Figure 3-10. The illustration shows the order in which line pools and/or lines would be assigned if you used every button on the voice terminal for that purpose, although to do so is unlikely.

NOTE: When you assign line pools or lines to buttons on a voice terminal, be sure to touch the buttons in the order in which they appear on the Voice Terminal Configuration Form.

FIGURE 3-10 The order in which lines are assigned in pooled systems.



Procedure for Assigning or Removing Line Pools or Lines (Button Access)

Get your completed Voice Terminal Configuration Forms. Then follow the procedure below to assign or remove lines or line pools from voice terminals. If you're assigning lines, be sure to touch the buttons in the order in which they appear on the Voice Terminal Configuration Form.

It's advisable to keep line buttons together on a voice terminal. If you remove a line in the middle of a column line buttons, it's best to reassign the remaining lines so that the lines appear on an unbroken sequence of buttons.

Follow these steps to assign line pools or line to buttons or to remove them from buttons on voice terminals:

- 1 If you haven't already done so, enter administration mode by sliding the T/P switch to *P* and touching **Conference** twice.
Lights flash next to Adm Pool, Adm Tel, Message, and Speaker.
- 2 Touch **Adm Tel**.
The lights next to Adm Pool, Message, and Speaker stop flashing. The green light next to Adm Tel remains on.
- 3 Dial the intercom number or touch the Auto Intercom button, if you have one, for the voice terminal to which you want to assign line pools or lines.
A steady green light comes on next to its Auto Intercom button, if you have one. The system gives you a 2-beep signal to begin.

NOTE: If the light next to **Adm Tel** flashes, you can't perform this procedure now. Take one of these actions:

- Wait for the light to become steady, then go to step 4.
 - Leave administration mode by sliding the T/P switch to the center position and try this procedure again later.
- 4 Refer to the Voice Terminal Configuration Form to see which line pools or individual lines should be assigned to buttons on this voice terminal. Steady green lights show next to any lines now assigned to the voice terminal, either as individual lines or as part of a line pool. Steady red lights show next to all lines contained in any system pool.
 - 5 Touch the button for any line pool or line you want to add to or remove from this voice terminal. Each touch of the line button gives you one of the following codes:

Green light on = line is assigned to the voice terminal
Green light off = line isn't assigned to the voice terminal

NOTE: Lines in a line pool always change as a group. When you touch the button for any line in a line pool, you change the status of all the lines in that line pool.

- 6 Repeat steps 3 through 5 or use the Copy procedure, below, for each voice terminal in your system.

Copying Line Pool and Line Assignments

If you want to give a voice terminal the same line pool and line assignments as one that's already set up, use this shortcut:

NOTE: When you copy line assignments, you also copy any call restrictions, Dial Access to Line Pools, and allowed-list permissions assigned to the original voice terminal. Be sure you want the two voice terminals to be identical in these respects before using this Copy procedure.

- a Dial the intercom number or touch the Auto Intercom button of the new voice terminal.
 - b **Touch Recall.**
The red light next to Adm Tel goes on.
 - c Dial the intercom number or touch the Auto Intercom button of the original voice terminal.
When the copy procedure is complete, the red light stops flashing.
 - d Repeat steps a through c for each voice terminal for which you want to copy line pool and line assignments.
- 7 Touch **Adm Tel** and go on to another procedure if you want to continue with administration. If not, slide the T/P switch to the center position to leave administration mode.

Procedure for Assigning Dial Access to Line Pools

If you set your system for Dial Access to Line Pools, people touch the Pool Access button, then dial the appropriate pool number (9 or 890 through 899) to access a particular line pool. When you first set your system for Dial Access, the system gave all your voice terminals access to every line pool. If you've planned to assign people access to selected line pools rather than to all line pools, get your Voice Terminal Configuration Forms. Follow these steps to assign voice terminals access to selected line pools.

- 1 If you haven't already done so, enter administration mode by sliding the T/P switch to *P* and touching **Conference** twice.
Lights flash next to Adm Pool, Adm Tel, Message, and Speaker.
- 2 **Touch Adm Tel.**
The lights next to Adm Pool, Message, and Speaker stop flashing. The green light next to Adm Tel stays on.
- 3 Touch the Auto Intercom button, if you have one, or dial the intercom number for the voice terminal to which you want to assign Dial Access to selected line pools.
A steady green light comes on next to its Auto Intercom button, if you have one. The system gives you a 2-beep signal to begin.

NOTE: If the light next to **Adm Tel** flashes, you can't perform this procedure right now. Take one of these actions:

- Wait for the light to become steady, then go to step 4.
- Leave administration mode by sliding the T/P switch to the center position and try this procedure again later.

- 4 Refer to your Voice Terminal Configuration Form to see to which line pools this voice terminal should have Dial Access. Steady green lights show next to the buttons of the lines assigned to this voice terminal. Steady red lights show next to the buttons of each line assigned to one of the system pools.
- 5 Touch the same Auto Intercom button or dial the same intercom number again.
A steady red light comes on beside the green light next to Adm Tel.

The system must be set for Dial Access to Line Pools and you must be administering an idle, nonattendant voice terminal. If not, the red light doesn't come on, and the system beeps once to let you know it can't complete this procedure.

- 6 Touch the button next to one of the lines in each of the pools whose status you want to change. Each successive touch of a line button in a pool gives you one of the following codes:

Green light on = voice terminal has Dial Access to this pool
Green light off = voice terminal doesn't have Dial Access to this pool

Keep in mind that the lines in a pool always change as a group. Touching the button for any line in a pool affects *all* the lines in that pool.

- 7 Repeat steps 3 through 6 or use the Copy procedure, below, for each voice terminal whose Dial Access to Line Pools you want to change.

Copying Dial Access Assignments

If you want to give a voice terminal the same Dial Access to Line Pools as one that is already set up, use this shortcut:

NOTE: When you copy Dial Access assignments, you also copy call restrictions, allowed-list permissions, and line and pool assignments from the original voice terminal. Be sure you want these voice terminals to be identical in these respects before you use the Copy procedure.

- a Dial the intercom number or touch the Auto Intercom button of the new voice terminal.
 - b Touch **Recall**.
The red light next to Adm Tel flashes.
 - c Dial the intercom number or touch the Auto Intercom button of the original voice terminal.
When the red light stops flashing, the copy procedure is complete.
 - d Repeat steps a through c for each voice terminal for which you want to copy Dial Access assignments.
-
- 8 Touch **Adm Tel** and go on to another procedure if you want to continue administering your system. If not, slide the T/P switch to the center position to leave administration mode.

Step 4: Customize with Optional Systemwide Features

After you've completed basic administration, you can assign the optional features listed below to your system. You can administer these features at your convenience, since they're useful but not essential to the operation of the MERLIN II system.

If you have a printer, you can get printouts showing the current status of these systemwide features. Instructions for getting a System Information Report and other printouts are included in the administration procedures that follow. If you want a complete set of printouts for your system, follow these steps:

- 1 Enter administration mode.
- 2 Touch **Message**.
- 3 Dial the 4-character code #999.

Check your planning forms to see which of the operations listed below apply to your system. Then turn to the appropriate page to administer each feature that you've selected.

Customize with Optional Systemwide Features

- Assign call restrictions to voice terminals:
 - Set area code detection (if required) and assign outward and toll call restrictions.
 - Set up allowed lists.
 - Assign allowed lists to restricted voice terminals.
- Administer Automatic Route Selection.
- Assign voice terminals to groups for Group Page.
- Set up Group Call Distribution.
- Set your system for One-Touch Hold with Call Announcement, if you want this feature instead of the factory-set One-Touch Transfer of outside calls.
- Establish Enhanced Night Service.
- Administer System Speed Dial codes.
- Administer Call Report options.
- Set the return interval for transferred calls.
- Specify ringing or music, if you have Music-on-Hold, while calls are being transferred.

ASSIGN CALL RESTRICTIONS TO VOICE TERMINALS

Assigning call restrictions to voice terminals involves three steps:

- Assigning one of these three calling ranges to each voice terminal:
 - Outward Call Restricted
 - Toll Call Restricted
 - Unrestricted
- Setting up allowed lists of area codes, exchanges, or emergency numbers that people with restricted voice terminals can call.
- Assigning the appropriate allowed list(s) to each restricted voice terminal.

Assign Outward and Toll Call Restrictions

All voice terminals are factory-set for unrestricted calling. Refer to your Voice Terminal Configuration Forms to see what calling range each voice terminal should have. Then follow the procedure below to assign toll call restriction and outward call restriction where appropriate.

To restrict voice terminals to local calls only (toll call restriction), your system must be able to identify toll calls as they're dialed. In most parts of the country, people have to dial a toll prefix (0 or 1) in order to make a long distance call. Your MERLIN II system is factory-set to detect that toll prefix. If you use a toll prefix, you can skip steps 2 through 6 of the procedure below. Those extra steps allow administrators in areas where toll prefixes aren't used to set their systems to detect toll calls by area codes instead of by toll prefixes.

Follow these steps to assign call restrictions:

- 1 If you haven't already done so, enter administration mode by sliding the T/P switch to *P* and touching **Conference** twice.
Lights flash next to Adm Pool, Adm Tel, Message, and Speaker.
- 2 If you must dial a toll prefix (0 or 1) before dialing a long distance call, go to step 7. If you don't have to dial 0 or 1 before dialing a long distance call, continue with step 3.
- 3 **Touch Speaker.**
The lights next to the administration mode buttons stop flashing. The green light next to Speaker remains on.
- 4 Check the lights next to your line buttons. Green lights indicate that the system uses a toll prefix to detect long distance calls placed on these lines. If you don't dial toll prefixes in your area, no green lights should be on.
- 5 Touch each line button until the light next to it shows the appropriate code. Each successive touch gives you one of the following codes:
 - Steady green on = system uses toll prefix to detect long distance calls*
 - Green off = system detects long distance calls by area code only*
- 6 **Touch Speaker.**
The lights next to the administration mode buttons flash again.
- 7 **Touch Adm Tel.**
The lights next to the administration mode buttons stop flashing. The green light next to Adm Tel remains on.

- 8 Dial the intercom number or touch the Auto Intercom button for the voice terminal you want to restrict.

If the voice terminal is idle, a steady green light comes on next to its Auto Intercom button, if you have one. The system gives a 2-beep signal for you to begin.

NOTE: If the voice terminal is being used, the green light next to Adm Tel flashes rapidly. You must wait until the green light becomes steady or else try this procedure again later.

- 9 Refer to the Voice Terminal Configuration Form to see what calling range this voice terminal should have. Then touch **Speaker** until the green light next to it shows the correct code. Each successive touch gives you one of the following codes:

*Steady green light on = unrestricted (all calls allowed)
Flashing green light = toll call restricted (intercom and local calls only plus allowed lists, if you assign any)
Green light off = outward call restricted (intercom calls only plus allowed lists, if you assign any)*

- 10 Repeat steps 8 and 9 or use the Copy procedure, below, for each voice terminal whose calling range you want to change.

Copying Call Restrictions

If you want to give a voice terminal the same call restriction as one that's already set up, use the shortcut below:

NOTE: When you copy the call restriction, you also copy allowed-list permissions, line and line pool assignments, and Dial Access to Line Pools from the original voice terminal. Be sure you want the voice terminals to be identical in these respects before you use the Copy procedure.

- a Dial the intercom number or touch the Auto Intercom button of the new voice terminal.
- b Touch **Recall**.
The red light next to Adm Tel flashes.
- c Dial the intercom number or touch the Auto Intercom button of the original voice terminal.
When the red light stops flashing, the copy is completed.
- d Repeat steps a through c for each voice terminal for which you want to copy call restrictions.

- 11 Touch **Adm Tel**.
The lights next to the administration mode buttons flash again.

- 12 Continue to administer your system or leave administration mode by sliding the T/P switch to the center position.

Set Up Allowed Lists

Get the completed Allowed List portion of your Call Restrictions and Allowed Lists forms. Follow these steps to enter the information shown on the forms into your system:

- 1 If you haven't already done so, enter administration mode by sliding the T/P switch to *P* and touching **Conference** twice.

Lights flash next to Adm Pool, Adm Tel, Message, and Speaker.

- 2 Touch **Message**.

The lights next to the administration mode buttons stop flashing. The green light next to Message remains on.

- 3 Dial the 2-character code #5.

- 4 Dial the number of the allowed list (0 through 7).

- 5 Dial the number of the entry (0 through 9) that you want to record.

- 6 Dial the entry, which may consist of an area code, an exchange, an area code plus an exchange, or a special-purpose number such as 911.

NOTE: If you have a display console, it enters editing mode automatically when you dial #5. The display shows the allowed list entry as you dial it.

— If the allowed list entry is correct, touch **Enter** to send the information to the control unit.

— If the entry isn't correct, use **Backsp** or **Clear** to erase incorrect characters, redial the entry, and touch **Enter**.

- 7 Repeat steps 3 through 6 to add more entries to the same list or to add entries to a different list.

- 8 If you want to remove an entry from a list, perform steps 3 through 5 and touch **Drop** (if you have a display console, touch **Drop**, then touch **Enter**).

- 9 If you have a printer connected to your system, you can order a printout of any of your allowed lists. A typical printout appears in Figure 3-11. To get a printout, perform steps 3 and 4, then dial the 5-character code 0#900. *The green light next to Message flashes. When the printout is completed, you hear a beep and the green light next to Message becomes steady.*

Don't go on to step 10 until you hear the beep or you'll get an incomplete printout. Don't remove the printout until you've completed step 10 or your page alignments will be affected.

- 10 Touch **Message**.

The lights next to the administration mode buttons flash again.

- 11 Continue to administer your system or leave administration mode by sliding the T/P switch to the center position.

FIGURE 3-11 A printout of a typical allowed list.

```
A  ALLOWED LIST: 2
A  Entry # 0: 212566
A  Entry # 1: 805642
A  Entry # 2: 404
A  Entry # 3: 504832
A  Entry # 4: 413
A  Entry # 5: 318
A  Entry # 6: 907562
A  Entry # 7: 205353
A  Entry # 8: 207761
A  Entry # 9: 406586
```

Assign Allowed Lists to Voice Terminals

When your system is first set up, no restricted voice terminals can be used to call any of the numbers on the allowed lists. You must assign voice terminals access to the appropriate allowed lists.

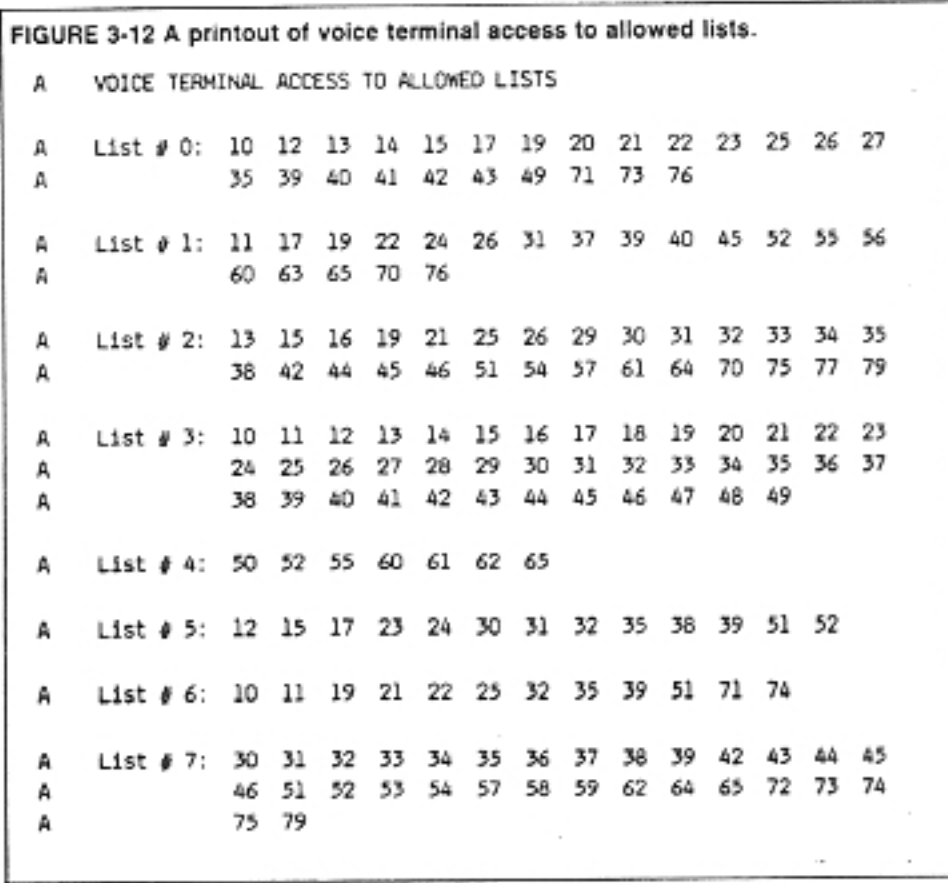
Get out the Call Restrictions portion of the Call Restrictions and Allowed Lists Forms. Check the forms to see which allowed lists should be assigned to each person who has a restricted voice terminal. Follow the procedure below to give selected voice terminals access to each of your allowed lists.

- 1 If you haven't already done so, enter administration mode by sliding the T/P switch to P and touching **Conference** twice.
Lights flash next to Adm Pool, Adm Tel, Message, and Speaker.
- 2 Touch **Message**.
The lights next to the administration mode buttons stop flashing. The green light next to Message remains on.
- 3 Dial the 2-character code #4.
- 4 Dial the number of the allowed list (0 through 7) that you want to assign or reassign to voice terminals.
Green lights come on next to the Auto Intercom buttons, if you have them, for all voice terminals that can access the numbers on the allowed list.
- 5 Perform the appropriate step below:
 - If you have Auto Intercom buttons, touch the button for each voice terminal whose status you want to change. Each successive touch gives you one of these codes:
 - Green light on = voice terminal can access the numbers on the list*
 - Green light off = voice terminal can't access the numbers on the list*
 - If you don't have Auto Intercom buttons, perform one of the following steps:
 - ▶ To give a voice terminal access to the allowed list, touch **Hold**, then dial the voice terminal's intercom number.
 - ▶ To make a voice terminal unable to access the allowed list, touch **Drop**, then dial the voice terminal's intercom number.

- To remove access to this list from all voice terminals, touch **Drop**, then touch *****.

When you use the Hold or Drop button, the console beeps if it can't perform the operation you specify. For example, it beeps if you try to assign an allowed list to a voice terminal that already has access to that list.

- Repeat steps 3 through 5 for each allowed list.
- If you have a printer, you can request a printout to make sure the appropriate voice terminals have access to the allowed lists you've set up. Figure 3-12 shows a typical printout of voice terminal access to allowed lists. To get a printout, dial the 4-character code #904.
The green light next to Message flashes. When the printout is completed, you hear a beep and the green light next to Message becomes steady.
Don't go on to step 8 until you hear the beep or you'll get an incomplete printout. Wait to remove your printout until you've completed step 8 or your page alignments will be affected.
- Touch **Message**.
The lights next to the administration mode buttons flash again.
- Continue to administer your system or leave administration mode by sliding the T/P switch to the center position.



ADMINISTER AUTOMATIC ROUTE SELECTION (ARS)

The ARS feature lets you specify which line pool should be used for each outgoing call, depending on the area code and/or exchange the caller dials. ARS directs all calls that people place by touching one of their Pool Access buttons, then dialing a number.

Get your completed Forms for Automatic Route Selection Tables. Follow the procedure below to enter the information from these forms into ARS tables in your system. If you're changing an existing table, be sure to record the change on the appropriate form.

If you have a printer connected to your system, you can print out the ARS tables after you administer them, to serve as worksheets and for future reference.

Administer Area Code/Exchange Sections of ARS Tables

To administer the Area Code/Exchange sections of ARS Tables 0 through 7, follow the procedure below.

- 1 If you haven't already done so, enter administration mode by sliding the T/P switch to P and touching **Conference** twice.
Lights flash next to Adm Pool, Adm Tel, Message, and Speaker.
- 2 Touch **Message**.
The lights next to the administration mode buttons stop flashing. The green light next to Message remains on.
- 3 Get the form for Table 0 and check the total number of 6-digit tables that you've planned for your system. If you're setting up a new system and don't need any 6-digit tables, continue with step 5. If you'll have 6-digit tables, go on to step 4.
- 4 Dial #305, then dial the number of tables (0 through 8) that should be 6-digit tables.

If you enter:	These tables are 6-digit:
#3050	None
#3051	Table 0 only
#3052	Tables 0 and 1
#3053	Tables 0, 1, and 2
#3054	Tables 0 through 3
#3055	Tables 0 through 4
#3056	Tables 0 through 5
#3057	Tables 0 through 6
#3058	Tables 0 through 7

- 5 Get the form for the table that you want to administer. Note that the codes for steps 6 through 8 are preprinted on the form.
- 6 Dial the 2-character code #6.
- 7 Dial the table number (0 through 7).

-
- 8 Dial the number (00 through 99) of the entry that you want to add, change, or remove.
For 6-digit tables, entry 00 is the area code and entries 01 through 99 are exchanges within that area code. For 3-digit tables, all the entries are area codes or exchanges.
 - 9 To remove the entry, touch **Drop** (touch **Drop** and then touch **Enter** if you have a display console). To add or change the entry, go on to step 10.
 - 10 Dial the entry, that is, the area code or exchange recorded in the blank on the form.

NOTE: If you have a display console, it enters editing mode automatically when you dial #6. The display shows the entry as you dial it.

- If the entry is correct, touch **Enter** to send the information to the control unit.
 - If it isn't, use **Backsp** or **Clear** to erase incorrect characters, redial the entry, and then touch **Enter**.
- 11 Repeat steps 6 through 10 for each table entry you want to administer.
If you need to administer the Pool, Other Digits, and Absorb sections of your tables, go to step 3 of the procedure headed "Administer Pool, Other Digits, and Absorb Sections of ARS Tables." If not, go on to step 12 below.

- 12 If you have a printer connected to your system, you can get a printout of the complete set of the ARS tables that you've administered for your system. Figure 3-13 shows a portion of a typical printout. Note that the columns headed "Absorb" and "Other Digits" in the tables appear in reverse order from the way they appear on the forms you used to plan your tables. To get a printout, dial the 4-character code #902.

*The green light next to **Message** flashes. When the printout is completed, you hear a beep and the green light next to **Message** becomes steady.*

Don't go on to step 13 until you hear the beep or you'll get an incomplete printout. Don't remove the printout until you've completed step 13 or your page alignments will be affected.

- 13 **Touch Message.**
The lights next to the administration mode buttons flash again.
- 14 Go on to administer another feature or leave administration mode by sliding the T/P switch to the center position.

FIGURE 3-13 Typical Automatic Route Selection tables.

A AUTOMATIC ROUTE SELECTION

A ARS IS: ACTIVE NUMBER OF 6 DIGIT TABLES: 2

A TABLE 0: AREA CODE/EXCHANGES

A 00)212 01)256 02)257 03)258 04)251 05)252 06)262 07)254 08)258 09)259
 A 10)221 11)222 12)223 13)226 14)227 15)228 16)233 17)234 18)239 19)242
 A 20)243 21)321 22)329 23)333 24)334 25)340 26)344 27)348 28)370 29)371
 A 30)374 31)382 32)398 33)399 34)458 35)451 36)440 37)460 38)466 39)480
 A 40)481 41)482 42)487 43)488 44)489 45)490 46)491 47)--- 48)--- 49)---
 A 50)--- 51)--- 52)--- 53)--- 54)--- 55)--- 56)--- 57)--- 58)--- 59)---
 A 60)--- 61)--- 62)--- 63)--- 64)--- 65)--- 66)--- 67)--- 68)--- 69)---
 A 70)--- 71)--- 72)--- 73)--- 74)--- 75)--- 76)--- 77)--- 78)--- 79)---
 A 80)--- 81)--- 82)--- 83)--- 84)--- 85)--- 86)--- 87)--- 88)--- 89)---
 A 90)--- 91)--- 92)--- 93)--- 94)--- 95)--- 96)--- 97)--- 98)--- 99)---

A POOL ABSORB OTHER DIGITS

A 0)890 3
 A 1)--- -
 A 2)--- -
 A 3)--- -
 A 4)--- -
 A 5)--- -

TYPICAL 6-DIGIT TABLE

A TABLE 7: AREA CODE/EXCHANGES

A 00)609 01)718 02)212 03)516 04)203 05)401 06)617 07)413 08)914 09)717
 A 10)215 11)412 12)814 13)716 14)607 15)315 16)518 17)802 18)603 19)207
 A 20)301 21)202 22)302 23)419 24)216 25)513 26)614 27)304 28)703 29)804
 A 30)704 31)919 32)803 33)912 34)404 35)205 36)901 37)615 38)502 39)606
 A 40)812 41)317 42)219 43)313 44)517 45)616 46)906 47)715 48)414 49)608
 A 50)615 51)312 52)309 53)217 54)618 55)--- 56)--- 57)--- 58)--- 59)---
 A 60)--- 61)--- 62)--- 63)--- 64)--- 65)--- 66)--- 67)--- 68)--- 69)---
 A 70)--- 71)--- 72)--- 73)--- 74)--- 75)--- 76)--- 77)--- 78)--- 79)---
 A 80)--- 81)--- 82)--- 83)--- 84)--- 85)--- 86)--- 87)--- 88)--- 89)---
 A 90)--- 91)--- 92)--- 93)--- 94)--- 95)--- 96)--- 97)--- 98)--- 99)---

A POOL ABSORB OTHER DIGITS

A 0)893 0
 A 1)895 0
 A 2)--- -
 A 3)--- -
 A 4)--- -
 A 5)--- -

TYPICAL 3-DIGIT TABLE

Administer Pool, Other Digits, and Absorb Sections of ARS Tables

Your completed forms for ARS Tables 0 through 9 list line pools to which calls should be routed. The forms also list any other digits or absorption codes needed to place calls on those line pools. The form for the Special Number Table may contain an access code that you need to administer.

To administer the Pool, Other Digits, and Absorb sections of your ARS tables, follow the procedure below. If you're changing an existing table, be sure to record the change on the appropriate form.

- 1 If you haven't already done so, enter administration mode by sliding the T/P switch to *P* and touching **Conference** twice.
The lights flash next to Adm Tel, Adm Pool, Message and Speaker.
- 2 **Touch Message.**
The lights next to the administration mode buttons stop flashing. The green light next to Message remains on.
- 3 Get the form for the table you're administering. Note that the codes and numbers that you enter in steps 4 through 6 are preprinted on the form.
- 4 Dial the 2-character code #7.
- 5 Dial the table number (0 through 9).
- 6 Dial the number of the entry (0 through 5) that you want to add, change, or remove.
- 7 To remove this entry, touch **Drop** (touch **Drop** and then touch **Enter** if you have a display console). To add or change this entry, go on to step 8.
- 8 Dial the pool number (9 or 890 through 899) that you recorded on the form under the heading "Pool."
- 9 If special digits and characters are required in order to place calls on this line pool, dial the digits that you recorded on the form under the heading "Other Digits."

"Other Digits" entries can include up to 20 characters. Characters permitted: 0 through 9, pause (**Hold**), a timed switchhook flash (**Recall**), and Touch-Tone enable (**Transfer**). A # is not permitted. Make sure to enter the required number of pauses between the access code and the account code for an alternate long distance company. The average number of pauses required is four. You may find, however, that your system works best with either more or fewer pauses. Be sure to add a pause after the account code as well.

NOTE: If you have a display console, it enters editing mode automatically when you dial #7. The display shows the table number, entry number, and entry as you dial them. Check to be sure the characters on the display are correct.

- If they are, touch **Enter** to send the information to the control unit.
- If they aren't, use **Backsp** or **Clear** to erase incorrect characters, redial the entry, and then touch **Enter**.

This information also applies to steps 10 and 12.

- 10 If the system should absorb one or more of the digits the caller dials in order to place calls on this line pool, follow these steps:

- a Perform steps 4 through 6.
- b Dial the absorption type that you recorded on the form under the heading "Absorb."

0 = No absorption

1 = Absorb leading 1

2 = Absorb area code

3 = Absorb 1 + area code

4 = Absorb 1 + exchange

5 = Absorb 1 + area code + exchange

If you have a display console, check to be sure the entry shown on the display is correct. Change it, if necessary, then touch **Enter**.

NOTE: If you change the pool number or other digits for an entry that has absorption type 1 through 5 associated with it, the system automatically changes the absorption type to 0 (no absorption). You must perform step 10 again if you want to restore an absorption type to an entry that you've changed.

- 11 Repeat steps 4 through 10 for each table entry you want to administer. You must perform these steps in order to add a new entry or change the pool number, other digits, or absorption type of an existing entry.
- 12 To add, change, or remove an access code that must be dialed to reach the numbers on the Special Number Table, get the form for the Special Number Table. Make sure that the information under the heading "Other Digits" is correct. Then dial the 4-character code #800 and take one of these actions:
- To add or change an access code, perform step 9.
 - To remove an access code, touch **Drop**.

If you have a display console, check the display to be sure the entry is correct. Change it, if necessary, then touch **Enter**.

- 13 If you have a printer connected to your system, you can get a printout of the complete set of ARS tables. Figure 3-13 shows a typical printout. To order a printout, dial the 4-character code #902.

*The green light next to **Message** flashes. When the printout is complete, you hear a beep, and the green light next to **Message** remains on.*

Don't go on to step 14 until you hear the beep or you'll get an incomplete printout. Don't remove your printout from the printer until you complete step 14 or your page alignments will be affected.

- 14 Touch **Message**.

The lights next to the administration mode buttons flash again.

- 15 Go on to administer another feature or leave administration mode by sliding the T/P switch to the center position.

ASSIGN VOICE TERMINALS TO GROUPS FOR GROUP PAGE

With the Group Page feature, people in your business can page a group of co-workers through their voice terminals, without disturbing anyone else. Get your completed Group Page Form and follow the procedure below to set up or change paging groups.

- 1 If you haven't already done so, enter administration mode by sliding the T/P switch to *P* and touching **Conference** twice.
Lights flash next to Adm Pool, Adm Tel, Message, and Speaker.
- 2 **Touch Message.**
The lights next to the administration mode buttons stop flashing. The green light next to Message remains on.
- 3 Dial the 3-character code #86.
- 4 Dial the number of the paging group (1 through 7) that you want to administer.
- 5 Refer to your completed Group Page Form to see which voice terminals should be assigned to this paging group. Perform one of the following operations:

- If you have Auto Intercom buttons for your voice terminals, the light next to each button shows whether the voice terminal is assigned to this paging group. Touch the Auto Intercom button to add a voice terminal to or remove it from the group. Each successive touch gives you one of these codes:

*Steady green light on = voice terminal is in paging group
Green light off = voice terminal isn't in paging group*

- If you don't have Auto Intercom buttons for your voice terminals, perform one of the following operations to add a voice terminal to or remove it from this paging group:
 - ▶ To add a voice terminal to the paging group, touch **Hold**, then dial the voice terminal's intercom number.
 - ▶ To remove a voice terminal from the paging group, touch **Drop**, then dial the voice terminal's intercom number.
 - ▶ To remove all the voice terminals from the paging group, touch **Drop**, then touch *****.

When you use the Hold and Drop buttons, the console beeps if the system can't carry out your instructions. For example, you may hear a beep when you try to add a voice terminal to a paging group. This means the group already contains the maximum of 10 voice terminals or the voice terminal is already assigned to the group.

- 6 Repeat steps 3 through 5 for each paging group for which you want to assign or remove voice terminals.
- 7 If you have a printer, you can get a printout to make sure your paging groups are set up the way you want them. A typical printout appears in Figure 3-14. To order a printout, dial the 4-character code #903.
The green light next to Message flashes. When the printout is completed, you hear a beep and the green light next to Message becomes steady.

Don't go on to step 8 until you hear the beep or you'll get an incomplete printout. Wait to remove your printout until you've completed step 8 or your page alignments will be affected.

- 8 **Touch Message.**
The lights next to the administration mode buttons flash again.
- 9 Continue to administer your system, or leave administration mode by sliding the T/P switch to the center position.

FIGURE 3-14 A printout of paging groups.

```

A Group # 861: 10 12 15 16 17 18 19 29 37 39
A Group # 862: 11 30 31 32 33 34 35 36 37 55
A Group # 863: 13 16 22 23 30 32 35 70 74 76
A Group # 864: 12 15 19 24 26 30 34 39 52 56
A Group # 865: 10 14 28 42 48 52 64 72 76 79
A Group # 866: 42 43 50 51 52 60 61 62 66 67
A Group # 867: 20 21 22 30 31 32

```

SET UP GROUP CALL DISTRIBUTION

When you assign voice terminals to a Call Distribution group, intercom calls are distributed equally among the available members of the group. Each intercom call placed to that group rings at the voice terminal of the group member whose turn it is to take the next call.

If you also assign outside lines or line pools to a Call Distribution group, the system directs each incoming call on those lines to the next available voice terminal in the group.

Check the Call Distribution Groups part of your Group Call Distribution Forms to see which voice terminals should be assigned to each Call Distribution group. Check your Call Distribution Groups Line/Line Pool Assignments Form to see which lines and/or line pools, if any, should be associated with each group.

Follow the procedure below to assign voice terminals to Call Distribution groups and to associate outside lines or line pools with groups.

- 1 If you haven't already done so, enter administration mode by sliding the T/P switch to *P* and touching **Conference** twice.
Lights flash next to Adm Pool, Adm Tel, Message, and Speaker.
- 2 **Touch Message.**
The lights next to the administration mode buttons stop flashing. The green light next to Message remains on.
- 3 Dial the 3-character code #87.
- 4 Dial the number of the Call Distribution group (0 through 5) that you want to set up or change.

-
- 5 Perform one of the following operations to assign voice terminals to Call Distribution groups:
- If you have Auto Intercom buttons, touch the Auto Intercom button of each voice terminal that you want to add to or remove. Each successive touch gives you one of these codes:
 - Green light on* == voice terminal is in the Call Distribution group.
 - Green light off* == voice terminal isn't in the Call Distribution group.
 - If you don't have Auto Intercom buttons, perform one of the following operations for each voice terminal that you want to add to or remove from this Call Distribution group.
 - ▶ To add the voice terminal to the group, touch **Hold**, then dial its intercom number.
 - ▶ To remove the voice terminal from the group, touch **Drop**, then dial its intercom number.
 - ▶ To remove all the voice terminals from the group, touch **Drop**, then touch *****.

If you use the Hold or Drop button, the console beeps if it can't perform the operation you specify. It beeps, for example, if the voice terminal you're trying to add is already in the group.

- 6 Check your form to see which lines and/or line pools, if any, should be assigned to this Call Distribution group. Green lights show next to the buttons of any lines that are already assigned to the group. Red lights show next to the buttons of all lines that are part of line pools.
- 7 To associate lines or line pools with this group or change line assignments you've already made, touch each line button until the light next to the button shows the appropriate code. Touching the button of any line in a line pool changes the status of the whole line pool.
- Green light on* == line or line pool is assigned to the Call Distribution group.
 - Green light off* == line or line pool isn't assigned to the Call Distribution group.
- 8 Repeat steps 3 through 7 for each Call Distribution group you want to set up or change.
- 9 If you have a printer, you can request a printout like the one shown in Figure 3-15 to make sure your Call Distribution groups are set up as you want them. To get a printout, dial the 4-character code #906.
- The green light next to Message flashes. When the printout is completed, you hear a beep and the green light next to Message becomes steady.*
- Don't go on to step 10 until you hear the beep or you'll get an incomplete printout. Wait to remove your printout until you've completed step 10 or your page alignments will be affected.
- 10 Touch **Message**.
- The lights next to the administration mode buttons flash.*
- 11 Continue to administer your system, or leave administration mode by sliding the T/P switch to the center position.

FIGURE 3-15 A printout of call distribution groups.

```
A Group# 870: 10 11 12 13 14 15 16 17 21 26 30 31 35 39 53
A Group# 871: 10 21 22 30 32 33 43 47 51 55 61 63 65 69 72
A Group# 872: 41 51 55 58 66 70 71 72 73 74 75 76 77 78 79
A Group# 873: 26 31 32 34 35 36 42 44 50 56 57 58 59 63 64
A Group# 874: 16 25 33 34 36 37 38 40 42 45 46 49 52 53 69
A Group# 875: 70 71 72 73 76 78 79
```

SET THE SYSTEM FOR ONE-TOUCH CALL HANDLING

Check your System Configuration Form to verify the one-touch call handling option that you selected, One-Touch Transfer or One-Touch Hold with Call Announcement. If this is a new system and you want One-Touch Transfer, the default setting, you don't need to perform this procedure.

To administer One-Touch Hold with Call Announcement or to change from One-Touch Hold with Call Announcement to One-Touch Transfer, follow the procedure below.

- 1 If you haven't already done so, enter administration mode by sliding the T/P switch to *P* and touching **Conference** twice.
Lights flash next to Adm Pool, Adm Tel, Message, and Speaker.
- 2 **Touch Message.**
The lights next to the administration mode buttons stop flashing. The green light next to Message remains on.
- 3 Dial the 4-character code #315, then perform one of the following operations:
 - If you want One-Touch Transfer, dial 0.
 - If you want One-Touch Hold with Call Announcement, dial 1.
- 4 If you have a printer connected to your system, you can make sure that you've selected the option you want by printing out a System Information Report. A typical printout appears in Figure 3-16, with the entry for One-Touch call handling highlighted. To order a printout, dial the 4-character code #905.
The green light next to Message flashes. When the printout is completed, you hear a beep and the green light next to Message becomes steady.

Don't go on to step 5 until you hear the beep or you'll get an incomplete printout. Wait to remove your printout until you've completed step 5 or your page alignments will be affected.
- 5 **Touch Message.**
The lights next to the administration mode buttons flash again.
- 6 Continue to administer your system, or leave administration mode by sliding the T/P switch to the center position.

FIGURE 3-16 A printout of a System Information Report, with One-Touch call handling option highlighted.

```
A SYSTEM INFORMATION

A SMDR Incoming Calls Recorded: YES
A SMDR Minimum Call Length: 01 minutes
A Current Date: 11/21/87
A Current Time: 10:36:28

A Transfer Return Timer: 4

A Attendant Intercom Auto Dial with: Transfer

A Recall Timer : 450 msec

A System Size : LARGE
A System Type : BUTTON ACCESS
A Music on Hold Line : 15
A Paging Line : 16
A Transfer feedback type : Music on Hold
A Answering Positions : 10 14 26 18 22 30 58 62
A 12 sec rotary dial timeout interval

A Slot # 1: A408 Lines/ATL Terminals
A Slot # 2: A408 Lines/ATL Terminals
A Slot # 3: A408 Lines/ATL Terminals
A Slot # 4: D008 DCP Terminals
A Slot # 5: D008 DCP Terminals
A Slot # 6: D008 DCP Terminals
A Slot # 7: A008 ATL Terminals
A Slot # 8: D008 DCP Terminals
A Slot # 9: A408 Lines/ATL Terminals
A Slot # 10: R012 Basic phones/TTRs
A Slot # 11: NOT USED
```

ESTABLISH ENHANCED NIGHT SERVICE

The MERLIN II system offers three options for after-hours telephone operation:

- Night Service with Group Assignment
- Night Service with Outward Restriction
- Night Service with Time Set

Get the planning forms for the Night Service features you want to administer and follow the appropriate procedures below.

Administer Night Service with Group Assignment

You can set up Night Service groups so that after-hours calls to the group's attendant console ring immediately at all voice terminals in the group. Get your completed Enhanced Night Service with Group Assignment Form and follow the procedure below to add voice terminals to or remove them from Night Service groups.

- 1 If you haven't already done so, enter administration mode by sliding the T/P switch to *P* and touching **Conference** twice.
Lights flash next to Adm Pool, Adm Tel, Message, and Speaker.
- 2 **Touch Message.**
The lights next to the administration mode buttons stop flashing. The green light next to Message remains on.
- 3 Dial the 4-character code #307.
- 4 Dial the intercom number of the attendant for whom you're setting up or changing a Night Service group.
If you have an Auto Intercom button for the attendant's console, the green light next to the button flashes rapidly.
- 5 Perform one of the following operations:
 - If you have Auto Intercom buttons, touch the Auto Intercom button for each voice terminal that you want to add to or remove from this attendant's Night Service group. Each successive touch gives you one of these codes:
 - Green light on = voice terminal is in the Night Service group*
 - Green light off = voice terminal isn't in the Night Service group.*
 - If you don't have Auto Intercom buttons, use the dial pad to add voice terminals or remove them from this Night Service group.
 - ▶ To add a voice terminal to the group, touch **Hold**, then dial its intercom number.
 - ▶ To remove a voice terminal from the group, touch **Drop**, then dial its intercom number.
 - ▶ To remove all the voice terminals from the group, touch **Drop**, then touch *****.

If you use the Hold or Drop button, the console beeps if it can't perform the operation you specify. It beeps, for example, if the voice terminal you want to remove isn't in the group.
- 6 Repeat steps 4 and 5 for each Night Service group you want to set up or change.
- 7 If you have a printer, you can order a printout to make sure your Night Service groups are set up the way you want them. Figure 3-17 shows a typical printout. To get a printout of the Night Service Information Report, dial the 4-character code #907.
The green light next to Message flashes. When the printout is completed, you hear a beep and the green light next to Message becomes steady.

Don't go on to step 8 until you hear the beep or you'll get an incomplete printout. Wait to remove your printout until you've completed step 8 or your page alignments will be affected.
- 8 **Touch Message.**
The lights next to the administration mode buttons flash.
- 9 Continue to administer your system, or leave administration mode by sliding the T/P switch to the center position.

FIGURE 3-17 A printout of a Night Service information report.

```
A NIGHT SERVICE INFORMATION

A AP 10: 11 12 13 14 15 16 17 18 21 22 23 24 26 27
A      28 31 33 36 37 38 41 42 43 44 45 46 47 48
A      50 51 53 57

A AP 14: 21 22 23 24 25 26

A AP 26: 11 12 13 14 15

A AP 18: 20 21 22 23 24 25 26 27 28 29 37 39

A AP 22: 12 13 15 16

A AP 30: 14

A AP 58:

A AP 62:

A Password: 7979
A Current Day: THURSDAY

A Turn off at: Turn on at:
A SUNDAY : :
A MONDAY 08:00 17:30
A TUESDAY 08:00 17:30
A WEDNESDAY 08:00 17:30
A THURSDAY 08:00 17:30
A FRIDAY 08:00 17:30
A SATURDAY : :

A Emergency Allowed List:
A 0) 12125551012
A 1) 5551012
A 2) 5551616
A 3)
A 4)
A 5)
A 6)
A 7)
A 8)
A 9)

A Exclusion List:
A 11 13 19 21 36
```


Administer Night Service with Outward Restriction

Get your completed Outward Restricted Night Service Form and follow the procedure below to set up or change your:

- Password
- Night Service allowed list
- Night Service Exclusion list

NOTE: While Night Service with Outward Restriction is in effect, voice terminals on the Night Service Exclusion list retain any call restrictions placed on them during normal working hours. *They aren't prevented in any other way, however, from being used for outside calls.* These voice terminals can be used to place emergency calls.

Follow these steps to administer Night Service:

- 1 If you haven't already done so, enter administration mode by sliding the T/P switch to **P** and touching **Conference** twice.
Lights flash next to Adm Pool, Adm Tel, Message, and Speaker.
- 2 Touch **Message**.
The lights next to the administration mode buttons stop flashing. The green light next to Message remains on.
- 3 To administer a password for your system, dial the 4-character code #309, then perform one of following operations:
 - To create a new password or replace an existing password, dial any 4 digits. You can use the digits 0 through 9 in any combination.
 - To remove an existing password, touch **Drop**.
- 4 To administer a Night Service allowed list, dial the 4-character code #310, then perform one of the following operations:
 - To add or change an emergency telephone number, dial the entry number (0 to 9) of the telephone number on the list, then dial the number itself (maximum of 12 digits).

For example, if the first entry on your Night Service allowed list were 555-1000, you would dial #310, then dial 05551000.
 - To remove an existing emergency telephone number, dial the entry number (0 to 9) of the telephone number on the list, then touch **Drop** (touch **Drop** and then touch **Enter** if you have a display console).

NOTE: If you have a display console, it enters editing mode automatically when you dial #310. The display shows the emergency telephone number as you dial it.
 - ▶ If the number is correct, touch **Enter** to send the information to the control unit.
 - ▶ If it isn't, use **Backsp** or **Clear** to erase incorrect characters, redial the number, and then touch **Enter**.
- 5 Repeat step 4 for each number you want to add, change, or remove from your Night Service allowed list.

-
- 6 To assign voice terminals to the Night Service Exclusion list or remove them from this list, dial the 4-character code #308. Then perform one of the following operations:
- If you have Auto Intercom buttons, touch the Auto Intercom button of each voice terminal until the light next to the button shows the appropriate code:
 - Green light on* = voice terminal is on the Exclusion list.
 - Green light off* = voice terminal isn't on the Exclusion list.
 - If you don't have Auto Intercom buttons, use your dial pad to add voice terminals to or remove them from the Exclusion list, as shown below:
 - ▶ To add a voice terminal to the list, touch **Hold**, then dial its intercom number.
 - ▶ To remove a voice terminal from the list, touch **Drop**, then dial its intercom number.
 - ▶ To remove all the voice terminals from the list, touch **Drop**, then touch *****.

If you use the Hold or Drop button, the console beeps if it can't perform the operation you specify. It beeps, for example, if the voice terminal you want to add is already on the list.

- 7 If you have a printer, you can get a Night Service Information Report showing the Night Service password, the allowed list of emergency telephone numbers, and the Exclusion list, if you have one. Figure 3-17 shows a typical printout. To get a printout, dial the 4-character code #907. *The green light next to Message flashes. When the printout is completed, you hear a beep and the green light next to Message becomes steady.*
- Don't go on to step 8 until you hear the beep or you'll get an incomplete printout. Wait to remove your printout until you've completed step 8 or your page alignments will be affected.
- 8 **Touch Message.**
The lights next to the administration mode buttons flash again.
- 9 Continue to administer your system, or leave administration mode by sliding the T/P switch to the center position.

Administer Night Service with Time Set

Night Service with Time Set turns Night Service on and off automatically at the times you specify for each day of the week. You can suspend this automatic timer feature temporarily when there is a midweek holiday or an unexpected facility closing. You can reactivate Night Service with Time Set when your business returns to its normal schedule.

Perform the procedure below to set or change the times when Night Service goes on and off each day. If you want Night Service to remain on for the full 24 hours on days when your business is closed, don't set start and stop times for those days. If you administer stop and start times for Friday and Monday, for example, but set no times for Saturday and Sunday, your system will turn on Night Service on Friday evening and leave it on until Monday morning.

NOTE: Keep in mind that if you change settings for the current day while Night Service is in effect, the system turns Night Service off automatically. For example, if today is Thursday and you change the time Night Service should go off on Thursdays, Night Service will go off immediately. If this happens, you'll need to reactivate Night Service manually, as described in "Activate or Suspend Enhanced Night Service with Time Set."

Get your completed Enhanced Night Service with Time Set Table and follow this procedure:

- 1 If you haven't already done so, enter administration mode by sliding the T/P switch to P and touching **Conference** twice.
Lights flash next to Adm Pool, Adm Tel, Message, and Speaker.
- 2 **Touch Message.**
The lights next to the administration mode buttons stop flashing, and the green light next to Message remains on.
- 3 For each day of the week in turn, set the time of day when you want Night Service to go on automatically. You must perform both step a and step b for each day. Remember that if you want Night Service to stay on throughout the day, on Sunday, for example, you don't set an "on" or an "off" time for that day.

- a Dial the 5-character code, as shown below, of the day of the week for which you're setting a time, then go on to step b.

Sunday = #3110	Wednesday = #3113	Friday = #3115
Monday = #3111	Thursday = #3114	Saturday = #3116
Tuesday = #3112		

- b Perform one of the following operations:
 - ▶ To set or change the time that Night Service goes on the day dialed, dial two digits for the hour and two digits for the minute, in the 24-hour military format.

For example, if you want Night Service to go on at 5:30 p.m., dial 1730.
 - ▶ To remove the existing automatic "on" time for the day dialed, touch **Drop** (touch **Drop** and then touch **Enter** if you have a display console). Once you remove this setting, Night Service must be turned on and off manually if you want to use it on the day of the week dialed.

NOTE: If you have a display console, it enters editing mode automatically when you dial #311. The display shows the start time as you dial it.

- If the time shown is correct, touch **Enter** to send the information to the control unit.
- If it isn't, use **Backsp** or **Clear** to erase incorrect numbers, redial the start time, and then touch **Enter**.

This also applies to step 4 and 5, below.

-
- 4 For each day of the week in turn, set the time of day when you want Night Service to go off automatically. You must perform both step a and step b for each day. Remember that if you want Night Service to stay on throughout the day, on a Sunday, for example, don't set an "off" or an "on" time for that day.
- a Dial the 5-character code, as shown below, of the day of the week for which you're setting a time, then go on to step b.
- | | | |
|-----------------|-------------------|------------------|
| Sunday = #3120 | Wednesday = #3123 | Friday = #3125 |
| Monday = #3121 | Thursday = #3124 | Saturday = #3126 |
| Tuesday = #3122 | | |
- b Perform one of the following operations:
- ▶ To set or change the time Night Service goes off on the day dialed, dial two digits for the hour and two digits for the minute, in the 24-hour military format.

For example, if you want Night Service to go off at 8:00 a.m., dial 0800.

If you have a display console, check the display to be sure that what you dialed is correct. Correct it, if necessary, then touch **Enter** to send the information to the control unit.
 - ▶ To remove the existing automatic "off" time for the day dialed, touch **Drop** (touch **Drop** and then touch **Enter** if you have a display console). Once you remove this setting, Night Service must be turned on and off manually if you want to use it on the day of the week dialed.
- 5 If you haven't set the MERLIN II clock to the current time as part of Call Report administration, do so now. To set the time, dial the 4-character code #300 plus two digits for hours and two digits for minutes in the 24-hour format.

For example, if the time is 6:23 a.m., dial the 8-character code #3000623. If it is 6:23 p.m., dial #3001823.

If you have a display console, check to be sure that what you dialed is correct. Correct it, if necessary, then touch **Enter** to send the information to the control unit.
- 6 If you have a printer and want to see a list of the times you've set for Night Service to go on and off, go on to step 8. If you don't need to see a printout and are ready to start automatic operation of Night Service, go on to step 7.
- 7 Start the automatic operation of Night Service by dialing the 4-character code #313 and the number of the current day of the week (Sunday is 0; Saturday is 6).

For example, if today is Tuesday, you dial the 5-character code #3132 to activate Night Service with Time Set.

Go on to step 9.

- 8 The Night Service Information Report lists the times Night Service is set to go on and off each day of the week. Figure 3-17 shows a typical printout. To get a printout, dial the 4-character code #907.

The green light next to Message flashes. When the printout is completed, you hear a beep and the green light next to Message becomes steady.

Don't go on to step 9 until you hear a beep or you'll get an incomplete printout. Wait to remove your printout until you've completed step 9 or your page alignments will be affected.

- 9 **Touch Message.**
The lights next to the administration mode buttons flash again.
- 10 Continue to administer your system, or leave administration mode by sliding the T/P switch to the center position.

Activate or Suspend Enhanced Night Service with Time Set

Once you've set the times when you want the system to turn Night Service on and off each day, you can enter administration mode and activate or suspend Night Service with Time Set at any time. If you suspend Night Service with Time Set, Night Service must be turned on and off manually at each attendant's console.

Follow this procedure to put Night Service with Time Set in place or to remove it temporarily:

- 1 If you haven't already done so, enter administration mode by sliding the T/P switch to P and touching **Conference** twice.
Lights flash next to Adm Pool, Adm Tel, Message, and Speaker.
- 2 **Touch Message.**
The lights next to the administration mode buttons stop flashing, and the green light next to Message remains on.
- 3 To change the status of Night Service with Time Set, perform one of the operations shown below. Keep in mind that if you set or change the current day of the week while Night Service is on, it will go off.
 - To activate timer-controlled operation of Night Service, dial the 5-character code shown below for the current day of the week.
Sunday = #3130 Wednesday = #3133 Friday = #3135
Monday = #3131 Thursday = #3134 Saturday = #3136
Tuesday = #3132
 - To suspend timer-controlled operation of Night Service, dial the 5-character code #3139.

If you suspend Night Service with Time Set, you must turn Night Service on and off manually. To reestablish timer control of Night Service, just follow the instructions given above for activating Night Service with Time Set.
- 4 **Touch Message.**
The lights next to the administration buttons flash again.
- 5 Continue to administer your system, or leave administration mode by sliding the T/P switch to the center position.

ADMINISTER SYSTEM SPEED DIAL CODES

You can assign System Speed Dial codes to telephone numbers that people in your business call often. Then people can reach those numbers by dialing just the codes.

Get your completed System Speed Dial Directory. Follow the procedure below to set up System Speed Dial codes.

- 1 If you haven't already done so, enter administration mode by sliding the T/P switch to *P* and touching **Conference** twice.
Lights flash next to Adm Pool, Adm Tel, Message, and Speaker.
- 2 Touch **Conference**.
A steady red light shows next to Adm Tel.
- 3 Dial 0.
- 4 Dial the 3-character code (#60 through #99) that you want to assign to the telephone number.
- 5 If the code is to be a marked Speed Dial code, dial *. A code is marked for privacy so that the number it represents, such as a telephone number with an access code, isn't printed on Call Report records.
- 6 Dial the telephone number. Include the leading 1 where required. If your system is pooled with Dial Access, include the pool number on which the call should be placed in the Speed Dial code.

NOTE: It's best to include a pause between the pool number and the telephone number (touch **Hold**) when you administer a Speed Dial code that includes a pool number.

A number for a marked Speed Dial code can have a maximum of 39 characters; a number for an unmarked Speed Dial code can have up to 40 characters. These characters can include **Hold** (Pause) for a pause, **Drop** (Stop) for a stop, **Transfer** for Touch-Tone enable, and **Recall** for a switchhook flash.

NOTE: If you have a display console, it enters editing mode automatically when you dial the System Speed Dial code. The display shows the telephone number, including any special characters, as you dial it.

- If the number is correct, touch **Enter** to send the information to the control unit.
 - If it isn't, use **Backsp** or **Clear** to erase incorrect characters, redial the number, and then touch **Enter**.
- 7 Repeat steps 4 through 6 for each System Speed Dial code you want to assign.
 - 8 Touch **Conference** twice.

-
- 9 If you have a printer connected to your system, you can follow the procedure below to get a printout of your System Speed Dial code numbers. Figure 3-18 shows a typical printout.
- a **Touch Message.**
The lights next to the administration mode buttons stop flashing. The green light next to Message remains on.
 - b Dial the 4-character code #901.
The green light next to Message flashes.

All 40 codes (#60 through #99) are printed out, even if some aren't yet assigned to telephone numbers. If a number includes special characters, they will appear as t for Touch-Tone enable, s for stop, p for pause, or r for recall.

When the printout is completed, you hear a beep and the green light next to Message becomes steady.

Don't go on to step c until you hear the beep or you'll get an incomplete printout. Don't remove your printout until you complete step c or your page alignments will be affected.
 - c **Touch Message.**
The lights next to the administration mode buttons flash again.
- 10 Continue to administer your system, or leave administration mode by sliding the T/P switch to the center position.

FIGURE 3-18 A printout of System Speed Dial code numbers.

```
A    SYSTEM SPEED DIAL NUMBERS

A    Dial Code # 60: 12025555900
A    Dial Code # 61: 12025557878
A    Dial Code # 62: 12025550550
A    Dial Code # 63: 12025551119
A    Dial Code # 64: 18005557777
A    Dial Code # 65: 12125550858
A    Dial Code # 66: 12125555500
A    Dial Code # 67: 16075550119
A    Dial Code # 68: 12155551966p1577p3225
A    Dial Code # 69: 16055589904p9908s2508r6607
A    Dial Code # 70: 17135551100t5779p19556
A    Dial Code # 71: 1714555302lpp5509t67110p2259
A    Dial Code # 72: 14045554164
A    Dial Code # 73: *19045557434
A    Dial Code # 74: *18085550815
A    Dial Code # 75: 5551000
A    Dial Code # 76: 16095555071
A    Dial Code # 77: *16095555000ppp3359t667410p4395
A    Dial Code # 78:
A    Dial Code # 79:
A    Dial Code # 80:
A    Dial Code # 81:
A    Dial Code # 82:
A    Dial Code # 83:
A    Dial Code # 84:
A    Dial Code # 85:
A    Dial Code # 86:
A    Dial Code # 87:
A    Dial Code # 88:
A    Dial Code # 89:
A    Dial Code # 90:
A    Dial Code # 91:
A    Dial Code # 92:
A    Dial Code # 93:
A    Dial Code # 94:
A    Dial Code # 95:
A    Dial Code # 96:
A    Dial Code # 97:
A    Dial Code # 98:
A    Dial Code # 99:
```


ADMINISTER CALL REPORT OPTIONS

The Call Report feature, also known as Station Message Detail Recording (SMDR), provides records of outgoing calls only or of both incoming and outgoing calls. To use this feature, you need a 1200-baud printer with an RS-232-C interface connector.

NOTE: If you haven't already set the time as part of another feature, you'll need to do so for Call Report. If you perform step 3, below, while the Night Service feature is in effect for your system, Night Service will go off. You'll need to follow the procedure in "Activate or Suspend Enhanced Night Service with Time Set" to reactivate it.

Get your System Configuration Form and follow the procedure below to administer Call Report options.

- 1 If you haven't already done so, enter administration mode by sliding the T/P switch to *P* and touching **Conference** twice.
Lights flash next to Adm Pool, Adm Tel, Message, and Speaker.
- 2 Touch **Message**.
The lights next to the administration mode buttons stop flashing. The green light next to Message remains on.
- 3 If you haven't already set the current time on your system for use with the Night Service feature, do so now for Call Report. Dial the 4-character code #300 plus two digits for hours and two digits for minutes in the 24-hour format.

For example, if the time is 6:23 a.m., dial the 8-character code #3000623. If the time is 6:23 p.m., dial the 8-character code #3001823.

NOTE: If you have a display console, it enters editing mode automatically when you dial #300. The display shows the current time as you dial it.

- If the time is correct, touch **Enter** to send the information to the control unit.
- If it isn't, use **Backsp** or **Clear** to erase incorrect numbers, redial the time, and then touch **Enter**.

This also applies to step 4, below.

- 4 To set the date, dial the 4-character code #301 and then dial two digits for the month, two digits for the day, and two digits for the year.

For example, if the date is March 15, 1987, dial the 10-character code #301031587.

If you have a display console, check to be sure the date shown on the display is correct. Make changes, if necessary, then touch **Enter** to send the information to the control unit.

- 5 The system is factory-set to record all calls that last at least 1 minute. To specify a minimum length of more or less than 1 minute, dial the 4-character code #390 and then dial two digits for the number of minutes you prefer.

For example, if you want to specify a minimum length of 2 minutes, dial the 6-character code #39002. To specify a minimum of 0 minutes, the only minimum length shorter than 1 minute that the system can set, dial the 6-character code #39000.

- 6 The system is factory-set to print records of both incoming and outgoing calls. To change that setting or to return to that setting, if your system has already been changed, dial one of the following codes:
 - If you want both incoming and outgoing calls recorded, dial the 5-character code #3911.
 - If you want only outgoing calls recorded, dial the 5-character code #3910.
- 7 You may want to verify that Call Report is administered the way you want it. A typical printout of Call Report (SMDR) options is shown in Figure 3-19. To get a printout of the minimum call duration and types of calls reported, dial the 8-character code #390#900.
The green light next to Message flashes.

When the printout is completed, a beep sounds and the green light next to **Message** becomes steady.

Don't go on to step 8 until you hear the beep, or you'll get an incomplete printout. Don't remove your printout until you've completed step 8 or your page alignments will be affected.
- 8 **Touch Message.**
The lights next to the administration mode buttons flash again.
- 9 Continue to administer your system, or leave administration mode by sliding the T/P switch to the center position.

FIGURE 3-19 A printout of Call Report (SMDR) options.

```
A   SMDR OPTIONS
A   SMDR Incoming Calls Recorded: YES
A   SMDR Minimum Call Length: 00 minutes
```

Resetting the System for the Call Report Feature

Your MERLIN II system is factory-set for the Call Report feature, but this setting can be changed through administration. If you aren't receiving reports on calls, the Call Report feature may have been deactivated. Try performing the procedure below to reactivate Call Report.

- 1 If you haven't already done so, enter administration mode by sliding the T/P switch to **P** and touching **Conference** twice.
Lights flash next to Adm Pool, Adm Tel, Message, and Speaker.
- 2 **Touch Message.**
The lights next to the administration mode buttons stop flashing. The green light next to Message remains on.
- 3 Dial the 5-character code #3160.
- 4 **Touch Message.**
The lights next to the administration mode buttons flash.
- 5 Continue to administer your system, or leave administration mode by sliding the T/P switch to the center position.

Set Your Printer to Scroll to the Top of the Page

Normally, your printer scrolls to the top of the next page and prints a new header when it completes a report. If the heading is being printed in the middle of the page, reset the printer by following the procedure below.

- 1 Turn off the printer and scroll the paper to the top of the next page.
- 2 Turn the printer on.
- 3 If you haven't already done so, enter administration mode by sliding the T/P switch to **P** and touching **Conference** twice.
Lights flash next to Adm Pool, Adm Tel, Message, and Speaker.
- 4 Touch **Message**.
The lights next to the administration mode buttons stop flashing, and the green light next to Message remains on.
- 5 Dial the 4-character code #399.
- 6 Touch **Message**.
The lights next to the administration mode buttons flash.
- 7 Leave administration mode by sliding the T/P switch to the center position.

SET THE RETURN INTERVAL FOR TRANSFERRED CALLS

Refer to your System Configuration Form to see how many times a transferred call should ring before it returns to the voice terminal from which it was transferred. If you selected a number other than 4 rings (the default setting), follow the procedure below to set the return interval for transferred calls.

- 1 If you haven't already done so, enter administration mode by sliding the T/P switch to **P** and touching **Conference** twice.
Lights flash next to Adm Pool, Adm Tel, Message, and Speaker.
- 2 Touch **Message**.
The lights next to the administration mode buttons stop flashing. The green light next to Message remains on.
- 3 Dial the 4-character code #306.
- 4 Dial a number from 1 through 9 to indicate how many times a transferred call should ring before returning. If you *don't* want transferred calls to return, dial 0.
- 5 If you have a printer, you can get a System Information Report that shows the number of times a transferred call rings before it returns to the original voice terminal. A typical printout appears in Figure 3-20, with the transfer return interval entry highlighted. To get a printout, dial the 4-character code #905.
The green light next to Message flashes. When the printout is completed, you hear a beep and the green light next to Message becomes steady.

Don't go on to step 6 until you hear the beep or you'll get an incomplete printout. Wait to remove your printout until you've completed step 6 or your page alignments will be affected.

- 6 Touch **Message**.
The lights next to the administration mode buttons flash.
- 7 Continue to administer your system or leave administration mode by sliding the T/P switch to the center position.

FIGURE 3-20 A printout of a System Information Report with Return Interval for Transferred Calls highlighted.

```
A   SYSTEM INFORMATION

A   SMOR Incoming Calls Recorded: YES
A   SMOR Minimum Call Length: 01 minutes
A   Current Date: 11/25/87
A   Current Time: 14:36:55
A   Transfer Return Timer: 4-
A   Attendant Intercom Auto Dial With: Transfer
A   Recall Timer : 450 msec
A   System Size : LARGE
A   System Type : BUTTON ACCESS
A   Music on Hold Line : 15
A   Paging Line : 16
A   Transfer feedback type : Music on Hold
A   Answering Positions : 10 14 26 18 22 30 58 62
A   No rotary dial timeout interval

A   Slot # 1: A408 Lines/ATL Terminals
A   Slot # 2: A408 Lines/ATL Terminals
A   Slot # 3: A408 Lines/ATL Terminals
A   Slot # 4: D008 DCP Terminals
A   Slot # 5: D008 DCP Terminals
A   Slot # 6: D008 DCP Terminals
A   Slot # 7: A008 ATL Terminals
A   Slot # 8: D008 DCP Terminals
A   Slot # 9: A408 Lines/ATL Terminals
A   Slot # 10: R012 Basic phones/TTRs
A   Slot # 11: NOT USED
```

SPECIFY RINGING-ON-TRANSFER

If your system has the Music-on-Hold feature, it's factory-set to provide music while calls are being transferred. If you don't have the Music-on-Hold feature, the system is factory set to provide no sound while calls are transferred. If you prefer, you can set the system so that callers hear ringing.

Follow these steps to change what callers hear while calls are being transferred:

- 1 If you haven't already done so, enter administration mode by sliding the T/P switch to P and touching **Conference** twice.
Lights flash next to Adm Pool, Adm Tel, Message, and Speaker.
- 2 Touch **Message**.
The lights next to the administration mode buttons stop flashing. The green light next to Message remains on.
- 3 Dial the 4-character code #314.

- 4 Dial one of the following digits to specify what callers hear while calls are being transferred:
 - Dial 0 for music.
 - Dial 1 for ringing.
- 5 If you have a printer, you can verify that the transfer option is set correctly by checking your System Information Report. A portion of a typical printout appears in Figure 3-21, with the entry highlighted. To get a printout, dial the 4-character code #905.

The green light next to Message flashes. When the printout is complete, you hear a beep and the green light next to Message becomes steady.

Don't go on to step 6 until you hear the beep or you'll get an incomplete printout. Wait to remove your printout until you've completed step 6 or your page alignments will be affected.
- 6 **Touch Message.**

The lights next to the administration mode buttons flash.
- 7 Continue to administer your system, or leave administration mode by sliding the T/P switch to the center position.

FIGURE 3-21 A portion of a printout of a System Information Report, with ringing or music during transfer option highlighted.

```
A   Transfer Return Timer: 4
A   Attendant Intercom Auto Dial With: Transfer
A   Recall Timer : 450 msec
A   System Size : LARGE
A   System Type : BUTTON ACCESS
A   Music on Hold Line : 15
A   Paging Line : 16
A   Transfer feedback type : Music on Hold
A   Answering Positions : 10 14 26 18 22 30 58 62
```

Step 5: Program Voice Terminals for Office Priorities

When you performed basic administration, you assigned lines and line pools to the individual voice terminals in your system. You may also have given voice terminals call restrictions and assigned them to groups for the systemwide features Group Page, Group Call Distribution, and Night Service.

The final step in preparing voice terminals for use involves assigning optional features to meet individual needs. People can program features on their own voice terminals or you can do it for them, using the Centralized Programming feature.

FEATURES THAT CAN AFFECT CALLING PATTERNS

Most programmable features are designed solely for the user's convenience. There are four features, however, that can affect other voice terminals within the system. They are Ringing Options, Call Coverage, Line Pickup, and Automatic Line Selection. You may want to assign these features yourself or oversee their assignment.

This part of the manual describes the Centralized Programming procedure. It also shows how to program Ringing Options, Call Coverage, Line Pickup, and Automatic Line Selection at individual voice terminals or from the administrator/attendant console.

FORMS AND LABELS

Before you add or change any features on voice terminals, be sure to record the changes on the appropriate Voice Terminal Configuration Form. Also be sure that the feature buttons on the voice terminals are labeled correctly.

Program Voice Terminals for Office Priorities

- Use the Centralized Programming feature.
- Assign Ringing Options.
- Assign Cover buttons.
- Assign Line Pickup buttons.
- Assign Automatic Line Selection sequences.

USE CENTRALIZED PROGRAMMING

You can use Centralized Programming to assign optional features to any voice terminal from the administrator/attendant console. The procedure is slightly different for digital voice terminals than for analog voice terminals, however. This is because the layout of buttons on the digital voice terminals doesn't match that of the analog administrator/attendant console.

Button Positions on Analog Voice Terminals

Whether an analog voice terminal has 5, 10, or 34 buttons, those buttons appear in the same positions on all sets. Therefore, when you do Centralized Programming for an analog voice terminal, the buttons on the administrator/attendant console represent the buttons on the voice terminal you're programming. For example, if you touch the top button in the leftmost column on the console and enter a feature code, you program that feature on the top button in the leftmost column on the voice terminal.

Button Positions on the Digital Voice Terminals

On the 7406 voice terminals, buttons appear in different positions than they do on the various analog voice terminals, as shown in Figures 3-22 and 3-23. The numbers on the buttons in these "button maps" show the corresponding buttons on the analog administrator/attendant console and the digital 7406 voice terminal.

If you're using Centralized Programming to program a 7406 voice terminal, refer to Figures 3-22 and 3-23 as you assign features to buttons. Be sure to touch the button on the administrator/attendant console whose number corresponds to the button on which you want the feature to appear on the voice terminal. For example, to assign a feature to the top button in the middle column of the 7406 voice terminal, you touch the top button in the leftmost column on the administrator/attendant console.

Section 6, "Reference," and Section 7, "Quick Reference Guides," give complete programming instructions for the various MERLIN II system features. Get the appropriate programming instructions and the Voice Terminal Configuration Form for each voice terminal you plan to program. Record on the forms the features that you're assigning. Then follow the procedure below to program individual voice terminals.

Procedure for Centralized Programming

Follow these steps to perform Centralized Programming:

- 1 If you haven't already done so, enter administration mode by sliding the T/P switch to *P* and touching **Conference** twice.
Lights flash next to Adm Pool, Adm Tel, Message, and Speaker.
- 2 Touch **Conference**.
A steady red light shows next to Adm Tel.
- 3 Dial the intercom number or touch the Auto Intercom button, if you have one, of the voice terminal you want to program.
The red light next to Adm Tel goes out. A tone sounds every 5 seconds to remind you that you're programming. The voice terminal you're programming can't be used to make or receive calls during this time, and any callers get a busy signal.

NOTE: If the voice terminal you want to program is busy, the red light next to **Adm Tel** and the green light next to the Auto Intercom button of the voice terminal, if you have one, flash. You must wait for the voice terminal to become idle before continuing to step 4. If you prefer not to wait, you can touch **Conference** again and select another voice terminal to program, or touch **Conference** twice to stop programming.
- 4 Follow the instructions for programming each feature you want to assign to this voice terminal. Perform all the steps in the procedures *except* the steps for getting into and out of programming mode. (These involve sliding the T/P switch for analog voice terminals and dialing #33 and #00 for digital voice terminals.)
- 5 To program another voice terminal, repeat steps 2 through 4.
- 6 Touch **Conference** twice.
- 7 Continue to administer your system or leave administration mode by sliding the T/P switch to the center position.

FIGURE 3-22 Button location codes for analog voice terminals.

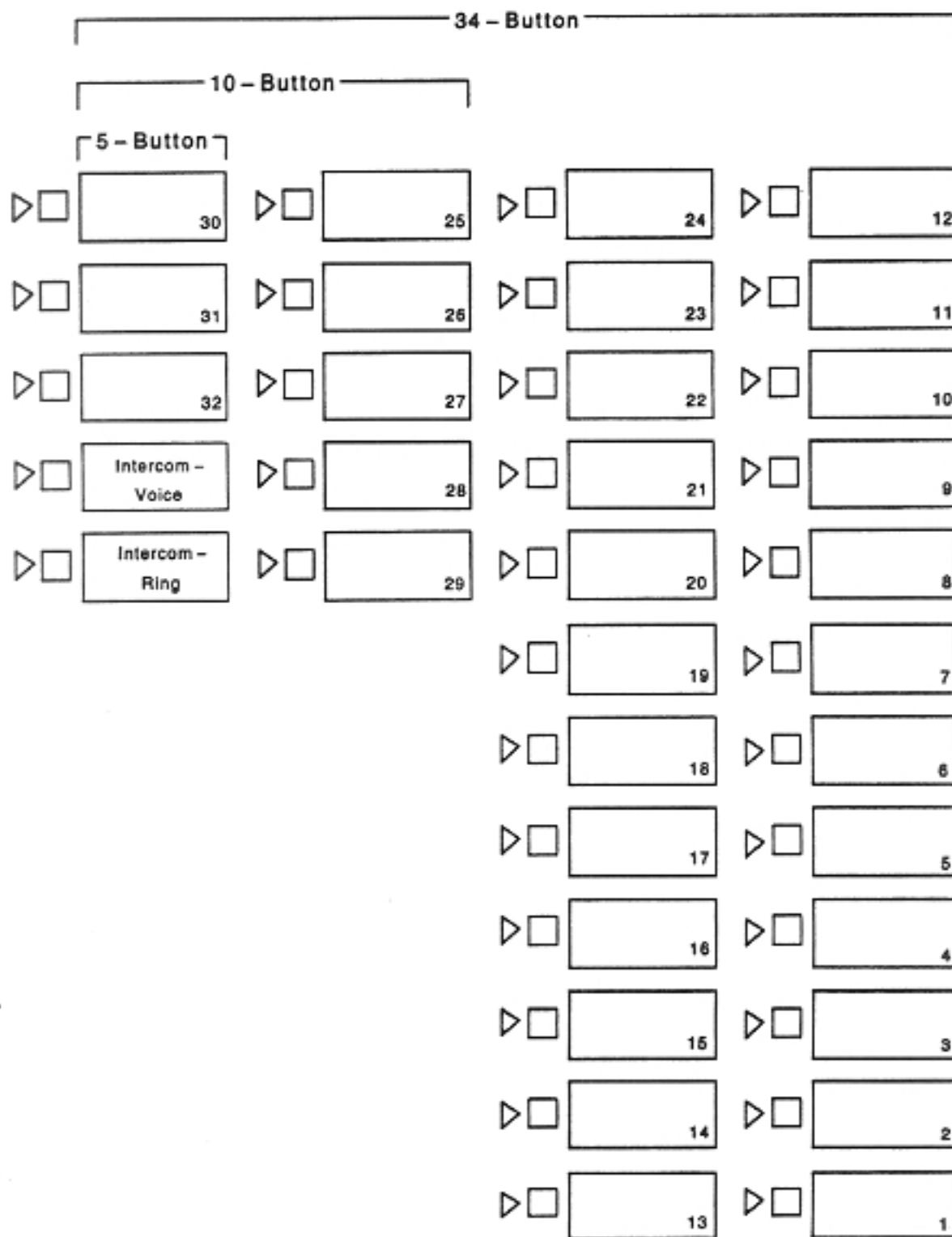
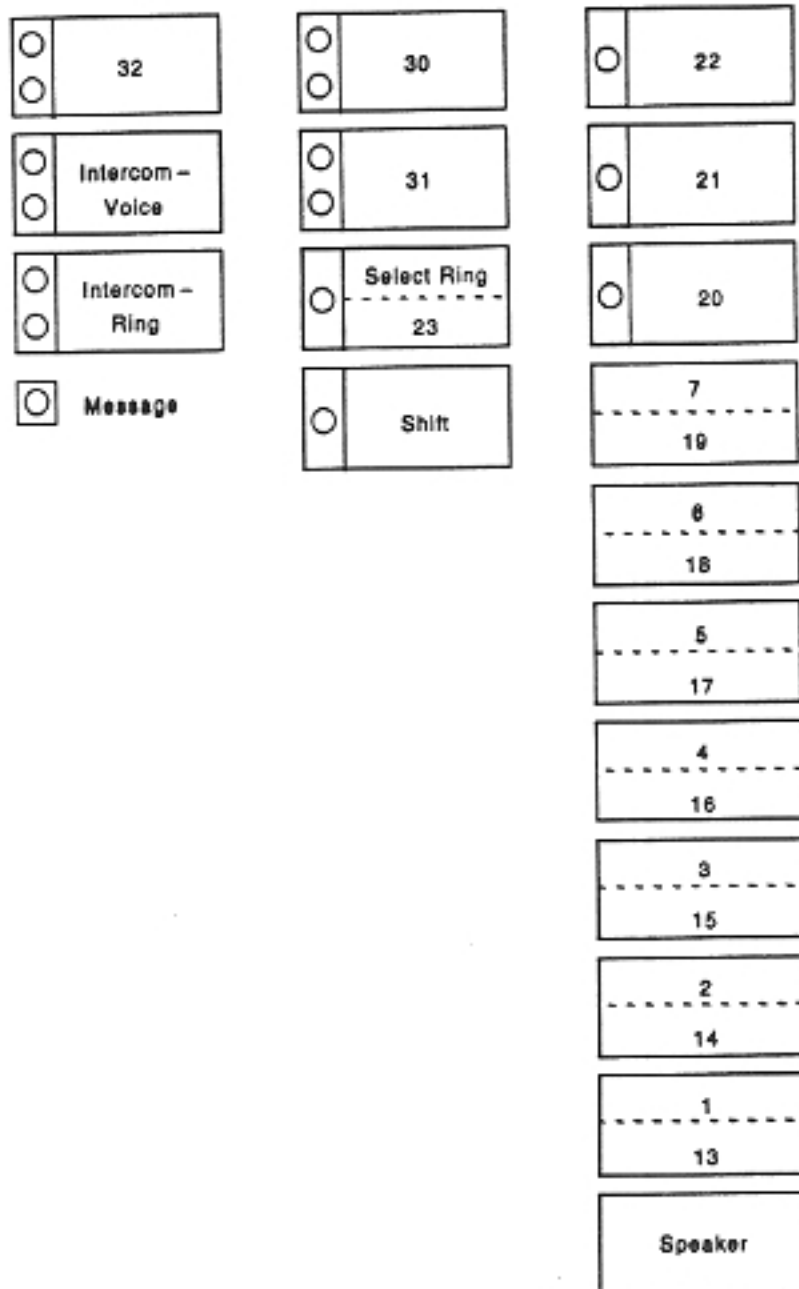


FIGURE 3-23 Button location codes for digital 7406 voice terminals.



ASSIGN RINGING OPTIONS FOR LINE BUTTONS

You can customize the line buttons, pool buttons, and Cover buttons on your voice terminals so that outside calls coming in on those lines ring in one of three different ways: immediate ring, delayed ring, or no ring.

Ringling options for lines are factory-set as follows:

- On attendant consoles, all lines are factory-set to "immediate ring."
- On nonattendant voice terminals:
 - Individual lines assigned to line buttons are set to "immediate ring."
 - Pooled lines assigned to line pool buttons are set to "no ring."

Get your Voice Terminal Configuration Forms to see which voice terminals should have the ringing patterns of their lines changed. Use Centralized Programming to assign line ringing options from the administrator/attendant console, or perform the procedure below at each voice terminal. Note that you can change the ringing options for selected lines or for all the lines assigned to a voice terminal.

- 1 Go to the voice terminal you want to program.
- 2 On an analog voice terminal, slide the T/P switch to P. On a digital voice terminal, dial #33.
The voice terminal rings every 5 seconds to remind you it's in program mode.
- 3 Perform the appropriate procedure:
 - To change the ring for a specific line, touch its line button. Then dial the appropriate code for the type of ringing you want:
 - ▶ For immediate ring, dial *37.
 - ▶ For delayed ring, dial *36.
 - ▶ For no ring, dial *35.
 - To change the ring for all lines assigned to this voice terminal, touch any line or line pool button (except the Pool Access button). Then dial the appropriate code for the type of ringing you want:
 - ▶ For immediate ring, dial *347.
 - ▶ For delayed ring, dial *346.
 - ▶ For no ring, dial *345.
- 4 If you have more features to program on this voice terminal, do so.
- 5 On an analog voice terminal, slide the T/P switch to the center position to return to normal operation. On a digital voice terminal, dial #00.

ASSIGN COVER BUTTONS

The Call Coverage feature permits coverage of all lines on a voice terminal when the covering voice terminal doesn't share lines with the covered voice terminal.

Get your Voice Terminal Configuration Forms to see how you planned to use Call Coverage feature. The forms should show which attendant consoles and voice terminals will provide primary or secondary call coverage.

Use Centralized Programming or follow the procedure below to assign Cover buttons.

- 1 Go to the voice terminal you want to program.
- 2 Label the Cover button with the name of the person whose calls will be covered (for example, "Cover Susan").
- 3 On an analog voice terminal, slide the T/P switch to P. On a digital voice terminal, dial #33.
The voice terminal rings every 5 seconds to remind you it is in program mode.
- 4 Touch the button with lights that you've selected to be the Cover button.
- 5 Dial *4 to assign primary coverage
or
dial *5 to assign secondary coverage.
- 6 Dial the 2-digit intercom number of the voice terminal you want the button to cover.
- 7 Cover buttons are factory-set for no ring. If you want to change the ring option for a Cover button, touch the Cover button, then dial the appropriate 3-character code:
 - Dial *37 for immediate ring.
 - Dial *36 for delayed ring.
 - Dial *35 for no ring.

If the green light next to the Cover button flashes and you hear a beep, you haven't performed the procedure correctly. Repeat steps 4 through 7.
- 8 If you have more features to program on this voice terminal, do so. If not, slide the T/P switch to the center position to return an analog voice terminal to normal operation. On a digital voice terminal, dial #00.

ASSIGN LINE PICKUP BUTTONS

The Line Pickup feature allows a person to pick up a ringing, parked, or held call at any voice terminal in the system. For example, if the attendant announces a call over the loudspeaker, the person being paged can answer the call from any voice terminal in your system.

People can use the Line Pickup feature without Line Pickup buttons, by dialing a 5-character code. For added convenience, however, you can program a Line Pickup button for a specific line or a general Line Pickup button that the person can use with line codes to pick up any line in the system.

Get your Voice Terminal Configuration Forms to see which voice terminals, if any, need Line Pickup buttons. Use Centralized Programming to program the voice terminal from the administrator/attendant console or follow the procedure below.

- 1 Go to the voice terminal that you want to program.
- 2 On an analog voice terminal, slide the T/P switch to P. On a digital voice terminal, dial #33.
The voice terminal rings every 5 seconds to remind you it is in program mode.

- 3 Touch the button that you want to program.
- 4 Dial *84.
- 5 If you plan to have only one Line Pickup button that will be used with various line codes as required to pick up calls, go directly to step 6. If you want to program the Line Pickup button for a specific line, dial the appropriate line code (01 through 32).
- 6 If you have more options to program on this voice terminal, do so. If not, slide the T/P switch to the center position to return an analog voice terminal to normal operation. On a digital voice terminal, dial #00.

ASSIGN AN AUTOMATIC LINE SELECTION SEQUENCE

The system checks outside lines and makes them available in the order in which they were assigned to individual voice terminals. The red light next to the line button shows which line the system will provide when someone lifts the handset at that voice terminal.

You can use the Automatic Line Selection feature to change the order in which the system makes lines available for outside calls. This feature allows someone who usually makes calls on a special-purpose line such as a personal or a WATS line to get that line, if it's free, when he or she picks up the handset.

Get your Voice Terminal Configuration Forms to see which voice terminals, if any, should be programmed with an Automatic Line Selection sequence. In assigning Automatic Line Selection sequences, keep these two points in mind:

- When you program several features at once, Automatic Line Selection must be the first feature you program.
- An Automatic Line Selection sequence can include up to 8 lines.

Use Centralized Programming or follow the procedure below to assign an Automatic Line Selection sequence.

- 1 Go to the voice terminal you want to program.
- 2 On an analog voice terminal, slide the T/P switch to P. On a digital voice terminal, dial #33.
The voice terminal rings every 5 seconds to remind you it is in program mode.
- 3 Dial **.
- 4 Touch the individual line and/or line pool buttons in the order you want them to be selected.
- 5 If you want to program other features on this voice terminal, do so. If not, slide the T/P switch to the center position to return an analog voice terminal to normal operation. On a digital voice terminal, dial #00.

Step 6: Administer Basic Telephones

Your MERLIN II system may include basic Touch-Tone or rotary telephones installed in your office or at remote locations. A basic telephone can be connected to your system through one of these three devices:

- A Basic Telephone Module
- An Off-Premises Telephone Interface
- A Basic Telephone and Modem Interface

These devices are described in Section 6, "Reference."

BASIC TELEPHONES CONNECTED TO A BASIC TELEPHONE MODULE

People with basic telephones connected to Basic Telephone Modules must use dialing codes and switchhook signals to access most system features. A few operations, such as using a Night Service password, aren't available to them.

To administer a basic telephone connected to a Basic Telephone Module, you perform the same general procedures that you use to administer the MERLIN II system voice terminals. However, because basic telephones are used somewhat differently than voice terminals, keep these points in mind:

- If you have a square system, people with basic telephones get an outside line by dialing 88. The system automatically searches through the lines assigned to this telephone, in the order in which you assigned them, and provides the first idle line it finds. Because you can't tell which line will be selected, be sure to assign identical types of lines, such as all local lines, to each basic telephone.
- If you have a pooled system, the way in which people with basic telephones access outside lines depends on the type of access provided for the system as a whole. It also depends on what additional lines or line pools you assign to basic telephones.
 - In a system with Button Access, the person can place calls using the pool 9 (dial code 9) or one of the other lines or line pools assigned to the telephone (dial code 88).
 - In a system with Dial Access, the person dials 9 to get Dial Access and then can access all the line pools using the standard dial codes (9 for the main pool or 890 through 899 for other line pools). He or she can use dial code 88 to access an additional line or line pool, if you assign one.
 - In a system with Automatic Route Selection, the person just dials 9 and then the outside number. He or she can use dial code 88 to access one of the additional lines or line pools assigned to the telephone.
- After you assign lines or line pools to a basic telephone, give the user a list of codes for the lines and line pools to which he or she has access.
- People with basic telephones can't enter a password to make calls while Night Service with Outward Restriction is in effect. If you use this feature and you want these people to be able to make calls as they normally do while Night Service is in effect, assign them to your Night Service Exclusion list.

Section 6, "Reference," contains information about basic telephones connected to a Basic Telephone Module. Separate entries appear for "Basic Telephones" and "Basic Telephone Module."

**BASIC TELEPHONES
CONNECTED TO
TELEPHONE INTERFACE
DEVICES**

The procedure for administering basic telephones connected to interface devices is slightly different from the procedure for administering voice terminals. Follow the steps below to administer a basic telephone connected to an Off-Premises Telephone Interface (OPTI) or a Basic Telephone and Modem Interface (BTMI).

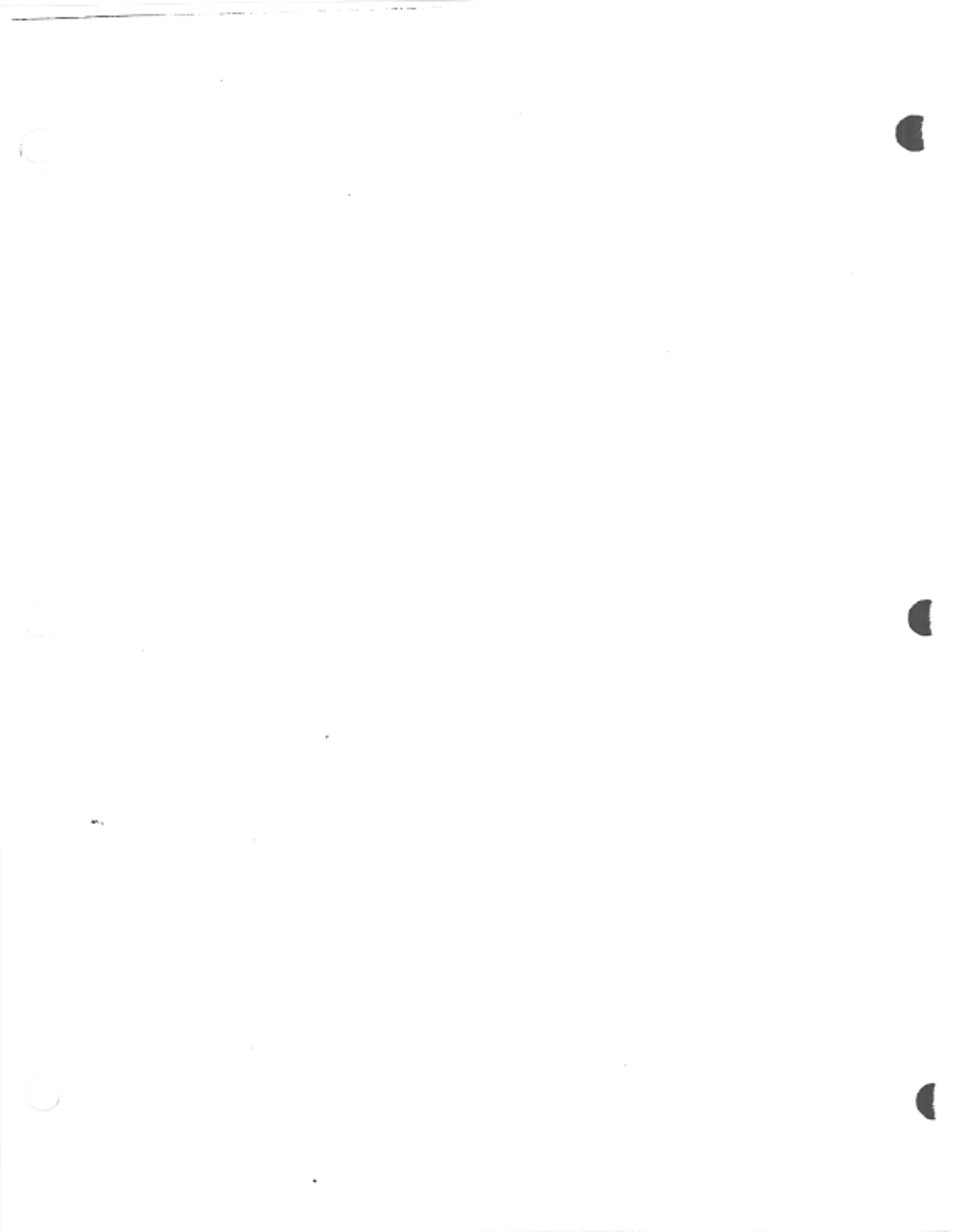
NOTE: If you later add or change the features assigned to a basic telephone, inform the person using the OPTI or BTMI.

- 1 If you haven't already done so, enter administration mode by sliding the T/P switch to *P* and touching **Conference** twice.
Lights flash next to Adm Pool, Adm Tel, Message, and Speaker.
- 2 Assign lines and pools to the intercom number assigned to the OPTI or BTMI by following the instructions in *'Assign Lines in Square Systems,'* or *'Assign Line Pools and Lines in Pooled Systems.'*
- 3 If you want to assign call restrictions to an OPTI or BTMI, follow the instructions in *'Assign Call Restrictions to Voice Terminals.'*
- 4 Leave administration mode by sliding the T/P switch to the center position.
- 5 You can use Centralized Programming to program the basic telephone. If you prefer, you can connect a voice terminal for the MERLIN II system *directly* to the control unit station jack to which you plan to connect the OPTI or BTMI.
- 6 Since those people using basic telephones may not answer voice-announced intercom calls immediately, follow the instructions in Section 6, *'Reference,'* to program Voice Announcement Disable. With this feature in place, voice-announced intercom calls to basic telephones become ringing intercom calls.
- 7 If you want to change the order in which the system searches for an available line, follow the instructions under *'Assign an Automatic Line Selection Sequence'* to the telephone. *Do not include intercom lines in the sequence.*
- 8 Set Ringing Options on lines and line pools as described in *'Assign Ringing Options to Line Buttons.'*
- 9 Remove any custom features assigned to buttons above the dial pad.
- 10 Disconnect the voice terminal or leave Centralized Programming and connect the OPTI or BTMI to the same voice terminal jack.
- 11 Connect the basic telephone to the OPTI or to the BTMI.

Section 6, *'Reference,'* describes how people place calls and access system features on a basic telephone connected to an OPTI or a BTMI. Separate entries appear for *'Basic Telephones,'* *'Basic Telephone and Modem Interface,'* and *'Off-Premises Telephone Interface.'*

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Overview

THE MERLIN II SYSTEM VOICE TERMINALS

The MERLIN II voice terminal provides you with basic telephone functions, such as Transfer and Hold, and also allows you to take advantage of MERLIN II system features that you can add to your voice terminal, such as Privacy and Last Number Redial.

There are two basic types of voice terminals, analog and digital. You may have either or both types in your system. Voice terminals come in different sizes, with various special features and accessories.

The following analog voice terminals are available with the MERLIN II system:

- 5-Button Voice Terminal
- 10-Button Voice Terminal
- 34-Button Deluxe Voice Terminal
- 10-Button Hands-Free Answer on Intercom (HFAI) Voice Terminal
- 34-Button Built-In Speakerphone (BIS) Voice Terminal
- 34-Button Built-In Speakerphone (BIS) Voice Terminal with Display Unit

Digital voice terminals are also available:

- 7406B Voice Terminal
- 7406D Voice Terminal with Display Unit

If you have data equipment connected to your analog voice terminal, the MERLIN II system supports simultaneous voice and data communication. You can use your computer terminal devices to communicate with people and with other computers within or outside your business. If you have data equipment connected to a digital voice terminal, see the "Data Communications Guide for the MERLIN II System."

HOW TO USE THIS SECTION OF THE SYSTEM MANUAL

Spend a few minutes now familiarizing yourself with your voice terminal. Then you can take full advantage of its capabilities as you place and answer outside and intercom calls (see "Placing and Answering Calls") and program features onto available buttons to suit your particular needs (see "Programming the Voice Terminal"). An example, "Setting Up a Voice Terminal: An Application," describes how a person in a typical office has set up her MERLIN II voice terminal. If you want more information on how a particular feature works, turn to the appropriate entry in Section 6, "Reference."

The Analog Voice Terminals

All analog voice terminals have two Intercom buttons, Intercom-Ring and Intercom-Voice. These voice terminals also have buttons with red and green lights beside them that can be used for lines, line pools, or programmable features. Some of the voice terminals also come with additional special features, such as a speakerphone or automatic answer on intercom calls.

Your system administrator has assigned lines or line pools to your voice terminal and labeled the buttons accordingly.

- If your system is **square**, each line appears on a separate button.
- If your system is **pooled** with Button Access to Line Pools, the two buttons above **Intercom-Voice** are automatically assigned to Pool 9, the main pool. You may also have buttons for other line pools, such as WATS line pools, or for individual lines.
- If your system is **pooled** with Dial Access to Line Pools or with Automatic Route Selection, the two buttons above **Intercom-Voice** are Pool Access buttons. You use these buttons to get a line in any of the line pools assigned to your voice terminal. You may also have buttons for particular line pools or for individual lines.

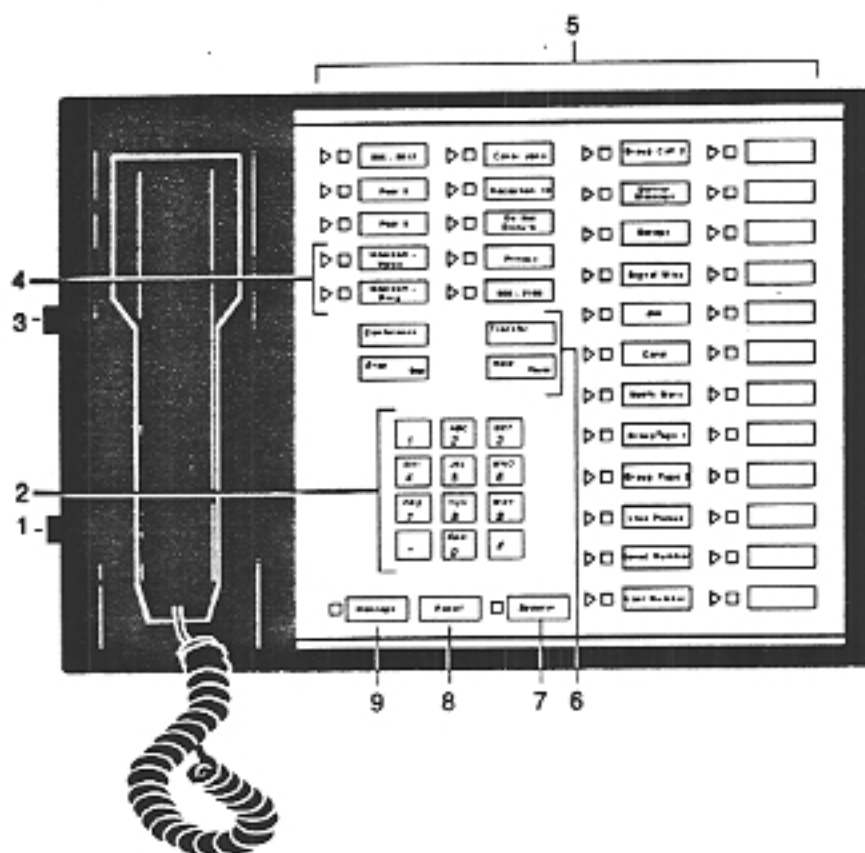
Your administrator may also have assigned features to your voice terminal and labeled buttons with the names of those features. You can assign programmable features to any unlabeled buttons on your voice terminal.

The following illustrations show the different types of analog voice terminals and the features they offer. Most of the components shown on the 34-button deluxe voice terminal in Figure 4-1 are also found on the other models of analog voice terminals.

THE 34-BUTTON DELUXE VOICE TERMINAL

The 34-button deluxe voice terminal has two columns of five buttons located above the dial pad and two columns of 12 buttons located to the right of the dial pad. Above the dial pad are two Intercom buttons, Intercom-Ring and Intercom-Voice. You can use the remaining eight buttons above the dial pad and the 24 buttons to the right of the dial pad for lines, line pools, or programmable features.

FIGURE 4-1 The 34-button deluxe voice terminal.

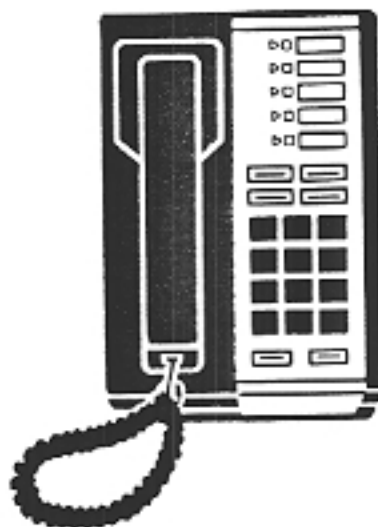


- 1 The **volume control** increases or decreases the loudness of your voice terminal's ringing and the voice terminal speaker.
- 2 The **dial pad** functions like the one on any other telephone. You can also dial numbers to program buttons for your voice terminal.
- 3 The **Test/Program (T/P) switch** allows you to test your voice terminal's lights and ringing and to program onto your voice terminal the special features of the MERLIN II system.
- 4 The **Intercom buttons**, Intercom-Ring and Intercom-Voice allow you to call or receive calls from someone connected to your MERLIN II system.
- 5 The buttons above and to the right of the dial pad can be used to access outside lines, line pools, or programmable features. The number of buttons available for programming depends on the number of lines and line pools assigned to the voice terminal. For example, on this voice terminal there are two Pool 9 buttons and two lines. The remaining 28 buttons above and to the right of the dial pad are available for programming features.
- 6 **Conference, Transfer, Hold, and Drop**, are fixed feature buttons that you can use to handle calls more efficiently.
- 7 **Speaker** is a fixed feature button that allows you to dial without lifting your handset, let others in your office listen to a phone conversation in progress, and monitor a call on hold.
- 8 **Recall** is a fixed feature button that allows you to program a switchhook flash into a dialing sequence and to disconnect an intercom call. If you have PBX, Centrex, or Custom Calling features, touching **Recall** places a specially timed pause onto the line.
- 9 The **Message light** lets you know when the attendant has a message waiting for you. By touching **Message**, you can turn off the light.

THE 5-BUTTON VOICE TERMINAL

The 5-button voice terminal shown in Figure 4-2 has two Intercom buttons and three buttons that you can use for lines, line pools, or programmable features.

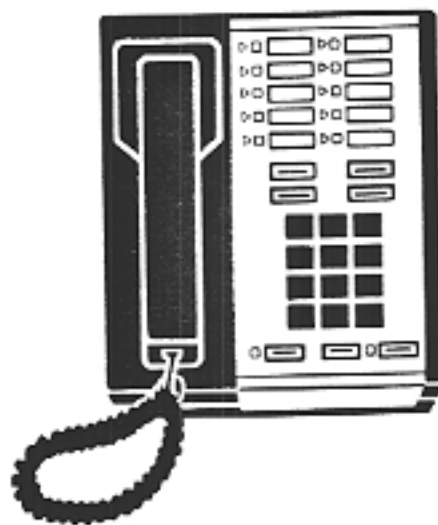
FIGURE 4-2 The 5-button voice terminal.



THE 10-BUTTON VOICE TERMINAL

The 10-button voice terminal (Figure 4-3) has two Intercom buttons and eight buttons that you can use for accessing outside lines, line pools, or programmable features.

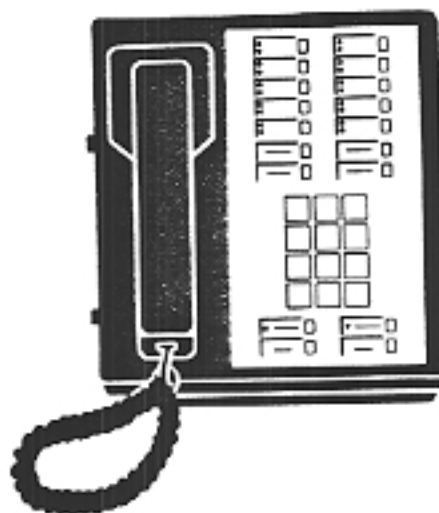
FIGURE 4-3 The 10-button voice terminal.



THE 10-BUTTON HANDS-FREE ANSWER ON INTERCOM (HFAI) VOICE TERMINAL

The 10-button HFAI voice terminal (Figure 4-4) has a HFAI/Mic button that, when activated, allows you to answer and talk on announced intercom calls without lifting the handset. The voice terminal has two Intercom buttons and eight buttons available for accessing outside lines, line pools, or programmable features.

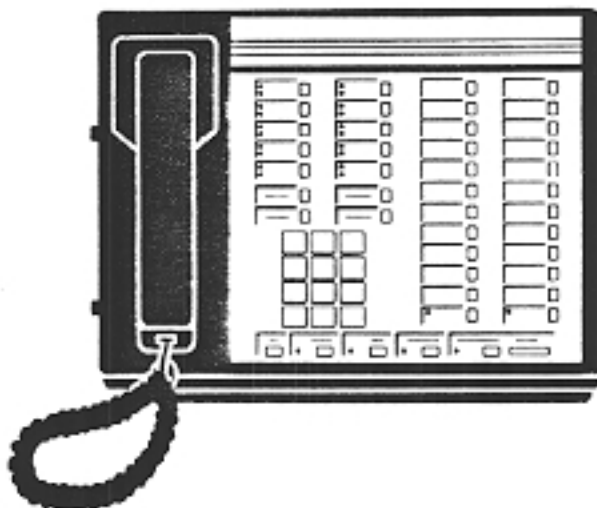
FIGURE 4-4 The 10-Button HFAI Voice Terminal.



**THE 34-BUTTON BUILT-IN
SPEAKERPHONE (BIS)
VOICE TERMINAL**

The 34-button BIS voice terminal (Figure 4-5) has a built-in speakerphone that allows you to answer and talk on announced intercom calls and outside calls without lifting the handset. Above the dial pad are two Intercom buttons. You can use the remaining buttons for accessing outside lines, line pools, or programmable features. However, you should use only buttons with lights for lines or line pools.

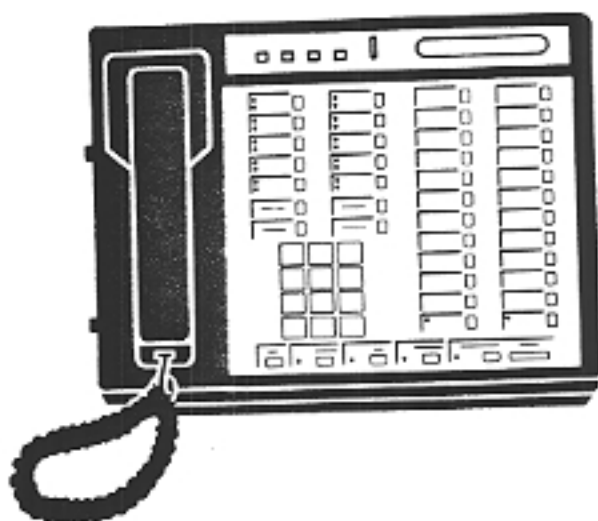
FIGURE 4-5 The 34-button BIS voice terminal.



**THE 34-BUTTON BUILT-IN
SPEAKERPHONE (BIS)
VOICE TERMINAL WITH
DISPLAY UNIT**

This 34-button BIS voice terminal not only has a built-in speakerphone, but it also has an attached display unit (see Figure 4-6) that shows the intercom number of the call you are receiving, the outside number you are dialing, and the programmable feature on each button on your voice terminal. You can also use the display for reading messages that people have left for you, and for providing an alarm, timing calls that you place or receive, and displaying the time, day, and the date. This voice terminal also has two Intercom buttons above the dial pad. You can use the remaining buttons for accessing outside lines, line pools, or programmable features. However, you should use only buttons with lights for lines or line pools.

FIGURE 4-6 The 34-button BIS voice terminal with display unit.



The 7406 Voice Terminal

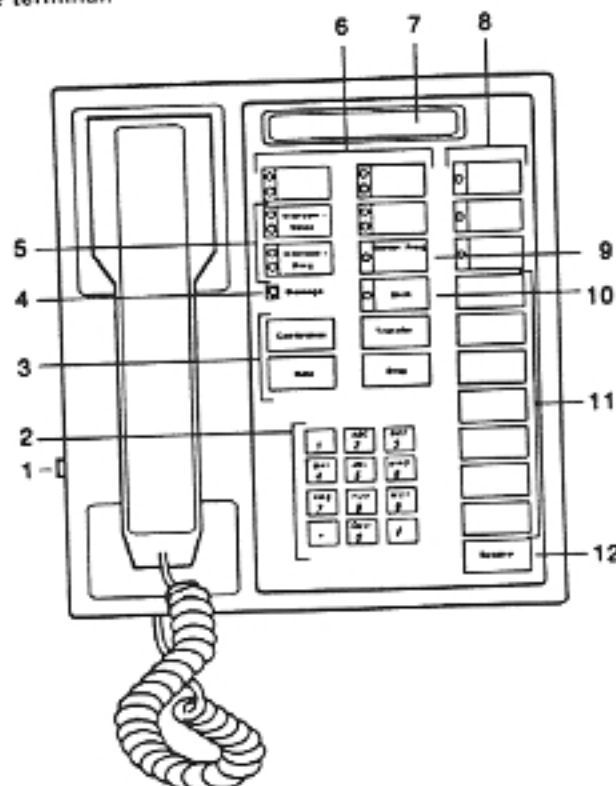
The 7406 voice terminal provides fixed and programmable feature buttons, personalized ringing, a message indicator, and a built-in speaker. There are two models available: the 7406B comes without a display; the 7406D has a two-line display unit. You can use the display to give you information on calls that you make and receive and on features that you assign to your voice terminal. With the Leave Word Calling features, described in Section 6, "Reference," you can use the display on your 7406D voice terminal to retrieve your messages.

The 7406 voice terminal has three columns of buttons. (See Figure 4-7.) In the leftmost column the lower two buttons are reserved for intercom calls. The top button in the lefthand column and the second button from the top in the middle column are used for line buttons in a square system or line pool buttons in a pooled system. The top button in the middle column can be used for a line, line pool, or a programmable feature.

Below the two line or line pool buttons in the middle column are the Shift button and a programmable button with the Select Ring feature preassigned on it. You can use the Shift button to program two features on any of the seven buttons without lights to the right of the dial pad. If you want to program features that require lights, such as Privacy, use any of the top three buttons in the right column.

Figure 4-7 identifies the components of both the 7406D voice terminal and 7406B voice terminal; however, note that the 7406B voice terminal does not have a display unit.

FIGURE 4-7 The 7406D voice terminal.



- 1 The volume control increases or decreases the loudness of your voice terminal's ring and the voice terminal speaker.
- 2 The dial pad functions like the one on any other telephone. You can also dial numbers to program buttons for your voice terminal.
- 3 Conference, Transfer, Hold, and Drop are fixed feature buttons that you use in handling calls.
- 4 The Message light tells you when the attendant has a message for you, or, if you have a display voice terminal, when someone else in the system has left a message for you.
- 5 The Intercom buttons, Intercom-Ring and Intercom-Voice, allow you to call and receive calls from someone connected to your MERLIN II system. You can place ringing and announced intercom calls, but you can receive only ringing intercom calls.
- 6 The line or line pool buttons are used to access outside lines.
- 7 The display shows feature names and codes when you program features on your voice terminal. When you receive intercom calls, the display identifies the caller's intercom number. The Leave Word Calling features let you check your display for the intercom numbers of co-workers who left messages while you were away and have the system automatically return the call.
- 8 The buttons with single lights can be used for programmable features, such as Do Not Disturb, that require lights to show whether the feature is on or off.
- 9 The Select Ring button, used with the Shift button, lets you choose the ringing pattern that you prefer for your voice terminal. (You can program a feature on the bottom band of this button.)
- 10 The Shift button lets you program a second feature on each of the seven buttons without lights to the right of the dial pad.
- 11 The buttons without lights can be used for programmable features. You can assign two features to a button by using the Shift button.
- 12 Speaker is a fixed feature button that lets you dial without lifting your handset and allows other people in the room to listen to a conversation.

Placing and Answering Calls

With your MERLIN II system, you can easily place and answer both outside and intercom calls. However, the manner in which you access an outside line depends on the type of line configuration that your system administrator has set up for your system.

- In a **square** system, each line in the system appears on a separate button at all voice terminals to which it is assigned. You touch the button to get the line.
- In a **pooled** system, some or all of your outside telephone lines are grouped into one or more line pools (for example, a pool of local lines, a pool of WATS lines, and a pool of Foreign Exchange lines). You touch a pool or pool access button and in some systems, you dial a code to get an available line in a line pool.

Ask your system administrator if your system is pooled. If it is, ask whether your system has Button Access to Line Pools, Dial Access to Line Pools or Automatic Route Selection (ARS). If your system has Dial Access, ask for a list of codes for the pools.

Then use the appropriate procedures below for placing an outside call in your system.

PLACING OUTSIDE CALLS IN A SQUARE SYSTEM

To call someone who is not connected to your MERLIN II system:

- 1 Lift your handset.
The MERLIN II system automatically selects an available outside line. The green light next to the line button goes on.
- 2 Dial the outside number.

Line Select

To select a specific outside line:

- 1 Touch the button for the line you want.
The red light goes on next to that line button.
- 2 Lift your handset.

Line Request

If you are waiting to use a line that is busy (the green light next to the line button is on), you can have the MERLIN II system signal you when the line is available.

- 1 Without lifting your handset, touch the button for the busy line.
The red light next to the line button goes on. The voice terminal signals you with a brief ring when the line is free.
- 2 When you hear a brief ring, lift your handset.

You cancel your Line Request when you touch another line button or when you receive or place another call.

PLACING OUTSIDE CALLS IN A POOLED SYSTEM

If your system is pooled, use one of the following procedures to place an outside call.

Button Access to Line Pools

To make an outside call with Button Access to Line Pools:

- 1 Unless the red light is on next to the button, touch the line pool button for the line pool you want.
- 2 Lift your handset.
- 3 When you hear a dial tone, dial the telephone number you want.

Line Request

If you are waiting to use a line or line pool that is busy (the green light next to the line button is on), you can have the MERLIN II system signal you when the line or line pool is available.

You can use this feature with Button Access to Line Pools. However, you *cannot* use the Line Request feature if your system is set for Dial Access to Line Pools.

- 1 Without lifting your handset, touch the button for the busy line or line pool.
The red light next to the line or line pool button goes on. The voice terminal signals you with a brief ring when the line or line pool is free.
- 2 When you hear a brief ring, lift your handset.

You cancel your Line Request when you touch another line or line pool button or when you receive or place another call.

Dial Access to Line Pools

To make an outside call with Dial Access to Line Pools:

- 1 Unless the red light next to the button is on, touch a Pool Access button.
- 2 Lift your handset.
- 3 When you hear a dial tone, dial the code for the line pool you want.
- 4 When you hear another dial tone, dial the telephone number you want.

Automatic Route Selection

To place an outside call using ARS:

- 1 Unless a red light next to the button is already on, touch a Pool Access button.
This signals ARS to expect an outside call.
- 2 Lift your handset.
- 3 Dial the outside number you want.
You hear beeps instead of Touch-Tones or rotary clicks as you dial.
- 4 Wait a few moments for the call to be completed.

If you hear a busy signal that is faster than normal:

- 1 Touch the same Pool Access button you used to begin your call.

If you hear a fast busy signal again:

- 1 Hang up and redial in a few moments using the Pool Access procedure or the Saved Number Redial feature. (For programming the Saved Number Redial feature, see either Section 6, "Reference," or Section 7, "Quick Reference Guides.")

PLACING INTERCOM CALLS

Each voice terminal connected to your MERLIN II system has a unique intercom number. You can use your voice terminal to place either ringing or announced intercom calls to co-workers. With the 7406 voice terminal, however, you will receive *only* ringing intercom calls.

If you have an Auto Intercom button for the number you want to dial, you can dial that number with one touch.

Ringling Intercom Calls

Place ringing intercom calls when you want to have a two-way conversation with people connected to your MERLIN II system. Your calls ring at their voice terminals, and your co-workers lift their handsets to hear you and to talk with you.

To place a ringing intercom call:

- 1 Touch **Intercom-Ring**.
- 2 Lift your handset.
- 3 Dial an intercom number.

To place a ringing intercom call with one touch:

- 1 Touch the Auto Intercom button for the intercom number you want to dial.

Your voice terminal speaker goes on and you hear ringing.

If the red light next to **Intercom-Voice** is on, touch **Intercom-Ring** before you touch the Auto Intercom button.

- 2 When you hear the other person answer, lift your handset.

If the line is busy or if no one answers:

- 1 Touch **Speaker** to cancel the call.

Announced Intercom Calls

When you place an announced intercom call, your co-worker hears your voice through the voice terminal speaker. If your co-worker wants to respond to your announcement, he or she speaks through the handset to talk with you. People with 7406 voice terminals *cannot* receive an intercom call announcement.

To announce your call through another person's voice terminal speaker:

- 1 Touch **Intercom-Voice**.
- 2 Lift your handset.
- 3 Dial an intercom number.
- 4 When you hear a beep, speak into your handset.

If you try to place an announced intercom call to a voice terminal which is programmed to prevent voice announcements or to a 7406 voice terminal, your call becomes a *ringing* intercom call.

To place an announced intercom call with one touch:

- 1 If the red light next to it is not already on, touch **Intercom-Voice**.
- 2 Touch an Auto Intercom button.
Your speaker goes on and you hear a beep.
- 3 Lift your handset and begin speaking.

ANSWERING CALLS

To answer a call:

- 1 Lift your handset.
You are automatically connected to the incoming call.

Abbreviated Ringing

If you have programmed the Abbreviated Ringing feature for your voice terminal, the voice terminal rings once when you receive a call while you are busy on another line. For programming information for this feature, see Section 6, "Reference."

If you want to pick up the new call (the green light flashes next to the line button),

- 1 Touch **Hold**.
The green light next to the original call's line or line pool button flashes rapidly.
- 2 Touch the line or line pool button of the new call.

When you are ready to return to the first call,

- 1 Touch the line button of the original call.

Types of Ringing

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

Outside call = one long ring
Ringing intercom call = two short and one long ring
Transferred call = one short and one long ring

You may personalize these rings to distinguish the ringing of your voice terminal from that of others in your office by using the Personalized Ringing feature, described in Section 6, "Reference."

Programming the Voice Terminal

Your MERLIN II system voice terminal comes with fixed features that you can use immediately. You can also add features to your voice terminal to suit your individual needs and to help you handle calls for your business more efficiently. You can assign these features to available buttons on your voice terminal by using the basic programming instructions below.

To access several of these features, you have the option of programming the feature onto a button or using a dial code. Therefore, if you have a limited number of buttons available for features, you may choose to use a dial code rather than program a feature button.

It is not necessary to program all of the features at once. You can follow the steps below to program a few features, then leave program mode and try them out. Later, you can follow the steps again to add more features onto available buttons or change the feature assignment on a button that you programmed in an earlier session.

Look through the "Quick Reference Guide to Voice Terminal Features" in Section 7, "Quick Reference Guides," and decide which features you want to use. If it is necessary for you to program the feature onto available buttons on your voice terminal, follow the instructions below. The example, "Setting Up a Voice Terminal: An Application," describes how a typical person in a MERLIN II system has set up her voice terminal. If you want more information about how a feature works or how to program it, read the feature description in Section 6, "Reference."

BASIC PROGRAMMING INSTRUCTIONS

Use the following procedure to program your voice terminal. The way in which you perform steps 2 and 6 depends on the type of voice terminal you have.

- 1 Type or print on the button label strips the names of the features you want to program. Then insert the labels into the voice terminal.
- 2 For **analog** voice terminals, slide the T/P (Test/Program) switch on the left side of the voice terminal to the P (Program) position.

For **digital** voice terminals, dial #33.

In programming mode, both types of voice terminals ring every 5 seconds to remind you that you are programming and that you cannot place or receive calls.

- 3 Touch the button you want to program.
- 4 Dial the required programming code (from the "Quick Reference Guide to Programming Codes" in Section 7) and any other numbers required.
- 5 Repeat steps 3 and 4 for each feature you want to program.

If you make a mistake when dialing any of the characters, simply touch the button again and redial the programming code and all required numbers.

- 6 For **analog** voice terminals, slide the T/P switch to the center position.

For **digital** voice terminals, dial #00.

Setting Up a Voice Terminal: An Application

The following example shows how one person in a typical office has programmed her voice terminal. When you program your own voice terminal, you may find that your needs are different than those in the example. If you want to know more about the features mentioned here, see the "Quick Reference Guide to Voice Terminal Features" in Section 7, "Quick Reference Guides." (You can also refer to the individual feature descriptions in Section 6, "Reference.")

SELECTING PROGRAMMABLE FEATURES

Patricia Roberts is an agent at a branch office of the Clearlake Real Estate Agency. The agency recently installed the MERLIN II system, and Pat has a 10-button HFAI voice terminal on her desk that she is responsible for programming. To do this, she must first determine how many of her voice terminal buttons are available for programmable features, and decide which features will be most useful to her in her daily work.

Pat discusses with Jane Culbertson, the head of the branch office and the system administrator, what lines she needs for her voice terminal. Since Jane has set the system for Button Access to Line Pools, the two buttons above Intercom-Voice will be Pool 9 buttons. Jane and Pat decide that Pat will need a personal line, one that only Pat will have access to and that no one else in the system will have on his or her voice terminal.

Since she *cannot* program features on the Intercom buttons, on the two Pool 9 buttons, or on the personal line button, Pat has five buttons on which she can program features she selects for her voice terminal. After careful consideration, Pat makes the following choices for these five buttons:

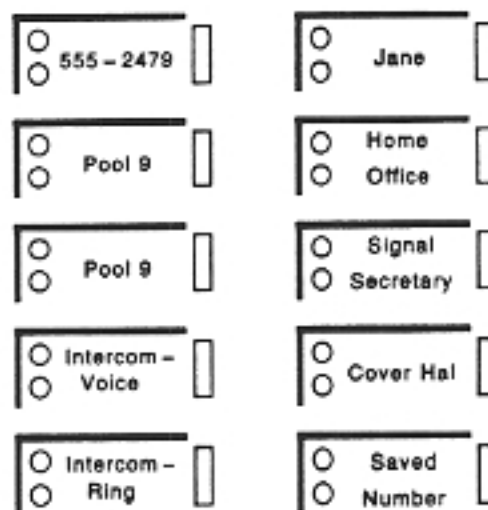
- 1 **Auto Intercom.** Pat will program an Auto Intercom button on her voice terminal for calling her boss, Jane Culbertson. Anytime Pat wants to call Jane or transfer a call to her, she needs merely to touch the Auto Intercom button labeled "Janc."
- 2 **Outside Auto Dial.** Pat often needs to call people at the home office located in a nearby city, so she will program an Outside Auto Dial button for that office. When she wants to call the home office, she can place the call quickly by just touching the Outside Auto Dial button labeled "Home Office."
- 3 **Manual Signaling.** The office has a secretary who types forms and letters for all of the agents and notarizes documents. When Pat needs the secretary during a meeting with a client or wants to give the secretary directions, she can use a Manual Signaling button labeled "Signal Secretary." Pat can touch the Manual Signaling button which causes a beep at the secretary's voice terminal.
- 4 **Call Coverage.** Agents are often out of the office showing properties to clients. However, by using the Call Coverage feature, they can make sure that someone answers their calls. Pat will program a Cover button on her voice terminal for another agent, Hal Peterson. Hal's calls ring at Pat's voice terminal until Hal returns and answers his own calls again, or until he deactivates the Call Coverage feature with Coverage Inhibit.

**PROGRAMMING
SELECTED FEATURES
ONTO BUTTONS**

- 5 **Saved Number Redial.** As an agent with many clients, Pat initiates and must return many calls. Since sometimes no one answers, or the line is busy, Pat will program a Saved Number Redial button onto her voice terminal. If a call cannot be completed, Pat touches **Saved Number** before she hangs up. Later she just touches the button again, and the system automatically dials the number she has saved.

After Pat has decided which features she will place on available buttons on her voice terminal, she can begin to program these features. First, she prints on the button labels the names of the features or the person or place that the feature will help her call or signal. She then inserts the button labels in her voice terminal, making certain the printed feature names are fully visible. Pat's voice terminal has the following button assignments:

FIGURE 4-8 Pat's voice terminal button assignments.



Pat starts the programming session by sliding the T/P (Test/Program) switch on the left side of her voice terminal to P (Program). The first button she will program is the Auto Intercom button for Jane Culbertson. After she touches the button, she consults the "Quick Reference Guide to Programming Codes" in Section 7, "Quick Reference Guides," to determine the programming code and other required numbers for an Auto Intercom button. Then she dials *91, the correct programming code, and 18, Jane's intercom number.

Next, Pat decides to program the Outside Auto Dial button for the home office. Again, she touches the appropriate button and then refers to the Quick Reference Guide in Section 7. She dials *90, the programming code for an Outside Auto Dial button, and 555-2097, the home office's telephone number.

The third button Pat programs is the Manual Signaling button for the office secretary. Pat touches the button and, after consulting the Quick Reference Guide, she dials *6, the feature's programming code, and then dials 25, the secretary's intercom number.

She then touches the button on which she plans to program the Call Coverage feature so that she can cover Hal Peterson's calls. She refers to the Quick Reference Guide and dials, *4, the Call Coverage feature's programming code, and then she dials 22, Hal's intercom number. She must also program the Cover button for immediate ring by touching the Cover button once again and then dialing *37.

On the last blank button she programs the Saved Number Redial feature. She touches the button and learns from the Quick Reference Guide that she must dial *74. When she is finished programming this feature, her programming session is over, and she slides the T/P switch back to the center position.

Pat's voice terminal is now ready for use. If she wants to change these button assignments later, she can use the programming instructions in this section and refer to the programming codes in the Quick Reference Guide.

Section 5: Using the Attendant Console

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Overview

As a system attendant, you are probably responsible for handling incoming calls and taking messages for your co-workers. Your MERLIN II system offers a variety of features to make call handling easier and more efficient.

This section of the System Manual describes your attendant console and explains how to use the fixed and programmable features to:

- Screen and transfer calls
- Page a person or group
- Notify someone that you took a message
- Place intercom and outside calls
- Turn Night Service on and off, if your system uses this feature
- Use your speaker for call monitoring and group listening

This section also discusses briefly the optional system features and equipment you can use to customize your console.

If at any point you want more detailed information than this section of the manual provides, turn to Section 6, "Reference." "Reference" contains complete descriptions of MERLIN II system features and optional equipment. They are arranged alphabetically so that you can find the listing you want quickly.

About Your Console

TYPES OF CONSOLES

You have one of the four types of consoles described below and shown in Figures 5-1 through 5-4.

34-Button Console for Small Systems

For systems with eight or fewer lines and 20 or fewer voice terminals, the attendant console is usually a 34-button deluxe voice terminal. It is suitable for a small system because it has enough buttons to show the status of each line and each voice terminal in the system. When the system is first activated, it assigns lines and intercom numbers to buttons on the console automatically.

34-Button Console for Large Systems

The 34-button deluxe voice terminal can be used as an attendant console for systems with more than eight lines or more than 20 voice terminals. This console is considered an economy console when it's used for a large system. When the system is first activated, all lines are assigned to buttons on the console automatically. The remaining buttons can be programmed as Auto Intercom buttons or used for other features.

If the total number of lines and voice terminals in your system is 32 or less, this console can have an Auto Intercom button for each of your voice terminals. If there are more voice terminals than buttons available, you can use the dial pad for access to voice terminals for which you have no Auto Intercom buttons.

Console with Attendant Intercom Selector

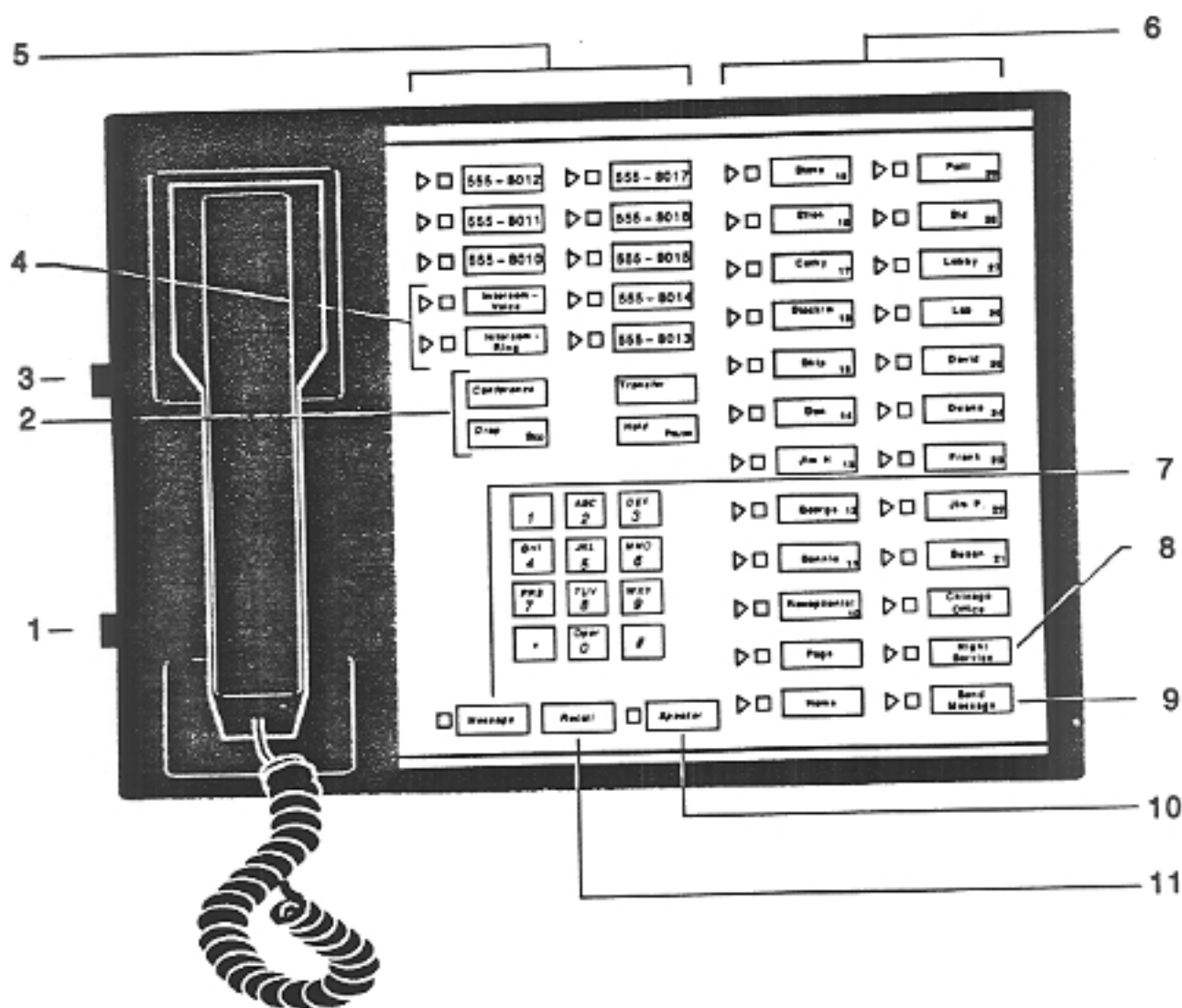
This console is a 34-button deluxe voice terminal with an attached Attendant Intercom Selector. It is suitable as a console for a large system because up to 72 voice terminals can be represented using the Auto Intercom buttons on the Attendant Intercom Selector. This leaves all 32 buttons on the console available to show the status of each line in the system. All lines and intercom numbers are assigned to buttons on the console automatically when the system is first activated.

Display Console

Up to 72 voice terminals can be represented using the Auto Intercom buttons on the right side of the display console. This leaves 32 buttons on the left side available to show the status of each line in the system. All lines and intercom numbers are assigned to buttons on the console automatically when the system is activated for the first time.

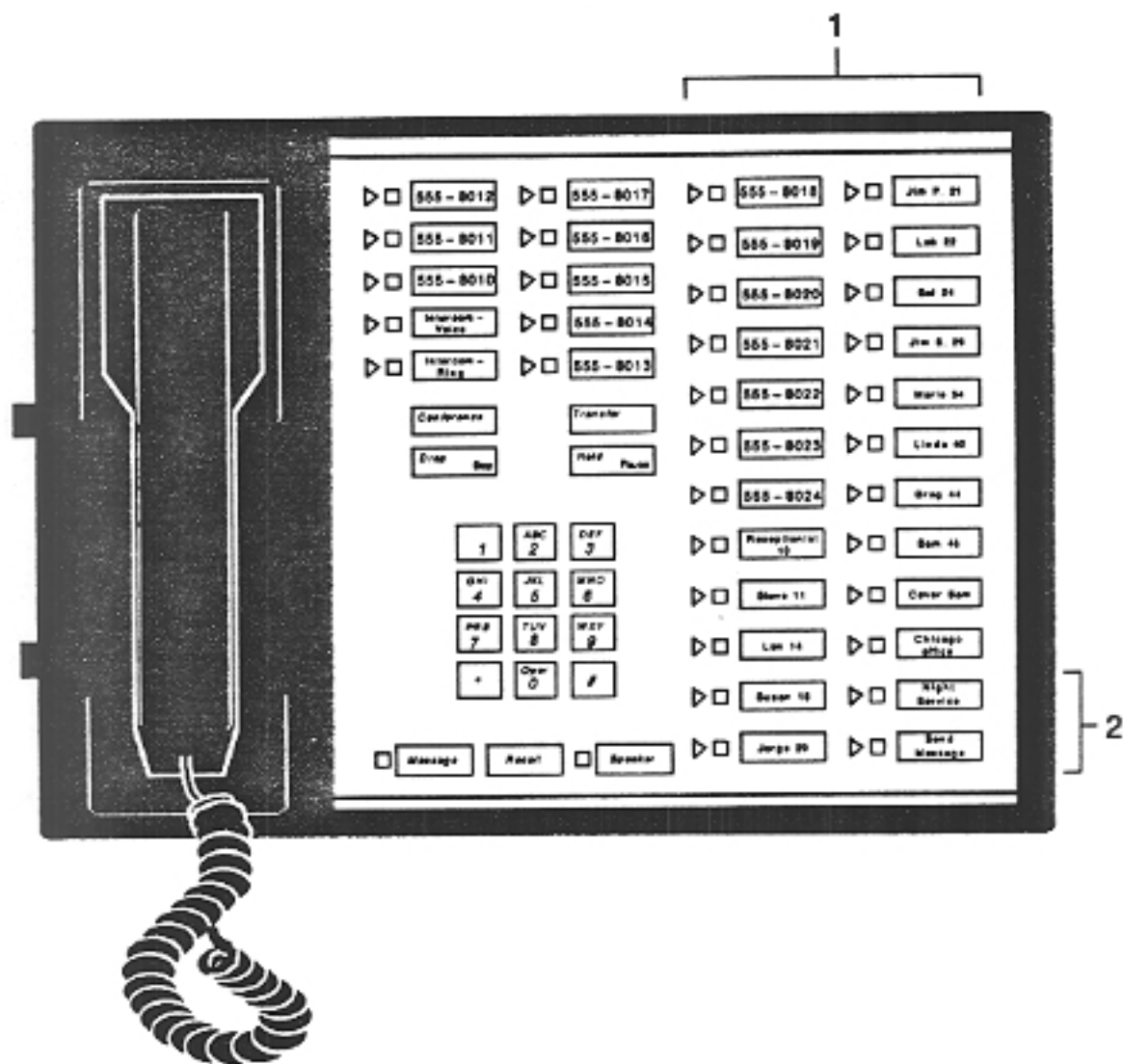
The display provides information that helps you handle calls and program your voice terminal more easily. You can also use the display to set an alarm, time calls, and check the time, day, and date. For more information about the display features, see "Display" in Section 6, "Reference."

FIGURE 5-1 A 34-Button Console for Small Systems.



- 1 Use the volume control to adjust the loudness of the speaker and ring.
- 2 Use **Conference**, **Drop**, **Transfer** and **Hold** to handle call efficiently.
- 3 Slide the **T/P** switch to test or program your console.
- 4 Touch **Intercom-Voice** and **Intercom-Ring** to contact others in your MERLIN system.
- 5 Use line buttons to place and receive outside calls.
- 6 Use Auto Intercom buttons to transfer calls quickly and to contact and send messages to people in your system. Program custom features on buttons not used for Auto Intercom.
- 7 Check the green light next to **Message** to see if you have a message waiting.
- 8 Touch **Night Service** to turn Enhanced Night Service options on and off.
- 9 Touch **Send Message** to turn on the Message light at someone's voice terminal.
- 10 Touch **Speaker** for on-hook dialing, group listening, and on-hook monitoring when you are put on hold.
- 11 Touch **Recall** instead of using a switchhook flash.

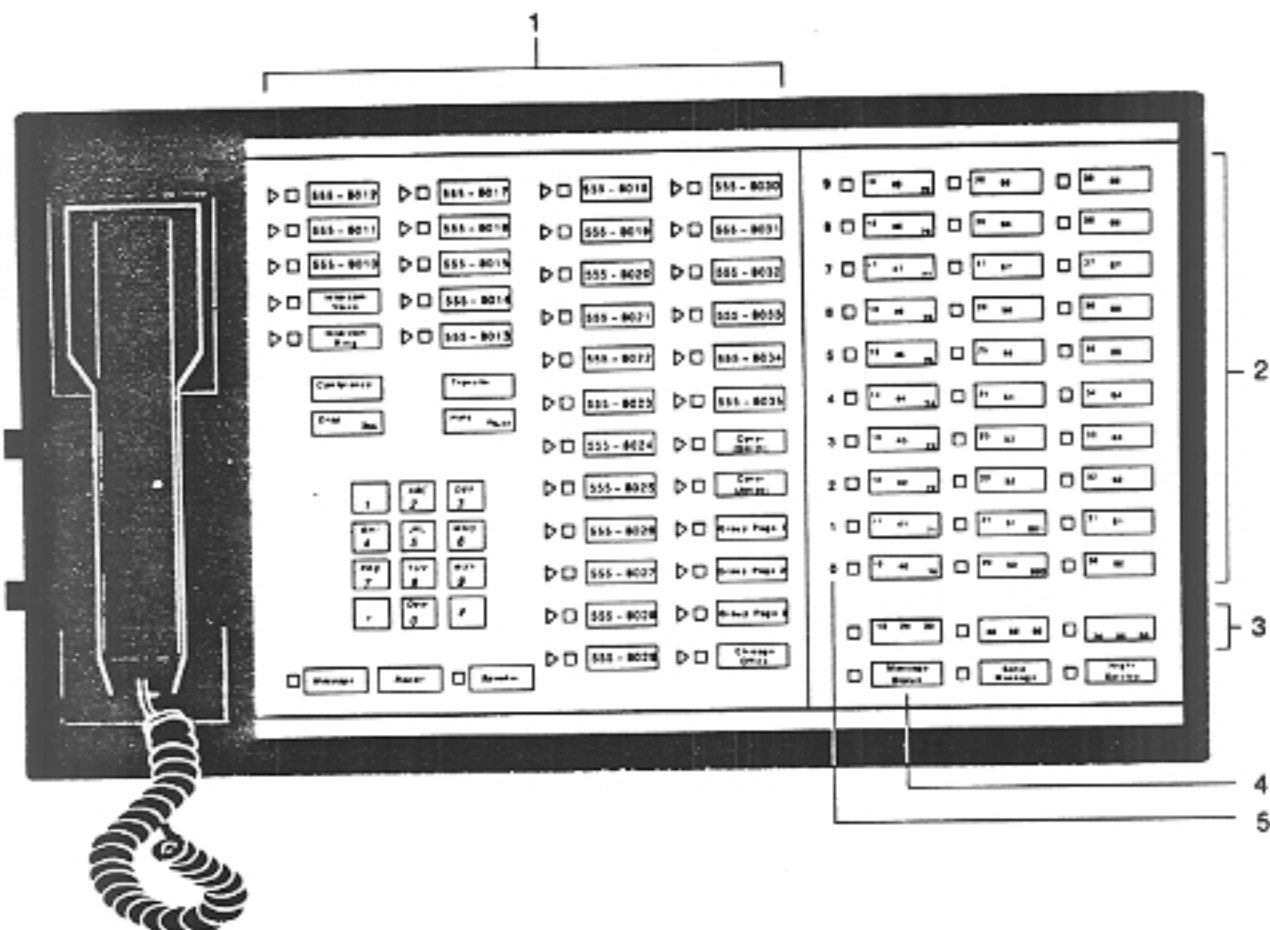
FIGURE 5-2 A 34-Button Console for Large Systems.



The 34-button console for large systems provides the same features as the 34-button console for small systems pictured in Figure 5-1, with two exceptions. More buttons are available for lines, and the Auto Intercom feature isn't automatically assigned to buttons on the right side of the console.

- Buttons other than those used for lines, Enhanced Night Service, or Send Message can be used for Auto Intercom or other custom features.
- Program Night Service and Send Message on these buttons, unless they are used for lines.

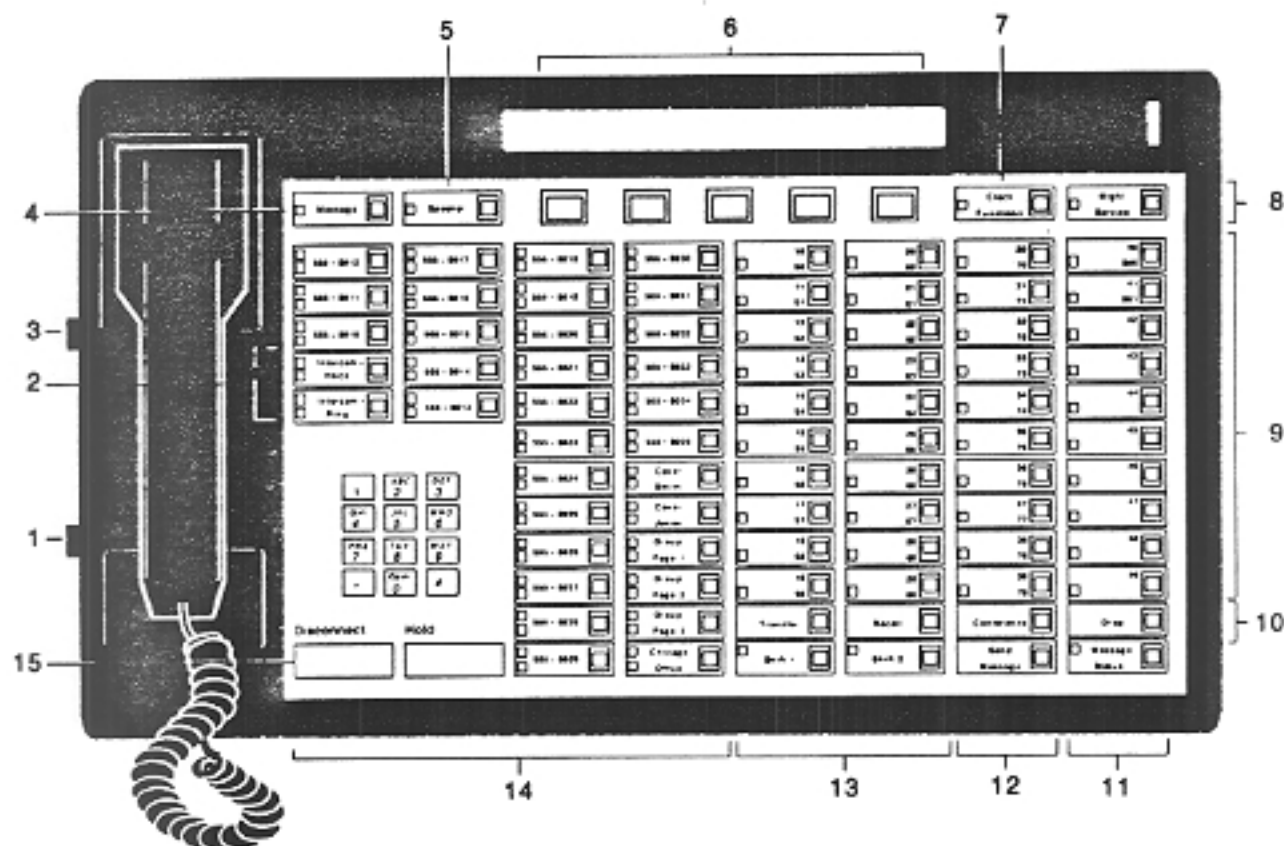
FIGURE 5-3 A Console with Attendant Intercom Selector.



The console with Attendant Intercom Selector provides the same features as the 34-button console for small systems pictured in Figure 5-1 but has more line and Auto Intercom buttons.

- 1 Use line buttons to place and receive outside calls. Program a custom feature on any button you don't need for a line.
- 2 Use Auto Intercom buttons to contact everyone in your system and transfer calls quickly. Each button can represent three intercom numbers. Touch a Shift button to select the color band of the intercom number you want.
- 3 Touch a Shift button to select the blue, white, or gray band on an Auto Intercom button.
- 4 Use **Message Status** with the Shift buttons to see which voice terminals have Message lights turned on.
- 5 Use these numbers to find the horizontal row for each intercom number. The 0 indicates the row for intercom numbers whose last digit is 0 (10, 20, etc.). The 1 indicates the row for intercom numbers ending in 1 (11, 21, etc.), and so on.

FIGURE 5-4 A Display Console.



- 1 Use the volume control to adjust the loudness of the speaker and ring.
- 2 Touch **Intercom-Voice** and **Intercom-Ring** to contact others in your MERLIN II system.
- 3 Slide the T/P switch to test or program your console.
- 4 Check the green light next to **Message** to see if you have a message waiting.
- 5 Touch **Speaker** for on-hook dialing, group listening, and on-hook monitoring when you are put on hold.
- 6 Use the display to help handle calls, program your console, and set clock functions.
- 7 Use **Clock Functions** to set an alarm, use a timer, and set the time, day, and date.
- 8 Touch **Night Service** to turn Enhanced Night Service options on and off.
- 9 Use **Auto Intercom** buttons to contact everyone in your system and transfer calls quickly. Each button can represent two intercom numbers. Touch a **Shift** button to select the group for the intercom number you want.
- 10 Use **Conference**, **Drop**, and **Transfer** to handle calls efficiently. Use **Recall** instead of a switch-hook flash.
- 11 Use **Message Status** with the **Shift** buttons to see which voice terminals have Message lights turned on.
- 12 Touch **Send Message** to turn on the Message light at someone's voice terminal.
- 13 Touch **Shift 1** to select intercom numbers 10 through 49. Touch **Shift 2** to select intercom numbers 50 through 79, 800, and 801.
- 14 Use line buttons to place and receive outside calls.
- 15 Use **Disconnect** to get an outside line without hanging up the handset.

LINE BUTTONS

Most of the buttons above your dial pad (in small systems) or on the left side of the console (in large systems) are line buttons. You use these buttons to place and receive outside calls. Each line button has a red light and a green light next to it that show line status.

- A steady red light means this is the line you're using or the line you'll get when you lift your handset.
- A flashing red light means that a transferred call on this line is returning to your console.
- A steady green light means that someone is talking on this line.
- A flashing green light means that a call is coming in on this line.
- A faster flashing green light means that someone else has put a call on hold on this line.
- The fastest flashing green light means that you've put a call on hold on this line.

Each line has a 2-digit line code (01 through 32). If the codes don't appear on line buttons on your console, get a list of the codes from your administrator.

AUTO INTERCOM BUTTONS

Each person's voice terminal has a unique intercom number. The first 70 voice terminals have intercom numbers 10 through 79. If you have more voice terminals, they have intercom numbers 800 and 801. These intercom numbers are automatically assigned to Auto Intercom buttons on your console, unless you have the 34-button console for large systems. On this console, you must program the Auto Intercom buttons you need, using the procedure that follows.

You use Auto Intercom buttons for one-touch dialing of intercom numbers. You should have an Auto Intercom button for everyone whose calls you handle, or at least for everyone who often receives calls.

Programming Auto Intercom Buttons

Follow these steps to program an Auto Intercom button.

- 1 Label the button(s) you want to program.
- 2 Slide the T/P (Test/Program) switch, located on the left side of your console, to the P (Program) position.
Your console rings every 5 seconds to remind you that you're programming and that you can't place or receive calls.
- 3 Touch the button to be programmed.
- 4 Dial *91 and the intercom number. If you make a mistake, touch the button again and reenter the code.
- 5 Slide the T/P switch to the center position.

What the Lights Next to Auto Intercom Buttons Indicate

The green light next to each Auto Intercom button shows the status of the voice terminal that the button represents. When a call comes in for someone, you can tell right away whether that person is using his or her voice terminal. You can also tell when a transferred call is returning from a particular voice terminal.

- If the green light is off, the person isn't using the voice terminal.
- If the green light is steady, the person is using the voice terminal or has turned on the Do Not Disturb feature.
- If the green light is flashing rapidly, the person is calling you on the intercom.
- If the green light is flashing slowly, a transferred call is returning from this voice terminal.

You also use the lights next to the Auto Intercom buttons to see whether someone's Message light is on. How you get this information depends on the type of console you have. "Turning on Message Lights" in this section describes how to use the lights on your console to check the status of Message lights at voice terminals.

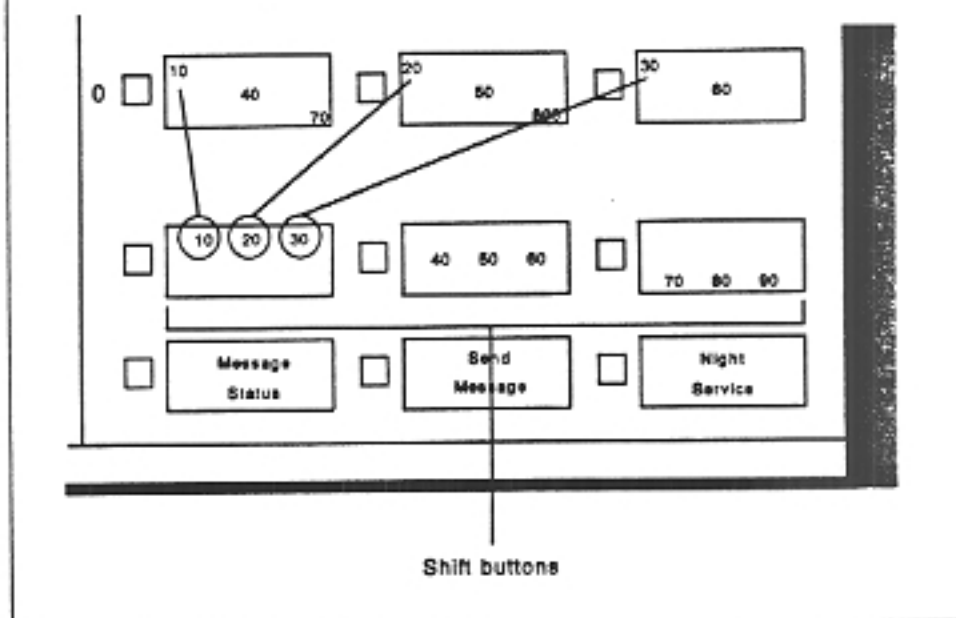
Shift Buttons (Consoles with Attendant Intercom Selector and Display)

The Shift buttons on these two consoles allow you to attend as many as 72 voice terminals (the system capacity) using just the 30 Auto Intercom buttons on the Attendant Intercom Selector, or the 40 buttons on the right side of the display console. When you touch a Shift button, you change the intercom numbers assigned to each Auto Intercom button.

You use Auto Intercom and Shift buttons together to call intercom numbers, transfer calls, and check voice terminal status. You use the Shift button along with the Message Status button to see which voice terminals have their Message lights on.

Console with Attendant Intercom Selector Each Shift button is labeled with three numbers, for example, 10-20-30. From left to right, each number on a Shift button corresponds to a column of Auto Intercom buttons, as illustrated in Figure 5-5.

FIGURE 5-5 The relationship of the shift button numbers and columns of Auto Intercom buttons.



The leftmost number corresponds to the left column of buttons, the middle number corresponds to the middle column, and the rightmost number corresponds to the right column of buttons.

Button Position	Label	Selects Intercom Numbers
Left	10-20-30	10 through 39 (blue band)
Center	40-50-60	40 through 69 (white band)
Right	70-80	70 through 79, 800, 801 (gray band)

You can quickly identify the second digit on each Auto Intercom button by looking at the column of numbers (0 through 9) printed on the panel beside the leftmost column of Auto Intercom buttons. To call intercom 21, for example, touch Shift button 10-20-30, go to the middle column of Auto Intercom buttons, and touch the button that corresponds to 1 in the column of digits printed on your console.

When you touch a Shift button:

- The green light next to the Shift button goes on.
- Green lights go on next to the Auto Intercom buttons for any busy voice terminal in the band associated with that Shift button.

Console with Display Each of the two Shift buttons on the display console is associated with a group of Auto Intercom Buttons. **Shift 1** represents intercom numbers 10 through 49, and **Shift 2** represents intercom numbers 50 through 79, 800 and 801. To call intercom 59, for example, touch **Shift 2** and then the Auto Intercom button.

When you touch **Shift 1** or **Shift 2**:

- The red light next to the Shift button goes on.
- Green lights go on next to the Auto Intercom buttons for any busy voice terminal in the group associated with that Shift button.

Group Call Distribution Buttons

Your administrator may have set up Call Distribution groups. These are usually people with similar duties, such as customer service representatives, who take turns answering incoming calls. You can program a button with a Group Call Distribution code instead of an intercom number. You use that button as you would an Auto Intercom button, for one-touch dialing. Keep in mind, though, that the light next to a Call Distribution group button won't show the busy status of group members.

To program a button for a Call Distribution group, follow the instructions in "Programming Auto Intercom Buttons." In step 4, enter the code for the group instead of an intercom number. Your administrator can give you the Group Call Distribution codes for your business. (See Section 6, "Reference," for a detailed description of this feature.)

PROGRAMMABLE FEATURE BUTTONS

You can assign features to any buttons on your console that aren't used as line or Auto Intercom buttons.

The "Quick Reference Guide to Voice Terminal Features" in Section 7, "Quick Reference Guides," gives brief descriptions of all the features that the MERLIN II system offers. The alphabetical entries in Section 6, "Reference," describe in detail how to program and use each of these features.

Screening and Transferring Calls

The MERLIN II system offers several ways to screen calls and to transfer them to other people. How you transfer and screen calls depends on how your system is set up. There are three possible situations:

- You don't have an Auto Intercom button for this person.
- You have an Auto Intercom button and your system is administered for One-Touch Transfer.
- You have an Auto Intercom button and your system is administered for One-Touch Hold with Call Announcement.

If you're not sure whether you have One-Touch Transfer or One-Touch Hold with Call Announcement, ask your system administrator. Then select the appropriate set of procedures for transferring and screening calls from the three sets of procedures that follow.

Whether you can use the Transfer button to transfer a call depends on how lines are assigned to individual voice terminals in your system.

- If you have a pooled system, you can use **Transfer** to transfer the call.
- If you have a square system and the person has a button for the line on which the call came in, you can use **Transfer** to transfer the call.
- If you have a square system and the person doesn't have a button for the line on which the call came in, you can't use **Transfer**. You must put the call on hold and announce the 2-digit line code (01 through 32) for the line on which the call is waiting. The person being called uses the Line Pickup feature to take the call. If line codes don't appear on the line buttons on your console, ask your system administrator for a list of these codes.

WITHOUT AN AUTO INTERCOM BUTTON

If you don't have an Auto Intercom button for the person or a Group Call Distribution button for the group, follow the procedures below to transfer and to screen calls.

Transfer Calls

To transfer a call without voice announcement:

- 1 Touch **Transfer**.
- 2 Dial the person's intercom number or the Group Call Distribution code.
- 3 Hang up.

If no one answers the call after a few rings, it returns to your console. (See "Transfer Return Identification," later in this section.)

Transfer Calls with Voice Announcement

To transfer a call with voice announcement:

- 1 Touch **Transfer**.
- 2 Touch **Intercom-Voice**.
- 3 Dial the person's intercom number.
- 4 Announce the call.
- 5 Hang up.
The call will ring at the person's voice terminal.

NOTE: If you use Transfer with Voice Announcement to transfer a call to a Call Distribution group or to someone with a 7406 voice terminal, the call will ring but the person won't hear your announcement.

Screen Calls

By screening calls you can find out whether a person wants to accept a call. Then you transfer the call or advise the caller that the person isn't available.

To screen a call:

- 1 Touch **Hold**.
- 2 Touch **Intercom-Ring**.
- 3 Dial the person's intercom number.
- 4 If the person answers, ask if he or she will take the call.

No?

- 1 Touch the call's line button.
- 2 Advise the caller.
- 3 Hang up.

Yes?

If your system is pooled:

- 1 Touch the held call's line button.
- 2 Ask the caller to hold while you transfer the call.
- 3 Touch **Transfer**.
- 4 Dial the person's intercom number.
- 5 Hang up.

If your system is square:

- 1 Announce the number of the line. Unless all lines appear on each person's voice terminal, give the 2-digit line code (01 through 32) as well. (If the codes don't appear on line buttons on your console, see your administrator.) The person can then touch the appropriate line button or use the Line Pickup feature to take the call.
- 2 If the person isn't familiar with Line Pickup, tell him or her to dial *99, then dial the line code.
- 3 Hang up.

WITH ONE-TOUCH TRANSFER

If your system is set for One-Touch Transfer, you just touch an Auto Intercom or Group Call Distribution button to transfer a call to a voice terminal or group of voice terminals to which that line has been assigned.

NOTE: If you have an Attendant Intercom Selector or a display console, you may need to touch the appropriate Shift button to access an Auto Intercom button.

Transfer Calls

To transfer a call without voice announcement:

- 1 Touch the button for the voice terminal or group to whom you're transferring the call.
- 2 Hang up.

If no one answers the call after a few rings, it returns to your console. (See "Transfer Return Identification," later in this section.)

Transfer Calls with Voice Announcement

To transfer a call with voice announcement:

- 1 Touch **Transfer**.
- 2 Touch **Intercom-Voice**.
- 3 Touch the button for the voice terminal of the person to whom you're transferring the call.
- 4 Announce the call through your handset.
- 5 Hang up.
The call will ring at the person's voice terminal.

NOTE: If you use Transfer with Voice Announcement to transfer a call to a Call Distribution group or to someone with a 7406 voice terminal, the call will ring but the person won't hear your announcement.

Screen Calls

To screen a call:

- 1 Touch **Hold**.
- 2 Touch **Intercom-Ring**.
- 3 Touch the button for the individual or group with whom you are checking.
- 4 If the person answers, ask if he or she will accept the call.

No?

- 1 Touch the call's line button.
- 2 Advise the caller.
- 3 Hang up.

Yes?

If your system is pooled:

- 1 Touch the held call's line button.
- 2 Ask the caller to hold while you transfer the call.
- 3 Touch the button for the individual or group member to whom you're transferring the call.
- 4 Hang up.

If your system is square:

- 1 Announce the number of the line. Unless all your lines appear on every voice terminal, give the 2-digit line code as well. The person can then touch the line button or use the Line Pickup feature to take the call.
- 2 If the person isn't familiar with Line Pickup, tell him or her to dial *99, then dial the line code.
- 3 Hang up.

WITH ONE-TOUCH HOLD WITH CALL ANNOUNCEMENT

If your system is set for One-Touch Hold with Call Announcement, you can screen a call by simply touching the appropriate Auto Intercom button or Call Distribution group button. The system puts the outside call on hold and places an intercom call to that individual or group.

NOTE: If you have an Attendant Intercom Selector or a display console, you may need to touch the appropriate Shift button to access a particular Auto Intercom button. Remember that you can't place a voice-announced call to someone with a 7406 voice terminal.

Screen Calls

To screen a call:

- 1 Touch the button for the person or group with whom you want to confer.
- 2 At the beep, speak into your handset.
- 3 If the person answers, ask if he or she will take the call.

No?

- 1 Touch the call's line button.
- 2 Advise the caller.
- 3 Hang up.

Yes?

If your system is pooled:

- 1 Touch the held call's line button.
- 2 Ask the caller to hold while you transfer the call.
- 3 Touch **Transfer**.
- 4 Dial the person's intercom number.
- 5 Hang up.

If your system is square:

- 1 Announce the number of the line. Unless all your lines appear on every voice terminal, give the 2-digit line code as well. The person can then touch the button or use the Line Pickup feature to take the call.
- 2 If the person isn't familiar with Line Pickup, tell him or her to dial *99, then dial the line code.
- 3 Hang up.

Transfer Calls

To transfer a call to the voice terminal of an individual or group member without voice announcement:

- 1 Touch Transfer.
- 2 Touch the button for the individual or group.
- 3 Hang up.

TRANSFER RETURN IDENTIFICATION

A returning transferred call rings at your console until it is answered. If you aren't busy on a call you can identify one or more returning transferred calls by checking the lights on your console. If you have a display console, you see the intercom number of the voice terminal from which the call is returning on the display.

NOTE: If you have the console with the Attendant Intercom Selector, you must have the Shift button set to the band (10-39, 40-69, or 70-79, 800 and 801) containing the intercom number of the voice terminal from which the call is returning to identify a returning transferred call.

When a Transferred Call Returns

If your console is idle and a transferred call returns:

The red light next to the line button flashes rapidly. The green light next to the Auto Intercom button for the voice terminal from which the call is returning flashes slowly.

To answer the call:

- 1 Lift your handset.

If a Second Call Returns

If a second call returns to your console before the first call is answered, the transfer return identification light patterns change to identify the second returning transferred call. When a second call returns:

The red light moves to the line button of the second call and flashes rapidly. The green light next to the Auto Intercom button for the voice terminal from which the second call is returning flashes slowly.

To check the status of the first returning transferred call:

- 1 Without lifting your handset, touch the line button of the first call.
The red light moves back to the line button of the first call. If the red light flashes, the call hasn't been answered; if the red light is steady, the call has been answered.

To answer the call:

- 1 Lift your handset.

CALL PARK WITH LOUDSPEAKER PAGE

If a call comes in for a person who may be in one of several locations, you won't know to which voice terminal to transfer it. If you have a loudspeaker paging system connected to your MERLIN II system, you can "park" the call, and then use the paging system to announce the call.

To park a call by dialing your own intercom number:

- 1 Touch **Transfer**.
- 2 Dial your own intercom number.

To page the person for whom the call is intended:

- 1 Touch **Loudspeaker Page** or dial *99 and the line number of the loudspeaker paging system.
- 2 Take either action as appropriate:
 - If you have a multi-zoned paging system, listen for the dial tone. Then dial the number corresponding to the appropriate zone.
 - If you have a single-zone paging system, go on to the next step.
- 3 Lift your handset and make your announcement. Tell the person you're paging to pick up the call using either the Line Pickup feature or the Call Pickup feature (see "Line Pickup" or "Call Pickup" in Section 6, "Reference").
- 4 When you're finished, hang up.

If the call isn't picked up within three minutes, your console beeps to let you know the call hasn't been answered.

Paging and Message Handling

PAGING

The MERLIN II system provides two paging methods:

- The Loudspeaker Page feature requires a loudspeaker paging system connected to your system.
- The Group Page feature allows you to make announcements to groups of people through their voice terminal speakers. It requires no optional equipment.

Loudspeaker Page

If your business has a loudspeaker system, you can use your handset to contact people who aren't always at the same location. When a call comes in for someone who isn't at his or her voice terminal, for example, you can put the call on hold and page the person using the Loudspeaker Page button. Your equipment may be set up to page your entire facility or to page specific areas. Check with your system administrator for more information about your particular loudspeaker system.

To page someone:

- 1 Touch the Loudspeaker Page button or dial *99 and the line number of the loudspeaker system.
- 2 Make your announcement through your handset.
- 3 Hang up.

Group Page

You use Group Page to make an announcement through a group of voice terminal speakers. If your system administrator has set up paging groups, he or she can give you a list of the people in each group (you can have up to ten people in a paging group).

To page a group of voice terminals:

- 1 Touch Intercom-Voice or Intercom-Ring.
- 2 Lift your handset.
- 3 Dial the appropriate Group Page code:

861	for group 1
862	group 2
863	group 3
864	group 4
865	group 5
866	group 6
867	group 7

- 4 When you hear a beep, make your announcement through the handset. (You hear a busy signal if all the voice terminals in the group are busy.)
- 5 Hang up.

You may want to program buttons for groups that you page frequently. This means you just touch a button (**Group Page 1**, **Group Page 3**, and so on) instead of touching an intercom button and then dialing a code. See Section 6, "Reference," for information on programming Group Page buttons. Keep in mind that the light next to a Group Page button doesn't indicate the busy status of voice terminals in the group.

TURNING ON MESSAGE LIGHTS

If you have an Auto Intercom button for a co-worker, you can turn on the Message light at that person's voice terminal whenever you take a message for him or her. When the person sees the light on, he or she can contact you to get the message. Either you or the person can then turn off the Message light.

NOTE: People with 5-button voice terminals must program a Message button in order for you to turn on their Message lights. People with 7406 voice terminals without displays must program a Message button and a Delete Message button in order to turn off their Message lights once you turn them on. People with basic telephones must dial #54 to turn off their message lights.

The procedure you use to turn on Message lights at people's voice terminals depends on the type of console you have.

34-Button Console

You use the Send Message button on your console to turn on the Message lights at people's voice terminals. If your console doesn't have a Send Message button, you must program one. See Section 6, "Reference," for programming instructions for the Send Message button.

When you take a message for someone, check the red light next to the Auto Intercom button for the person's voice terminal. If the red light is on, the person's Message light is already on. You don't need to do anything.

Follow these steps to turn on the red light next to a person's Message button:

- 1 Touch **Send Message**.
- 2 Touch the Auto Intercom button for the person's voice terminal.
The red light next to the Auto Intercom button goes on, telling you the person's Message light is lit.

Once you've delivered people's messages, you can turn off their Message lights, except at voice terminals with displays. Follow these steps:

- 1 Touch **Send Message**.
- 2 Touch the Auto Intercom button for the person's voice terminal.
The red light goes off.

Console with Attendant Intercom Selector and Display Console

Follow these steps to turn on a Message light from a console with Attendant Intercom Selector or a display console.

- 1 Touch **Message Status**.
The light next to the button goes on (a steady green light for the console with Attendant Intercom Selector, a flashing red light for the display console).
- 2 Touch the appropriate Shift button, if you're not in the correct band for this person's intercom number.
The green light next to the Shift button goes on.

NOTE: When you see the steady or flashing light next to **Message Status**, you know that the lights next to the Auto Intercom buttons on your console show message status and not voice terminal status.

3 Take either action, as appropriate:

- If the green light is on next to the person's Auto Intercom button, his or her Message light is already on. Go to step 4.
- If the green light next to the Auto Intercom button is off, the person's Message light isn't on. To turn it on, touch **Send Message**, then touch the Auto Intercom button for the person's voice terminal.
The green light next to the button goes on.

4 Touch **Message Status** to return to normal operation.
The light next to Message Status goes off.

NOTE: When the light next to **Message Status** is off, you know that the green lights next to the Auto Intercom buttons show voice terminal status, not message status.

After you've delivered someone's messages, you can turn off his or her Message light, unless the person has a display voice terminal. Follow these steps:

- 1 If the light next to **Message Status** is off, touch **Message Status**.
- 2 Touch the appropriate Shift button.
- 3 If the green light next to the person's Auto Intercom button is on, touch **Send Message**.
- 4 Touch the Auto Intercom button for the person's voice terminal.
- 5 Touch **Message Status** to return to normal operation.

Placing Calls

You can place two types of calls from your console:

- Intercom calls to other people connected to the MERLIN II system
- Outside calls

INTERCOM CALLS WITH RINGING SIGNAL

Follow these steps if you want your call to ring at the other person's voice terminal:

- 1 Touch **Intercom-Ring** unless the red light next to it is already on.
- 2 Touch the appropriate Shift button (console with Attendant Intercom Selector or display console).
- 3 *Without lifting your handset*, touch the Auto Intercom button for the person. *Your console speaker goes on, and you hear ringing.*
- 4 When the person answers, lift your handset.

INTERCOM CALLS WITH VOICE ANNOUNCEMENT

Place intercom calls with voice announcement when you want to:

- Make a brief, one-way announcement to someone
- Ask someone to pick up his or her handset so that you can have a conversation
- Make an announcement to someone who is on an outside call (the person's voice terminal must be administered to allow a Voice Announcement to Busy Voice Terminal, as described in Section 6.)

NOTE: People with 7406 voice terminals will receive voice-announced intercom calls as ringing calls.

With an Auto Intercom Button

If you have an Auto Intercom button for the person, follow these steps to announce your call through his or her voice terminal speaker:

- 1 Touch **Intercom-Voice**.
- 2 Lift your handset.
- 3 Touch the appropriate Shift button (console with Attendant Intercom Selector or display console).
- 4 Touch the Auto Intercom button for the person's voice terminal.
- 5 When you hear the beep, speak into your handset.

Without an Auto Intercom Button

If you don't have an Auto Intercom button for the person, follow these steps to announce your call through his or her voice terminal speaker:

- 1 Touch **Intercom-Voice**.
- 2 Dial the person's intercom number.
- 3 Lift your handset.
- 4 When you hear the beep, speak into your handset.

OUTSIDE CALLS

When the red light is on next to a line button, that line is the one you get when you lift your handset.

To place an outside call:

- 1 Lift the handset.
The system automatically connects you to the line with the red light next to its line button.
- 2 Dial the number.

To place a call on a line other than the line with the red light next to it:

- 1 Touch the button for the line you want.
The red light moves to that button.
- 2 Lift the handset.
- 3 Dial the number.

LINE REQUEST

You may want to use a line that is currently busy (the green light next to the line button is on). You can have the MERLIN II system signal you when that line becomes free.

- 1 *Without lifting the handset, touch the button of the busy line.
The red light next to the button goes on. When that line becomes available, your console rings.*
- 2 After you hear the ring, lift the handset.
You hear a dial tone.
- 3 Dial the number.

You cancel your Line Request when you touch another line button or when you receive or place another call.

CONFERENCE CALLS

For detailed instructions for setting up conference calls and connecting outside callers to outside lines, see "Conference" in Section 6, "Reference."

Activating Enhanced Night Service

Your administrator may have set up the optional Enhanced Night Service feature for your business. Night Service can be administered to go on and off automatically at preset times each day. If it isn't administered for automatic operation, you may be responsible for turning Night Service on at the end of the workday and turning it off at the beginning of the workday.

How you turn Night Service on and off depends on whether your system has Night Service with Outward Restriction. Ask your system administrator how Night Service is administered for your system, and then follow the appropriate procedure.

If you need to program a Night Service button on your console, see "Enhanced Night Service" in Section 6, "Reference."

WITHOUT OUTWARD RESTRICTION

Follow the procedures given below if you have Enhanced Night Service without Outward Restriction.

To turn on Night Service:

- 1 Touch **Night Service**.

The green light next to the button goes on.

To turn off Night Service:

- 1 Touch **Night Service**.

The green light goes off.

WITH OUTWARD RESTRICTION

If your system is administered with the Outward Restriction option, you need to know the system password to turn Night Service on and off. Ask your system administrator for the password.

Follow the procedures given below if you have Enhanced Night Service with Outward Restriction.

To turn on Night Service:

- 1 Touch **Night Service**.

The green light flashes next to the button.

- 2 Dial the password.

The green light becomes steady.

If you don't enter the password within 1 minute or if you make a mistake dialing the password, the green light goes out and Night Service remains off. If this happens, just touch **Night Service** again and dial the password.

To turn off Night Service:

- 1 Touch **Night Service**.

The green light flashes.

- 2 Dial the password.

The green light goes off.

If you don't enter the password within 1 minute or if you make a mistake dialing the password, the green light becomes steady and Night Service remains on. If this happens, just touch **Night Service** again and dial the password.

Using the Speaker

You can use your console's speaker to dial without lifting your handset, monitor a call on hold, or let others in the room listen to your conversation.

ON-HOOK DIALING

Instead of using your handset to listen while you place a call, you can use your console's built-in speaker. Follow these steps:

- 1 **Touch Speaker.**
The light goes on next to Speaker and you hear a dial tone.
- 2 If you're placing an intercom call, touch **Intercom-Ring** or **Intercom-Voice**.
- 3 Dial the number.
- 4 If the other person answers, lift the handset. If no one answers, touch **Speaker** again.

MONITOR-ON-HOLD

When you've been put on hold, you can go on working while you wait for someone to return to a call. Follow these steps:

- 1 **Touch Speaker.**
- 2 **Hang up.**
You hear a squeal as the handset nears the speaker, but this sound disappears as you hang up.
- 3 When you hear the person on the other end return to the call, lift your handset.
The speaker goes off automatically.

GROUP LISTENING

To let others in the room hear your telephone conversation:

- 1 Without hanging up your handset, touch **Speaker**.

You must speak to the other person through the handset unless you have a Hands-Free Unit.

TIP: Touch **Speaker** again before hanging up. This prevents a squeal from your speaker as the handset comes close to it.