AT&T
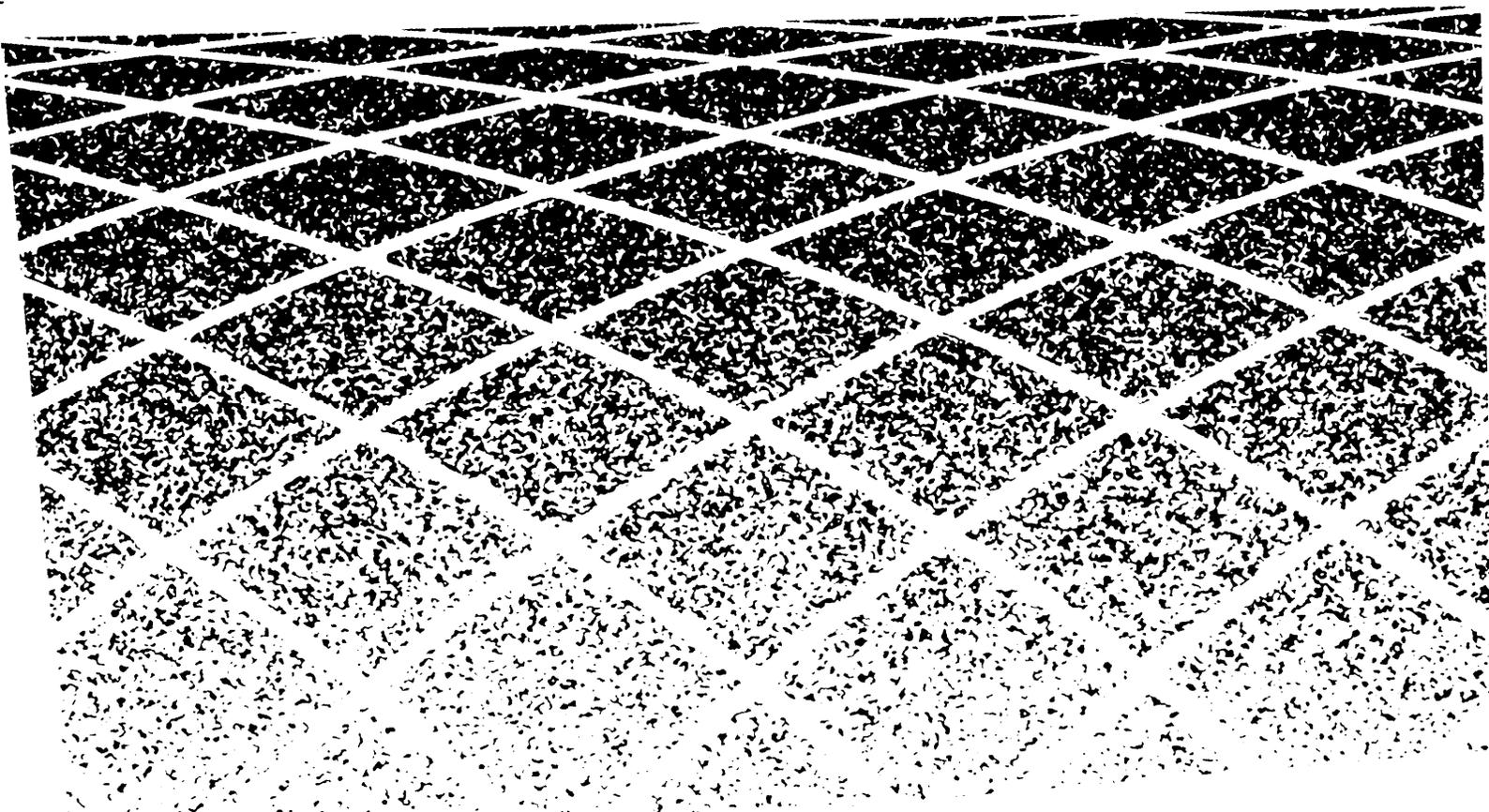
MERLIN® Plus
COMMUNICATIONS SYSTEM

System Manual

Welcome...

...to the magic of MERLIN. Your MERLIN® Plus Communications System is ready when you are. Once it's installed, you can begin using it immediately. You can use the MERLIN Plus system voice terminals the same way you use ordinary telephones.

But sooner or later you'll want to take advantage of the system's advanced technology and customize it to meet *your* business needs. This manual shows you how to choose from the MERLIN Plus system's many options and features to design a system that fits the way you do business. In no time you'll have at hand the most efficient and economical telecommunications system available for *your* business anywhere today...

...and it's amazingly easy to use!

The people in your business can start using their phones right away. Give each person one of the user's cards at the back of this book for quick reference. Then have them look through the training guide included in this package when they have a few free minutes during the day.

If you'll have an attendant handling most of your incoming calls, give that person Section 4, "Using the Attendant Console," to read.

Now...

...go ahead, make a call!

TO ORDER COPIES OF THIS MANUAL

Contents

Section 1: Introduction

What's in This Manual

You'll find the information in this MERLIN®Plus Communications System manual convenient y divided into eight sections, as described below. You'll also find ten copies of the *MERLIN Plus System User's Card* in the back of this binder. In addition to the manual, this package also includes a *MERLIN Plus System Training Manual.*

**SECTION 1.
INTRODUCTION**

This section tells you what's in the manual and how to use it. It also offers a brief introduction to the system's control unit and the voice terminals (telephones).

**SECTION 2.
PLANNING THE
SYSTEM**

Use the information in this section to make some key decisions about how you want the system 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 ATTENDANT
CONSOLE**

If our system will have an attendant to manage incoming call traffic, that person can find some helpful information in this section on using the aministrator/attendant telephone.

**SECTION 5.
REFERENCE**

This section contains a detailed discussion of every component, option, and feature in the MERLIN Plus 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 6.
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 7.
TROUBLESHOOTING
THE SYSTEM**

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

**SECTION 8.
INSTALLATION**

This is a technical reference section. It should answer any questions an installer or technician may have about MERLIN Plus system wiring and installation requirements.

USER'S CARD

This card is a handy reference for anyone who uses a MERLIN Plus system voice terminal (telephone) on the job. Give one to everyone in your business who uses a voice terminal.

MERLIN PLUS SYSTEM TRAINING MANUAL

This guide offers self-paced instructions on using the MERLIN Plus system features. Make the guide available to everyone in your business who uses a voice terminal, and encourage them to use it.

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 5, "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 5, "Reference," and Section 6, "Quick Reference Guides," to make the changes.

MANAGING INCOMING CALL TRAFFIC AS SYSTEM ATTENDANT?

See Section 4, "Using the Attendant Console," for information on how to use the attendant's telephone to handle incoming calls.

USING A VOICE TERMINAL FOR THE FIRST TIME?

See the relevant entries in Section 5, "Reference," and the Quick Reference Guide to Voice Terminal Features in Section 6-and keep the *MERLIN Plus System User's Card* handy. Then, when you have time, follow the self-paced instructions in the *MERLIN Plus System Training Manual.*

HAVING TROUBLE WITH THE SYSTEM?

Find the symptom in Section 6, "Troubleshooting." Then follow the suggestions for solving the problem.

The MERLIN Plus Communications System

The basic MERLIN Plus system supports up to four outside telephone lines and eight voice terminals (MERLIN system telephones). To accommodate your growing communications needs, the system expands easily and economically to support up to eight outside lines and 20 voice terminals. And if your business eventually outgrows even the fully expanded MERLIN Plus system, you can protect your investment in voice terminals, accessory equipment, and training time by moving up to a larger MERLIN system.

The paragraphs that follow offer a brief introduction to the system's control unit and voice terminals. The optional equipment you can add to your system is described under the heading "Accessory Equipment" in Section 5, "Reference."

THE CONTROL UNIT

The control unit is the system's brain. It manages all incoming, outgoing, and intercom call traffic. It makes all of the system's decisions and controls all of the system's responses. For an illustration of the control until with its major components labeled, see "Administration Preview" in Section 3, "Administering the System."

THE VOICE TERMINALS

A voice terminal is a MERLIN system telephone that provides basic telephone functions and allows you to take advantage of the special MERLIN system features. Your MERLIN Plus system works best with the following voice terminals:

- 5-Button Voice Terminal
- 10-Button Voice Terminal
- 10-Button Hands-Free Answer on Intercom (HFAI) Voice Terminal
- 34-Button Deluxe Voice Terminal
- 34-Button Built-In Speakerphone (BIS) Voice Terminal.

All of these voice terminals have buttons for fixed features such as Conference, Drop, Transfer, and Hold. They differ from one another in the number of buttons above and to the right of the dial pad that can be used for outside lines and programmable features. Some also have additional built-in speakerphones. The illustrations that follow should help acquaint you with these voice terminals.

5-Button
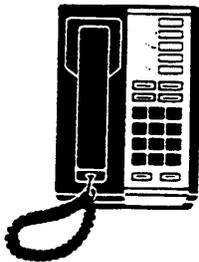
The 5-button voice terminal has an Intercom button and four additional buttons above the dial pad that you can use for outside lines and/or programmable features.

10-Button

The 10-button voice terminal has an Intercom button and nine additional buttons above the dial pad that you can use for outside lines and programmable features.

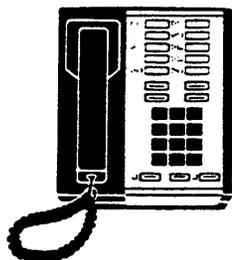**10-Button HFAI**

The 10-button HFAI voice terminal has a built-in speaker that allows you to answer and talk on intercom calls without liking the handset. It also has an Intercom button and nine additional buttons above the dial pad for outside lines and programmable features.
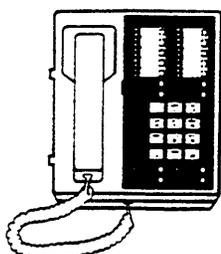
34-Button Deluxe

The 34-button deluxe voice terminal has two rows of five buttons located above the dial pad and two rows of 12 buttons to the right of the dial pad. You can use the buttons above the dial pad for lines and programmable features. You can use the 24 buttons to the right of the dial pad for programmable features. The system attendant usually has this model voice terminal.
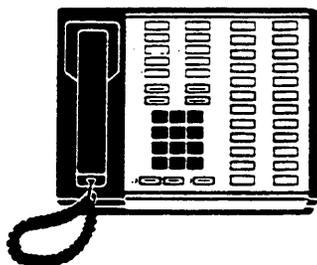
34-Button BIS

The 34-button BIS voice terminal has a built-in speakerphone that allows you to answer and talk on both outside and intercom calls without using the handset. Above the dial pad are an Intercom button and nine additional buttons for outside lines and programmable features. The 24 buttons to the right of the dial pad can be used for programmable features.

Programming a feature onto a voice terminal is easy. Just follow the simple programming instructions in the entry for the feature in Section 5, "Reference," on the User's Card, or in the Training Guide.
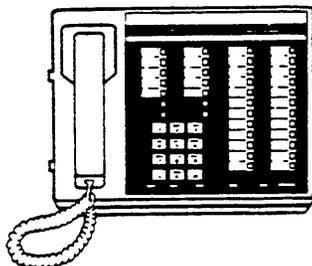
Section 2: Planning the System

Introduction

You can begin making and receiving calls as soon as your MERLIN® Plus
Communications System is installed. But to take full advantage of the
system's power, you should customize it to fit your business needs.
Customizing the system is called *administering* the system throughout this
manual.

Administering the system involves entering information into the system's
memory about how you want the system to operate. You enter this
information by pressing buttons and dialing numbers on the telephone referred
to in this manual as the *administrator/attendant console.*

This section of the manual helps you decide what information you want to
enter into the system's memory and shows you how to record that information
on forms. A checklist of the forms appears below. You can find copies at the
end of this section. Remove them now, make a photocopy of each, and put
the originals back in this binder. Keep the copies at hand so you can fill
them out as you plan your system.

- ❑ System Configuration Form

- ❑ Line Assignments Form

- ❑ Call Restrictions and Allowed Lists Directory

- ❑ System Speed Dial Directory

   NOTE: In this section of the manual, the information coming before
   the boxes helps you make important decisions about your system.
   Then the instructions in the boxes tell you where to enter these
   decisions on the forms.

System Configuration Form

Use the System Configuration Form to record information about the following:

- Dial Signals
- Long Distance Dialing
- Voice Terminals
- Outside Telephone Lines

The following information should help you make the appropriate entries for your system on the System Configuration Form.

DIAL SIGNALS

Touch-Tone telephone lines can carry both Touch-Tone and rotary (pulse) dial signals. But rotary-only telephone lines cannot carry Touch-Tone dial signals. If you don't know whether your outside telephone lines are Touch-Tone or rotary-only, ask your local telephone company.

The MERLIN Plus system is set to generate Touch-Tones when you dial an outside call. This means that if one or more of your outside telephone lines can transmit only rotary (pulse) signals, you have to set the system for rotary dialing during system administration. Otherwise you won't be able to dial out over the rotary-only lines.

> **NOTE:** If some of your outside lines are Touch-Tone and some rotary, you may want to ask your local telephone company to replace the rotary lines with Touch-Tone lines.

Under "Dial Signals" on the form . . .

Check the box next to "Touch-Tone" if all the outside telephone lines connected to your system are Touch-Tone lines.

Check the box next to "Rotary (Pulse)" if one or more of the outside lines connected to your system are rotary-only lines.

LONG DISTANCE DIALING

Under "Long Distance Dialing" . . .

Check the box next to "Toll-Prefix" if you have to dial a toll prefix (1 or 0) before the area code when you dial the telephone number for a long distance call.

Check the box next to "Area Code Only" if you do not have to dial a toll prefix (1 or 0) before the area code when you dial the telephone number for a long distance call.

VOICE TERMINALS

Each MERLIN Plus system voice terminal (telephone) in your system will have a two-digit intercom number. These intercom numbers allow easy dialing between phones within the system.

The intercom numbers for a system with 10 or fewer voice terminals run from 10 to 19. For a system with more than 10 voice terminals, the intercom numbers are 10 through 29.

Intercom 10   By design, the intercom 10 position is the primary call-handling position in the system, and it is also the system administration point. You must, therefore, assign intercom number 10 to the voice terminal at the system attendant's location. For easy system administration, the voice terminal assigned intercom 10 should be a 34-button deluxe model, but a 10-button model will also work.

> Under "Voice Terminals" . . .
>
> Write in the name of the system attendant and the attendant's location on the line next to number 10.

Intercom 19   Notice that "Call Report" appears in parentheses in the "Name" column next to intercom 19 on the form. If your system has the Call Report option, the system automatically reserves the intercom 19 position for the data collector and printer required to print call reports. You can designate an intercom number other than 19 for the Call Report equipment when you administer the system, but you cannot assign both the Call Report equipment and a voice terminal the same intercom number. (For more information on the Call Report option and equipment, see "Administer the Call Report Option" under "Systemwide Options" in Section 3, "Administering the System," and also the "Call Report" entry in Section 5, "Reference.")

> Under "Voice Terminals" . . .
>
> Do *not* write in a name next to intercom number 19 if your system has the Call Report option (unless you plan to assign an intercom number other than 19 to the Call Report equipment when you administer the system.)
>
> Cross out "(Call Report)" next to intercom 19 if your system does *not* have the Call Report option, and treat intercom 19 just like any other intercom number as *you* assign intercom numbers below.

Intercoms 11 through 29   To simplify system administration, you should assign consecutive intercom numbers beginning with 11 to the remaining voice terminals in your system.

> Under "Voice Terminals" . . .
>
> Write in the names of the people to be assigned voice terminals and their work locations next to the remaining intercom numbers.

PAGING GROUPS   The MERLIN Plus system lets you page the people in your business through the speakers on their voice terminals. You don't need an external paging system for this feature.

The system automatically assigns all voice terminals to a single paging group, called the Page-All Group. You can't change the makeup of the Page-All Group. (See the "Group Page" entry in Section 5, "Reference," for more information on the Page-All feature.)

The system also assigns intercoms 10 through 19 to Paging Group 1 and
intercoms 20 through 29 to Paging Group 2. You can keep these groups as
they are, or you can change the makeup of Paging Groups 1 and 2 during
system administration to fit the needs of your business.

You can assign as few or as many voice terminals as you want to Groups 1 and
2. You can also assign the same voice terminal to both groups.

Under "Paging Groups" . . .

Check the appropriate column(s) next to the intercom number, name, and
location of each person to indicate the Paging Group(s) you plan to assign
the person to.

**OUTSIDE TELEPHONE
LINES**

The local telephone company gives you the telephone numbers for your
outside lines. The control unit jacks where the outside lines connect to the
system are labeled alphabetically: A through D for a system with four or fewer
outside lines, and A through H for a system with five to eight outside lines.

To simplify system administration, plan to assign your outside lines to an
unbroken sequence of jacks beginning with jack A. Begin with the lines for
your local published telephone numbers. Group special lines types such as
WATS lines together in the sequence, and place any personal lines at the end
of the sequence.

Under "Outside Telephone Lines" . . .

Write in the telephone number and the line type for each of your outside
lines next to the appropriate letter.

You should now have a completed System Configuration Form.

Line Assignments Form

OUTSIDE TELEPHONE LINES

The information in the lower area of the Line Assignments Form, under the heading "Outside Telephone Lines," is almost identical to the information under the same heading on the System Configuration Form you've already completed. The only difference is that the leftmost column is headed "Control Unit Jacks" on the System Configuration Form and "Lines" on the Line Assignments From. This slight difference is to remind you that your outside lines get their identifiers (A, B, C, etc.) from the control unit jacks they are plugged into.

Under "Outside Telephone Lines" on the Line Assignments Form . . .

Copy the information already entered in the corresponding area of your System Configuration Form.

NAME AND INTERCOM NUMBER

You can also use the information already entered on your System Configuration Form to complete this part of the Line Assignments Form.

In the "Name" column on the form . . .

Write the names of the people in your business next to their intercom numbers.

LINE ASSIGNMENTS

When your system is first installed, before you do any system administration, all your outside telephone lines appear on the same buttons on every voice terminal in the system. These are the voice terminals' *original* line assignments. Figure 2-1 shows the original line assignments for both 10-button and 34-button voice terminals. A voice terminal retains its original line assignments until someone administers it differently.

FIGURE 2-1 Original Line Assignments

```
┌──────────────────────── 34 – Button ─────────────────────┐
│                                                           │
│  ┌──────── 10 – Button ────────┐                          │
│  │                             │                          │
┌──────────┐  ┌──────────┐  ┌──────────┐  ┌──────────┐
│ Line D   │  │ Line H   │  │          │  │          │
└──────────┘  └──────────┘  └──────────┘  └──────────┘

┌──────────┐  ┌──────────┐  ┌──────────┐  ┌──────────┐
│ Line C   │  │ Line G   │  │          │  │          │
└──────────┘  └──────────┘  └──────────┘  └──────────┘

┌──────────┐  ┌──────────┐  ┌──────────┐  ┌──────────┐
│ Line B   │  │ Line F   │  │          │  │          │
└──────────┘  └──────────┘  └──────────┘  └──────────┘

┌──────────┐  ┌──────────┐  ┌──────────┐  ┌──────────┐
│ Line A   │  │ Line E   │  │          │  │          │
└──────────┘  └──────────┘  └──────────┘  └──────────┘

┌──────────┐  ┌──────────┐  ┌──────────┐  ┌──────────┐
│ Intercom │  │          │  │          │  │          │
└──────────┘  └──────────┘  └──────────┘  └──────────┘

                            ┌──────────┐  ┌──────────┐
                            │          │  │          │
                            └──────────┘  └──────────┘

┌──────────┐  ┌──────────┐  ┌──────────┐  ┌──────────┐
│Conference│  │ Transfer │  │          │  │          │
└──────────┘  └──────────┘  └──────────┘  └──────────┘

┌──────────┐  ┌──────────┐  ┌──────────┐  ┌──────────┐
│  Drop    │  │  Hold    │  │          │  │          │
└──────────┘  └──────────┘  └──────────┘  └──────────┘

                            ┌──────────┐  ┌──────────┐
                            │          │  │          │
                            └──────────┘  └──────────┘

                            ┌──────────┐  ┌──────────┐
                            │          │  │          │
                            └──────────┘  └──────────┘
```
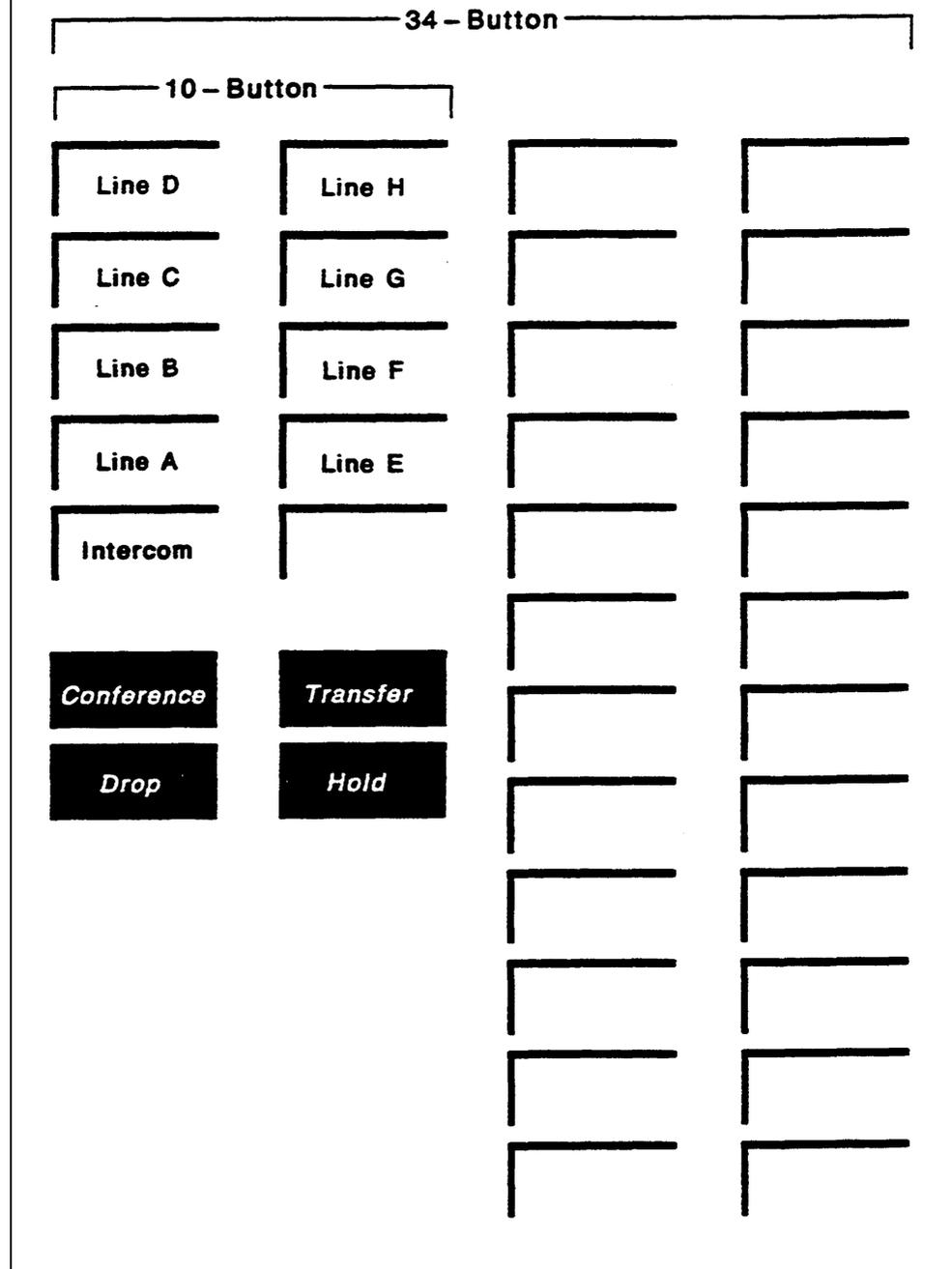
MERLIN Plus system line administration offers you these options:

- Customize the line assignments on some or all of your voice terminals.
- Keep the original line assignments on some or all of your voice terminals.

The following paragraphs offer guidelines for choosing a line assignment option for each voice terminal and recording your choices on the form.

**Customized Line
Assignments**

As you decide whether to customize the line assignments to one or more voice terminals, review your business calling patterns and each person's telephoning responsibilities. You may find that customizing line assignments can help you control costs and increase the efficiency of your communications system.

Let's say, for example, that you are the MERLIN Plus system administrator for a branch office of a large company. Your system has six outside telephone lines:

- Lines A, B, and C are local, general purpose lines with your office's published telephone numbers. They're listed first, second, and third respectively in directories and advertisements.

- Line D is a WATS line to the distant area where most of your company's suppliers are located.

- Line E is a foreign exchange (FX) line to the distant city where the company's headquarters are located.

- Line F is a general purpose line with an unpublished telephone number that the branch manager wants as a personal line.

Figure 2-1 shows how these lines appear on all voice terminals before any line administration.

Now let's consider the following facts about the calling requirements of three people in the office: the buyer, the branch manager, and the clerk.

- Most of the buyer's outgoing calls are to suppliers in the area served by the WATS line and to the purchasing and accounting departments at company headquarters. The buyer receives relatively few incoming calls, but they are usually important.

- The branch manager calls company headquarters often and wants a personal line for other calls.

- The clerk handles most of the incoming calls from customers and prospective customers, and has no need to call suppliers or the headquarters offices.

Figure 2-2 shows how you might customize the line assignments to the buyer's, the manager's, and the clerk's voice terminals to best meet their individual needs and responsibilities.

FIGURE 2-2 Customized Line Assignments

Line B

Line C

Line E

Line D

Intercom

Conference   *Transfer*

Drop   *Hold*

BUYER

Line A

Line B

Line C

Intercom

Conference   *Transfer*

Drop   *Hold*

CLERK

Line E

Line F

Intercom

Conference   *Transfer*

Drop   *Hold*

MANAGER

Line A = Primary listed telephone number

Line B = Second listed telephone number

Line C = Third listed telephone number

Line D = WATS line

Line E = FX line

Line F = Manager's personal line

Review the responsibilities of the people in your business and the special characteristics of your outside lines. Then decide which, if any, should have customized line assignments. (Your System Configuration Form shows the telephone number and line type for each of your outside telephone lines.)

In the "Intercom No." column . . .

Find the intercom numbers for the people for whom you want customized line assignments.

Check the appropriate boxes to the right of the intercom numbers to indicate which lines you want to assign to each person.

Original Line Assignments

You can keep the original line assignments on the voice terminals of those people who need access to every outside line in the system.

In the "Intercom No." column . . .

Find the intercom numbers for the people who should retain the original line assignments.

Check the appropriate boxes to the right of the intercom numbers to indicate that every line will appear at each of those voice terminals.

AUTOMATIC LINE SELECTION SEQUENCE

When you lift the voice terminal handset to make an outside call, the system automatically scans the outside telephone lines in the order in which they appear on your voice terminal's line buttons until it finds a free line for your call. For example, if your voice terminal has the original line assignments, the system gives you Line A, if it's free, when you lift the handset. If Line A is busy, the system tries Line B, and so on in alphabetical order until it finds a free line for your call. Likewise, if your voice terminal has customized line assignments, the system will search for a free line following the customized sequence.

In most cases, you probably want a voice terminal's automatic line selection sequence to be the same as the sequence in which the lines appear on the voice terminal's line buttons. If, however, you want a special automatic line selection sequence for a voice terminal, you can program that sequence when you administer the system's outside lines.

> **NOTE:** A special automatic line selection sequence for a voice terminal can contain any or all of the lines that appear on the voice terminal's line buttons.

> In the "Intercom No. " column . . .
>
> Find the intercom numbers for the voice terminals you want to program with special line selection sequences.
>
> Write the line selection sequences in the appropriate spaces in the "Automatic Line Selection Sequence" column. (For example, if you want the voice terminal with intercom number 14 to have the automatic line selection sequence D, C, A, B, write DCAB in the space for intercom number 14 in the "Automatic Line Selection Sequence" column.)

Unless you program the voice terminal line buttons differently, calls coming in on each outside line ring immediately at every voice terminal with a line button for that line. But you can program voice terminal line buttons so that calls coming in on the lines assigned to those buttons will ring either after a delay or not at all.

Immediate Ring

Those people with primary responsibility for answering calls coming in on a shared line should have the button for that line programmed for immediate ring.

Delayed Ring

Those people with backup responsibility for answering calls coming in on a shared line should have the button for that line programmed for delayed ring. Then a call coming in on that line will ring only after it has gone unanswered elsewhere for two rings.

No Ring

Those people who do not answer incoming calls on a shared line (for example, someone whose calls are screened) should have the button for that line programmed for no ring. This option is also useful for a voice terminal located in a lobby or conference room.

> **NOTE:** Even though a line button has been programmed for delayed ring or no ring, the green light next to the button still begins to flash immediately when a call comes in on the line.

> To the right of each intercom number, in the boxes containing check marks . . .
>
> Write in the appropriate letter from the following list to indicate the ringing option you want for each line.
>
> R = Immediate Ring
> D = Delayed Ring
> N = No Ring

You should now have a completed Line Assignments Form. Keep it in a place where you can find it when you want to administer the system or program individual voice terminals.

Call Restrictions and Allowed Lists Directory

You can use call restrictions to prevent some or all voice terminals from making outside calls (both local and long distance) or from making long distance calls. Then you can use allowed lists of numbers and/or special speed dial codes to permit restricted voice terminals to call specified telephone numbers, local exchanges, or area codes. By combining call restrictions with selected exceptions, you can control your outgoing call traffic and costs without placing unreasonable constraints on the people in your business. (Both allowed lists and system speed dial codes are explained in detail later in this section of the manual.)

> **NOTE:** Call restrictions do *not* affect a voice terminal's ability to receive incoming calls or to make intercom calls.

OUTWARD RESTRICTED

Some people in your business may have little need to make any outside calls, either local or long distance. **You can place an** *outward call restriction* **on their** voice terminals during system administration, and the system will ignore attempts to dial outside telephone numbers from those voice terminals. Then if you want these people to be able to make local calls in business or personal emergencies, you can assign them an allowed list of local exchanges and, perhaps, emergency numbers such as 911 when you assign the call restrictions.

You can also use system speed dial codes with restriction override (called passwords in some telephone systems) to allow restricted voice terminals to call selected local or long distance telephone numbers. You simply mark the numbers for restriction override and store them in the system's memory under speed dial codes when you administer the system. Then anyone in your system, including those with restricted voice terminals, can use the speed dial codes to call the stored numbers.

Under "Call Restrictions" on the form . . .

Put a check mark in the "Outward Restricted" column next to the intercom numbers for the voice terminals you want to place outward restrictions on when you administer the system.

TOLL RESTRICTION

Some people in your business may need to be able to call any local telephone number but have little need to make long distance calls. You can place a *toll call restriction* on their voice terminals. The system will allow local calls from those voice terminals but ignore attempts to dial long distance numbers. Then if there are certain areas of the country these people have to call on business, you can set up an allowed list of those long distance area codes and assign the list to the toll restricted voice terminals when you administer the system. You can also mark selected long distance telephone numbers for restriction override and store them under speed dial codes in the system's memory. Then anyone in your system, including those with toll restricted voice terminals, can use the speed dial codes to dial those long distance numbers.

> Under "Call Restrictions" . . .
>
> Put a check mark in the "Toll Restricted" column next to the intercom numbers for those voice terminals you want to place toll restrictions on when you administer the system.

ALLOWED LISTS

If you plan to administer the system with a 10-button voice terminal, you *cannot* assign allowed lists to restricted voice terminals. Go on to "System Speed Dial Directory."

When you assign an allowed list of numbers to a voice terminal, the person using the voice terminal can call the numbers on the list regardless of any call restriction placed on the voice terminal.

The system can store up to eight allowed lists of numbers with up to 10 entries in each list. Each entry can have up to six digits. You might, therefore, want to create one or more allowed lists with entries such as the following:

- Local exchange codes

    A local exchange code is the first three digits in a 7-digit telephone number.

- Long distance area codes

    Although you probably have to dial a 1 before the area code when you dial a long distance number, you do *not* have to add the 1 to the area *code in your* allowed list entries.

- Area codes plus local exchange codes

    An area code plus a local exchange code amounts to the maximum allowed six digits.

- Emergency numbers with six or fewer digits

    For example, 911 is a multipurpose emergency number in many areas.

Allowed Lists Named

Once you've decided how many allowed lists you want and what numbers should be included in each, you may want to identify each list by name (for example, "New England Customers" or "local Emergency Numbers") in addition to the numbers that already appear on the form (List 01, List 02, etc.).

> Under "Allowed Lists" . . .
>
> Write the name, if any, that you want to use to identify each list on the line next to the list's code number (List 01, List 02, List 03, etc.)

Allowed Lists Created

> Under "Allowed Lists" . . .
>
> Write area codes, local exchange codes, etc., on the lines next to the "Item" numbers to create your allowed lists.

Allowed Lists Assigned

Now that you've created some allowed lists, you should decide how you want to assign them to restricted voice terminals when you administer the system.

> Under "Call Restrictions," in the "Allowed Lists Assigned" column . . .
>
> Write the allowed list number(s) (01, 02, 03, etc.) on the line for each restricted voice terminal you want to assign one or more lists to when you administer the system.

Keep you completed Call Restrictions and Allowed Lists Directory in a place where you can find it easily for system administration.

System Speed Dial Directory

You can assign system speed dial codes to frequently called telephone numbers. Then people in your business can call any of these telephone numbers by dialing its 3-character code. You can also assign these codes to account numbers that you want to print out on call reports if your system has the Call Report (often referred to as Station Message Detail Recording [SMDR]) feature. People can then dial an account's 3-character code during a call to add the account number to the information on the call report for that call.

Forty speed dial codes (#60 through #99) are available for assignment to telephone numbers and/or account numbers. Each number can have up to 16 characters, including any of the following special characters:

- p for pause
- r for a switchhook flash (Recall)
- s for stop
- t for Touch-Tone enable

See the "System Speed Dial" entry in Section 5, "Reference," to find out how to use these special characters.

TELEPHONE NUMBERS

In the "Telephone Number" column on the form . . .

Write the telephone numbers you want to encode next to the 3-character dial codes (#60, #61, #62, etc.).

In the "Name" column . . .

Write the name of the person or organization to identify each telephone number.

RESTRICTION OVERRIDE

When you encode the telephone numbers in this directory during system administration, you can mark some or all of them for restriction override. Then people with restricted voice terminals can call these marked numbers by dialing the 3-character system speed dial codes.

In the "Restriction Override" column . . .

Put a check mark on the line for each telephone number you want to mark for restriction override when you administer the system.

If your system does not have the Call Report feature, you should now have a complete set of planning forms. You can go on to Section 3 and administer the system. If you do have the Call Report feature, read the following before going on to Section 3.

CALL REPORT

With the Call Report feature, your system prints out a report on every call that meets the criteria you set during system administration. Figure 2-3 shows a printout that contains several typical call reports. Each line beginning with "C" represents an individual call report.

FIGURE 2-3 A Printout of Typical Call Reports

	DATE	TIME	CALLED NUMBER	DURATION	LN	STN	ACCOUNT
C	08/21/86	11:01	9090334	00:01:13	8	11	32145677
C	08/21/86	11:05	7879096565	00:06:24	6	15	
C	08/21/86	13:15	110869685679714?	00:13:06	4	11	
C	08/21/86	14:05	4697896	00:09:00	3	12	63354324
C	08/22/86	09:43	IN	00:02:16	4	11	
C	08/22/86	10:12	8889914321	00:12:18	7	14	
C	08/22/86	11:15	IN	00:17:09	3	12	
C	08/22/86	14:25	110869685679714?	00:08:15	4	11	
C	08/23/86	11:15	4697896	00:19:11	3	12	63354324
C	08/24/86	08:10	#67	00:12:14	5	18	

Notes:

1 Column headings (DATE, TIME, etc.) do not appear on Call Report printouts.
2 An IN in the Called Number column indicates an incoming call.
3 A ? at the end of a number in the Called Number column indicates that thte number called had more than 15 reported digits.

As you can see from the reports in Figure 2-3, the system prints the number of each outgoing cdl. If there's a telephone number you'd like to keep private—say a number containing a long distance access code—you can give the number a system speed dial code and mark it for privacy when you enter it during system administration. Then the system will print the system speed dial code instead of the telephone number on call reports, as the last call report in Figure 2-3 shows.

Marked Telephone Numbers

> In the "Telephone Number" column on the form . . .
>
> Put a star (*) in front of those numbers you want to mark for privacy when you administer the system.

Account Numbers

You can also store account numbers under system speed dial codes. Then you can use the speed dial code to add the account number to a call report in order to identify the person or organization to whom the call should be charged. Figure 2-3 shows three examples of account numbers printed out on call reports.

> **NOTE:** Do not assign the same 3-character speed dial code to both a telephone number and an account number.

In the "Account Number" column . . .

Write the account numbers next to 3-character dial codes that do *not* already have telephone numbers next to them.

In the "Name" column . . .

Write the name of the person or organization to identify each account number.

You should now have a complete set of planning forms. Keep them together in a safe place until you are ready to install and administer your system.

System Configuration Form

Dial Signals
❏ Touch-Tone
❏ Rotary (pulse)

Long Distance Dialing
❏ Toll Prefix
❏ Area Code Only

Voice Terminals

Intercom Number	Name	Location	Paging Group 1	Groups Group 2
10	(Attendant)			
11				
12				
13				
14				
15				
16				
17				
18				
19	(Call Report)			
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				

Outside Telephone Lines

Control Unit Jack	Telephone Number	Line Type
A		
B		
C		
D		
E		
F		
G		
H		

Line Assignments Form

Name	Icom No.	Line A	Line B	Line C	Line D	Line E	Line F	Line G	Line H	Automatic Line Selection Sequence
	10									
	11									
	12									
	13									
	14									
	15									
	16									
	17									
	18									
	19									
	20									
	21									
	22									
	23									
	24									
	25									
	26									
	27									
	28									
	29									

Outside Telephone Lines

Lines	Telephone Number	Line Type
A		
B		
C		
D		
E		
F		
G		
H		

Call Restrictions and Allowed Lists Directory

Call Restrictions

Intercom Number	Unrestricted	Toll Restricted	Outward Restricted	Allowed Lists Assigned
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				

Allowed Lists

List 01 _____		List 02 _____	
Item	**Number**	**Item**	**Number**
01		01	
02		02	
03		03	
04		04	
05		05	
06		06	
07		07	
08		08	
09		09	
10		10	

List 03		List 04	
Item	**Number**	**Item**	**Number**
01		01	
02		02	
03		03	
04		04	
05		05	
06		06	
07		07	
08		08	
09		09	
10		10	

List 05		List 06	
Item	**Number**	**Item**	**Number**
01		01	
02		02	
03		03	
04		04	
05		05	
06		06	
07		07	
08		08	
09		09	
10		10	

List 07		List 08	
Item	**Number**	**Item**	**Number**
01		01	
02		02	
03		03	
04		04	
05		05	
06		06	
07		07	
08		08	
09		09	
10		10	

System Speed Dial Directory

Dial Code	Telephone Number	Account Number	Name	Restriction Override
#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				

Section 3: Administering the System

Introduction

You can begin using your MERLIN® Plus Communications System right now. Just make sure the system is set to generate the right dial signals for your outside telephone lines and to recognize the long distance dialing procedure for your area. To make these simple checks, see "Dial Signals" and "Long Distance Dialing" under "Basic Administration" later in this section.

To take full advantage of your system's advanced technology, however, you should plan to customize your system to fit the needs of your business. You don't have to do it all at once. Look through this section for options and features that best suit the way your business operates, and make the most important settings first. You can add others later.

Before you begin to customize your system, you should understand the meaning of the terms "administer" and "program" as they are used in this manual:

- *Administer* means to establish options and features that have systemwide impact, such as assigning the outside lines each voice terminal can access or defining system speed dial codes for everyone to use.

- *Program* means to assign features to an individual voice terminal. Most people will probably program their own voice terminals. But you may want to program certain features that can affect the calling patterns of your business.

INITIAL ADMINISTRATION

As you begin to set up your newly installed system, see the information under the following headings for time-saving advice and instructions.

- Administration Preview
- Basic Administration
- Customized Line Assignments
- Systemwide Options

ONGOING ADMINISTRATION

Use the Quick Reference Guide to System Administration in Section 6 to make changes to the system once it has been set up and administered. If you need more information on an administration procedure than the Quick Reference Guide provides, look it up in Section 5, "Reference."

Administration Preview

PLANNING FORMS

The information about your system recorded on the planning forms listed below is important to both initial and ongoing system administration.

- System Configuration Form
- Line Assignments Form
- Call Restrictions and Allowed Lists Directory
- System Speed Dial Directory

If you haven't filled out any planning forms yet, you should do so now. It won't take long, and it will save you time later. Section 2, "Planning the System," contains copies of the forms and instructions for completing them. When you've completed the forms you need for your system, go on to "Key System Components."

KEY SYSTEM COMPONENTS

If this is the first time you've administered the MERLIN Plus system, you should take a few minutes now to get acquainted with the system's control unit and the administrator/attendant console.

Control Unit

The control unit is the vital core of the system. It provides the power and intelligence for all voice terminals, and it directs all incoming and outgoing call traffic. All the system's memory, including system-wide administration and voice terminal programming, resides in the control unit. Figure 3-1 shows the control unit with the front cover removed.

FIGURE 3-1 Control Unit
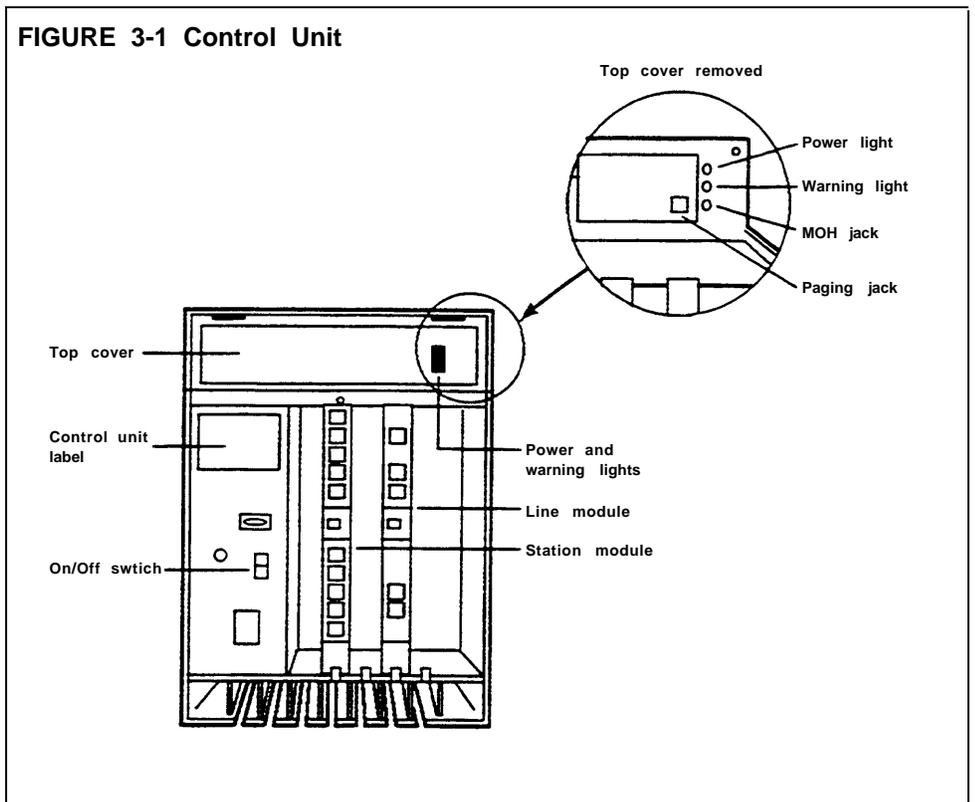
Administrator/Attendant Console

A 34-button deluxe voice terminal (Figure 3-2), which has a button with lights every outside line and voice terminal, is the ideal administrator/attendant console. The Line Buttons (above the dial pad) and the Auto Intercom Buttons (to the right of the dial pad) give you one-touch access to each line and voice terminal. The lights allow you to keep track of administration procedures as well as changes in the status of the voice terminals is and the outside lines.

You can perform most (but not all) administration procedures with a 10-button voice terminal (Figure 3-3). Specifically, you *cannot* do the following with a 10-button set:

- Change the makeup of paging groups
  (See the "Group Page" entry in Section 5, "Reference," for details.)

- Assign allowed lists to restricted phones
  (See the "Allowed Lists" entry in Section 5 for details.)

- Change the intercom number (and control unit jack) assignment for the Call Report data collecter and printer
  (See the "Call Report" entry in Section 5 for details.)

You administer the system and, if you choose, program the other voice terminals in the system with the console in the *administration* mode (the Test/Program [T/P] switch on the left side of the console set to *P* [down]). You perform the everyday monitoring and call-handling tasks of the system attendant with the console in the *normal* mode (the T/P switch set to the center position).

The functions of some buttons on the administrator/attendant console change as you switch from one mode to the other. The double entries on some of the button labels shown in Figure 3-2 and Figure 3-3 indicate these changes in function. The button's function in the normal call-handling mode is shown *above* the line on the label, and its function in administration mode is shown *below* the line.

FIGURE 3-2 34-Button Administrator/Attendant Console

Line Buttons

Auto Intercom Buttons

T/P Switch

Volume Control

Dial Pad
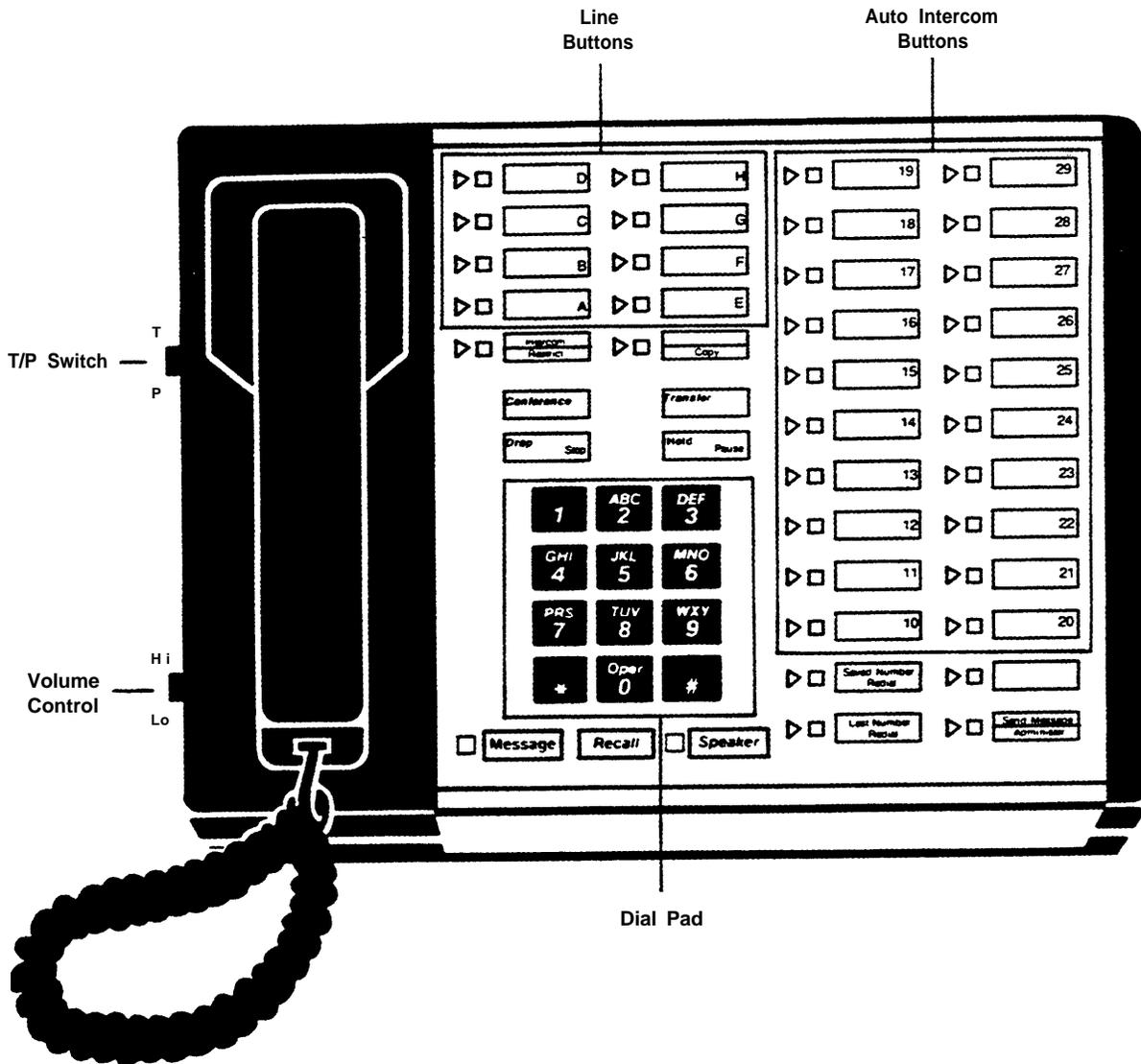
FIGURE 3-3 10-Button Administrator/Attendant Console
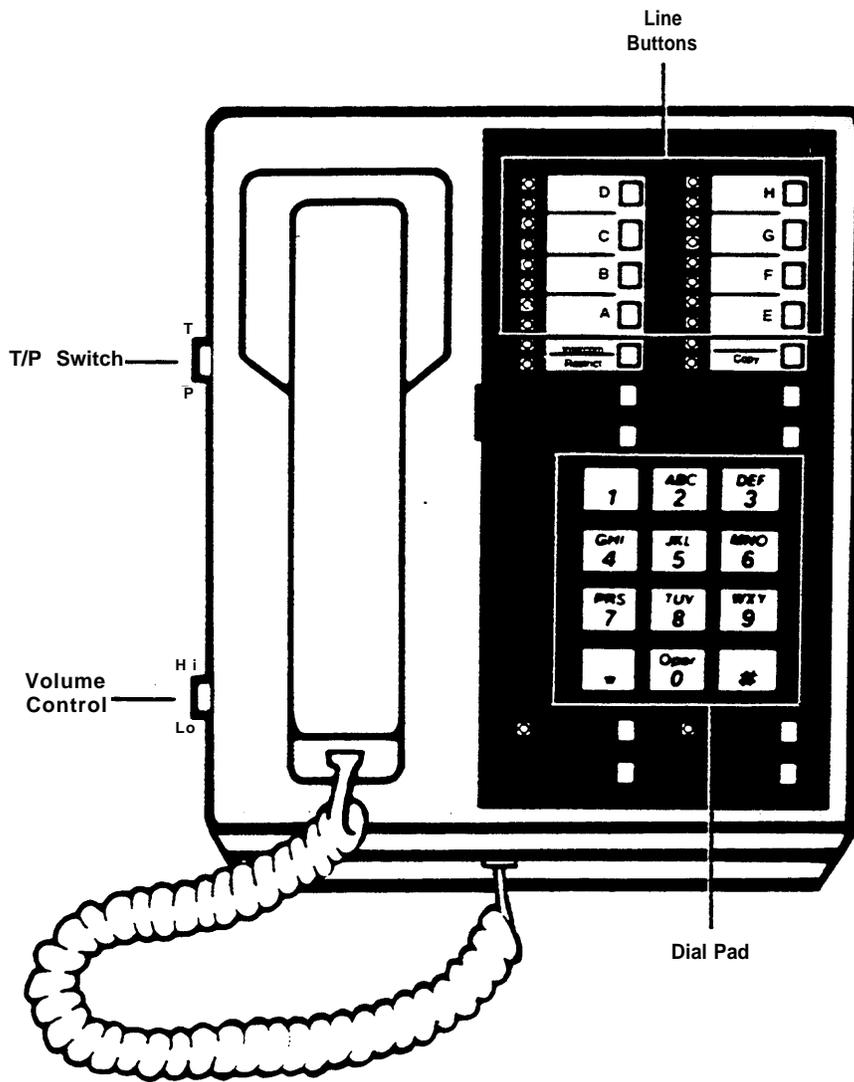
ADMINISTRATION MODE

As you just learned, you administer the system from the administrator/attendant position with the console in administration mode. The information under the next three headings tells you how to:

- Make button labels for the administrator/attendant console
- Enter administration mode,
- Leave administration mode

Button Labels

The button labels on your administrator/attendant console have to show how the functions of certain buttons change when you shift from the normal call-handling mode to the administration mode. Figure 3-2 shows you what the button labels shouId look like for a 34-button voice terminal. Figure 3-3 shows the button labels for a 10-button voice terminal.

To make button labels for the voice terminal you plan to use as your administrator/attendant console, do the foIlowing:

1 Remove the blank button labels from the *voice* terminal according to the instructions that came with the voice terminal.

2 Fill in the button labels with pencil or erasable ink.

   – For a 34-button voice terminal, follow the button labeling shown in Figure 3-2.

   – For a 10-button voice terminal, follow the button labeling shown in Figure 3-3.

3 Reinsert the labels following the instructions that came with the voice terminal.

On the button labels divided by a horizontal line, the term *above* the line identifies the button's function when the console is in the normal call-handling mode. The term *below* the line identifies the button's function in administration mode. Note that there is no Send Message/Administer button on a 10-button voice terminal.

Entering Administration Mode

You have to enter administration mode to set up the system initially and again each time you use the attendant console to administer the system. Follow the instructions in the box on the next page whenever you have to enter administration mode.

<div style="border: 1px solid black; padding: 10px;">

Entering Administration Mode

To enter administration mode:

1 Slide the T/P switch on the left side of the console to *P* (down).
The green lights next to the line buttons begin flashing.
The console rings every five seconds to remind you that it's in programming mode.

2 Touch **Administer,** or dial #01.
The green lights go off.
*The red lights go on steady next to **Administer** and **Restrict.***
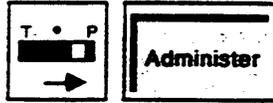
NOTE: A 10-button voice terminal doesn't have a button labeled **Administer.** If you are using a 10-button voice terminal at the intercom 10 position, dial the 3-character code #01 in step 2.

</div>

Leaving Administration Mode

Follow the boxed instructions below when you've finished an administration session.

<div style="border: 1px solid black; padding: 10px;">

Leaving Administration Mode

To leave administration mode:

1 Slide the T/P switch on the left side of the console to the center position.
*The red lights next to **Administer** and **Restrict** go off.*
The red light goes on next to a line button.

</div>
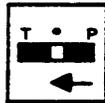
CENTRALIZED PROGRAMMING

The people in your business may want to program their own voice terminals. If so, the Training Manual, the User's Card, and Section 5, "Reference," all include instructions for programming features onto voice terminals. Another option available to you, as system administrator, is to program some or all voice terminals from the administrator/attendant console. The boxed instructions on the next page tell you how to do so. If you want two voice terminals to have the same programming, the information under the next heading, "Copy," tells you how to copy the programming from one voice terminal to another.

<div style="border: 1px solid black;">

Centralized   Programming

To program voice terminals from the administrator/attendant console.
do the following:

1   Enter administration mode.

2   Touch the Auto Intercom button or dial the intercom number for the
first voice terminal you want to program.

3   Touch Conference.

4   Program the voice terminal according to the instructions in the Training
Manual or in Section 5, "Reference."

5   Leave administration mode, or select another voice terminal for
programming as follows:

   a   Touch Conference.

   b   Touch the Auto Intercom button or dial the intercom number for
the next voice terminal.

   c   Touch Conference.

   d   Program the voice terminal.

</div>
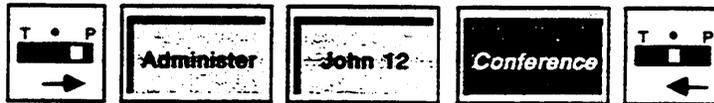
COPY

If you want to copy outside line assignments and programmable features from
one voice terminal (the *source*) onto the same buttons on another voice
terminal (the *target*), the boxed instructions on the next page tell you how to
do so. But first you should understand the following points about the Copy
procedure:

- The Copy procedure copies the following from the source

  — Line assignments

  — Automatic line selection sequence

  — Call restrictions

  — Line ringing options

  — Personalized ring

  — Voice announcement enable/disable

- The Copy procedure also copies most other programmable features from
the source onto the same buttons on the target, overwriting any
features previously programmed onto those buttons on the target.

- The Copy procedure does *not* copy allowed list assignments.

Copy

To copy line assignments, call restrictions, and most programmable features from one voice terminal (the *source*) to another voice terminal (the *target*), do the following:

1 Enter administration mode.

2 Touch the Auto Intercom button or dial the intercom number of the target voice terminal.

3 Touch Copy.

4 Touch the Auto Intercom number or dial the intercom number of the source voice terminal.

5 Continue to administer the system, or leave administration mode.

NOTE: If you want to copy from one source to several targets, you have to repeat steps 2, 3, and 4 for each target voice terminal.

CONFIRMATION AND ERROR SIGNALS

Many of the administration and programming procedures described in this manual require you to enter a star code (that is, dial * plus one or more digits). Many procedures also require you to enter intercom numbers or other sequences of digits.

Confirmation Signal

If you enter a star code the system recognizes and then enter intercom numbers or another sequence of digits consistent with the star code, the console beeps twice when you touch **Administer** to conclude the procedure. The two beeps confirm allowable input.

Error Signal

If you dial a star code the system does not recognize, enter a nonexistent intercom number, or enter one or more digits inconsistent with the administration or programming procedure, the attendant console beeps once to signal that you have made an error.

To recover from the error, do as follows:

1 Touch **Administer.**

2 Begin the procedure again.

This concludes the preview to system administration. Go on now to make sure your system is ready to use.

Basic Administration

Basic administration should take no more than a few minutes. All the information you need should be on your System Configuration Form.

DIAL SIGNALS

Locate the column headed "Dial Signals" on the System Configuration Form. Is the box next to "Touch-Tone" checked? If so, *you don't have to do anything here.* Your system is factory set to generate Touch-Tones when you dial an outside call on any of your outside telephone lines.

But if the box next to "Rotary (Pulse)" is checked, you have to set the system to generate rotary (pulse) signals when you dial outside calls. Set system for pulse dialing as follows:

1 Enter Administration Mode.
The red lights go on the steady next to Administer and Restrict.

2 Dial *39

3 Touch **Administer.**
The console beeps twice.

Continue with administration, or leave administration mode.

Reversing the Procedure

If you ever have to reset the system for Touch-Tone dialing, follow the above procedure, but dial *38 instead of *39 in step 2.

LONG DISTANCE DIALING

Locate the column headed "Long Distance Dialing" on the System Configuration Form. Is the box next to "Toll Prefix" checked? If so, *you don't have to do anything here.* Your system is factory set for this type of long-distance dialing: toll prefix (1 or 0) + area code + telephone number.

But if the box next to "Area Code Only" has a check, you have to set the system for this type of long-distance dialing (area code + telephone number) as follows:

1 Enter administration mode.
The red lights go on steady next to **Administer** *and* **Restrict.**

2 Dial *37.

3 Touch **Administer.**
The console beeps twice.

4 Continue to administer the system, or leave administration mode.

Reversing the Procedure

If you ever have to reset your system to toll-prefix dialing, follow the above procedure but dial *36 instead of *37 in step 2.

SYSTEMWIDE LINE ASSIGNMENTS

This simple procedure tells the control unit how many outside telephone lines your system has. But it works only if your outside lines are plugged into an unbroken sequence of line jacks on the control unit beginning with line jack A. The System Configuration Form shows the number of lines you have and the control unit line jack for each line under the heading "Outside Telephone Lines."

To set the systemwide line assignments, do the following:

1 Enter administration mode.
The red lights go on next **Administer** *and* **Restrict.**

2 Dial *4.

3 Dial the number of outside telephone lines in your system.

4 Touch **Administer.**
The console beeps twice.

5 Continue to administer the system, or leave administration mode.

PAGING GROUPS

When you filled in the "Paging Groups" columns on the System Configuration Form, you learned the following about paging groups:

- All voice terminals are automatically assigned to a single paging group, the Page-All Group, which you cannot change.

- Intercoms 10 through 19 are automatically assigned to Page Group 1; intercoms 20 through 29 are automatically assigned to Page Group 2.

- You can change the makeup of Page Groups 1 and 2 if you are using a 34-button voice terminal as your administrator/attendant console. (You *cannot* use a 10-button voice terminal to change a paging group's makeup.)

- You can assign the same voice terminal to both paging groups.

Look at the "Paging Groups" columns on the System Configuration Form. If you plan to keep intercoms 10 through 19 in Page Group 1 and the remaining intercoms in Page Group 2, *you don't have to do anything here.*

If you plan to change the makeup of the paging groups, do the following:

1 Enter administration mode.
The red lights go on next to **Administer** *and* **Restrict.**

2 Dial the code for the paging group you want to change (*71 for Group 1 or *72 for group 2).
The green light goes on next to the Auto Intercom button for each voice terminal currently assigned to the group.

3 Touch **Drop** to remove all voice terminals from the group.
All the green lights next to Auto Intercom buttons go off.

4 One after another, touch the Auto Intercom buttons for the voice terminals you want to include in the paging group.
The green lights next to the Auto Intercom buttons go on as you touch the corresponding buttons.

5 Touch **Administer.**
The console beeps twice.

6 Repeat steps 2 through 5 to change the makeup of the other paging group.

7 Continue to administer the system or leave administration mode

If you want to change a paging group later on, see the "Group Page" entry in Section 5, "Reference," or the Quick Reference Guide to System Administration in Section 6.

This concludes basic administration. You can use your system now, just as it is, and leave further administration until later. Or you can go on and customize the outside telephone line assignments to individual voice terminals.

Customized Line Assignments

As you filled out the Line Assignments Form, you learned that customizing line assignments to voice terminals can help control costs and increase the efficiency of your communications system. All the information you need to customize line assignments should be on the Line Assignments Form.

When you enter administration mode and touch the Auto Intercom button for a voice terminal, the green lights next to the line buttons on the console show you which outside lines are currently assigned to that voice terminal.

Green light on = line is assigned m the voice terminal
Green light off = line is not assigned so the voice terminal

Your system comes from the factory configured so that all your outside lines appear on the same line buttons on every voice terminal. These are the system's *original* line assignments. A voice terminal retains its original line assignments until someone administers it differently. If this is the first time anyone has administered your system, all your voice terminals should have their original line assignments.

> **NOTE:** If you have not performed the "Systemwide Line Assignments" procedure described under "Basic Administration" earlier in this section, the green lights next to the line buttons on your administrator/attendant console may show that your system has more outside lines than it really has. If this is the case, go back now to "Basic Administration" and enter the correct number of outside lines following the instructions under "Systemwide Line Assignments."

MERLIN Plus system line administration offers two choices:

- You can keep the original line assignments on some or all of your voice terminals.

- You can customize the line assignments to some or all of your voice terminals to better suit the needs of your business and individual voice terminal users.

KEEP THE ORIGINAL LINE ASSIGNMENTS

On the Line Assignments Form, there should be a check mark for each outside line in the system to the right of the intercom numbers for those voice terminals keeping their original line assignments. To make sure these voice terminals have the original line assignments, do the following:

1 Enter administration mode.
The red lights go on next to **Administer** *and* **Restrict.**

2 One after another, touch the Auto Intercom buttons for each of these voice terminals.

The green lights next to the line buttons should show that all of your outside lines appear on each of these voice terminals. If you discover that one or more lines do not appear on a voice terminal designated to keep the original line assignments, you can use the procedure under the next heading, "Customize Line Assignments," to give that voice terminal the original line assignments.

3 Leave administration mode.

CUSTOMIZE LINE ASSIGNMENTS

The check marks to the right of the intercom numbers on the Line Assignments Form should show how you plan to customize the line assignments to voice terminals.

Customizing a voice terminal's line assignments is simply a matter of removing and adding lines. But keep the following points in mind:

- On every voice terminal, the button directly above **Conference** is always the Intercom button. You can't assign a line or feature to it.

- On every voice terminal, the button above **Transfer** is always a programmable feature button. You can't assign a line to it.

- When you assign lines to a voice terminal, the system assigns them to line buttons in the order shown in Figure 3-4 below. This sequence is also the voice terminal's automatic line selection sequence—the order in which the system selects lines for the voice terminal's outgoing calls-unless you program a defferent automatic line selection sequence.

- On any voice terminal, line buttons without lines assigned to them can become programmable feature buttons.

FIGURE 3-4 The order in which the system assigns lines to buttons
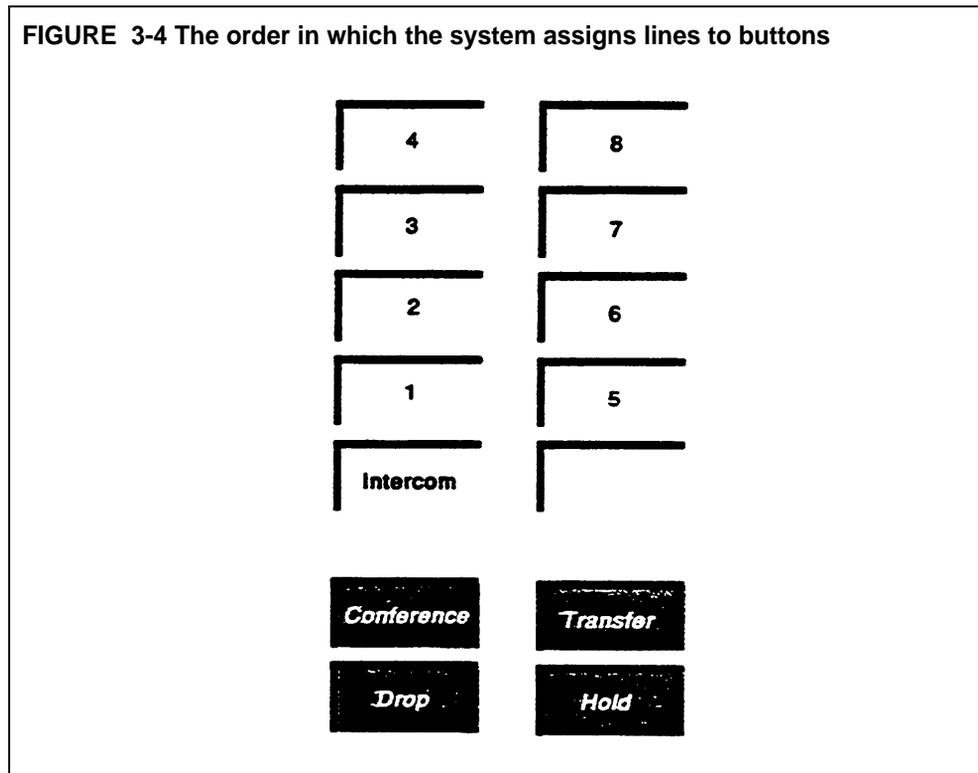
To customize line assignments to voice terminals as indicated on the Line Assignments Form, do as follows:

1 Enter administration mode.
   The red lights go on next to **Administer** *and* **Restrict.**

2 Touch the Auto Intercom button or dial the intercom number for the first voice terminal.
   Green lights go on next to the buttons for lines currently assigned to the voice remind.

3 Remove all the lines from the voice terminal.

To do this, touch each line button that has a green light on next to it.
The green lights go off as you touch the the corresponding line buttons.

4 Assign lines to the voice terminal in the order in which you want the lines to appear on the voice terminal's line buttons.

NOTE: This should be the order shown for the voice terminal in the "Automatic Line Selection Sequence" column on the Line Assignments Form, unless you have a reason for programming a different automatic line selection sequence.

To do this, touch the button for the line you want to appear on the first line button on the voice terminal (button number 1, just above Intercom, in Figure 34.) Then touch the button for the line you want to appear on the second line button (number 2 in Figure 3-4), and so on until the line assignments on the voice terminal match the line assignments for that voice terminal on the Line Assignments Form.
The green lights go on as you touch the corresponding line buttons.

5 Touch the Auto Intercom button or dial the intercom number for the next voice terminal you want to customize, and repeat steps 3 and 4.

6 Continue to administer the system, or leave administration mode.

NOTE: If you want to program an automatic line selection sequence for a voice terminal that is different from the sequence in which outside lines appear on the voice termird's line buttons, see the entry for "Automatic Line Selection Sequence" in Section 5, "Reference."

ASSIGN BUTTON-FREE LINE OPERATION

You can used this option to assign outside lines to a voice terminal without assigning them to specific line buttons. This leaves the voice terminal's buttons free for programmable features. See the entry for "Button-Free Line Operation" in Section 5, "Reference," for more information about assigning this option to a voice terminal.

This concludes outside line administration. You can go on now to "Systemwide Options," or you can leave further administration for another time.

Systemwide Options

This concluding phase of initial system administration includes instructions for administering the following systemwide options:

- Call Restrictions
- Allowed Lists
- Call Reports (often referred to as SMDR)
- System Feature Reports
- System Speed Dial

ASSIGN CALL RESTRICTIONS TO VOICE TERMINALS

The Call Restrictions and Allowed Lists Directory should show whether you plan to restrict any of your voice terminals. Under "Call Restrictions" on the form, the check marks to the right of the intercom numbers should show the type of restriction, if any, you plan to place on each voice terminal.

When your system is first installed, all voice terminals are *unrestricted.* For those voice terminals with a check mark in the "Unrestricted" column on the form, *you don't have to do anything here.*

To assign *outward* call restrictions or *toll* call restrictions to voice terminals, do the following:

1 Enter administration mode.
The red lights go on next to **Administer** *and* **Restrict.**

2 Touch the Auto Intercom button or dial the intercom number for the first voice terminal you want to restrict.

3 Touch **Restrict** repeatedly until the green light next to **Restrict** displays the signal for the type of call restriction shown for the voice terminal on the Call Restrictions and Allowed Lists Directory.

> *Steady green light on = Unrestricted (all calls permitted)*
> *Flashing green light = Toll restricted (only intercom and local calls permitted)*
> *Green light off = Outward restricted (only intercom calls permitted)*

4 Touch **Administer.**
The console beeps twice.

5 Repeat steps 2 through 4 for the next voice terminal, or leave administration mode.

ADMINISTER ALLOWED LISTS

If you plan to assign allowed lists of numbers to restricted voice terminals, you should-have filled in one or more of the lists on the Call Restrictions and Allowed Lists Directory. As the directory shows, you can have up to eight allowed lists with up to 10 enties on each list. An entry can have up to six digits.

The instructions that follow tell you how to:

- Set up allowed lists
- Delete a number from an allowed list
- Remove all numbers from an allowed list
- Assign allowed lists to voice terminals

NOTE: You *cannot* administer this feature with a 10-button voice terminal. You must have a 34-button administrator/attendant console to assign allowed lists to voice terminals.

Set Up Allowed Lists

In order to assign an allowed list to a restricted voice terminal, you first have to set up the allowed list in the system's memory. To set up an allowed list, do the following:

1 Enter administration mode.
The *red lights go on next to* **Administer** and **Restrict.**

2 Dial the code for the list you want to set up.
(The codes are *01 through *08 for List 01 through 08 in the directory.)

3 Dial the 2-digit "Item" number (01 through 10 in the Allowed List Directory) for the number you are adding to the list.

4 Dial the number you are adding to the list (a maximum of six digits).
The console beeps twice on the sixth digit to confirm the entry and remind you that you can't enter another digit to this list entry.
The console does not *beep when you enter a number with fewer than six digits to the list.*

5 Touch **Administer.**
The console beeps twice.

6 To add another number to the same list, repeat steps 2 through 5.

NOTE: You must begin each entry to List 01 by dialing *01, each entry to List 02 by dialing *02, etc.

7 Repeat steps 2 to 6 to set up another list, or leave administration mode.

Delete a Number from an Allowed List

To delete a number from an allowed list already in the system's memory, do the following:

1 Enter administration mode.
The red lights go on next to **Administer** *and* **Restrict.**

2 Dial the code for the list.
(The codes for Lists 01 through 08 are *01 through *08.)

3 Dial the "Item" number (01 through 10) of the number you want to delete.

4 Touch **Drop.**

5 Touch **Administer.**
The console beeps twice.

6 Continue to administer the system, or leave administration mode.

Remove All Numbers from an Allowed List

To clear all entries from a list, do the following:

1 Enter administration mode.
The red lights go on next to **Administer** and **Restrict.**

2 Dial the code for the list you want to clear.
(The dial codes for Lists 01 through 08 are *01 through *08.)

3 Touch **Drop.**

4 Touch **Administer.**
The console beeps twice.

5 Continue with administration, or leave administration mode.

Assign or Remove Allowed Lists

Use this procedure to assign an allowed list to a voice terminal or to remove an allowed list from a voice terminal. Your Call Restrictions and Allowed Lists Directory should show which lists to assign to each voice terminal.

To assign or remove an allowed list, do the following:

1 Enter administration mode.
The red lights go on next to **Administer** *and* **Restrict.**

2 Dial the code for the list you want to assign.
(The codes for Lists 01 through 08 are *01 through *08.)

3 Dial 00.
Green lights go on next to the Auto Intercom buttons for the voice terminals to which this list is already assigned.

4 Touch the Auto Intercom button for the voice terminal to which you want to assign the list.

> *Green light on = the list is assigned to the voice terminal*
> *Green light off = the list is not assigned to the voice terminal*

5 Touch **Administer.**
The console beeps twice.

6 Continue to administer the system, or leave administration mode.

If your system does not have the Call Report option, go on now to "Administer the System Speed Dial Option." If you do have the Call Report option, find out how to make it work the way you want in "Administer the Call Report Option."

ADMINISTER THE CALL REPORT OPTION

You must have a MERLIN Plus System Data Collector and a printer (AT&T 475 or equivalent) to print out call reports. With the Call Report option, your system prints out a report on every call that meets the criteria you set during this phase of system administration. Figure 2-3 in Section 2, "Planning the System," shows some typical call reports.

For the Call Report option to operate correctly, you have to set the following:

- Current date and time
- Control unit jack for the printer
- Minimum length of reported calls
- Type of calls reported

Date and Time

Set the current date and time as follows:

1 Enter administration mode.
The red lights go on next to **Administer** *and* **Restrict.**

2 Dial *80.

3 Dial two digits for the month (01 through 12).

4 Dial two digits for the day (01 through 31).

5 Dial two digits for the year (00 through 99).

6 Touch **Administer.**
The console beeps twice.

7 Dial *81.

8 Dial two digits for the hour (00 through 23).

9 Dial two digits for the minute (00 through 59).

10 Touch **Administer.**
The console beeps twice.

11 Go on to assign Call Report to a control unit jack, or leave administration mode.

Control Unit Jack

The system automatically assigns station jack number 19 on the control unit to the data collector and printer for the Call Report option. If you want to keep jack number 19 for the Call Report equipment, *you don't have to do anything here.* Go on to "Minimum Length of Reported Calls."

If you want to assign the data collector and printer to a control unit jack other than 19, do as follows:

1 If you haven't already done so, enter administration mode.

2 Dial *82.
The green light goes on next to the Auto Intercom button for the control unit station jack to which the data collector and printer are currently assigned (jack 19 unless the setting has alredy been changed).

3 Touch the Auto Intercom button for the control unit station jack you want to use to connect the data collector and printer to the system.
The green light next to the Auto Intercom button you touch goes on.
The green light next to Auto Intercom button 19 goes off.

4 Go on to set the minimum length of reported calls, or leave administration mode.

Minimum Length of Reported Calls

The system is set to report calls lasting one minute or longer. If you want to keep one minute as the minimum length for reported calls, *you don't have to do anything here.* Go on to "Type of Calls Reported."

If you want a setting other than one minute, do as follows:

1 If you haven't already done so, enter administration mode.

2 Dial *83.

3 Dial one digit (0 through 9) for the number of minutes.

NOTE: The system adds 10 seconds to the number of minutes you enter in order to account for the time it can sometimes take to connect a call to the right person. For example, if you dial 0 in this step, the minimum length of a reported call will be 10 seconds (0 minutes, 10 seconds). If you dial 9, the minimum length-will be 9 minutes, 10 seconds. The extra 10 seconds is *not* added to the call's duration on the call report.

4 Touch **Administer.**
The console beeps twice.

5 Go on to set the type of calls reported, or leave administration mode.

Type of Calls Reported

You can set the system to report either outgoing calls only, or both outgoing and incoming talk. To set the type of calls reported, do as follows:

1 If you haven't already done so, enter administration mode.

2 Dial *84.

3 Dial the the one-digit code for the calls reported option you want:

1 = outgoing calls only
2 = outgoing and incoming calls

4 Touch **Administer.**
The console beeps twice.

5 Continue to administer the system, or leave administration mode.

If your system is equipped for the Call Report option, it can also print out System Feature Reports. Go on now to "Administer the System Feature Reports Option" to learn more about this option.

ADMINISTER THE SYSTEM FEATURE REPORTS OPTION

With the System Feature Reports option, you can print out reports telling you how your system is currently administered and configured, and how each voice terminal is programmed. For descriptions of the reports and instructions for printing them, see the entry for "System Feature Reports" in Section 5, "Reference."

Like the Call Report option, the System Feature Reports option requires the current date and time as well as a station jack on the control unit for the data collector and printer. If you've already set the date, time, and control unit jack for the Call Report option, *you don't have to do anything here.* If you do have to set the date, time, and control unit jack assignment, follow the instructions under "Administer the Call Report Option."

ADMINISTER THE SYSTEM SPEED DIAL OPTION

You can assign system speed dial codes to frequently called telephone numbers or to account numbers you want to appear on call reports (if you have the Call Report option).

Assign Codes to Telephone Numbers

As you learned when you planned your system, you can store telephone numbers under system speed dial codes with or without Restriction Override. You can also specify which telephone numbers stored under codes will be printed out in full on call reports and which will be identified in the reports by system speed dial code only. Your System Speed Dial Directory should show which, if any, numbers you have designated for Restriction Override and which, if any, you have designated as private (that is, not to be printed on call reports).

The telephone number can have up to 16 characters, including these special characters:

– For a *p* (pause), touch **Hold.**

– For an *s* (stop), touch **Drop.**

– For an *r* (switchhook flash), touch **Recall** and then touch **Hold.**

   NOTE: This special character for the switchhook flash works *only* as the *first* character in a sequence of characters stored under a system speed dial code. If it appears anywhere but first in the sequence, it automatically disconnects the call at the point when the system dials the switchhook flash.

– For a *t* (Touch-Tone enable), touch **Transfer.**

   NOTE: If you want to include a pound symbol (#) in a sequence of characters to be stored under a system speed dial code, you have to dial the pound symbol twice (##) at the point in the sequence where you want it inserted when you enter it in step 2 below. Otherwise the system will think you're requesting another speed dial code when you dial the #. The system will enter only one of the two pound symbols you dial in the stored sequence.

To assign a system speed dial code to a telephone number and store it in the system's memory, do the following:

1 Enter administration mode.
The red lights go on next to **Administer** *and* **Restrict.**

2 Find the telephone number in the System Speed Dial Directory, and dial the 3-character code (#60 through #99) you are assigning to that number.

3 Dial one of the following codes:

Dial *90 to a assign the speed dial code *without* Restriction Override.

o r

Dial *92 to assign the speed dial code *with* Restriction Override.

4 To assign the code to a telephone number and designate the telephone number as private (will *not* be printed out on call reports) or public (will be printed out on call reports), dial one of the following:

Dial * plus the telephone number (private),

o r

Dial the telephone number (public).
The console beeps twice on the sixteenth character to confirm the entry and to remind you that you can't add another character m this entry.
The console does not beep on an entry of fewer than 16 characters.

5 Touch **Administer.**
The console beeps twice.

6 Repeat steps 2 through 5 for each telephone number you want to encode.

7 Go on to assign codes to account numbers, or leave administration mode.

Assign Codes to Account Numbers

An account number on a call report allows you to identify the person or organization to whom the call should be charged. As you learned when you planned your system, you can store account numbers in the system under system speed dial codes. Your System Speed Dial Directory should show the codes you plan to assign to your account numbers.

> **NOTE:** The 3-character codes available for account numbers are the same as those available for telephone numbers #60 through #99. Do *not* assign the same 3-character code to both a telephone number and an account number. If you use a client's telephone number as that client's account number, you have to assign the number a 3-character system speed dial code (for example, #61) for speed dialing the client and another 3-character code (for example, #81) for entering the number in the account number column on a call record.

To assign a system speed dial code to an account number and store it in the system's memory, do the following:

1 If you haven't already done so, enter administration mode.

2 Find the account number in the System Speed Dial Directory, and dial the 3-character code (#60 through #99) you are assigning to that number.

3 Dial *88.

4 Dial the account number (up to 16 digits).
The console beeps twice on the sixteeth character to confirm the entry and to remind you that you can't add any more characters to this entry.
The console does not beep for an entry of less than 16 characters.

5 Touch **Administer.**
The console beeps twice.

6 Repeat steps 2 through 5 for each account number you want to encode.

7 Continue to administer the system, or leave administration mode.

This concludes initial system administration. Your system should now be set to meet your immediate business needs. As you become more familiar with the system, and as your communications needs grow, you may want to add some options or features. When you have time, take a few moments to look through Section 5, "Reference," and read about the many other systemwide options and programmable features available to you with your MERLIN Plus Communications System.

Section 4: Using The Attendant Console

Overview

As your company's system attendant, you will probably answer most calls that come into the business and transfer many of those calls to other people in the office. This section includes descriptions, instructions, and suggestions that will help you transfer calls and use Auto Intercom buttons, the Loudspeaker Page and Group Page features, the Send Message feature, and the headset. For more information about any of the MERLIN® Plus Communications System features discussed here, refer to Section 5, "Reference."

THE ATTENDANT CONSOLE

The main attendant console, plugged into jack 10 on the control unit, also serves as the administration voice terminal. All of the company's lines appear on separate buttons on the administrator/attendant console. It is important that, as the attendant, you have an Auto Intercom button with lights for each voice terminal in the system. Therefore, most attendants use a 34-button deluxe voice terminal that has enough buttons for lines and Auto Intercom buttons. When you plug your 34-button voice terminal into intercom jack 10 on the control unit, your console automatically has a button for every line and an Auto Intercom button for every person in the system.

If you are using a 10-button voice terminal as an administrator/attendant console, all the lines to which your system has access will appear on separate buttons on your voice terminal, but you will probably not have an Auto Intercom button for each person in your system. Therefore, when you want to place an intercom call or transfer a call, you may need to dial the person's intercom number rather than use an Auto Intercom button. Since the 10-button voice terminal does not have a Send Message button, you must use a special procedure described in "Using the Send Message Feature" in this section in order to turn on the Message light at the voice terminal of the person who has a message waiting.

On the following two pages are illustrations of the 34-button deluxe voice terminal and the 10-button Hands Free Answer on Intercom (HFAI) voice terminal. Look at the picture of the type of voice terminal that you are using and check the location of the buttons and the dial pad.

If you need to check the initial button assignments for the 34-button deluxe administrator/attendant console in regular call-handling mode, see Section 3, "Administering the System."

FIGURE 4-1 The 34-button deluxe voice terminal
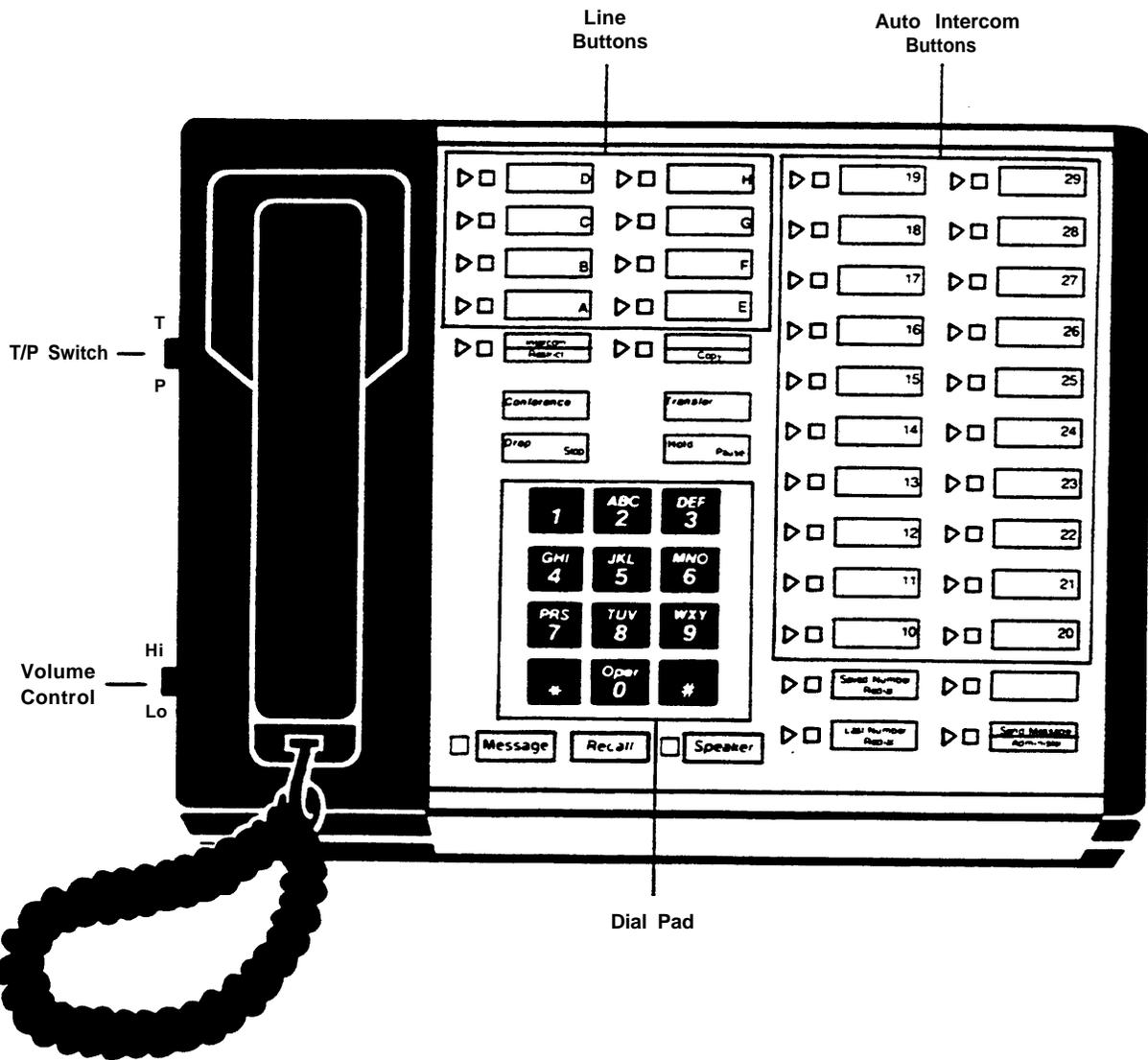
FIGURE 4-2 The 10-button HFAI voice terminal
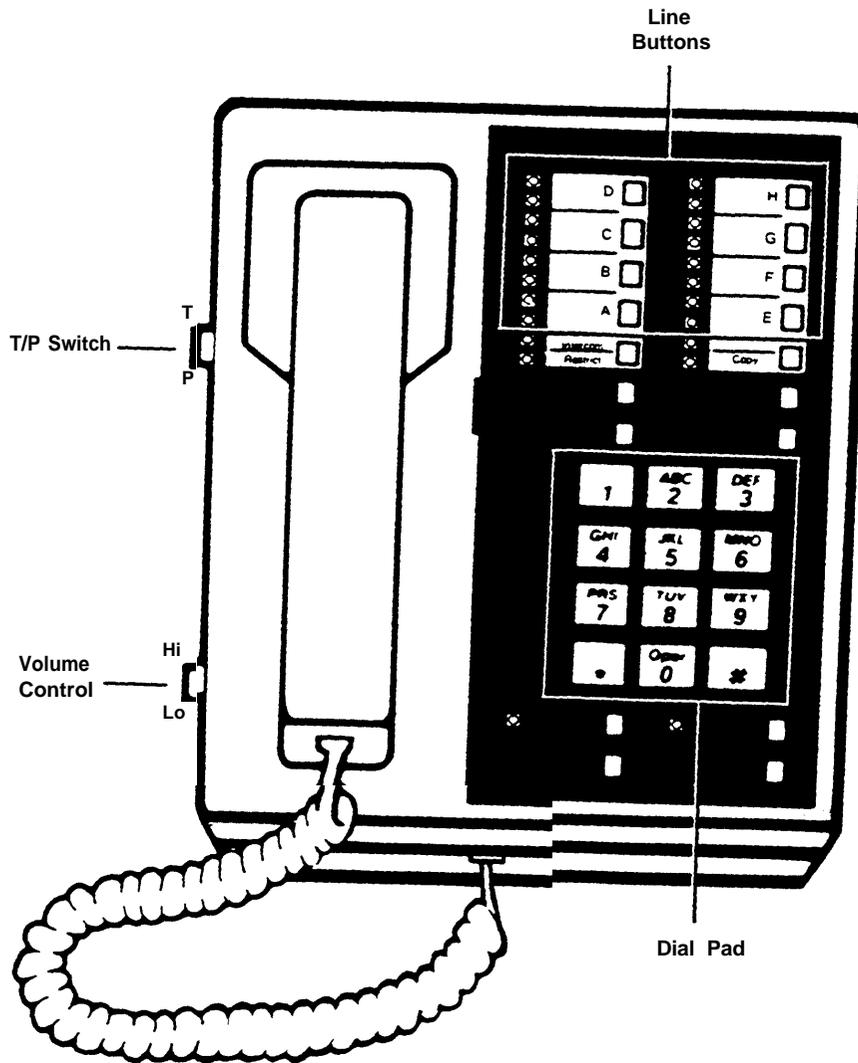
Handling Calls

As the system attendant, you will be answering most of the incoming calls. To handle the calls efficiently, you may find it helpful to know about the following features:

- Transferring calls

- Using the Auto Intercom buttons for people in your system

- Making announcement through the loudspeaker paging system, if your system has one, and through the voice terminal speakers

- Using the Send Message feature

- Changing the ringing options on your console or helping others to change the ringing options for their voice terminals

- Using Night Service when you are off duty

- Using the headset

TRANSFERRING CALLS   Since an important part of your job may be to screen calls and then transfer them to the appropriate people, you should be familiar with either of the following ways of transferring calls.

- **Transferring Calls by Dialing the Intercom Number**

  To transfer a call to someone by dialing his or her intercom number:

  1 Touch **Transfer.**

  2 Dial the person's intercom number.

  3 Hang Up.

- **Transferring Calls with One-Touch Transfer**

  To transfer a call to someone using One-Touch Transfer:

  1 With the call in progress, touch the Auto Intercom button of the person to whom you want to transfer the call.

  2 When you hear a beep, announce the call.

  3 Hang up.
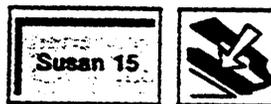
  If the person has activated the Voice Announcement Disable feature or if the person is using the intercom line at his or her voice terminal, you cannot announce the call.

- **Screening Calls**

  When you screen a call, you first discuss the call with the person to whom it is to be transferred. There are many reasons for consulting about the call. For example, a person may want to obtain a file before taking the call, may be busy and not want to answer the call at the moment, or may want the attendant to answer the call and take a message.

  To screen a call:

  1 Touch **Hold.**

  2 Touch **Intercom** and dial the intercom number of the person to whom the call may be transferred.

  or

  Touch the person's Auto Intercom button.

  3 Announce the call and ask if it will be accepted.

  NOTE: If the person has activated the Voice Announcement Disable feature or if the person is using the intercom line at his or her voice terminal, you cannot announce the call.

  If the person chooses not to accept the call:

  a Touch the held call's line button.

  b Advise the caller.

  c Hang up.

  If the person chooses to accept the call:

  a Hang up.

By programming Auto Intercom buttons on your attendant console, you can increase the efficiency of call handling in several ways:

- An Auto Intercom button allows you to quickly and easily transfer calls:

- The lights next to Auto Intercom buttons indicate when others in your office are using their voice terminals. If the green light is on next to an Auto Intercom button, it means the person at that intercom number is using the voice terminal or has activated the Do Not Disturb feature.

- If the green light next to the person's Auto Intercom button is flashing, it means that the person is calling you.

Be sure to type or write the names of the people in your office on the appropriate Auto Intercom buttons.

To call someone in your MERLIN Plus system with one touch:

1 Touch the Auto Intercom button for the person you want to call.

> Susan 15
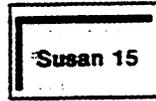
USING THE LOUDSPEAKER PAGE AND GROUP PAGE FEATURES

The Loudspeaker Page or the Group Page feature makes it easy for you to announce calls to people who are not always at the same location. When a call comes in, you can put the call on hold and page the person for whom the call is intended.

The Loudspeaker Page feature requires a loudspeaker paging system connected to your MERLIN Plus system. (For more information about using the Loudspeaker Page feature and connecting the loudspeaker paging system to the MERLIN Plus system control unit, see Section 5, "Reference.") With the Group Page feature, you can make an announcement through the voice terminal speakers in your system.

You can program a button or use a dial code to access these features.

To use a Loudspeaker Page button:

1 Touch **Loudspeaker Page.**

2 When you hear a beep, lift your handset and make your announcement.

To use the Loudspeaker Page feature by dialing a code:

1 Touch **Intercom.**

2 Lift your handset.

3 Dial 6.

4 When you hear a beep, make your announcement.

When you hang up, the loudspeaker turns off automatically.

To use a programmed button to make an announcement through a group of voice terminal speakers:

1 Touch the Group Page button for the group you want to page.

2 When you hear a beep, lift your handset and make the announcement.
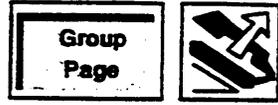
To page a group using a dial code:

1 Dial a code for the group you want to page.

      70 = Page-All (all voice terminals in the system)
      71 = group 1
      72 = group 2

2 When you hear a beep, speak into your handset.

USING THE SEND MESSAGE FEATURE

When someone in the MERLIN Plus system has a message, you can turn on the Message light at the person's voice terminal to indicate that there is a message waiting.

1 Touch **Send Message.**

2 Touch the Auto Intercom button of the person for whom you have a message.
A red light goes on next to the Auto Intercom button for that person.

To turn off the message light at another voice terminal:

1 Touch **Send Message.**

2 Touch the person's Auto Intercom button.
The red light goes off.

If you are using a 10-button voice terminal as the attendant console, you can still use the Send Message feature. However, unless you have an Auto Intercom button for the person for whom you are saving a message, you will not know if the Message light at his or her voice terminal is on.

To use a 10-button voice terminal to turn on the Message light at another voice terminal:

a Dial #01.

b Touch an Auto Intercom button, if you have one for the person.

or

Dial the 3-character Send Message button code opposite the person's intercom number as found on the chart.

If the person's intercom number is:	Dial this Send Message button code:	If the person's intercom number is:	Dial this Send Message button code:
Intercom 10	#22	Intercom 20	#03
Intercom 11	#21	Intercom 21	#04
Intercom 12	#20	Intercom 22	#05
Intercom 13	#19	Intercom 23	#06
Intercom 14	#18	Intercom 24	#07
Intercom 15	#17	Intercom 25	#08
Intercom 16	#16	Intercom 26	#09
Intercom 17	#15	Intercom 27	#10
Intercom 18	#14	Intercom 28	#11
Intercom 19	#13	Intercom 29	#12

For example, if you want to turn on the Message light at Intercom 15, but do not have an Auto Intercom button for that person, look for Intercom 15 on the chart above. Opposite Intercom 15 you will find the Send Message button code, #l?. Then you would dial #01 plus #17 to send the message.

SELECTING RINGING OPTIONS

You can program any outside line to ring immediately at your console, to ring after a delay, or not ring at all. You will probably want to program most lines at your console to ring immediately, but if you answer calls on a certain line only when someone else doesn't answer them, program the line for delayed ringing. You may want to program the lines at other people's voice terminals for no ring so that they are not interrupted while they work.

It may be advisable to select someone in the office to answer calls when you are busy or not at your desk The lines at that person's voice terminal should be programmed for delayed ring. The backup person may also want to program a Ring Option Override button for his or her voice terminal. When the backup person must answer calls that would ordinarily ring at your console, he or she can touch the Ring Option Override button and have all calls ring immediately at his or her voice terminal.

USING NIGHT SERVICE   During the night or on weekends when you are off duty, you can still make it convenient for someone else, such as a guard, to answer calls. You do so with the Night Service feature. There are two ways to provide Night Service for your office:

- You may want to provide the person with a 34-button voice terminal that has all the lines, or the person may prefer to monitor the attendant console and answer calls there. Be sure that all lines on which calls may come in after hours are set for immediate ring. If the lines are not normally set for this ringing option, the person can activate a Ring Option Override that he or she has programmed for the voice terminal. (See "Ring Option Override" in Section 5, "Reference.")

- The backup person can also answer calls that come in after hours by programming a Call Pickup button so that he or she can pick up calls that come in at the administrator/attendant console. Since the attendant console has all the lines of your MERLIN Plus system, the person answering calls after hours can pick up calls by touching the Call Pickup button whenever the attendant console rings. (See "Call Pickup" in Section 5, "Reference.") If the person is in another part of the building, the attendant can connect his or her console and an extra alert device to a Supplementary Alert Adapter (see "Supplementary Alert Adapter" under "Accessory Equipment" in Section 5, "Reference") so that each time a call comes in, an extra alert device goes on.

USING THE HEADSET   If you have a heavy call-handling load, you may want to use a headset with the headset adapter rather than lifting the handset throughout the day. (For more information about the headset and the headset adapter that connects the headset to the voice terminal, see Section 5, "Reference.")

To place a call using your headset:

1 Touch **On/Quiet** on the headset adapter.
The green light next to the button goes on.

2 Dial the outside number.

To answer a call:

1 Touch **On/Quiet** on the headset adapter.

To mute the microphone:

1 Hold down **On/Quiet** on the headset adapter.

To hang up:

1 Touch Off on the headset adapter.
The green light next to **On/Quiet** *goes off.*

Section 5: Reference

Overview

This section of the *MERLIN ® Plus System Manual* provides the information you need to program, administer, and use the many MERLIN Plus system features. It also tells you how to use the accessory equipment that you can add to your system.

There are two main groups of information in this section:

- **MERLIN Plus System Features** includes those that come with the MERLIN Plus system voice terminal and that individual users can program onto the voice terminal, those features that the attendant uses, and those that the system administrator assigns to the system.

- **Accessory Equipment** includes the additional hardware that can be used with the MERLIN Plus system.

For your convenience, the individual features and the accessories are listed alphabetically in two separate sections, Therefore, you can quickly refer to the entry for each feature or accessory when you need to use it.

MERLIN Plus System Features

Your MERLIN Plus system offers features that provide effective telephone service both on a business-wide and personal basis. In order to meet company priorities and needs, the system administrator can assign lines and add features that will benefit the whole system. The voice terminals (telephones) in the MERLIN Plus system come ready to use with many preassigned features, such as Transfer and Hold. However, people in your system can also add features to their individual voice terminals, such as Privacy or Saved Number Redial, that will help them handle calls easily and efficiently.

The information included in each feature description in "MERLIN Plus System Features" is divided into five headings:

- **Description**

  The description of the feature tells what it does and its advantages for those people using it.

- **Considerations**

  Special considerations include any qualifications the person using the feature should know about. It also includes ways in which the feature can or cannot be used, or other features it can or cannot be used with.

- **Administration**

  Administration procedures tell the system administrator how to administer the feature using the administrator/attendant console. For complete information on system administration, refer to Section 3, "Administrating the System."

- **Programming**

  The term "programming" refers to customizing a voice terminal to suit the needs of the person who will be using it. Brief programming instructions and programming codes are included for each programmable feature. Directions for programming features onto available programmable buttons on a voice terminal also appear in the *MERLIN Plus System Training* Manual.

- **How to Use**

  Procedures for using each feature are divided into specific steps so that a person can easily and efficiently use his or her voice terminal.

Abbreviated Ringing

When another line rings while you are busy on a call, your voice terminal rings only once. In this way you are aware that you have another call, but it does not interrupt the call in progress.

After the ringing cycle stops, the green light continues to flash to remind you of the other call.

CONSIDERATIONS   None

ADMINISTRATION   None

PROGRAMMING   None

HOW TO USE   If you want to pickup the new call, you can place the call in progress on hold and touch the line button of the new call. You don't need to hang up first.

Account Number Entry

DESCRIPTION   You can use account numbers to identify the department, project, or client to whom the call should be charged. If your system uses the Call Report feature (often referred to as Station Message Detail Recording [SMDR]), you can include these account numbers in the call reports. (See "Call Report.")

There are two methods you can use to enter account numbers on a printed call report: a quick method and a general method.

- **Option A—The Quick Method:** The quick method of entering an account number on a call report is to dial a 3-character System Speed Dial code that the system administrator has stored in the system (see "System Speed Dial") or a 3-character Personal Speed Dial code that you have assigned to an account number (see "Personal Speed Dial"). While you have a call in progress, you simply dial the 3-character speed dial code that corresponds with the account code. You can dial the code with one touch by programming a button for the 3-character code.

- **Option B—The General Method:** The general method of entering an account number on a call report is to use a programmed Account Number Entry button. While you have a call in progress, you simply touch the Account Number Entry button (a light goes on beside the button so that you know the account number will be entered) and dial all the digits of the account number. You can also program buttons or speed dial codes for frequently used account numbers. If necessary, you can dial extra numbers for sub-accounts.

Most businesses will be satisfied with the quick method of entering account numbers on a call report. The general method is recommended for businesses that have many accounts, or in which there is no central accounting organization and users must invent their own codes.

CONSIDERATIONS

This feature can be used only with outside calls; it cannot be used with intercom calls.

If the system administrator has specified that the Call Report feature does not report incoming calls, account codes can be entered only for outgoing calls.

There is a maximum of 16 characters available for an account number entry. The system beeps twice to remind the administrator that he or she cannot dial any more characters. If the administrator dials less than 16 characters, the system does not beep.

The system administrator should give a copy of the System Speed Dial code assignments to each person in the system who will use those codes.

ADMINISTRATION

If your responsibilities do not include system administration, skip this information.

Before you assign a System Speed Dial code (#60 through #99) to a specific account number, refer to the System Speed Dial Directory that you have filled out.

To administer Account Number Entry codes:

1 Enter administration mode by sliding the T/P switch to *P* and touching **Administer.**

2 Dial the 3-character code (#60 to #99) that you are assigning to the account number. Make certain that you have not already assigned a telephone number to that speed dial code.

3 Dial *88.

4 Dial the account number.

   You can also use a client's telephone number as an account number. For that purpose dial *88 and then dial the telephone number.

5 Touch **Administer.**
   The console beeps twice.

6 Repeat steps 2 through 5 for each account number or telephone number to which you are assigning a System Speed Dial code.

7 Leave administration mode by sliding the T/P switch to the center position.

PROGRAMMING

To program a general Account Number Enter button (program this feature on a button with lights):

1 Label the button **Account Number Enter.**

2 Slide the T/P switch to P.
The voice terminal rings 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 *82.

**5** Slide the T/P switch to the center position.

To program a button for a specific account number or System Speed Dial code assigned to an account number:

1 Label the button **Account Number** plus the name of a client or project.

2 Slide the T/P switch to *P*.
The voice terminal rings 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 *88 plus the account number.

or

Dial *95 plus the right # code number from 60 through 99 from a list that your administrator can give you. You do not need to include the # when you dial.

5 Slide the T/P switch to the center position.
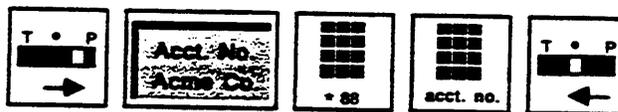
HOW TO USE

To use a general Account Number Enter button:

1 While you have a call in progress, touch **Account Number Enter.**
The green light next to the button goes on.

2 Dial the account number for the account to which you want to charge the call.
or
Dial a System Speed Dial code (#60 through #99) for the account number to which you want to charge the call.

3 Touch **Account Number Enter** again.
The green light goes off.

If you enter the account code incorrectly, keep the call in progress and repeat the above procedure.

To use a button for a specific account number:

1   While you have a call in progress, touch the Account Number button for the particular account number to be recorded.

```
┌─────────────────┐
│ ┌─────────────┐ │
│ │ ·Acct. No.  │ │
│ │ ·Acme ·Co.  │ │
│ └─────────────┘ │
└─────────────────┘
```
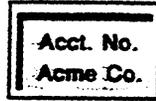
Allowed Lists

DESCRIPTION   When the system is installed, people can use their voice terminals to place intercom, local, and toll calls. However, the system administrator can restrict any voice terminal to intercom or local calls. (See "Call Restriction.") If restricted voice terminals require additional Calling access, the administrator can designate a list of numbers (an allowed list) that people may call despite the established restrictions.

CONSIDERATIONS   Allowed lists allow you to control the cost of your monthly phone bill, but still let you place all the business calls you need from any voice terminal in the system.

The administrator may decide to store one or more System Speed Dial codes with Restriction Override. All voice terminals in the system can use those codes as a type of password that allows the person to dial certain outside numbers. Those numbers may be called regardless of toll or outward call restrictions previously placed on a voice terminal. (See "System Speed Dial.")

If the system administrator is using a 10-button voice terminal to administer the system, he or she *cannot* assign allowed lists. However, the administrator can store System Speed Dial codes with Restriction Override so that voice terminals in the system can dial selected outside numbers.

The system administrator can establish eight allowed lists for the system. They are numbered 01 through 08 and each can have a maximum of 10 entries, numbered 01 through 10. Each entry consists of an area code (for example, 201), and/or an exchange code (for example, 834), ardor emergency numbers (for example, 911).

The administrator should not enter a toll prefix number, such as 1, as the first digit of an allowed list entry. This is done automatically.

When the administrator has dialed the maximum six digits for an allowed list entry, the system beeps twice to remind the administrator that he or she cannot dial any more digits. If the administrator dials fewer than six digits, the system does not beep.

ADMINISTRATION

If your responsibilities do not include system administration, skip this information.

Before you administer allowed lists for your system, refer to the Allowed List Directory that you have filled out.

To set up an allowed list:

1 Enter administration mode by sliding the T/P switch to *P* and touching **Administer.**

2 Dial a * and a 2-digit code (01 through 08) that corresponds to the number of the list.

For example, to add an entry to List 5, dial *05.

3 Dial the 2-digit number of the item in the allowed list (between 01 and 10).

For example, to add an entry to List 3 as the first item on the list, dial *03 01.

4 Dial the number, area code, or exchange to be added to the list (maximum six digits).

For example, to add the 201 area code and 834 exchange to List 2 as the seventh item on the list, dial *02 07 201 834.

5 Touch **Administer.**
The console beeps twice.

6 Leave administration mode by sliding the T/P switch to the center position.

To delete an entry from an allowed list:

1 Enter administration mode by sliding the T/P switch to *P* and touching **Administer.**

2 Dial a * and a 2-digit code (01 through 08) that corresponds to the number of the list.

3 Dial the 2-digit item number (01 through 10) of the entry you want to delete.

For example, to delete the eighth entry of List 1, dial *01 08.

4 Touch **Drop.**

5 Touch **Administer.**
The console beeps twice.

6 Leave administration mode by sliding the T/P switch to the center position.
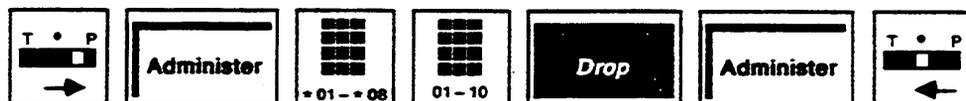
To clear all the entries from an allowed list:

1 Enter administration mode by sliding the T/P switch to *P* and touching
   Administer.

2 Dial a * and a 2-digit code (01 through 08) that corresponds to the number
   of the list you want to clear.

   For example, to clear all entries from List 6, dial '06.

3 Touch **Drop.**

4 Touch **Administer.**
   The console beeps twice.

5 Leave administration mode by sliding the T/P switch to the center
   position.

Before you assign allowed lists to voice terminals in your system, refer to the
Call Restrictions and Allowed Lists Directory that you have filled out.

To assignor remove voice terminals for access to allowed lists:

1 Enter administration mode by sliding the T/P switch to *P* and touching
   Administer.

2 Dial a * and a 2-digit code (01 through 08) that corresponds to the list you
   want to assign to the voice terminal.

3 Dial 00.
   *The green light goes on next to the Auto Intercom button for each voice terminal to which this
   list is already assigned.*

   For example, to assign List 2 to a voice terminal, dial *02 00.

4 Touch the Auto Intercom button for the voice terminal for which you are
   giving access or removing access to the allowed list.

            Green light on = the list is assigned to the voice terminal
            Green light off = the list is not assigned to the voice terminal

5 Touch **Administer.**
   The console beeps twice.

6 Leave administration mode by sliding the T/P switch to the center
   position.
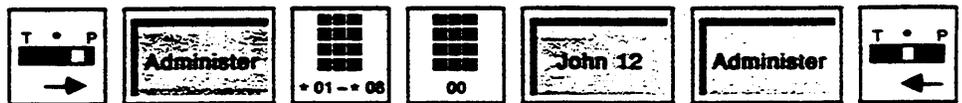
PROGRAMMING   None

HOW TO USE   Ask your system administrator what call restrictions, if any, he or she has assigned to your voice terminal.

Auto Answer-All

NOTE: This feature requires a General Purpose Adapter and can be used with a modem, an answering machine, a facsimile machine, or a cordless telephone.

DESCRIPTION   If you want an optional piece of equipment, such as a modem, an answering machine, or a facsimile machine, connected to your voice terminal, to turn on automatically when you receive ringing calls, you need to program an Auto Answer-All button.

CONSIDERATIONS   You *cannot* have both the Auto Answer-All *and* Auto Answer-Intercom features activated at the same time.

ADMINISTRATION   None

PROGRAMMING   Program the Auto Answer-All feature on a button with lights.

To program an Auto Answer-Ail button for your voice terminal:

1 Label the button **Auto Answer-All.**

2 Slide the T/P switch to P.
The voice terminal rings every 5 seconds to remind that you are programming and that you cannot place or receive calls.

3 Touch the button you want to program.

4 Dial *75.

5 Slide the T/P switch to the center position.

HOW TO USE   To have a modem, answering machine, or facsimile machine answer calls
automatically:

1   Touch **Auto Answer-All.**
The green light next to the button goes on.
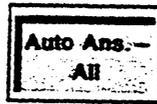
This feature remains active until you:

1   Touch **Auto Answer-All** again.
The green light next to the button goes off.

Auto Answer-Intercom

NOTE: This feature is used with a hands-free unit.

DESCRIPTION   If you have an optional hands-free unit connected to your voice terminal and
you want it to turn on automatically when you receive intercom calls with
voice announcement, you need to program an Auto Answer-lntercom button.

CONSIDERATIONS   You can have both Auto Answer-Intercom and Auto Answer-All programmed
for your voice terminal, but the two features *cannot* be activated at the same
time.

ADMINISTRATION   None

PROGRAMMING   Program the Auto Answer-Intercom feature on a button with lights.

To program an Auto Answer-Intercom button for your voice terminal:

1   Label the button **Auto Answer-Intercom.**

2   Slide the T/P switch to *P*.
*The voice terminal rings 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 *70.

5   Slide the T/P switch to the center position.

HOW TO USE　　　　To have your hands-free unit turn on automatically when you receive intercom calls with voice announcement:

1　Touch **Auto Answer-Intercom.**
　　The green light next to the button goes on.

```
┌─────────────────┐
│ Auto Ans.–      │
│  Intercom       │
└─────────────────┘
```

To return to answering calls yourself:

1　Touch **Auto Answer-Intercom** again.
　　The green light next to the button goes off.

```
┌─────────────────┐
│ Auto Ans.–      │
│  Intercom       │
└─────────────────┘
```
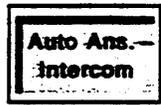
Auto Intercom

DESCRIPTION　　　You can use an Auto Intercom button for one-touch dialing of intercom numbers. Program any 2-digit intercom number onto an Auto Intercom button and use the button whenever you want to call the intercom number.

CONSIDERATIONS　　In the MERLIN Plus system, you place an intercom call with a voice announcement. Your coworker hears your voice through the voice terminal speaker, but must lift the handset to respond to you. If he or she has a 10-button HFAI or a 34-button BIS voice terminal, he or she can speak to you without lifting the handset.

However, if the person you are calling has activated the Voice Announcement Disable feature, your intercom call rings rather than beeps at the person's voice terminal.

Since a voice announcement does not interrupt an outside call in progress, you can announce an intercom call to a person busy on another line.

You *cannot* have both an Auto Intercom button *and* a Manual Signaling button for the same person. If you try to program both, you deactivate the one that you programmed earlier. You can use either feature to place an intercom call. (See "Manual Signaling.")

If you program this feature onto a button with lights, the green light next to the button goes on when the person at that intercom number uses the voice terminal or uses the Do Not Disturb feature. When the person calls you, the green light next to the person's Auto Intercom button flashes.

ADMINISTRATION   None

PROGRAMMING   A button with lights is recommended but not required for the Auto Intercom feature.

To program an Auto Intercom button for your voice terminal:

1   Label the button with a name and intercom number.

2   Slide the T/P switch to *P*.
The voice terminal rings 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 *91 plus an intercom number.

5   Slide the T/P switch to the center position.
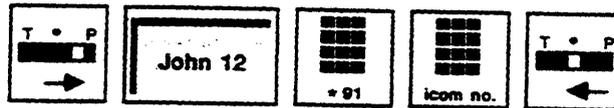
HOW TO USE   To place an intercom call with one touch:

1   Touch the Auto Intercom button for the intercom number you want to dial.
Your voice terminal speaker goes on, and you hear a beep.

2   Lift your handset and begin speaking.
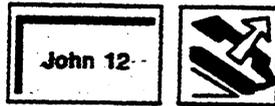
If the line is busy or if no one answers:

1   Touch **Speaker** to cancel the call.
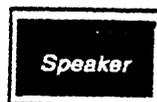
Automatic Line Selection

DESCRIPTION   You can program the order in which your system selects outside lines when you lift your handset to place a call. For example, you can program the line you use most often to be the first line in the Automatic Line Selection sequence. A line you use less often can be programmed to be the next line the system selects. Then, when you lift your handset, the system automatically selects the line you usually use. If that line is busy, the system then selects your second choice unless that line is busy too, and so on.

You can include all or only some of your outside lines in an Automatic Line Selection sequence.

CONSIDERATIONS   If you plan to program other features when you program Automatic Line Selection, you must program Automatic Line Selection first. If you are already in the middle of a programming session, slide the T/P switch to the center position and then back to *P* before programming this feature.

The Automatic Line Selection order is for only outside lines; the line selection does not include intercom lines. However, if you remove all outside lines from your Automatic Line Selection sequence, your system will select an intercom line when you lift the handset. (See "Intercom Preference.")

If you don't program an Automatic Line Selection sequence, you will get outside lines according to the sequence in which they are plugged into the control unit.

ADMINISTRATION   None

PROGRAMMING   To program an Automatic Line Selection sequence for your voice terminal:

1   Slide the T/P switch to *P*.
The voice terminal rings every 5 seconds to remind you that you are programming and that you cannot place or receive calls.

2   Dial **

3   Touch the line buttons in the order you prefer.

4   If you want to continue programming other feature, dial ** again
Otherwise slide the T/P switch to the center position.

HOW TO USE   When you want to place an outside call:

1   Lift your handset.
The MERLIN Pluss system connects you to a free line in the Automatic Line Selection sequence.

Auxiliary Lines

DESCRIPTION   The MERLIN Plus System provides an quxiliary jack, labeled "Aux", at the top of each Line Module. This auxiliary line is bridged directly to outside Line A or Line E, and does not go through the MERLIN Plus system control unit. You can connect accessory devices to the system, and use these devices independently of the system.. These devices include:

- **Basic Telephones** — During an electrical power outage, your MERLIN Plus system will not function. However, you can plug a basic telephone (not a MERLIN Plus system voice terminal) into the AUX jack, and use it to place and receive calls .on Line A or Line E.

- **Facsimile Machines** — You can also plug a facsimile machine into the AUX jack. When calls come in on Line A or Line E, the FAX machine will respond to them as it would if plugged into any other outside telephone line.

- **Modems and Computers** — You can plug a modem into the AUX line and use it for transmitting and receiving data on Line A or Line E. The modem will function on this line as it would on any other outside telephone line. When using a modem, it is important that you prevent other employees from using voice terminals connected to Line A or Line E since this could interfere with data transmissions. You can program Line A or Line E for privacy (see "Privacy on Lines A and E"), thus preventing others from bridging onto calss on Line A. To have the modem answer incoming calls automatically, simply set it up for auto-answer as you would on any telephone line. You can place outside calls with the modem either by connecting a basic telephone and dialing manually, or by using the modem's autodial capabilities.

CONSIDERATIONS

When a call comes in on Line A or Line E, it will ring both on the voice terminals that are assigned to Line A or Line E and on any device connected to the Line A or Line E auxiliary jack. If you are using the auxilary line for a device such as a FAX or modem, you may want to use the No Ring option (see "Ringing Options") to prevent calls from ringing on the voice terminals. This will prevent employees from answering calls which should be going to the accessory device connected to the auxiliary line.

If you do not want the accessory device to ring on incoming calls, you can simply turn it off or set it not to ring, and program Line A or Line E for normal ringing.

You cannot use a MERLIN Plus system voice terminal on the auxiliary line.

The system administrator can administer the Privacy feature for Line A and/or Line E so that no one else in the system can bridge onto or monitor these lines while a call is active on them. For more information, see "Privacy (on Lines A and E)."

ADMINISTRATION

Decide the kind of device you want connected to the auxiliary jack. If you do not want calls that come in on the device to ring at the voice terminal plugged into Line A or Line E, program that voice terminal not to ring on Line A or Line E. (See "Ringing Options.")

PROGRAMMING

If you want the device connected to the auxiliary jack not to ring and Line A or Line E to ring immediately when calls come in, or vice versa, use the Ringing Options feature. (See "Ringing Options.")

Use the basic telephone, facsimile machine, or modem and computer connected to the auxiliary jack as you normally would.

Plug in the auxiliary telephone whenever you want to bridge or monitor Line A or Line E.

Bridging

DESCRIPTION

If you share a line with another person, you can join (or "bridge" onto) a call in progress on that line. In this way you can easily join a conference call by just touching a line button and lifting your handset. (See "Conference.")

CONSIDERATIONS

Up to three people connected to the MERLIN Plus system, including the originator of the call, can bridge onto a call at one time.

When a person bridges onto a call in progress, the red and green lights next to the line button on your voice terminal flash alternately so that you know that someone else has joined the call.

You cannot use the Bridging feature on a voice terminal with Button-Free Line Operation.

If the person has activated the Privacy feature on his or her voice terminal, you cannot bridge onto a call in progress at that voice terminal.

ADMINISTRATION

None

PROGRAMMING

None

HOW TO USE

To bridge onto a call in progress:

1 Touch the line button associated with the call.

2 Lift your handset.

Button-Free Line Operation

DESCRIPTION

Button-Free Line Operation allows people with 5-button or 10-button voice terminals to access lines, even though the lines do not appear on the voice terminal buttons. Therefore, those voice terminals have additional free buttons for needed programmed features. This feature is ideal for people who need several lines, but who rarely handle more than one call at a time. To place or answer a call, they just lift their handset, and the MERLIN Plus system selects a free line for outgoing calls or the ringing line for incoming calls.

CONSIDERATIONS

The system administrator can assign a maximum of eight lines to a button-free voice terminal. However, if the administrator again wants lines assigned to buttons on a voice terminal, he or she can assign only the number of lines for which the voice terminal has line buttons. For example, if the administrator has assigned eight lines to a 5-button voice terminal with Button-Free Line Operation and decides to assign lines to voice terminal buttons, only four of those eight lines appear. The features that the administrator or user has programmed onto the voice terminal buttons will be replaced by lines.

With Button-Free Line Operation, the system administrator can administer the individual voice terminals so that they ring or do not ring when calls come in. (See "Ringing Options.") Button-Free Line Operation with the no ring option is appropriate for voice terminals in public places, such as lobbies.

- There are no red and green lights associated with lines to keep track of call-handling features, such as Transfer or Hold.

  The person with Button-Free Line Operation can answer transferred calls and ringing lines by picking up the handset.

- There is no way of knowing which line the system has selected for an outgoing call. Therefore, make sure that all lines assigned to these voice terminals are of the same type. Do not mix regular lines, WATS lines, and Foreign Exchange lines.

- You cannot program an Automatic Line Selection sequence on voice terminals with Button-Free Line Operation. In this case, only your system administrator can assign the sequence of lines for your voice terminal.

- You can use the Intercom. Hold, Transfer, and Call Pickup features, but you cannot use the Bridging or the Conference feature.

ADMINISTRATION

If your responsibilities do not include system administration, skip this information.

To make one or more lines on a voice terminal button-free:

1 Enter administration mode by sliding the T/P switch to *P* and touching **Administer.**

2 Dial the intercom number or touch the Auto Intercom button for the voice terminal you are administering.
A green light goes on next to the Auto Intercom button. Green lights go on next to the buttons of any lines already assigned to the voice terminal.

3 Touch the line button until the green light next to it shows the line assignment you want:

> *Green light on = the line is assigned to the voice terminal*
> *Green light off = the line is not assigned to the voice terminal*

4 To make the line Button-Free, dial one of these two codes:

– Dial *31 if you want the voice terminal to ring.

– Dial *32 if you do *not* want the voice terminal to ring.

5 Touch Administer.
The console beeps twice.

6 Leave administration mode by sliding the T/P switch to the center position.

To reassign lines to separate buttons on a voice terminal that has Button-Free Line Operation:

1 Enter administration mode by sliding the T/P switch to *P* and touching Administer.

2 Touch the Auto Intercom button for the voice terminal you are administering.

3 Dial *34.
A green light should go on next to the lines that have been assigned to the voice terminal.

4 Touch Administer.
The console beeps twice.

5 Leave administration mode by sliding the T/P switch to the center position.
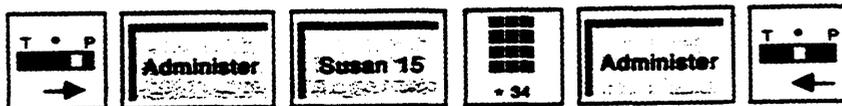
PROGRAMMING

None

HOW TO USE

If you do not have a line button for a call that you have received or that has been transferred to you, you can still put the call on hold using the Hold button. To retrieve the call, you can use the Hold Retrieve feature. (See "Hold Retrieve.")

Call Pickup

DESCRIPTION

If you want to pick up a call that is ringing at another voice terminal, use the Call Pickup feature.

You can use this feature in three different ways:

- **Option A** — You can use a dial code and dial the intercom number of the ringing voice terminal.

- **Option B** — You can program a Call Pickup button and dial the intercom number of the ringing voice terminal.

- **Option C** — You can program a One-Touch Call Pickup button for a specific voice terminal in your business so that when the person is away, you can answer that person's calls with one touch. You can program a Call Pickup button for each voice terminal for which you need to answer calls.

CONSIDERATIONS

If the line on which the call is coming in appears on a button on your voice terminal, you do not need to use the Call Pickup feature to answer the call. You can just touch the line button on which the call is ringing and then lift your handset.

If you want someone in the office, such as a guard, to answer calls that come in after hours, program a Call Pickup button for calls that come in at the administrator/attendant console. Since the attendant console has all the lines of your MERLIN Plus system, the person answering calls after hours can pick up all calls by touching the Call Pickup button whenever the attendant console rings. If the person is in another part of the building, the attendant can connect his or her console and an extra alert device to a Supplemental Alert Adapter (see "Supplemental Alert Adapter" under "Accessory Equipment"), so that each time a call comes in, an extra alert device goes on.

ADMINISTRATION

None

PROGRAMMING

You do not need to program Option A.

To program Option B:

1 Label the button **Call Pickup.**

2 Slide the T/P switch to *P.*
The voice terminal rings every 5 seconds to remind you that you are programming and that you cannot place or recieve calls.

3 Touch the button you want to program.

4 Dial *85.

5 Slide the T/P switch to the center position.

To program Option C:

1 Label the button **Call Pickup** plus an intercom number.

2 Slide the T/P switch to *P*.
The voice terminal rings 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 *85 plus an intercom number.

5 Slide the T/P switch to the center position.

HOW TO USE

You can use a programmed button or a dial code to pick up a call at any other voice terminal in the system.

To pickup a call ringing at any other voice terminal using Option A:

1 Lift your handset.

2 Dial #3.

3 Dial the intercom number of the voice terminal at which the call is ringing.

To pick up a call ringing at any other voice terminal using Option B:

1 Lift your handset.

2 Touch the Call Pickup button you programmed above.

3 Dial the intercom number or touch the Auto Intercom button of the voice terminal at which the call is ringing.

To pick up ringing calls at a specific voice terminal using Option C:

1 Lift your handset.

2 Touch the One-Touch Call Pickup button you have programmed for the voice terminal.

Call Report

DESCRIPTION

The Call Report feature, often called Station Message Detail Recording (SMDR), enables a business to keep records of incoming and outgoing calls.

The information in a printed call report gives details about outgoing and incoming calls: the date and time of each cdl, its duration, the line and voice terminal on which the call was made or received, and the dialed numbers of the outgoing call. Call reports are printed automatically as calls go out or come in. This information helps a business build records of its telephone traffic patterns and identify abuses in voice terminal privileges.

If an account code is entered when the call is made, the call report prints that information for you. Account codes are helpful in billing customers and different departments of the company for telephone calls that should be charged to them. (See "Account Number Entry.") The data collector and the printer can also print a System Feature Report, a list of the features that have been administered to the system. (See "System Feature Report.")

CONSIDERATIONS

The Call Report features can only be used at the administrator/attendant console.

When the system administrator administers the system for the Call Report feature, he or she can set certain options for the feature.

- The administrator should set the initial time and date, so that these details appear correctly on the call report.

- The system is set to have the data collector and the printer connected to voice terminal jack 19. However, if the administrator is using a 34-button deluxe voice terminal for administration, he or she can connect the printer to any other voice terminal jack in the system, except jack 10.

- The administrator can select the type of calls that appear on the call report. The system is factory-set to have no calls reported. However, the administrator can set the system for reporting outgoing and incoming calls, or for reporting *only* outgoing calls.

- The system is set to record outgoing calls that last at least 1 minute. However, the system administrator can change that setting for a longer (up to nine minutes) or shorter (as little as 10 seconds) minimum duration.

- The administrator can also specify which System Speed Dial codes are printed on call reports, and which ones will be private.

The entries on a call report are preceded by a "C."

ADMINISTRATION

If your responsibilities do not include system administration, skip this information.

Before you administer the Call Reports options for your system, refer to the System Conjuration Form that you have filled out.

To administer the various Call Reports options for your system:

The Date and the Time. To set today's date:

1 Enter administration mode by sliding the T/P switch to *P* and touching **Administer.**

2 Dial *80.

3 Dial two digits for the month (01 through 12).

4 Dial two digits for the day (01 through 31).

5 Dial two digits for the year (00 through 99).

   For example, if the date is March 24, 1986, dial *80 03 24 86.

6 Touch **Administer.**
   The console beeps twice.

7 Leave administration mode by sliding the T/P switch to the center position.
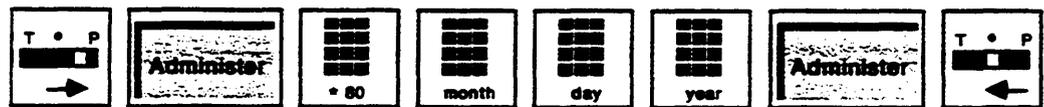
To set the current time:

1 Enter administration mode by sliding the T/P switch to *P* and touching **Administer.**

2 Dial *81.

3 Dial two digits for the hour (00 through 23).

4 Dial two digits for the minute (00 through 59).

   For example, if the time is 2:16 A.M., dial *81 02 16; if the time is 2:16 P.M., dial *81 14 16.

5 Touch **Administer.**
   The console beeps twice.

6 Leave administration mode by sliding the T/P switch to the center position.

Control Unit Jack Assignment for the Call Report Feature. To specify the voice terminal jack to which the data collector and the printer will be connected (the system is factory-set for jack 19; if you are using a 10-button voice terminal for administration, you cannot change this assignment):

1   Enter administration mode by sliding the T/P switch to *P* and touching **Administer.**

2   Dial *82.
The green light goes on next to the Auto Intercom button that corresponds with the jack to which the data collector and the printer are currently assigned.

3   Touch the Auto Intercom button of the jack to which the data collector and the printer are now connected.
The green light goes off.

4   Touch the Auto Intercom button of the jack to which the data collector and the printer will be connected.
The green light next to the button goes on.

5   Touch **Administer.**
The console beeps twice.

6   Leave administration mode by sliding the T/P switch to the center position.
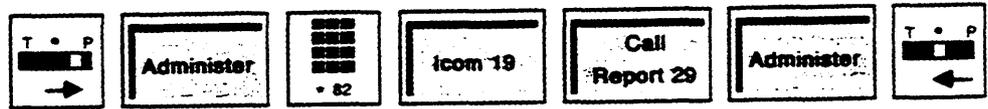
Minimum Call Duration. To specify a minimum call duration other than 1 minute for call reporting:

1   Enter administration mode by sliding the T/P switch to *P* and touching **Administer.**

2   Dial *83.

3   Dial one digit from 0 to 9 for the number of minutes.

For example, to specify a minimum duration of 1 minute, dial *83 1. To specify a minimum duration of 9 minutes, dial *83 9.

4   Touch Administer.
The console beeps twice.

5   Leave administration mode by sliding the T/P switch to the center

Type of Documented Calls. To specify the type of calls that will be documented (the system is set to have no calls reported):

1 Enter administration mode by sliding the T/P switch to *P* and touching **Administer.**

2 Dial *84.

3 Dial a number code 0 through 2 to specify the kind of calls to be reported (the system is factory-set so that no calls are reported):

   – If you do not want any calls reported, dial 0.

   – If you want only outgoing calls reported, dial 1.

   – If you want outgoing and incoming calls reported, dial 2.

4 Touch **Administer.**
   The console beeps twice.

5 Leave administration mode by sliding the T/P switch to the center position.

PROGRAMMING   None

HOW TO USE   None

Call Restriction

DESCRIPTION   When the system is first installed, people can use their voice terminals to place intercom, local, and toll calls. However, the system administrator can assign either of two types of call restrictions for selected voice terminals:

- **Outward Call Restriction** restricts voice terminals so that only intercom calls can be placed.

- **Toll Call Restriction** restricts voice terminals so that only intercom and local calls can be placed.

CONSIDERATIONS   Even if a voice terminal has Outward Call Restriction, the person can bridge onto calls in progress, answer incoming calls, and place and receive intercom calls.

If the outward call restrictions are too limiting, the administrator can designate a list of numbers that individuals may call beyond the established restrictions. (See "Allowed Lists.")

If the administrator decides to store a System Speed Dial code with Restriction Override, all voice terminals in the system can use the code as a type of password that allows the person to access the outside number, regardless of toll or outward call restrictions previously placed on the voice terminal. (See "System Speed Dial.")

If there are two or more voice terminals in the system that will have the same restrictions, the administrator can use the Copy feature to copy these restrictions from one voice terminal to another. (See "Copy.")

ADMINISTRATION

If your responsibilities do not include system administration, skip this information.

Before you begin to administer call restrictions for voice terminals in your system, refer to the Voice Terminal Configuration Forms that you have filled out.

To administer call restrictions to a voice terminal:

1 Enter administration mode by sliding the T/P switch to *P* and touching **Administer.**

2 Dial the intercom number or touch the Auto Intercom button of the voice terminal you want to restrict.

3 Touch **Restrict** until the green light beside it shows the kind of call restriction you want the voice terminal to have.

> *Steady green light on* = *Unrestricted (All calls permitted)*
> *Flashing green light* = *Toll restricted (local and intercom calls only)*
> *Green light off* = *Outward restricted (intercom calls only)*

4 Touch **Administer.**
The console beeps twice.

5 Repeat steps 2 through 4 for each voice terminal you want to restrict.

6 Leave administration mode by sliding the T/P switch to the center position.

PROGRAMMING

None

HOW TO USE

Ask your system administrator what call restrictions, if any, he, or she has assigned to your voice terminal.

Centralized Programming

DESCRIPTION

The Centralized Programming feature allows the system administrator the convenience of programming-features onto individual voice terminals directly from the administrator/attendant console. In this way there is no need to go to each voice terminal to do the programming. This feature is useful when the administrator is assigning Ringing Options for incoming calls.

CONSIDERATIONS

The system administrator must be certain that the appropriate feature buttons on the voice terminals are accurately labeled.

The voice terminal being programmed must be idle. If the voice terminal is busy or in program mode, the administrator hears a beep at the administrator/attendant console, indicating that he or she cannot use this feature until the voice terminal is idle again.

ADMINISTRATION

If your responsibilities do not include system administration, skip this information.

To program a feature onto a voice terminal from the administrator/attendant console:

1 Enter administration mode by sliding the T/P switch to *P* and touching **Administer.**

2 Touch the Auto Intercom button for the voice terminal you want to program.

3 Touch **Conference.**
Green lights go on next to the line button of lines already assigned to the voice terminal.

4 Follow the same steps to program the feature that you would follow if you were at the voice terminal.

5 When you are finished programming the features for that voice terminal, touch **Conference** again.

6 Leave administration mode by sliding the T/P switch to the center position.
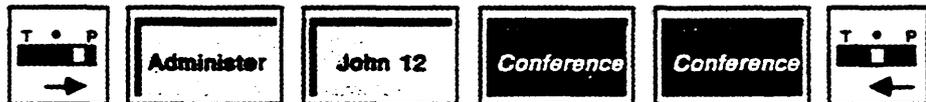
PROGRAMMING

None

HOW TO USE

None

Conference

DESCRIPTION

When you want people outside the MERLIN Plus system to join a call in progress, you can use the Conference feature. You can set up a conference call that includes up to two outside people and yourself. In addition, up to two people in your MERLIN Plus system can bridge onto the call. (See "Bridging.")

CONSIDERATIONS

You must use the Drop feature when you want to disconnect one outside line at a time from a conference call (See "Drop.") If you press the switchhook, you end the call.

You cannot use the Conference feature on a voice terminal with Button-Free Line Operation.

ADMINISTRATION

None

PROGRAMMING

None

HOW TO USE

To set up a conference call when one of the participants is already on the line:

1 Touch **Conference.**

2 Touch a free line button.

3 Dial the outside number of the person you want to add to the conference call.

If you don't want the person already connected to listen while you connect the second person to the call:

1 Touch **Hold.**

2 Touch a line button.

3 Dial the outside number of the second person you want to include in the conference.

4 Announce the conference call through your handset.

5 Touch **Conference.**

6 Touch the line button that you put on hold.

To remove yourself from a conference without ending the call:

Touch **Hold.**

To rejoin the call:

1   Touch a line button associated with the call.
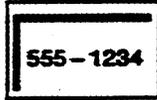
To disconnect one outside line at a time from the call:

1   Touch **Drop.**

2   Touch the button of the line you want to disconnect.

Copy

DESCRIPTION

If there are two or more voice terminals that require the identical feature assignments, the system administrator can use the Copy feature to copy the line and programmable feature assignments from one voice terminal onto another.

CONSIDERATIONS

When the administrator uses the Copy feature, the MERLIN Plus system copies the line assignments from one voice terminal to the other. Feature assignments are always overwritten by lines.

Several other features are also copied during the Copy process: Ringing Options, Voice Announcement Enable/Disable, Automatic Line Selection, and Personalized Ringing.

If you have a 5-button voice terminal, you cannot copy any lines or features onto a larger voice terminal, or vice versa.

Be sure to label the buttons on the voice terminal to which lines or features have been copied.

If your responsibilities do not include system administration, skip this information.

To copy line and feature assignments from one voice terminal to another:

Enter administration mode by sliding the T/P switch to *P* and touching **Administer.**

2 Dial the intercom number or touch the Auto Intercom button of the voice terminal to which you want to copy line assignments.

3 Touch **Copy**

4 Dial the intercom number or touch the Auto Intercom button of the voice terminal from which you are copying line assignments.

5 Touch **Administer.**
The console beeps twice.

6 Leave administration mode by sliding the T/P switch to the center position.

7 Be sure to label the new line assignments on the voice terminal to which you did the copying.
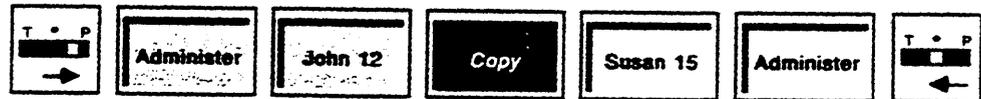
PROGRAMMING   None

HOW TO USE   None

Customized Line Assignment

DESCRIPTION

The system administrator can assign lines to any voice terminal in any order, or choose not to assign particular lines to a voice terminal. The administrator can use Customized Line Assignment if he or she wants to assign lines or groups of lines to selected voice terminals with similar requirements for placing and receiving calls. For example, this might include people within a particular department who need the same line assignments as each other, but different from line assignments of people in other departments. The administrator can also assign personal lines that no one else in the system has access to. (See "Personal Lines.")

CONSIDERATIONS

If a person in a system with customized line assignments does not have a particular line assigned to his or her voice terminal, he or she can pick up a ringing call on that line by using the Call Pickup feature. (See "Call Pickup.")

If two or more voice terminals in the system will have the same line assignments, the administrator can use the Copy feature to copy the line assignments from one voice terminal to another. (See "Copy.")

A line jack with nothing plugged into it is called a nonequipped line appearance, or "ghost line." To eliminate ghost lines, the administrator must specify for the system how many lines the system contains. When the administrator first sets up the system, the administrator dials *4 and the number of lines in the system. For example, if the system contains six lines, the administrator dials *46. (See Section 3, "Administering the System.")

ADMINISTRATION

If your-responsibilities do not include system administration, skip this information.

Before you assign lines to voice terminals in your system, refer to the Line Assignments Form that you have filled out.

To assign lines to a voice terminal:

1 Enter administration mode by sliding the T/P switch to *P* and touching **Administer.**

2 Dial the intercom number or touch the Auto Intercom button for the voice terminal that you are administering.
A green light goes on next to the Auto Intercom button. Green lights also go on next to the buttons of any lines already assigned to the voice terminal.

3 Remove all of the lines by touching each line button that has a light next to it.
The green light next to the line button goes off.

4 Touch each line button in the order in which you want them to appear on the voice terminal.
Green lights go on next to the line buttons you touch.

5 Touch **Administer.**
The console beeps twice.

6 Leave administration mode by sliding the T/P switch to the center position.
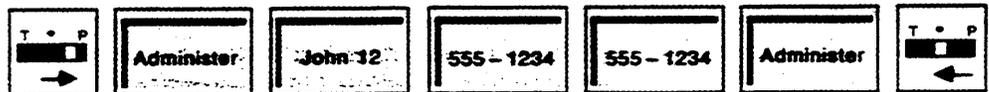
PROGRAMMING

None

HOW TO USE

The system administrator assigns lines to buttons for the whole system and for individual voice terminals. Be sure that the lines that you have access to are labeled on your voice terminal.

Do Not Disturb

DESCRIPTION

When you are busy and do not want to receive calls, you can touch the Do Not Disturb button, if you have programmed one onto your voice terminal. When you receive outside calls, the green light next to the line button flashes, but your voice terminal does not ring.

Calls transferred to you return to the sender, and intercom calls get a busy signal.

When you activate the Do Not Disturb at your voice terminal, the green light goes on next to your Auto Intercom button at other people's voice terminals.

CONSIDERATIONS

None

ADMINISTRATION

None

PROGRAMMING

The Do Not Disturb feature requires a button with lights.

To program a Do Not Disturb button for your voice terminal:

1   Label the button **Do Not Disturb.**

2   Slide the T/P switch to *P*.
The voice terminal rings 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 *71.

5   Slide the T/P switch to the center position.
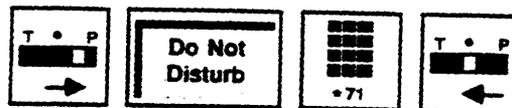
HOW TO USE

To prevent calls from ringing at your voice terminal:

1   Touch **Do Not Disturb.**
The green light next to the button goes on.
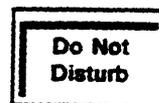
This feature remains active until you:

1   Touch **Do Not Disturb** again.
The green light next to the button goes off.
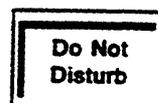
Drop

DESCRIPTION

If you get a busy signal or no answer as you set up a conference call, or if you want to disconnect one outside line at a time from a conference call, use the Drop feature. For more information about using this feature, see "Conference."

CONSIDERATIONS

If you press the switchhook, you cut off everyone on the conference call.

ADMINISTRATION

None

PROGRAMMING

None

HOW TO USE

To disconnect one outside line at a time from a conference call:

1 Touch **Drop.**

2 Touch the button of the line you want to disconnect.

Group Listening

DESCRIPTION

If you want other people in your office to hear a call, you can turn on your voice terminal speaker. Everyone can then hear the voice of the other person on the call.

CONSIDERATIONS

Your speaker may make a squealing noise when the handset comes close to it. To prevent this noise, touch **Speaker** when you have completed a call and are ready to hang up your handset. Another way to reduce the squealing sound is to turn down the volume control on your voice terminal.

ADMINISTRATION

None

PROGRAMMING

None

HOW TO USE

To allow others to hear a call:

1 Without hanging up, touch **Speaker,** and continue your conversation. If you have a 34-button BIS voice terminal, touch **Speakerphone.**
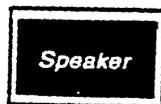
Group Page

DESCRIPTION

The system administrator can set up Group Page groups so anyone in the system can use the Group Page feature to page up to 20 people at a time directly through the voice terminal speakers.

You can have up to three paging groups. The Page-All group consists of all voice terminals in the system; groups 1 and 2 can have up to 20 voice terminals in each group.

CONSIDERATIONS

If the system administrator is using a 10-button voice terminal to administer the system, he or she *cannot* change the factory-set Group Page group assignments for the system.

If necessary, one voice terminal can be assigned to more than one paging group.

You can program buttons for the groups you want to page. Or, you can save available feature buttons for other uses and use a dial code to use this feature.

If someone in the Group Page group pick up the handset during a Group Page announcement, he or she is connected to the person making the announcement, and the page announcement is terminated.

When someone in the MERLIN Plus system has activated the Voice Announcement Disable feature for his or her voice terminal, he or she cannot hear a Group Page announcement.

If your responsibilities do not include system administration, skip this information.

When the system is first set up, the system has the following Group Page groups:

> Group 1 = Voice Terminals 10 through 19
> Group 2 = Voice Terminals 20 through 29
> Page-All = Voice Terminals 10 through 29

If these group assignments are not satisfactory for the system, the administrator can add or delete voice terminals from the individual groups.

The Page-All group, the paging group containing all the voice terminals in the system, cannot be administered.

Before you begin to administer Group Page groups, refer to "Paging Groups" on your "System Configuration Form."

To add or remove a voice terminal from a paging group:

1 Enter administration mode by sliding the T/P switch to P and touching **Administer.**

2 Dial *71 for group 1 or *72 for group 2.
A green light goes on next to the Auto Intercom button of any voice terminal already assigned to that paging group.

3 Touch Auto Intercom buttons until they show the paging group
assignment you prefer.

> *Green light on = voice terminal is assigned to the group*
> *Green light off = voice terminal is not assigned to the group*

4 Touch **Administer.**
The console beeps twice.

5 Follow the last three steps for each paging group you want to administer.

6 Leave administration mode by sliding the T/P switch to the center
position.
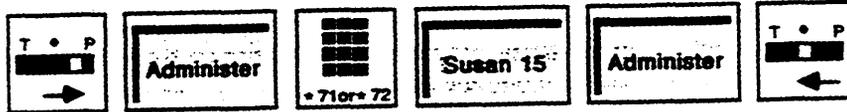
If you want to clear all entries from group 1 or from group 2:

1 Enter administration mode by sliding the T/P switch to *P* and touching
Administer.

2 Dial *71 for group 1 or *72 for group 2.

3 Touch **Drop.**

4 Leave administration mode by sliding the T/P switch to the center
position.
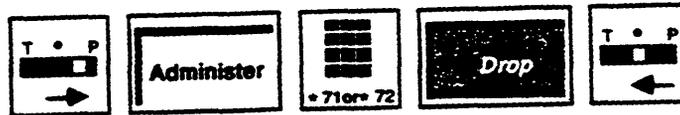
PROGRAMMING

To program a Group Page button for your voice terminal:

1 Label the button Group Page plus a group number.

2 Slide the T/P switch to *P*.
The voice terminal rings every 5 seconds to remind you that yo0u are programming and that you cannot place or receive calls.

3 Touch the button you want to program.

4 Dial *91 plus a Group Page code:

> 70 = Page=All (all voice terminals in the system)
> 71 = group 1
> 72 = group 2

5 Slide the T/P switch to the center position.
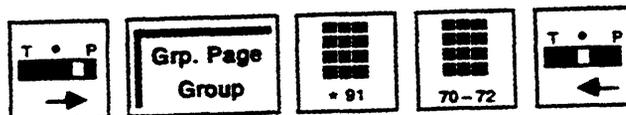
HOW TO USE

You can use a programmed button or a dial code to access this feature.

To use a Group Page button to make an announcement through a group of voice terminal speakers:

1 Touch the Group Page button for the group you want to page.

2 When you hear a beep, lift your handset and make the announcement.
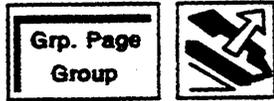
To page a group using a dial code:

1 Touch Intercom.

2 Lift your handset.

3 Dial the code for the group you want to page:

> 70 = Page-All (all voice terminals in the system)
> 71 = group 1
> 72 = group 2

4 When you hear a beep, speak into your handsset.

Hands-Free Answer on Intercom

DESCRIPTION

If you are using a 10-button Hands-Free Answer on Intercom (HFAI) voice terminal or a 34-button Built-In Speakerphone (BIS) voice terminal, you can touch the HFAI/Mic or HFAI button when you want to answer intercom calls without lifting your handset. You will hear the other person's voice through your voice terminal speaker.

CONSIDERATIONS

When you turn on the HFAI feature, the green light next to the button goes on.

ADMINISTRATION

None

PROGRAMMING

None

HOW TO USE   If you have a 10-button HFAI voice terminal and you want your intercom
calls answered automatically:

1   Touch **HFAI/Mic.**

```
┌──────────┐
│ ·HFAI/   │
│  Mic.    │
└──────────┘
```

If you have a 34-button BIS voice terminal and you want your intercom calls
answered automatically:

1   Touch **HFAI.**

```
┌──────────┐
│          │
│  ·HFAI   │
└──────────┘
```

Hold

DESCRIPTION   When you need to put someone on hold, use the Hold feature.

CONSIDERATIONS   When you leave a call on hold for more than a minute, your voice terminal
rings at one minute intends to remind you the call is still on hold.

ADMINISTRATION   None

PROGRAMMING   None

HOW TO USE   To place a call on hold:

1   Touch **Hold.**

```
┌──────────┐
│          │
│  ·Hold   │
└──────────┘
```

When *you* put a call on hold, the green light next to the call's line button
flashes rapidly. If *someone else* puts a call on hold from another voice terminal,
the green light *flashes slowly* next to the call's line button on your voice
terminal.

To take a call off hold:

1   Touch the call's line button.
The green light becomes steady.

```
┌──────────┐
│          │
│ 555-1234 │
└──────────┘
```
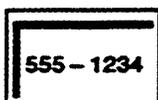
Hold Retrieve

DESCRIPTION   If you have a 5-button voice terminal and do not have a line button for a call that you have received or that has been transferred to you, you can still put it on hold using the Hold button. To retrieve the call, you can use a dial code or program a Retrieve Call button.

CONSIDERATIONS   To use this feature, you can either program a button or use a dial code.

If your system administrator has set your voice terminal for Button-Free Line Operation, you should have a Hold Retrieve button on your voice terminal. (See "Button-Free Line Operation.")

ADMINISTRATION   None

PROGRAMMING   To program a Hold Retrieve button for your voice terminal:

1   Label the button **Retrieve Call.**

2   Slide the T/P switch to *P*.
     The voice terminal rings 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 *95*.

5   Slide the T/P switch to the center position.
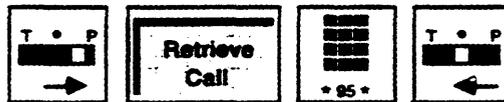
HOW TO USE   You can use a programmed button or a dial code to access this feature.

To put a call on hold:

1   Touch **Hold.**

You can use a programmed button or a dial code for the Hold Retrieve
feature.

To use a Retrieve Call button to retrieve a held call:

1 Touch **Retrieve Call.**

To use a dial code to retrieve a held call:

2 Dial #*.

Intercom

DESCRIPTION

Each voice terminal connected to the MERLIN Plus system has a unique
2-digit intercom number. You can dial intercom numbers to place calls to
people connected to the system.

CONSIDERATIONS

In the MERLIN Plus system, you place an intercom call with a voice
announcement. Your coworker hears your voice through the voice terminal
speaker, but must lift the handset to respond to you. If a person has a 10-
button HFAI or a 34-button BIS voice terminal, he or she can speak to you
without lifting the handset.

However, if the person you are calling has activated the Voice Announcement
Disable feature, your intercom call rings rather than beeps at the person's
voice terminal and you cannot give your voice announcement. (See "Voice
Announcement Enable/Disable.")

If you program an Auto Intercom button for the intercom number you want to
call, you can dial the number with one touch. (See "Auto Intercom.")

Since a voice announcement does not interrupt an outside call in progress,
you can announce an intercom call to a person busy on another line.

If you do not finish dialing an intercom number within fifteen seconds of the
time you lift the handset, the line becomes available again.

ADMINISTRATION

None

PROGRAMMING   None

HOW TO USE   To place an intercom call iwth a voice announcement.

1   Touch **Intercom.**

2   Lift your handset.

3   Dial the 2-digit intercom number for the voice terminal you want to call.

4   When you hear a beep, speak into your handset.

o r

If you hear ringing, wait for the person to answer.

Intercom Preference

DESCRIPTION   If you want a voice terminal in the system to have only an intercom line, withdraw all outside lines from that voice terminal. This feature is useful for voice terminals located in a lobby or other public places.

If you are at a voice terminal which has no outside lines assigned to it, you will be connected to an intercom line when you lift your handset.

ADMINISTRATION   None

PROGRAMMING   A person at the voice terminal can remove all outside lines from the voice terminal's Automatic Line Selection sequence:

1   Slide the T/P switch to *P*.

2   Dial ****.

3   Slide the T/P switch to the center position.

HOW TO USE   If the voice terminal you are using has been programmed for Intercom Preference, you will be connected to an intercom line when you lift your handset, and you will not be able to place outside calls.

Last Number Redial

DESCRIPTION

With a Last Number Redial button, you can redial with one touch the number you dialed most recently. You do not need to do anything to save this number.

CONSIDERATIONS

If you want to save the programmable buttons on your voice terminal for other features, you may prefer to use a dial code to use Last Number Redial instead of programming a button.

The Last Number Redial button saves only manually dialed numbers; it does not save numbers dialed with an Outside Auto Dial button.

If you make many calls, it may be more convenient for you to use the Saved Number Redial feature to help you redial numbers correctly. (See "Saved Number Redial.")

ADMINISTRATION

None

PROGRAMMING

To program a Last Number Redial button for your voice terminal:

1 Label the button Last Number.

2 Slide the T/P switch to *P.*
   The voice terminal rings 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 *73 (you do not need to dial an outside number).

5 Slide the T/P switch to the center position.
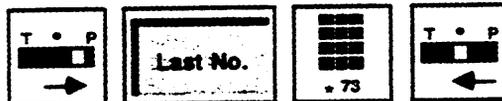
HOW TO USE

You can use a programmed button or a dial code to access this feature.

To redial the last number you dialed:

1 Without lifting your handset, touch Last *Number or dial #24.*
   Your voice terminal speaker goes on, and you hear dialing.

2 When you hear the other person answer, lift your handset and begin talking.
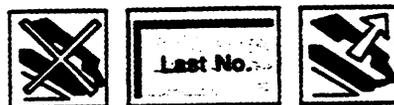
If the line is busy, or if no one answers:

1 Touch Speaker to cancel the call.
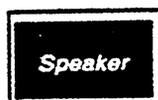
Lights

DESCRIPTION

The lights next to the line buttons on your MERLIN Plus system voice terminal allow you to know immediately the status of any of your lines. There is also a light next to the Message button, and, on most voice terminals, there is a light next to the Speaker button.

Lights	Line Status
Red light steady	This is either the line you are now using or the line you will get when you lift your handset.
Green light steady	This line is busy.
Green light flashing	This is the line on which a call is coming in.
Green light flashing rapidly	This is the line of a call *you* have put on hold.
Green light flashing slowly	This is the line of a call *someone else* has put on hold from another voice terminal.
Alternating flashing red and green lights on a line you are using	Someone in the system has bridged onto your call.
Green light on next to the Message button	This means that the attendant has a message waiting for you.
Green light on next to the Speaker button	This means that the voice terminal speaker is on. Without lifting the handset, you can begin dialing, or you can hear a conversation through the speaker. However, for others to hear you, you must lift the handset.
Green light on next to the HFAI/Mic button on a 10-button HFAI voice terminal or next to the HFAI button on a 34-button BIS voice terminal	You can answer and speak to others on intercom calls without lifting your handset.
Green light on next to the Speakerphone and Microphone buttons on a 34-button BIS voice terminal	You can answer and speak to others on all calls without lifting your handset.

CONSIDERATIONS	None
ADMINISTRATION	None
PROGRAMMING	None
HOW TO USE	None

Line Request

DESCRIPTION	If all the lines that appear on your voice terminal are busy, you can still request the use of one of these lines. When the line becomes available, the system alerts you.
CONSIDERATIONS	None
ADMINISTRATION	None
PROGRAMMING	None

HOW TO USE   To request a line that is presently busy:

1 Touch the line button of the line you want to use.
The MERLIN Plus system signals you with a beep when the line is free.
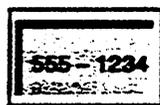
If you touch another line button or if you place or receive a call after you have touched the line button, your line request is cancelled.

Line Select

DESCRIPTION

You may need to make an outside call at a time when you also need to leave your primary line open for incoming calls. If your voice terminal has more than one outside line, you can select a line other than your primary line for an outside call.

CONSIDERATIONS

None

ADMINISTRATION

None

PROGRAMMING

None

HOW TO USE

To select a specific outside line:

1 Touch the button for the specific outside line you want to use.
The Ted light goes on beside the line you select.

2 Lift your handset.

Loudspeaker Page

NOTE: This feature is used with a loudspeaker paging system.

DESCRIPTION

You can use an optional loudspeaker paging system if you have one connected to your MERLIN Plus system. To use the paging system, either program a button for Loudspeaker Page or use a dial code to activate the feature.

CONSIDERATIONS

If you want to save available feature buttons for other features, use a dial code instead of programming a Loudspeaker Page button.

ADMINISTRATION

For administration procedures for setting the volume on the loudspeaker paging system, see "Loudspeaker Paging System" under "Accessory Equipment" in this section.

PROGRAMMING

Buttons with lights are recommended for the Loudspeaker Page feature.

To program a Loudspeaker Page button for your voice terminal:

1 Label the button **Loudspeaker Page.**

2 Slide the T/P switch to *P.*
The voice terminal rings 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 *91.

5 Dial 6.

6 Slide the T/P switch to the center position.

HOW TO USE

You can use a programmed button or a dial code to access this feature.

To use a Loudspeaker Page button:

1 Touch **Loudspeaker Page.**

2 When you hear a beep, lift your handset and make your announcement.
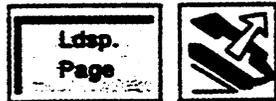
To use this feature by dialing a code:

1 Touch **Intercom.**

2 Lift your handset.

3 Dial 6.

4 When you hear a beep, make your announcement.

When you hang up, the loudspeaker turns off automatically.

Manual Signaling

DESCRIPTION

You can use a Manual Signaling button to generate a beep at a coworker's voice terminal. Most often, this feature is used by a boss who wants to buzz his or her secretary. Assign a Manual Signaling button to each person you want to signal.

CONSIDERATIONS

You can signal someone with a Manual Signaling button while you have an outside call in progress.

The beep sounds at your coworker's voice terminal even if it is busy.

If you program this feature on a button with lights, the green light next to the button goes on when your coworker uses his or her voice terminal or uses the Do Not Disturb feature.

You *cannot* have both a Manual Signaling button *and* an Auto Intercom button for the same person. If you try to program both, you deactivate the feature that you programmed earlier. You can use either feature to place an intercom call. (See "Auto Intercom.")

ADMINISTRATION

None

PROGRAMMING

To a Manual Signaling button for your voice terminal:

1 Label the button **Signal** plus a name.

2 Slide the T/P switch to *P*.
The voice terminal rings 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 *6 plus an intercom number.

5 Slide the T/P switch to the center position.

HOW TO USE

To signal a coworker:

1 Without lifting your handset, touch a Manual Signaling button.

To place an intercom call using a Manual Signaling button:

1 Touch **Intercom.**

2 Touch **Speaker.**

3 Touch the Manual Signaling button for the person you want to call.

4 When you haer a beep, lift your handset.

Message

DESCRIPTION   When the light next to the Message button is on, your MERLIN Plus system attendant has a message for you.

CONSIDERATIONS   Your Message light can only be turned on from the administrator/attendant console.

Note that 5-button voice terminals do not have a Message button. Therefore, the attendant will have to use another method to let these people know that they have a message waiting.

ADMINISTRATION   None

PROGRAMMING   None

HOW TO USE   The system attendant can turn on the light next to the Messge button at a person's voice terminal.

1 At the administrator/attendant console, 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, indicating the person's light is lit..

If the attendant is using a 10-button voice terminal as the attendant console, refer to "Send Message" for directions on sending a message to voice terminals in the system.

A person can turn off the Message light on his or her voice terminal.

1 Touch **Message.**

Monitor-on-Hold

DESCRIPTION

When someone puts your call on hold, you can turn on your voice terminal's built-in speaker, hang up, and continue working while you wait for the person to return to the call.

CONSIDERATIONS

None

ADMINISTRATION

None

PROGRAMMING

None

HOW TO USE

To turn on your speaker until you are taken off hold:

1 When you have been put on hold, touch Speaker.

2 Hang up.

3 When you hear the person return to the call, lift your handset and continue the call.
The speaker automatically turns off.

If you have a 34-button BIS voice terminal, you can touch Speakerphone at the beginning of the call. You do not need to lift your handset throughout the call.

Night Service

DESCRIPTION

When the person who usually answers calls is not on duty, you can make answering calls easy for night personnel, such as a guard. There are two ways that you can provide Night Service for your office.

- You may either want to provide the person with a 34-button voice terminal that has all the lines, or the person may prefer to monitor the attendant console and answer calls there. Be sure that all lines on which calls may come in after hours are set for immediate ring. If the lines are not normally set for this ringing option, the person can activate the Ring Option Override feature that he or she has programmed for the voice terminal. (See "Ring Option Override.")

- The backup person can also answer calls that come in after hours by programming a Call Pickup button so that he or she can pick up calls at the administrator/attendant console. Since the attendant console has all the lines of your MERLIN Plus system, the person answering calls after hours can pick up calls by touching the Call Pickup button when the attendant console rings. (See "Call Pickup.") If the person is in another part of the building, the attendant can connect his or her console and an extra alert device to a Supplemental Alert Adapter (see "Supplemental Alert Adapter" under "Accessory Equipment"), so that each time a call comes in, an extra alert device sounds.

CONSIDERATIONS

None

ADMINISTRATION

The system administrator must decide who will answer calls that come in after hours and how those calls will be answered.

PROGRAMMING

For programming procedures for Call Pickup, and for Ring Option Override, see the individual entries for these features in this section.

HOW TO USE

For further information on the attendant console, see Section 4, "Using the Attendant Console." If you need help in using the Call Pickup or the Ring Option Override features, see "Call Pickup" or "Ring Option Override."

One-Touch Dialing

DESCRIPTION

In the MERLIN Plus system, there are five features that allow you to dial or redial a telephone number with the touch of a button.

- Outside Auto Dial-Dial an outside number by touching a button. An Outside Auto Dial button can hold a maximum of 16 numbers.

- Auto Intercom-Dial an intercom number with one touch whenever you want to call someone connected to your MERLIN Plus system.

- System Speed Dial-If your system administrator has assigned a speed dial code to a frequently dialed telephone number or account number, you can program the speed dial code onto an available voice terminal button. Then when you want to dial the telephone number or enter the account number on a call report, just touch the System Speed Dial button for that number.

- Last Number Redial—If you have programmed a Last Number button for your voice terminal, you can touch the button when you want to redial the most recent number that you dialed.

- Saved Number Redial—If you have Saved Number buttons on your voice terminal, you can save numbers for later redialing. When you are ready to redial each of the telephone numbers, merely touch the Saved Number button on which you have saved that number.

CONSIDERATIONS   In order to use any one of these five one-touch dialing features, you must program it onto an available button on your voice terminal.

ADMINISTRATION   None

PROGRAMMING   If you want to use any of the five One-Touch Dialing features, you must program them onto your voice terminal. For programming procedures for each of the features, see their separate entries in this section.

HOW TO USE   When you want to use one of the five one-touch dialing features, merely touch the button.

On-Hook Dialing

Instead of using your handset to listen while you place a call, you may want to use your voice terminal's built-in speaker.

CONSIDERATIONS   When instructions in this guide tell you to lift your handset before dialing, you may choose to leave your handset on-hook and use the speaker instead.

If you have a 34-button Built-In Speakerphone (BIS) voice terminal, you can use your speakerphone to dial a call and speak with people hands-free.

ADMINISTRATION   None

PROGRAMMING   None

HOW TO USE   To use the speaker while you place a call:

1   Without lifting your handset, touch **Speaker.**

2   Dial the number.

3   When you hear the other person answer, lift your handset to speak.
The speaker goes off automatically.

If you have a 34-button BIS voice terminal, you do not need to lift your handset. When the person answers, begin speaking.

If the line is busy, or if you get no answer:

1 Touch Speaker to cancel the call.

Outside Auto Dial

DESCRIPTION

You can use Outside Auto Dial to dial frequently used numbers and codes with one touch. These numbers and codes can include telephone numbers, and PBX, Centrex, or Custom Calling feature codes. You can include up to 16 numbers and special characters in an Outside Auto Dial sequence.

CONSIDERATIONS

Any time instructions tell you to dial an outside number, you can touch an Outside Auto Dial button instead if you have one programmed for the number you want to dial.

You may need to program a pause, stop, or switchhook flash into an Outside Auto Dial sequence, or you may need to switch from rotary to Touch-Tone signals in the middle of a programmed dialing sequence. To do so, you must enter one or more of the following special characters when you program the sequence. (For more information about using special characters in a dialing sequence, see "Special Characters in Dialing Squences.")

- To program a pause, touch **Hold.**

- To program a stop, touch **Drop.**

- To program a switchhook flash at the beginning of a number, touch **Recall** and then touch **Hold.**

- To program Touch-Tone Enable, touch **Transfer.**

ADMINISTRATION

None

PROGRAMMING

To program an Outside Auto Dial button for your voice terminal:

1 Label -the button with a name and/or a number.

2 Slide the T/P switch to *P*.
   The voice terminal rings every 5 seconds to remind you that you are programming and that you cannot place or recieve calls.

3 Touch the button you want to program.

4 Dial *90 plus a telephone number or a PBX or Centrex code (if you need to include a special character in the dialing sequence, use the directions above).

5 Slide the T/P switch to the center position.
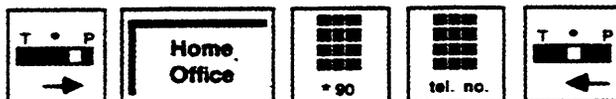
HOW TO USE

To dial an outside number with one touch:

1 Without lifting your handset, touch the Outside Auto Dial button for the
number you want to dial.
Your voice terminal speaker goes on, and you hear dialing.

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.

Personal Lines

DESCRIPTION

When the system administrator assigns lines to voice terminals, he or she can
select lines that will serve as personal lines for individuals in the business,
such as the president of the company. No one else has these lines on his or
her voice terminal. Calls that come in on these personal lines will not ring at
other voice terminals or at the attendant's console.

CONSIDERATIONS

A secretary can cover calls that come in on his or her boss' personal line by
having the line assigned to his or her own voice terminal and programming
the line for immediate ring. At the boss' voice terminal, the line can be
programmed for delayed ring. A secretary can screen calls that come in on
the personal line by programming the line on the boss' voice terminal to
delayed ring or no ring and programming the line at his or her own voice
terminal for immediate ring. (See "Ringing Options")

ADMINISTRATION

If your responsibilities do not include system administration, skip this
information.

To assign a personal line to a voice terminal:

1 Enter administration mode by sliding the T/P switch to *P* and touching
Administer.

2 Dial the intercom number or touch the Auto Intercom button for the
voice terminal to which you want to assign a personal line.
*A green light goes on next to the Auto Intercom button. Green lights also go on next to the
buttons of any lines already assigned to the voice terminal.*

3 To add the personal line, touch the line button associated with that line
until the green light next to it goes on.

NOTE: If another voice terminal in your system has that line, you must remove it from that voice terminal by dialing the intercom number for that voice terminal and touching the line button that corresponds with that line so the green light next to it goes off.

4 Touch **Administer.**
The console beeps twice

5 Leave administration mode by sliding the T/P switch to the center position.
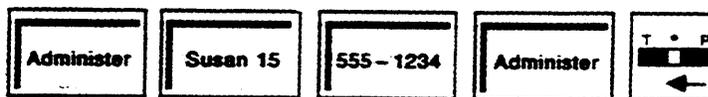
PROGRAMMING   None

HOW TO USE   When a call comes in on your personal line:

1 Lift your handset.

If you want your personal line to be the first line in your Automatic Line Selection sequence, tell your system administrator when he or she programs that feature for your voice terminal. (See "Automatic Line selection.")

Personal Speed Dial

DESCRIPTION   If you don't have many available buttons on which to program Outside Auto Dial, you can use the programming instructions below to assign a 3-character Personal Speed Dial code (from #01 through #22) to telephone numbers, PBX, Centrex, or Custom Calling feature codes you frequently dial.

You can assign a Personal Speed Dial code to a sequence containing up to 16 numbers and special characters.

CONSIDERATIONS

Personal Speed Dial uses a dialing code. You do not place these codes on a voice terminal button.

The attendant or administrator at Intercom 10 cannot use code #01.

You may need to program a pause, stop, or switchhook flash into a Personal Speed Dial sequence, or you may need to switch from rotary to Touch-Tone signals in the middle of a programmed dialing sequence. To do so, you must enter one or more of the following special characters when you program the sequence. (For more information about using special characters in a dialing sequence, see "Special Characters in Dialing Sequences.")

- To program a pause, touch **Hold.**

- To program a stop, touch **Drop.**

- To program a switchhook flash at the beginning of a number, touch **Recall** and then touch **Hold.**

- To program Touch-Tone Enable into a dialing sequence, touch **Transfer.**

ADMINISTRATION

None

PROGRAMMING

This feature is not associated with a voice terminal button.

1 Slide the T/P switch to *P*.
The voice terminal rings every 5 seconds to remind you that you are programming and that you cannot place or receive calls.

2 Dial a Personal Speed Dial code (#01 through #22).

3 Dial *90 plus a telephone number or a PBX, Centrex, or Custom Calling feature code.

4 Slide the T/P switch to the center position.

HOW TO USE

To place a call using a Personal Speed Dial code:

1 Lift your handset.

2 Dial a Personal Speed Dial code (#01 through #22).

Personalized Ringing

DESCRIPTION   To make it easy for the right person to pick up calls in a group office, people in this type of office may want to program their voice terminals with a ringing pattern that is easier for each person to identify. There are eight different ringing patterns available.

CONSIDERATIONS   Once you have programmed your Personalized Ringing selection, calls that ring at your voice terminal have this ringing pattern. However, note that only the second part of the transfer ring (one short and one long ring) has your Personalized Ringing pattern.

ADMINISTRATION   None

PROGRAMMING   To choose a ringing pattern that you like:

1   Slide the T/P switch to *P*.
You hear the ringing sound your voice terminal makes.

2   Touch **Speaker.**
You hear another ringing pattern.

3   Touch **Speaker** repeatedly until you hear a ringing pattern you like.

4   Slide the T/P switch to the center position.

HOW TO USE   After you have programmed your Personalized Ringing preference, you don't need to do anything else to use the feature. When a call rings at your voice terminal, you will hear the ringing pattern that you have chosen.

Privacy

DESCRIPTION   If you share an outside line with other people, you may choose to program a Privacy button that allows you to prevent others from accidentally joining your telephone conversations.

CONSIDERATIONS   None

ADMINISTRATION   None

PROGRAMMING   The Privacy feature requires a button with lights.

                         To program a Privacy button for your voice terminal:

1 Label the button **Privacy.**

2 Slide the T/P switch to *P.*
       The voice terminal rings 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 *72.

5 Slide the T/P switch to the center position.

HOW TO USE   To prevent others from joining your calls:

1 Before placing or receiving a private call, touch **Privacy.**
       The green light next to the button goes on.

                         This feature remains active until you:

1 Touch **Privacy** again.
       The green light next to the button goes off.

Privacy (on Lines A and E)

DESCRIPTION   The system administrator can administer the Privacy feature for Line A and/or
                         Line E so that no one in the system can bridge onto or monitor these lines
                         while they have a call active on them. (See "Auxiliary Lines.")

CONSIDERATIONS   This feature may be particularly useful if you have a modem, facsimile
                         machine, or other equipment connected to the line through an auxiliary
                         (AUX) jack on the control unit.

                         This Privacy must be administered and therefore is a different feature than the
                         Privacy feature that people can program for their voice terminals.

ADMINISTRATION

If your responsibilities do not include system administration, skip this information.

1 Enter administration mode by sliding the T/P switch to *P* and touching **Administer.**

2 Dial *57.
The green light goes on next to those lines that cannot be bridged or monitored.

3 If you want to change the Privacy setting of either Line A or Line E, touch the line button until the green light next to it shows the setting you want:

> *Geen light on = the line is private*
> *Green light off = the line can be monitored*

4 Touch **Administer.**
The console beeps twice.

5 Leave administration mode by sliding the T/P switch to the center position.
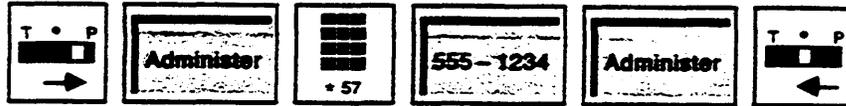
PROGRAMMING

None

HOW TO USE

None

Program

DESCRIPTION

By using the Test/Program switch and following the instructions listed below, you can program features that you have selected for your voice terminal onto available buttons.

CONSIDERATIONS

There are several programmable features that you can use with either a button or a dial code. Therefore, if you have a limited number of available feature buttons, you may choose to use a dial code rather than program any of those features onto your voice terminal.

If you make a mistake when programming a button, simply touch the button again and redial the programming code and all required numbers.

If you want to change the feature assignment on a programmable button, use the procedure listed on the next page.

ADMINISTRATION   The system administrator can program features onto individual voice terminals by using the Centralized Programming feature. (See "Centralized Programming.")

PROGRAMMING   Individual feature programming codes are provided in programming instructions in the reference description for each programmable feature and in Section 6, "Quick Reference Guides."

HOW TO USE   To program a feature onto your voice terminal:

1 Type or print on the button label strips all the names of the features you want to program. Then insert the labels into the appropriate slots on your voice terminal.

2 Slide the T/P (Test/Program) switch on the left side of the voice terminal to the *P* (Program) position.
The red lights next to all voice terminal buttonsgo on steady.
The green lights next to the buttons begin flashing.
The voice terminal rings every 5 seconds to remind you that you are programming and that you cannot place or receive calls.

3 Touch the first button you want to program.

4 Consult the programming instructions in each individual feature's entry in this section or use the codes listed in Section 6, "Quick Reference Guides," of the System Manual, to determine the feature's programming code. (You can also refer to the *MERLIN Plus System User's Card* for programming codes.)

5 Dial the required programming code and any other numbers required.

6 Touch the second button you want to program and dial the required programming code and numbers. Continue to follow this procedure for all other buttons you want to program.

7 Slide the T/P switch to the center position.

Recall

DESCRIPTION   If you are on a PBX or Centrex system, you can use the Recall feature when directions tell you to include a switchhook flash.

CONSIDERATIONS   By touching the Recall button, you will get one of the following:

● A new dial tone.

● Access to Custom-calling services.

If you have PBX, Centrex, or Custom Calling features, you must touch **Recall** any time instructions call for a switchhook flash. By touching the Recall button, you automatically place a specially timed pause onto the line. If you press the switchhook instead, you disconnect your call.

ADMINISTRATION   None

PROGRAMMING   None

HOW TO USE   To use Recall as a switchhook flash:

1   Touch **Recall.**

Ring Option Override

DESCRIPTION   Sometimes you may want all of your talk to ring immediately, even if you have programmed the lines on your voice terminal to ring after a delay or not at all. (See "Ringing Options.") For instance, you may need to cover calls for someone who shares one of your lines. You can use a Ring Option Override button to temporarily override the ringing option you have established.

CONSIDERATIONS   None

ADMINISTRATION   None

PROGRAMMING   A button with light is recommended but not required.

To program a Ring Option Override button for your voice terminal:

1   Label the button **Ring Option Override.**

2   Slide the T/P switch to *P*.
The voice terminal rings 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 *78.

5   Slide the T/P switch to the center position.
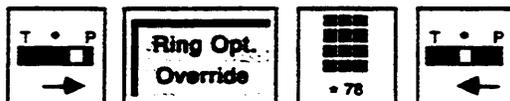
HOW TO USE

To have all your calls ring immediately at your voice terminal:

1 Touch **Ring Option Override.**
If you have programmed this feature on a button with lights, the green light goes on.
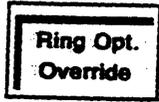
> **Ring Opt.
> Override**

To return to your programmed line ringing:

1 Touch Ring Option Override again.
The green light goes off.

> **Ring Opt.
> Override**
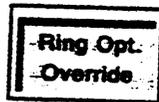
Ringing Line Preference

DESCRIPTION

When you receive an outside call, the MERLIN Plus system automatically connects you to the ringing line.

CONSIDERATIONS

If you want to place an outside call while one of the lines on your voice terminal is ringing or in use, touch the line button of the line you want to use. When you lift the handset, the MERLIN Plus system connects you to the line you have selected.

ADMINISTRATION

None

PROGRAMMING

None

HOW TO USE

When you receive an outside call:

1 Lift your handset.
The MERLIN Plus system connects you to the ringing line.

Ringing Options

DESCRIPTION

You can designate incoming calls to ring immediately at your voice terminal, ring at a second voice terminal if they are not answered at the first one after three rings (delayed ring), or not ring at all. When your system is installed, the lines at each voice terminal ring immediately when a call comes in on them. However, you can change this so that people in your office can answer calls at their desk for someone who is away or you can program phones in public places not to ring.

CONSIDERATIONS

The following tips are useful for deciding how and when voice terminals in your MERLIN Plus system should ring.

Immediate Ring. People responsible for answering incoming calls, such as the system attendant, should have the lines on their voice terminals programmed for immediate ring. You can also use this option for private lines that don't need to be screened or for people who answer their own calls.

Delayed Ring. You can provide backup coverage on a shared line by having that line ring at a second voice terminal only after it has rung a few times somewhere else. Then, when calls come in for a person who is away from his or her desk, that person's calls will ring at a second voice terminal, the voice terminal belonging to a backup person. Delayed ring is often useful for a secretary who can pick up calls for someone on a personal line.

No Ring. People who do not normally answer incoming calls should have their lines programmed for no ring. You may also prefer to program telephones in public places, such as lobbies or conference rooms, not to ring. A line programmed for no ring *does not* ring on outside calls, but does ring for transferred and intercom calls.

If you decide that you want a line that you have programmed for delayed ring or no ring to temporarily ring immediately, program the Ring Option Override feature. (See "Ring Option Override.")

ADMINISTRATION

None

PROGRAMMING

To program the line ringing option you prefer:

1 Slide the T/P switch to *P*.

2 Touch the line button for which you want to program immediate, delayed, or no ringing.

3 Dial one of these codes for the type of ringing you want the line to have:

- − Dial *35 for No Ring.
  The red light next to the line button goes off.

- − Dial *36 for Delayed Ring.
  The red light next to the line button flashes.

- − Dial *37 for Immediate Ring.
  The red light next to the line button goes on steady.

4 Repeat steps 2 and 3 for each line button you want to program.

5 When you are finished programming, slide the T/P switch to the center position.
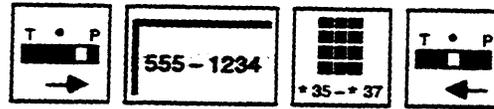
HOW TO USE

Even if you program the lines on your voice terminal not to ring, you can tell if a call comes in for you because the green light next to the line button still flashes. To answer the call:

1 Touch the line button next to the flashing green light.

2 Lift your handset.
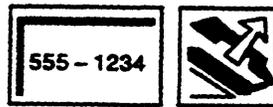
Saved Number Redial

DESCRIPTION

If you have programmed a Saved Number Redial button, you can use the button to save an important number for one-touch dialing at a later time. If the number you call is busy or no one answers, or if you need to call the person back, you can save that number by touching Saved Number before you hang up. Later, when you touch **Saved Number** again, your voice terminal automatically redials the number you have saved.

CONSIDERATIONS

You can program more than one Saved Number Redid button for your voice terminal, so that, if necessary, you can save several calls during the day. Be sure to write on a separate sheet of paper the identity of each caller and/or telephone number for each Saved Number button.

You may prefer to use a dial code rather than program a button in order to use the Saved Number Redial feature.

A Saved Number Redial button saves only manually dialed numbers; it does not save numbers dialed with an Outside Auto Dial button.

ADMINISTRATION

None

PROGRAMMING

To program a Saved Number Redial button for your voice terminal:

1 Label the button **Saved Number.**

2 Slide the T/P switch to *P*.
The voice terminal rings 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 *74 (you do not need to dial an outside number).

5 Slide the T/P switch to the center position.

HOW TO USE

You can use a programmed button or a dial code to access this feature.

To save a number for redialing:

1 Before you hang up your handset from a call in progress, touch **Saved Number** or dial #23.

2 Hang up your handset.

The MERLIN Plus system saves this number until you repeat this procedure to save another number.

To redial this number later:

1 Without lifting your handset, touch **Saved Number** or dial #23.
You voice terminal speaker goes on, and you hear dialing.

2 When you hear the other person answer, lift your handset and begin talking.

If the line is busy, or if no one answers:

1 Touch **Speaker** to cancel the call.

Send Message

DESCRIPTION

The system attendant can turn on the Message light at the voice terminals of people in the MERLIN Plus system in order to alert them that they have a message. (See "Message.")

CONSIDERATIONS

The Message light at voice terminals in the system can only be turned on at the attendant/administrator voice terminal.

If your company is using a 10-button voice terminal as the attendant console, the attendant can still use the Send Message feature by using the directions below. However, he or she will not know if the light is already on at the voice terminal.

Note that 5-button voice terminals do not have a Message button. Therefore, the attendant will have to use another method to let these people know that they have a message waiting.

ADMINISTRATION

None

PROGRAMMING

None

HOW TO USE

To turn on the Message light at a voice terminal:

1 At the administrator/attendant voice terminal, 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, indicating the person's Message light is lit.

If the attedant is using a 10-button voice terminal as the attendant console, he or she can still use the Send Message feature by dialing #01 and then either

– Touching an Auto Intercom button that the attendant has programmed for the person.

– Dialing a 3-character code corresponding to the Send Message button code on the following chart.

If the person's intercom number is:	Dial this Send Message button code:	If the person's intercom number is:	Dial this Send Message button code:
Intercom 10	#22	Intercom 20	#03
Intercom 11	#21	Intercom 21	#04
Intercom 12	#20	Intercom 22	#05
Intercom 13	#19	Intercom 23	#06
Intercom 14	#18	Intercom 24	#07
Intercom 15	#17	Intercom 25	#08
Intercom 16	#16	Intercom 26	#09
Intercom 17	#15	Intercom 27	#10
Intercom 18	#14	Intercom 28	#11
Intercom 19	#13	Intercom 29	#12

For example, the attendant may want to turn on the Message light at Intercom 15, but does not have an Auto Intercom button for that person. The attendant refers to the chart above and finds that the Send Message button code is #17. Then the attendant dials #01 plus #17 to light the Message light.

To turn off someone's Message light from your voice terminal:

1 At the administrator/attendant voice terminal, 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 off.
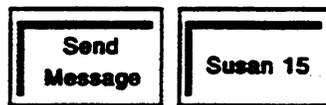
If the attendant is using a 10-button voice terminal, dial #01 and a Send Message button code from the chart that appears above.

Speaker

DESCRIPTION You can use your voice terminal speaker when you have dialed a call or been put on hold to monitor a line without lifting your handset. You can also allow others in your office to hear a conversation while you have a call in progress.

There are three main ways to use your speaker:

- **On-Hook Dialing**— Without lifting your handset, turn on the voice terminal speaker and dial an outside or intercom number. (You can also use the one-touch dialing features for this purpose. See "One Touch Dialing.")

- **Monitor-on-Hold**— If someone puts you on hold, you can turn on your voice terminal speaker, hang up, and continue working until the person returns to the call.

- **Group Listening**— By turning on your voice terminal speaker during a telephone conversation, you can allow others in your office to hear a call.

CONSIDERATIONS

When you touch an Outside Auto Dial button or an Auto Intercom button, your voice terminal speaker automatically goes on and you hear dialing.

When you use the Group Listening feature, your speaker makes a squealing noise if your handset comes close to it. To prevent this, touch **Speaker** when you have completed a call and are ready to hang up your handset. Another way to reduce the squealing sound is to turn down the volume control on your voice terminal.

If you have a 34-button BIS voice terminal, you can use all of the Speaker features by touching **Speakerphone** on your voice terminal.

ADMINISTRATION

None

PROGRAMMING

None

HOW TO USE

To use On-Hook Dialing:

1 Without lifting your handset, touch **Speaker.**

2 Dial the number.

3 When you hear the other person answer, lift your handset to speak.

If the line is busy, or if you get no answer:

1 Touch **Speaker** to cancel the call.

To use Monitor-on-Hold:

1   When you have been put on hold, touch **Speaker.**

2   Hangup.

3   When you hear the other person return to the call, lift your handset and continue the call.

To use Group Listening:

1   Without hanging up, touch **Speaker,** and continue your conversation.

Special Characters in Dialing Sequences

DESCRIPTION

You may need to program a pause, stop, or switchhook flash into an Outside Auto Did, a Personal Speed Dial, or a System Speed Dial sequence, or you may need to switch from rotary to Touch-Tone signals in the middle of a programmed dialing sequence. To do so, you must enter one or more special Characters when you program the sequence.

CONSIDERATIONS

The switchhook flash can be used only at the beginning of a programmed dialing sequence.

ADMINISTRATION

None

PROGRAMMING

None

HOW TO USE

Use the following procedures to enter special characters into a dialing sequence.

Pause

Program a pause (1.5 seconds) into a dialing sequence. For example, you may need a pause between a pool access code, such as a 9, and an outside telephone number in an Outside Auto Dial sequence.

1   Dial the access code, such as a 9.

2   Touch **Hold** (Pause).

3   Dial the outside telephone number.
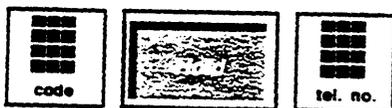
Stop

Program a stop into a dialing sequence to wait for a second dial tone. For example, you may need to program a stop between a local telephone number and an alternate long distance authorization code.

1 Dial the local telephone number (seven digits).

2 Touch **Drop** (Stop).

3 Dial the authorization code (five or six digits).

Switchhook Flash

Program a switchhook flash at-the beginning of a dialing sequence. For example, you may need to program a button with a PBX, Centrex, or Custom Calling feature code that calls for a switchhook flash.

1 Touch **Recall.**

2 Touch **Hold** (Pause).

3 Dial the PBX or Centrex dial code sequence that gives you access the feature you want to program.

Touch-Tone Enable

Program Touch-Tone Enable into a dialing sequence on a line with rotary signals. For example, you may need to use a credit card authorization service

1 Touch **Transfer.**

2 Dial the credit card authorization code.

System Feature Report

NOTE: This feature is used with a MERLIN Plus system data collector and an AT&T 475 printer or its equivalent.

DESCRIPTION

If the system administrator needs to verify the features administered to the system or needs a written copy of the lines and features on each voice terminal, he or she can use the data collector and the printer to print a System Feature Report. This report lists both system-wide features and programmed features and lines on individual voice terminals.

The system features that can be printed on the System Feature Report are:

- Group Page groups
- Call restrictions for each voice terminal
- Allowed list assignments for each voice terminal
- Transfer Return Interval
- Call Report settings, such as the minimum call duration of a call for which the Call Report feature will print information
- System Speed Dial numbers

The voice terminal features that can be printed on the System Feature Report are:

- The intercom number of the voice terminal
- The voice terminal model type
- Optional accessories used with the voice terminal
- Voice Announcement Enable/Disable
- Automatic Line Selection preferences
- The lines and features assigned to all buttons on the voice terminal

CONSIDERATIONS

The System Feature Report feature can be accessed only from the administrator/attendant console.

If the system administrator wants to have the date and time on the System Feature Report, the administrator must set these options on the control unit when he or she administers the date and time for the Call Report feature. (See "Call Report.")

The system administrator can connect the data collector and the printer to any voice terminal jack in the system, except jack 10. However, if the administrator has already assigned the data collector and the printer to a voice terminal jack for the Call Report feature, usually jack 19, it is best to use the same jack assignment for the System Feature Report.

ADMINISTRATION

If your responsibilities do not include system administration, skip this information.

To set the date and the time, to assign a voice terminal jack for the System Feature Report, and to print or to cancel a report, use the following procedures.

The Date and the Time. (If you have already set the date and time for the Call Report feature, you don't have to do it again.)

To set today's date:

1 Enter administration mode by sliding the T/P switch to *P* and touching **Administer.**

2 Dial *80.

3 Dial two digits for the month (01 through 12).

4 Dial two digits for the day (01 through 31).

5 Dial two digits for the year (00 through 99).

For example, if the date is May 16, 1986, dial *80 05 16 86.

6 Touch **Administer.**
The console beeps twice.

7 Leave administration mode by sliding the T/P switch to the center position.
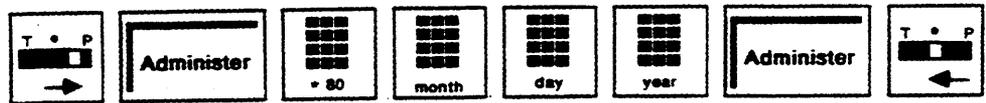
To set the current time:

1 Enter administration mode by sliding the T/P switch to *P* and touching **Administer.**

2 Dial *81.

3 Dial two digits for the hour (00 through 23).

4 Dial two digits for the minute (00 through 59).

For example, if the time is 3:25 A.M., dial *81 03 25; if the time is 3:25 P.M., dial *81 1525.

5 Touch **Administer.**
The console beeps twice.

6 Leave administration mode by sliding the T/P switch to the center position.

Control Unit Jack Assignment for the System Feature Report. To assign a voice terminal jack on the control unit for the System Feature Report: (The system is factory-set to have the the data collector and printer connected to voice terminal jack 19 for the Call Report feature; it is best to use the same jack assignment for the System Feature Report.)

1 Enter administration mode by sliding the T/P switch to *P* and touching **Administer.**

2 Dial *85.

3 Touch the Auto Intercom button of the jack to which the data collector and the printer are connected for the Call Report feature.

4 Touch **Administer.**
The console beeps twice.

5 Leave administration mode by sliding the T/P switch to the center position.

Complete System Report. To print out a system administration report and a report for every voice terminal in your system:

1 Enter administration mode by sliding the T/P switch to P and touching **Administer.**

2 Dial *60.
The printer prints the reports as it receives data from the system.

3 Touch **Administer.**
The console beeps twice.

4 Leave administration mode by sliding the T/P switch to the center position.

System Administration Report. To print out a system administration report only:

1 Enter administration mode by sliding the T/P switch to *P* and touching **Administer.**

2 Dial *61.
The printer prints the report as it receives data from the system.

3 Touch **Administer.**
The console beeps twice.

4 Leave administration mode by sliding the T/P switch to the center position.
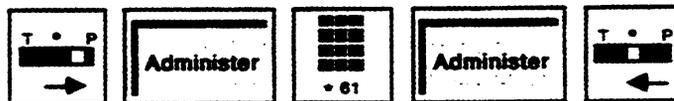
Individual Voice Terminal Reports. To print out individual reports on one or more voice terminals:

1 Enter administration mode by sliding the T/P switch to *P* and touching **Administer.**

2 Dial *62.

3 Touch the Auto Intercom button(s) or dial the intercom number(s) of the voice terminal(s) for which you want a report.
The printer prints the report as it receives data from the system.

4 Touch **Administer.**
The console beeps twice.

5 Leave administration mode by sliding the T/P switch to the center position.
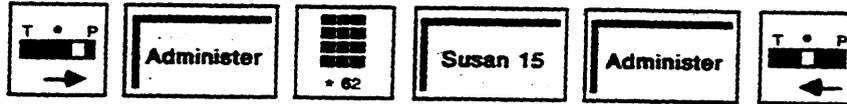
Printout Cancellation. To cancel a printout in progress and to delete all waiting report requests:

1 Enter administration mode by sliding the T/P switch to *P* and touching **Administer.**

2 Dial *63.
The printer stops printing.

3 Touch **Administer.**
The console beeps twice.

4 Leave administration mode by sliding the T/P switch to the center position.
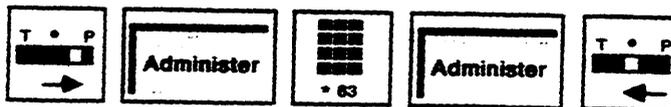
PROGRAMMING   None

HOW TO USE   None

System Reset

WARNING: This feature is intended for service personnel only.

DESCRIPTION   When the administrator uses System Reset, the entire MERLIN Plus system is set to the initial feature assignments, and consequently erases any system administration, such as System Speed Dial number or call restrictions. It is useful when making radical changes to the system or starting administration over again.

CONSIDERATIONS   When the administrator resets the system, all programming done for any voice terminal in the MERLIN Plus system is erased. If the administrator has administered customized line assignments for any voice terminal, these are erased also, and the line configuration is returned to square operation.

ADMINISTRATION   System Reset requires readministering your system and reprogramming all voice terminals.

To reset your system to the initial feature assignments:

1 Enter administration mode by sliding the T/P switch to *P* and touching Administer.

2 Dial *99198.
The console beeps twice.

NOTE: If the console beeps only once or not at all, the reset didn't work, probably because someone was using the system when you dialed the System Reset code. Wait until no one is using the system, and try the reset again.

3 Go to the control unit and turn the power off and then on again.
The red lights go on, and the green lights flash.
The console rings every five seconds.

4 Leave administration mode by sliding the T/P switch to the center position.

PROGRAMMING   None

HOW TO USE   This feature is recommended for service personnel only.

System Speed Dial

DESCRIPTION   The administrator can store System Speed Dial codes for telephone numbers, such as a warehouse number or a branch office number, and account numbers that people in the office frequently use. People can then dial the number simply by dialing the proper 3-character code (from #60 through #99). System Speed Dial is particularly useful when the administrator wants to give users access to a specific number, for instance, an authorization code for an alternate long-distance service, but does not want to divulge the number.

For more information about assigning a System Speed Dial codes to account numbers that the administrator wants to appear on call reports, see "Accout Number Entry."

CONSIDERATIONS

You can program a System Speed Dial code for an area code and an exchange. Then when you want to dial a telephone number that begins with this area code and exchange, you can dial the speed dial code or touch the button programmed for the speed dial code, and then dial the remainder of the telephone number. The MERLIN Plus system can hold a maximum of 40 System Speed Dial codes of up to 16 digits each.

The system administrator can assign System Speed Dial codes to telephone numbers with or without Restriction Override.

- If the administrator decides to store a System Speed Dial code with Restriction Override, all voice terminals in the system can use the code as a type of password that allows the person to access the outside number, regardless of toil or outward call restrictions previously placed on the voice terminal.

- The administrator may decide to store a System Speed Dial code without Restriction Override so that all toll or outward restrictions placed on voice terminals continue to apply.

For System Speed Dial codes assigned to telephone numbers, the administrator can specify which speed dial codes will be printed on call reports (see "Call Reports") and System Feature reports (see "System Feature Report"), and which ones will be private.

It is sometimes necessary to include a pause, stop, or switchhook flash, or to switch from rotary to Touch-Tone signals within a dialing sequence. To do so, the administrator must enter one or more of the following special characters into the dialing sequence. (For more information about using special characters in a dialing sequence, see "Special Characters.")

- To program a pause, touch **Hold.**

- To program a stop, touch **Drop.**

- To program Touch-Tone Enable, touch **Transfer.**

- To program a switchhook flash at the beginning of a dialing sequence, touch Recall and then touch **Hold.**

A number to which the administrator assigns a System Speed Dial code cannot contain a "#" character.

When the administrator has dialed the maximum 16 characters for a System Speed Dial code, the system beeps twice to confirm the entry and to remind the administrator that he or she cannot dial any more characters. If the administrator dials less than 16 characters, the system does not beep.

The administrator should give a copy of the System Speed Dial code assignments to each person who will be using these codes.

People can dial the codes or program a button for specific speed dial codes.

ADMINISTRATION

If your responsibilities do not include system administration, skip this information.

Before you administer the System Speed Dial feature, refer to the System Speed Dial Directory that you have filled out.

To assign System Speed Dial codes to frequently dialed telephone numbers:

1 Enter administration mode by sliding the T/P switch to *P* and touching Administer.

2 Dial the code (#60 to #99) that you are assigning to the telephone number.

3 Dial one of the following codes:

– Dial *90 to assign the Speed Dial code.

For example, if you want the speed dial number to have the same restrictions as the actual telephone number, that is, call or toll restrictions still apply with this number, dial the System Speed Dial 3-character code (such as #67), *90, and then the telephone number.

– Dial *92 to assign the Speed Dial code with Restriction override.

For example, if you want to assign a System Speed Dial code to a telephone number that *anyone in the system* can dial, regardless of any previously placed restrictions, dial the System Speed Dial 3-character code (such as #67), *92, and then the telephone number.

4 Dial the telephone number. (If you want the number to be private, that is, have the System Speed Dial number printed on the call report or System Feature reports instead of the actual number, dial a * before the telephone number.)

For example, for a private number with Restriction Override, dial a System Speed Dial 3-character code (such as #67), *92, and a telephone number with a * before it, such as *1-617-567-1234.

5 Touch **Administer.**
The console beeps twice.

6 Repeat the last four steps for each telephone number to which you are assigning a System Speed Dial code.

7 Leave administration mode by sliding the T/P switch to the center position.

PROGRAMMING

To program a button for a System Speed Dial code assigned to a telephone number:

1 Label the button with a name and/or a number.

2 Slide the T/P switch to *P*.
The voice terminal rings 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 *95 plus a System Speed Dial # code number from 60 through 99 that your administrator can give you (you do not need to include the #).

5 Slide the T/P switch to the center position.

HOW TO USE

In order to use the System Speed Dial feature, you can use a speed dial code or program a button.

To place a call by dialing a System Speed Dial code:

1   Lift your handset.

2   Dial a System Speed Dial code (#60 through #99).

To place a call using a button programmed for a specific System Speed Dial code:

1   Lift your handset.

2   Touch the System Speed Dial button for the particular code.

Test

DESCRIPTION

When you need to test the lights and the ringing on your voice terminal, or if you need to verify that your voice terminal has been installed correctly. you can use the Test/Program (T/P) switch on the left side of your voice terminal.

CONSIDERATIONS

None

ADMINISTRATION

None

PROGRAMMING

None

HOW TO USE

To test the lights and ringing on your voice terminal:

1   Slide the T/P switch to *T* and hold the switch in that position until you are finished testing your voice terminal.
    The red and green lights next to your voice terminal buttons flash alternately, and your voice terminal rings.

2   Slide the T/P switch to the center position.
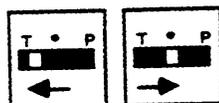
If your voice terminal does not respond when you slide the Test/Program switch to *T,* check Section 7, "Troubleshooting," for possible causes and recommended action.

Toll Prefix Setting

DESCRIPTION

In most telephone systems people must dial a toll prefix (a 1 or a 0) before they dial an-area code and telephone number. When the MERLIN Plus system is installed, it is set for dialing a toll prefix. If people in your system don't need to dial a toll prefix, the system administrator must set the system for dialing the area code only.

CONSIDERATIONS

None

ADMINISTRATION

If your responsibilities do not include system administration, skip this information.

To administer the system so people can dial an area code and telephone number *without* a toll prefix:

1 Enter administration mode by sliding the T/P switch to *P* and touching **Administer.**

2 Dial *37.

3 Leave administration mode by sliding the T/P switch to the center position.

To change the system setting so that people must dial a toll prefix before an area code and a telephone number:

1 Enter administration mode by sliding the T/P switch to *P* and touching **Administer.**

2 Dial *36.

3 Leave administration mode by sliding the T/P switch to the center position.
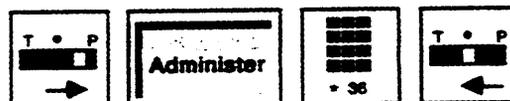
PROGRAMMING None

HOW TO USE Ask your administrator whether you need to dial a toll prefix (a 1 or a 0)
before you dial an area code and a telephone number.

Tones

DESCRIPTION Your MERLIN Plus system or your voice terminal provides the following tones
to inform you of the progress of a call you are placing or are about to place.
There are also tones that let you know you are in administration or
programming mode and a tone to tell you that your voice terminal is working
satisfactorily.

Feedback	Sound	Meaning of the Feedback
Dial tone	Steady tone	You can begin dialing when you are ready.
Busy tone	A slow pulsed tone	The line is busy.
Voice signal tone	A beep	You can announce the call through the other person's voice terminal speaker.
Dialing feedback	For Touch-Tone lines a series of tones For rotary lines a series of rotary pulses	You have dialed another digit of the telephone number.
Ringing tone	A ringing sound	The call is ringing at the other person's phone.
Testing feedback	A steady ringing sound	Your MERLIN Plus system has been installed correctly.
Programming reminder	Your voice terminal rings every 5 seconds to remind you that you can't place or receive calls.	You are in programming mode and cannot place or receive calls.
Error/Deny tone	One beep	You have made an error in administration and should try the step again.
Confirmation tone	Two beeps	The administration feature has been entered into the system.

The MERLIN Plus system also provides you with the following ringing sounds or voice announcements so that you know immediately what kind of all you are receiving.

If you hear this type of ring or announcement	You are receiving this kind of call
One short and one long ring	Transferred Call
A voice announcement through your voice terminal speaker	Intercom Call with Voice Announcement
A voice announcement through your voice terminal before you receive a transferred call	Transferred Call with Voice Announcement
A beep	Manual Signaling
One long beep	Ringing Intercom Call
One long ring	Outside Call

CONSIDERATIONS You can program your voice terminal with a ringing pattern that is different from the ringing sound of nearby voice terminals. See "Personalized Ringing."

ADMINISTRATION None

PROGRAMMING None

HOW TO USE By listening to the tones that the system or your voice terminal give you, you can use your MERLIN Plus system more efficiently.

Touch-Tone or Rotary Setting

DESCRIPTION When the MERLIN Plus system is installed, it is set to generate Touch-Tone signals. If any of the system's lines are rotary, the administrator must reset the system to rotary dialing by entering a code at the administrator/attendant console.

CONSIDERATIONS   None

ADMINISTRATION   If your responsibilities do not include system administration, skip this information.

To set your system for rotary dialing:

1 Enter administration mode by sliding the T/P switch to P and touching **Administer.**

2 Dial *39.

3 Touch **Administer.**
The console beeps twice.

4 Leave administration mode by sliding the T/P switch to the center position.
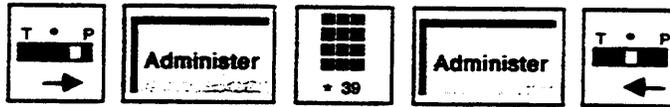
If you need to reset the system for Touch-Tone dialing:

1 Enter administration mode by sliding the T/P switch to P and touching **Administer.**

2 Dial *38.

3 Touch **Administer.**
The console beeps twice.

4 Leave administration mode by sliding the T/P switch to the center position.
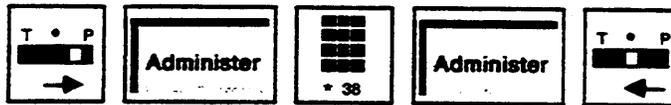
PROGRAMMING   None

HOW TO USE   If you have telephone lines that carry rotary signals, you can switch to Touch-Tone signals midway through a dialing sequence by using the Touch-Tone Enable feature. (See "Touch-Tone Enable.")

Touch-Tone Enable

NOTE: This feature is for rotary lines only.

DESCRIPTION   If you have telephone lines that carry rotary signals, use the Touch-Tone Enable feature to switch to Touch-Tone signals midway through a dialing sequence. This lets you take advantage of bank-by-phone, credit card authorization, computer access, and alternate long distance services.

CONSIDERATIONS   None

ADMINISTRATION   None

PROGRAMMING   To program a Touch-Tone Enable button for your voice terminal:

1 Label the button **Touch-Tone Enable.**

2 Slide the T/P switch to *P*.
   The voice terminal rings 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 *76.

5 Slide the T/P switch to the center position.

HOW TO USE   To switch from rotary pulse to Touch-Tone signals as you dial a number:

1 Lift your handset.

2 Dial the first part of the number.

3 Touch **Touch-Tone Enable.**

4 Dial the remaining numbers

When you hang up your handset, your system returns to rotary signals.

Transfer

DESCRIPTION

You can use your voice terminal Transfer button to transfer outside calls to someone else in your MERLIN Plus system.

There are three ways to transfer calls:

- **Option A—Simple Transfer** You can ask the person to whom you are transferring the call if he or she wants to accept the call.

- **Option B—One-Touch Transfer** If you have an Auto Intercom button for the person to whom you want to transfer a call, you can transfer a call with one touch.

- **Option C—Direct Transfer** You can transfer a call directly by dialing the intercom number.

CONSIDERATIONS

If no one answers the transferred call, the call returns to the sender after a specified number of rings set by the system administrator. The administrator may also choose to set the system not to return calls. (See "Transfer Return Interval.")

If the person to whom you are transferring the call has activated the Voice Announcement Disable feature or if the person is using the intercom line at his or her voice terminal, you cannot announce the call.

ADMINISTRATION

None

PROGRAMMING

If you want to program an Auto Intercom button for a voice terminal to which you often transfer calls, see "Auto Intercom."

HOW TO USE

To screen a call using Option A, Simple Transfer:

1 Touch **Hold.**

2 Touch **Intercom** and dial the intercom number of the person to whom you are transferring the call.

or

Touch the person's Auto Intercom button.

3 Announce the call and ask if it will be accepted.
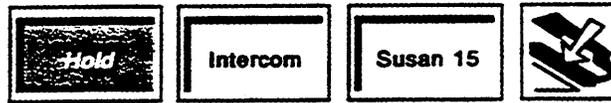
No?

a Touch the held call's line button.

b Advise the caller.

c Hang up.

Yes?

a Hang up.

To transfer a call using Option B, One-Touch Transfer:

1 With the call in progress, touch the Auto Intercom button of the person to whom you want to transfer the call.

2 When you hear a beep, you can announce the call, if appropriate.

3 Hang Up.
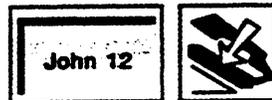
To transfer a call using Option C, Direct Transfer:

1 Touch **Transfer.**

2 Dial the intercom number of the person to whom you are transferring the call.

Hang up.

Transfer Return Interval

DESCRIPTION

When someone in the MERLIN Plus system transfers a call and it is not answered, the call returns to the sender. When the system is first installed, it is set to return calls after three rings. The system administrator can change that setting so that calls ring as many as nine times before they return to the person who has transferred it. The administrator may also choose to set the system not to return transferred calls at all.

CONSIDERATIONS

None

ADMINISTRATION

If your responsibilities do not include system administration, skip this information.

To administer the Transfer Return Interval for your system:

1 Enter administration mode by sliding the T/P switch to *P* and touching **Administer.**

2 Dial a code between *20 and *29 where:

    *20 programs the system not to return transferred calls
    *21 programs the system to transfer calls after one ring.
    *29 programs the system to transfer calls after nine rings.

3 Touch **Administer.**
The console beeps twice.

4 Leave administration mode by sliding the T/P switch to the center position.

PROGRAMMING

None

HOW TO USE

Ask your system administrator what Transfer Return Interval is set for your system.

Voice Announcement Enable/Disable

DESCRIPTION

Ordinarily, people can use the MERLIN Plus system intercom feature to announce calls through your voice terminal speaker. However, if you do not want a voice announcement to interrupt your work, you can use the Voice Announcement Disable feature to have intercom calls ring at your voice terminal instead.

CONSIDERATIONS

If someone in the MERLIN Plus system has the Voice Announcement Disable feature programmed for his or her voice terminal, he or she cannot hear a Group Page announcement.

If you use the Voice Announcement Disable feature on a 10-Button Hands-Free Answer on Intercom (HFAI) Voice Terminal, you deactivate the Hands-Free feature. However, the Voice Announcement Disable feature does not affect voice terminals with connected hands-free units and with the Auto Answer-All feature activated, nor does it affect 34-button Built-in-Speakerphone (BIS) voice terminals.

ADMINISTRATION

None

PROGRAMMING

To program the voice announcement option you prefer for your voice terminal:

1   Slide the T/P switch to *P*.

2   Touch **Intercom** until the green light next to it indicates that you want the voice announcement allowed or prevented:

   Green light on = voice announcement allowed
   Green light off = voice announcement prevented

3   Slide the T/P switch to the center position.

HOW TO USE

None

Accessory Equipment

Once you have set up your MERLIN Plus system, you may decide to purchase additional hardware such as a headset that the system attendant can use for easier call-handling or a basic telephone that is connected to the MERLIN Plus system but which you can use off-premises. The information included in "Accessory Equipment" will help you decide what optional equipment you want to add to your system and how to use these accessories.

The information in the entry for each accessory is divided into five parts:

- **Description**

  The description of the accessory tells what it does and its advantages for the user.

- **Drawings and Diagrams**

  Drawings of the accessory and its parts are included for each piece of equipment, along with, if applicable, diagrams showing how the equipment is connected to other MERLIN Plus system accessories.

- **Considerations**

  Special considerations include any qualifications the user should know about the hardware, ways in which the equipment can or cannot be used, or other hardware or features it can or cannot be used with.

- **Administration**

  If applicable, administration procedures are given for setting options at the administrator/attendant console so that people in the MERLIN Plus system can use the accessory equipment.

- **How to use**

  If applicable, procedures describe how to use the equipment or voice terminal.

Basic Telephones

DESCRIPTION

Basic Touch-Tone telephones can provide service to people at a remote location by way of an outside telephone line. These telephones are connected to the MERLIN Plus system by way of an Off-Premises Telephone Interface (OPTI) (see "Off-Premises Telephone Interface").

The telephones can use many of the features of your on-premises communication system using dial codes and switchhook flashes.

FIGURE 5-1 A basic telephone connected to an OPTI
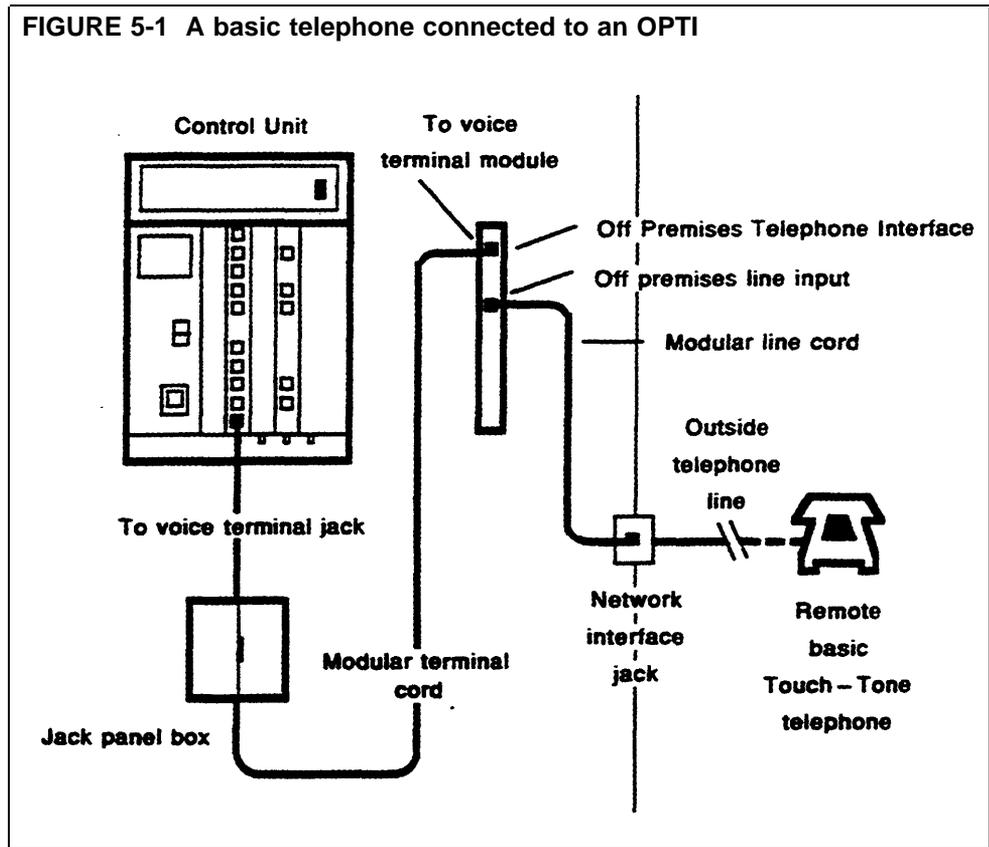
CONSIDERATIONS

You can also use accessories with your MERLIN Plus system that work similarly to basic telephones. These accessories include auto-dial modems, facsimile machines, credit phones, answering telephones, manual dial modems, auto dialers, and answering machines. The following devices support these accessories.

- **Off-Premises Telephone Interface (OPTI)**— The OPTI is intended for Off-Premises Extensions (OPX). Your local telephone company provides facilities that will enable you to locate the OPX telephones across the country.

- **Basic Telephone and Modem Interface (BTMI)**— The BTMI is intended for on-premises telephones and accessories. You can connect to your MERLIN Plus system such accessories as auto-dial modems, facsimile machines, credit phones, and answering telephones. You do not need to use a MERLIN Plus system voice terminal with these accessories.

- **General Purpose Adapter (GPA)**— The GPA is intended for accessory equipment that you can connect to your MERLIN Plus voice terminal such as manual dial modems, auto dialers, and answering machines. The GPA is also useful for cordless phones.

- **Auiliary Jack (Aux Jack)**— The AUX jack on the MERLIN Plus control unit is primarily intended to let you share Line A and/or E with the MERLIN Plus system. You can connect such devices as data devices and facsimile machines to the AUX jack.

Once you have assigned lines to a basic telephone, be sure to provide the person using the telephone with a list of the codes for the lines he or she has access to.

Basic telephones are able to receive ringing intercom calls, but *not* intercom calls with voice announcement. Therefore, you must program the Voice Announcement Disable feature for the telephone.

In order to program Voice Announcement Disable, Ringing Options, or an Automatic Line Selection sequence for the basic telephone, the system administrator can use either the Centralized Programming feature on the administrator/attendant console or program a substitute MERLIN Plus voice terminal plugged into the voice terminal jack designated for the OPTI.

ADMINISTRATION

If your responsibilities do not include system administration, skip this information.

1 Assign lines to the basic telephone:

   a Enter administration mode by sliding the T/P switch to *P* and touching **Administer.**

   b Dial the intercom number or touch the Auto Intercom button for the basic telephone that you are administering.
      A green light comes on next to the Auto Intercom button. Green lights also come on next to the buttons of any lines already assigned to the telephone.

   c Touch the line buttons so that the green light next to them shows the line assignment you prefer.

> *Green light on = the line assigned to the telephone*
> *Green light off = the line is not assigned to the telephone*

2 To restrict the type of calls that the basic telephone can place:

   a Touch **Restrict** until the green light next to it shows the code for the call restrictions you want the telephone to have:

> *Steady green light = Unrestricted (all calls permitted)*
> *Flashing green light = Toll resetricted (local and intercom calls)*
> *Green light off = Outward restricted (intercom calls)*

   b When you are finished administering the basic telephone, touch **Administer.**
      The console beeps twice.

   c Leave administration mode by sliding the T/P switch to the center position.

3 Then connect a MERLIN Plus system voice terminal directly to the control unit voice terminal jack to which you plan to connect the OPTI. (You can also program the basic telephone by using the Centralized Programming feature on the administration/attendant console. For more information on this feature, see "Centralized Programming.")

4 Program this substitute telephone for Voice Announcement Disable:

   a Slide the T/P switch to *P.*

   b Touch the Intercom button until the green light next to it goes off.

5 If you want to change the order in which the system selects available lines for this telephone, assign an Automatic Line Selection sequence.

   a While in programming mode, dial **.

   b Touch the line buttons in the order you want them to be selected.

   c When you are finished programming the basic telephone, slide the T/P switch to the center position.

6 If you want the basic telephone not to ring on specified lines, use the Ringing Options feature.

   a While in programming mode, touch the line for which you want to program a ringing option:

   – If you don't want the phone to ring, dial *35.

   – If you want the phone to ring immediately when a call comes in, dial *37.

   b Disconnect the substitute voice terminal and connect the OPTI to the same voice terminal jack. Then connect the basic telephone to the OPTI.

HOW TO USE

A person using a basic telephone must dial the following codes to access the lines the system administrator assigns to the intercom number for the telephone.

FIGURE 5-2 Basic telephone codes for accessing lines
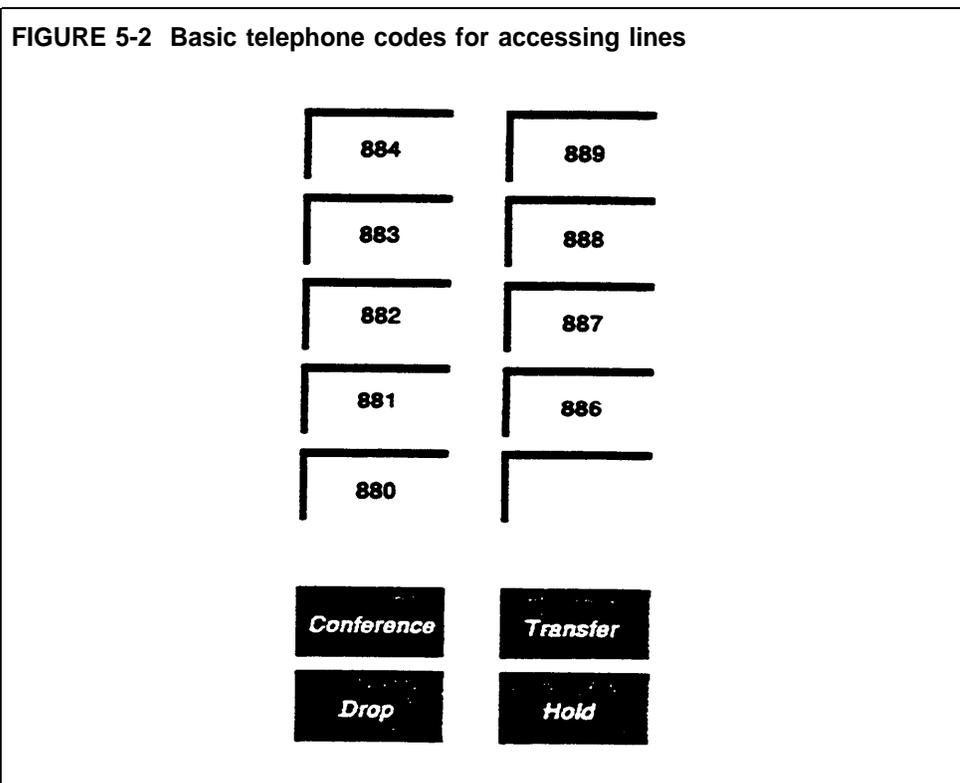
Basic Telephone and Modem Interface

DESCRIPTION   The Basic Telephone and Modem Interface (BTMI) allows you to connect most types of telephone and data devices to your MERLIN Plus system, including auto-dial modems, facsimile machines, credit phones, and answering telephones.

FIGURE 5-3 The Basic Telephone and Modem Interface
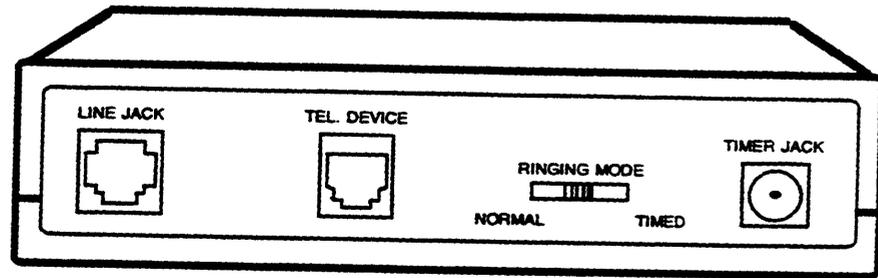
FIGURE 5-4 A basic telephone connected to a BTMI
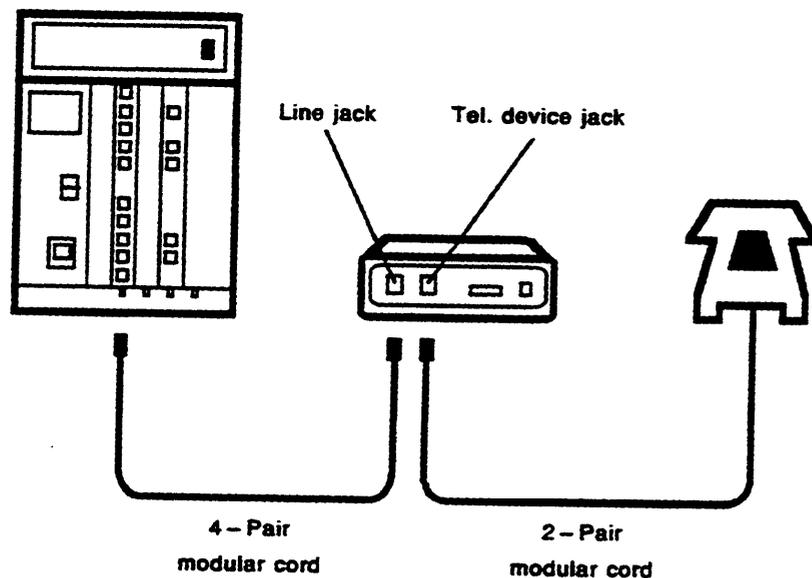
CONSIDERATIONS   The BTMI works with Touch-Tone and rotary telephones.

ADMINISTRATION   If your responsibilities do not include system administration, skip this information.

If you do not want the basic telephone to ring on every line, you can specify which lines ring when a call comes in using Ringing Options and programming the lines for immediate or no ring.

You can also specify the order of lines for the phone by programming an Automatic Line Selection sequence. Be sure to program Automatic Line Selection only for those lines to be used by the basic telephone.

Basic telephones are able to receive ringing intercom calls, but *not* intercom calls with voice announcement. Therefore, you must program the Voice Announcment Disable feature for the telephone.

In order to program Voice Announcement Disable, Ringing Options, or an Automatic Line Selection sequence for the basic telephone, you can use either the Centralized Programming feature on the administrator/attendant console or program a substitute MERLIN Plus voice terminal plugged into the voice terminal jack designated for the BTMI.

For more information on assigning lines and features for a basic telephone, see "Basic Telephones."

HOW TO USE   See the "User's Guide for Off-Premises and Basic Telephones," included with the BTMI, for instructions on how to operate a telephone connected to a BTMI.

A person using a basic telephone must dial 3-character codes to access the lines the system administrator assigns to the intercom number for the telephone. For a list of these codes, see "Basic Telephones."

Data Collector and Printer

DESCRIPTION

The MERLIN Plus system Data Collector uses information from the Call Report and System Feature Report features and transmits the material from the MERLIN Plus system to a printer. You can connect the data collector to an available voice terminal jack on the control unit.

FIGURE 5-5 A data collector connected to the MERLIN Plus system control unit and printer
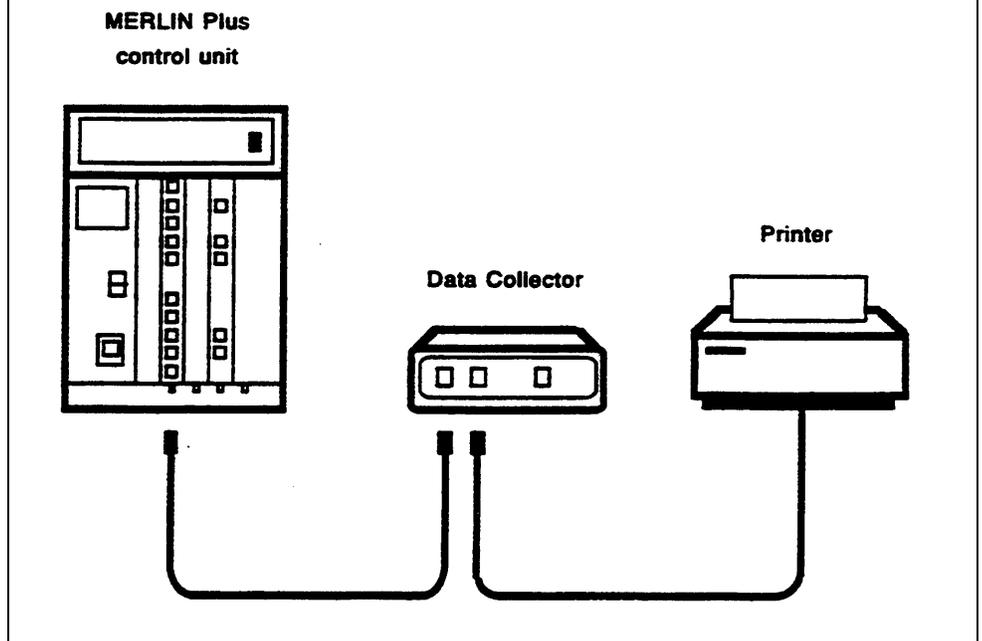
CONSIDERATIONS

An AT&T 475 printer or its equivalent is recommended to work with the MERLIN Plus system data collector.

The MERLIN Plus system is set to have the data collector and the printer connected to voice terminal jack 19, but the administrator can connect the data collector and the printer to any other voice terminal jack in the system, except jack 10.

The data collector can hold up to one full page of printout, 60 lines of 80 characters each. The collector disregards any material over the one page limit.

For proper operation of the printer with the MERLIN Plus data collector, the printer options must be set correctly. The options and the method of selecting them varies with different printers. Consult the recommended options listed in the directions that come with the AT&T 475 printer.

ADMINISTRATION   None

HOW TO USE   None

General Purpose Adapter

DESCRIPTION   With the General Purpose Adapter (GPA) you can connect to your voice
terminal Touch-Tone (*not* rotary) equipment such as manual dial modems,
auto dialers, answering machines, and telephone extensions (including cordless
telephones).

FIGURE 5-6 A basic telephone and a voice terminal connected to a GPA (back view)
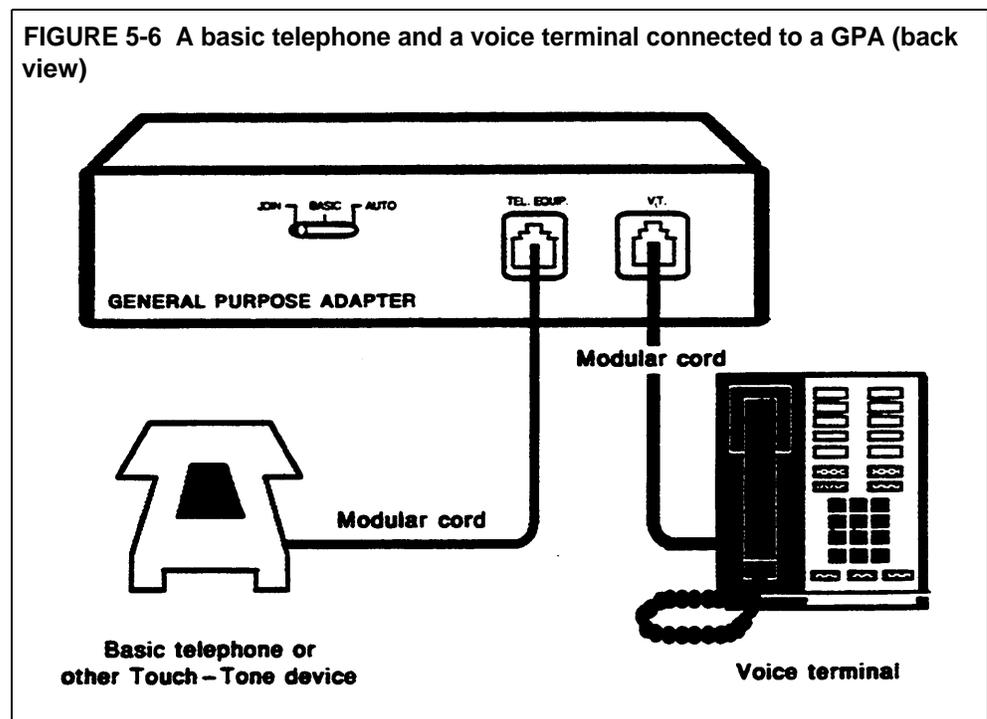
CONSIDERATIONS   If you set the GPA to the automatic setting, you must program an Auto
Answer-All. button for your voice terminal. (See "Auto Answer-All.")

ADMINISTRATION   None

HOW TO USE   You can select the switch position, labeled Join, Basic, or Auto on the
adapter, required for operating the telephone or data equipment. When you
have made the appropriate selection for your needs, slide the three-position
option switch to the selected mode of operation. For the Joined Call
Operation option, see the information that comes with the GPA.

Originating a Call

● Use the Basic Operation switch position if you only originate calls with your telephone or data device. You may also answer incoming calls using your telephone or data device. However, incoming calls ring only at your voice terminal, not at the telephone or data device.

Using an Automatic Answering Device

● Use the Automatic Operation switch position for using automatic answering devices. Before operating thses devices, progrtam an Auto Answer-All feature button so you can set the devices to go on automatically when you receive ringing calls.

Headset and Headset Adapter

DESCRIPTION

A Headset connected to your voice terminal by way of the Headset Adapter allows you to handle calls more easily.

FIGURE 5-7 A headset connected to the headset adapter with an enlargement of the headset adapter
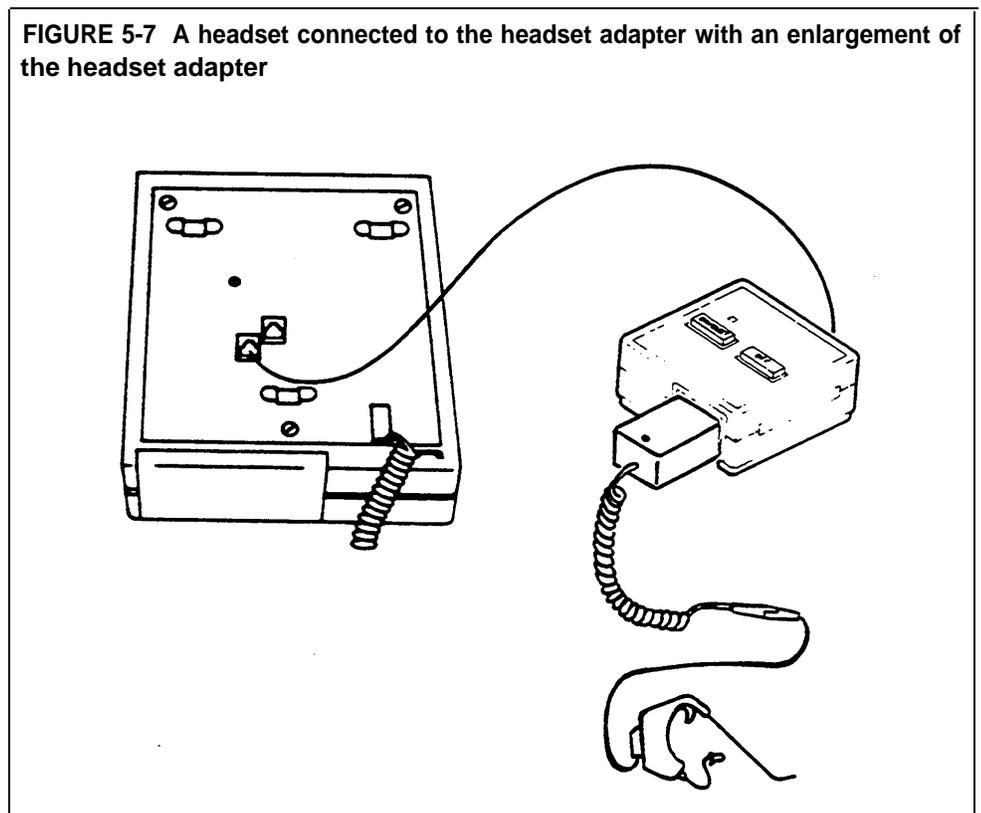
CONSIDERATIONS

A headset cannot be used with a 5-button voice terminal.

The cord on the headset is plugged into the headset adapter, and the voice terminal and the adapter are connected by way of a modular cord which comes with the adapter. The headset adapter plugs into the jack labeled "Other." Since the 10-button HFAI voice terminal does not have an "Other" jack, you cannot use a headset with this type of voice terminal.

ADMINISTRATION   None

HOW TO USE   To place a call using your headset:

1 Touch **On/Quiet** on the headset adapter.
The green light next to the button goes on.

2 Dial the outside number.

To answer a call:

1 Touch **On/Quiet** on the headset adapter.

To mute the microphone:

1 Hold down **On/Quiet** on the headset adapter.

To hang up:

1 Touch **Off** on the headset adapter.
The green light next to **On/Quiet** *goes off.*

Loudspeaker Paging System

DESCRIPTION   When you have a Loudspeaker Paging System attached to the control unit, you can page people, make announcements, and provide background music in all sections of your building.

You can connect the loudspeaker paging system to the Paging Jack on the front of the control unit. This jack is located to the left of the red Warning and the green Power lights.

FIGURE 5-8 The Paging Jack on the MERLIN Plus system Control Unit

- Power Light
- Warning Light
- Loudspeaker Paging Jack
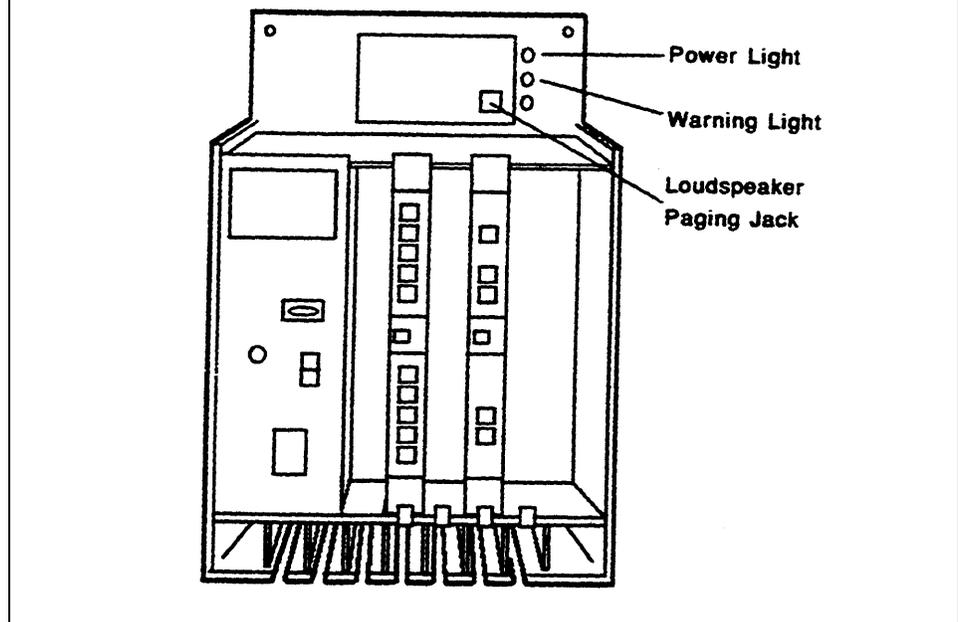
CONSIDERATIONS

To control the loudness of the loudspeaker paging system, including the background music throughout the building, or to turn off the background music, the system administrator can dial a code at the administrator/attendant console for the preferred volume. Background music volume can also be controlled at the music source.

The MERLIN Plus system also works with talk-back paging systems. Single contact closure is included.

The following are the jack pin-out specification for the loudspeaker paging system. Pin numbers from left to right (1 through 8) are:

- 4,5 for voice
- 3,6 for contact closure
- 1,2,7,8 are unused

ADMINISTRATION

If your responsibilities do not include system administration, skip this information.

To set the volume of the loudspeaker paging system, including the volume for the background music, or to turn the music off, dial one of the following codes:

1 Enter administration mode by sliding the T/P switch to *P* and touching Administer.

2 Dial one of the following codes to set the volume you prefer:

– Dial *16 to turn off the background music.

– Dial *17 to set the volume to low.

– Dial *18 to set the volume to medium.

– Dial *19 to set the volume to high.

3 Touch **Administer.**
The console beeps twice.

4 Leave administration mode by sliding the T/P switch to the center position.

HOW TO USE

You can use a programmed button or a dial code to access the Loudspeaker Page feature.

To use a Loudspeaker Page button:

1 Touch **Loudspeaker Page.**

2 When you hear a beep, lift your handset and make your announcement.

To use this feature by dialing a code:

1 Touch **Intercom.**

2 Lift your handset.

3 Dial 6.

When you hear a beep, make your announcement.

When you hang up, the loudspeaker turns off automatically.

Music-on-Hold (and Background Music)

DESCRIPTION

When you have Music-on-Hold, you can provide background music for Callers whom you have placed on hold. You can also provide background music throughout the building using the loudspeaker paging system.

The Music-on-Hold (MOH) Jack is a Phonograph Jack, into which you can plug a radio, tape player, or stereo system. It is on the front of the control unit, under the red Warning and the green Power lights.

FIGURE 5-9 The Music-on-Hold Jack (MOH) on the MERLIN Plus system control unit

Labels (top to bottom): Power Light, Warning Light, Music – on – Hold Jack
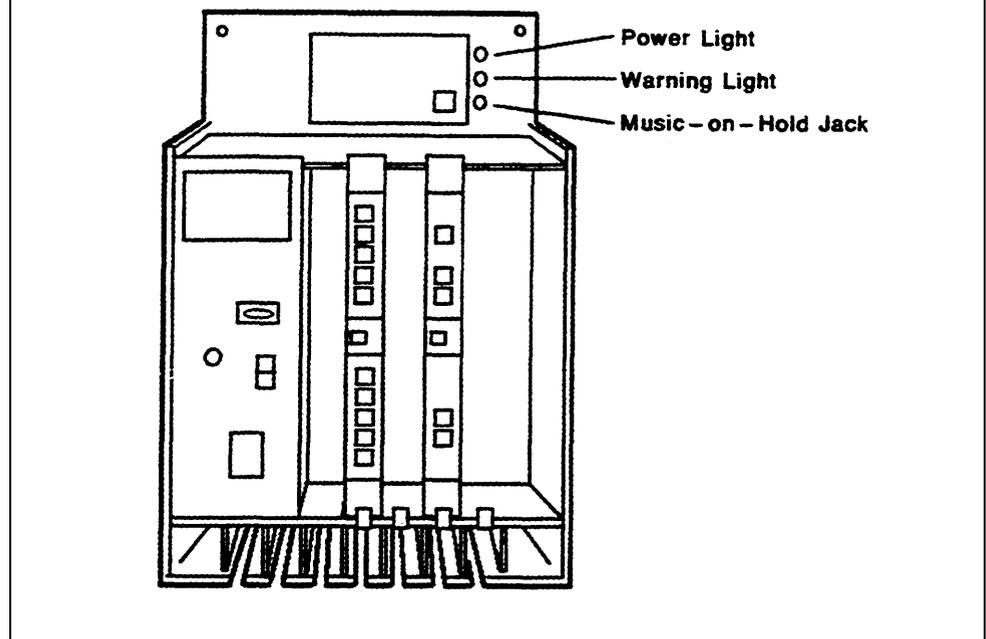
CONSIDERATIONS

In order to control the loudness of the Music-on-Hold and the background music for the building, the system administrator can dial a code at the administrator/attendant voice terminal for the preferred volume. The administrator can also turn off the Music-on-Hold and background music by entering a code at the administrator/attendant console.

The system is factory-set for medium music volume.

The music volume can also be controlled at the music source.

The Music-on-Hold feature is designed to accept 8-ohm impedance input, matching the output of most music sources.

ADMINISTRATION

If your responsibilities do not include system administration, skip this information.

From the administrator/attendant console, you can set the volume for Music-on-Hold or turn it off by dialing one of the four settings listed below:

1   Enter administration mode by sliding the T/P switch to *P* and touching **Administer.**

2   Dial one of the following codes to set the volume you prefer.

   – Dial *12 to turn off Music-on-Hold.

   – Dial *13 to set the volume to low.

   – Dial *14 to set the volume to medium.

   – Dial *15 to set the volume to high.

3 Touch Administer.
The console beeps twice.

4 Leave administration mode by sliding the T/P switch to the center position.

If you want to set the volume on the background music for the building or turn the music off, dial one of the following codes:

1 Enter administration mode by sliding the T/P switch to P and touching **Administer.**

2 Dial one of the following codes to set the volume you prefer:

– Dial *16 to turn off the background music.

– Dial *17 to set the volume to low.

– Dial *18 to set the volume to medium.

– Dial *19 to set the volume to high.

3 Touch **Administer.**
The console beeps twice.

4 Leave administration mode by sliding the T/P switch to the center position.

HOW TO USE   Operate your stereo, radio, or tape player according to the directions that came with the equipment.

Off-Premises Telephone Interface

DESCRIPTION   The Off-Premises Telephone Interface (OPTI) provides service to a basic Touch-Tone telephone at a remote location by way of an outside telephone line.

This module permits you to use an off-premises telephone to access many of the features of your on-premises communication system using dial codes and switchhook flashes.

FIGURE 5-10 The Off-Premises Telephone Interface
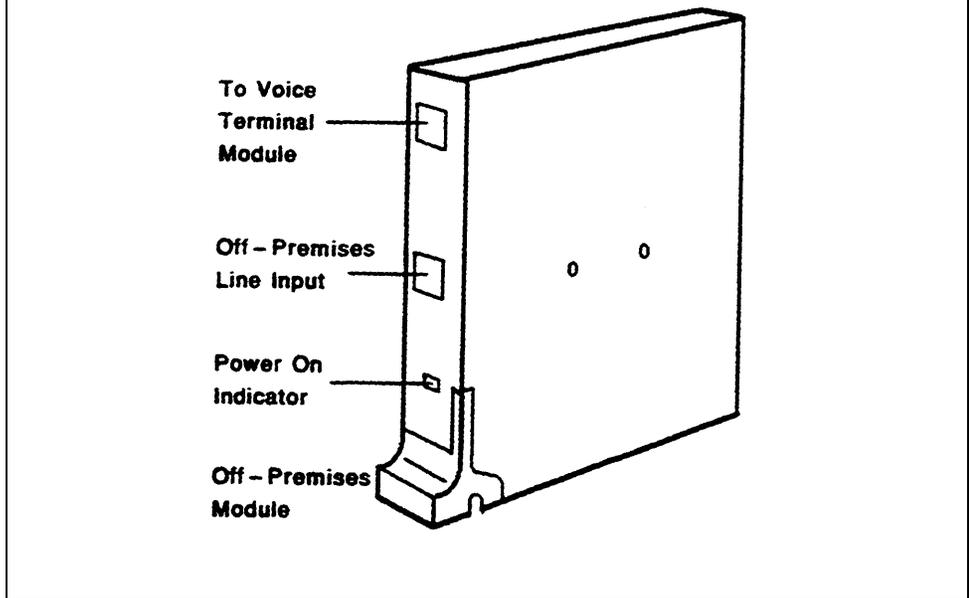
CONSIDERATIONS

For more information about basic telephones, see "Basic Telephones."

ADMINISTRATION

If your responsibilities do not include system administration, skip this information.

If you do not want the off-premises telephone to ring on every line, you can specify which lines ring when a call comes in using the Ringing Options feature and programming the lines for immediate or no ring.

You can also specific the order of lines for the phone by programming an Automatic Line Selection sequence. Be sure to program Automatic Line Selection only for those lines to be used by the off-premises telephone.

Basic telephones are able to receive ringing intercom calls, but *not* intercom calls with voice announcement. Therefore, you must program the Voice Announcement Disable feature for the telephone.

In order to program Voice Announcement Disable, Ringing Options, or an Automatic Line Selection sequence for the basic telephone, you can use either the Centralized Programming feature on the administrator/attendant console or program a substitute MERLIN Plus voice terminal plugged into the voice terminal jack designated for the OPTI.

For more information on assigning lines and features for a basic telephone, see "Basic Telephones."

HOW TO USE

See the "User's Guide for Off-Premises and Basic Telephone," included with the OPTI, for instructions on how to operate a telephone connected to an OPTI.

Supplemental Alert Adapter

DESCRIPTION

You can connect Extra Alert Devices, such as a horn, bell, strobe, or chime, to your system so that people working in noisy or remote areas of a building can be alerted when a call rings. When you activate the Supplemental Alert Adapter (SAA) and a voice terminal rings, the adapter automatically activates the connected extra alert device, which gives a visual or audible signal that a call has come in.

FIGURE 5-11 An extra alert bell and a voice terminal connected to the SAA (back view)
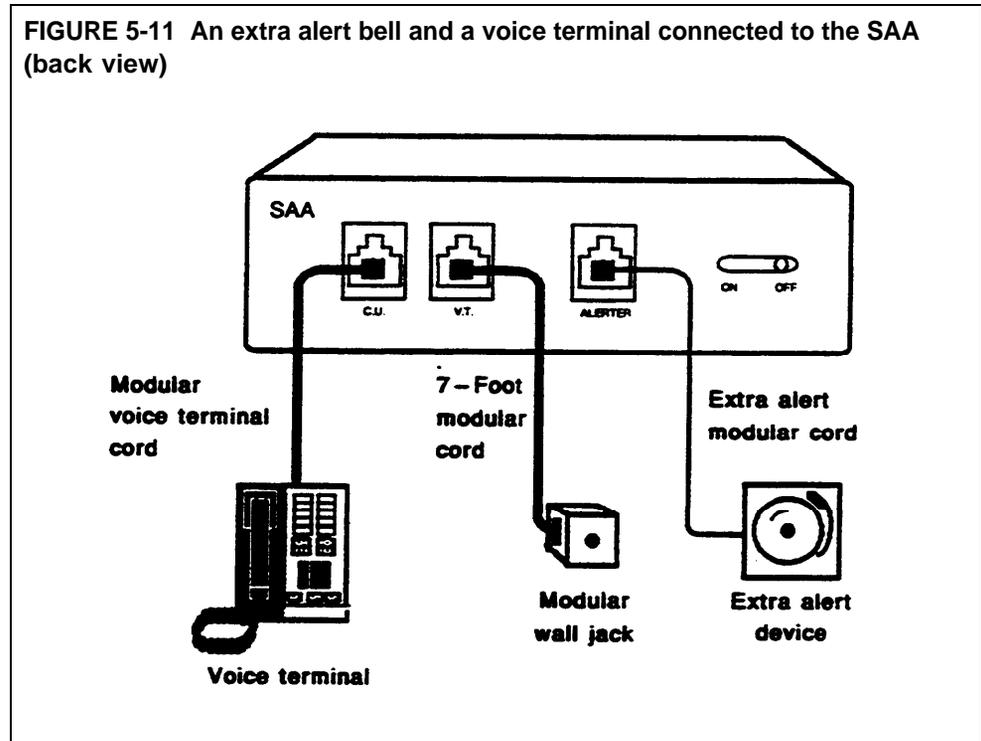
CONSIDERATIONS

An Extra Alert Switch allows you to turn an extra alert device on and off and alternately select between two different connected alerting devices, such as a strobe during business hours and a horn off-hours. You may also alternate between two extra alert devices installed in different locations. In addition, an extra alert switch allows you to use two extra alert devices simultaneously. The extra alert switch is compatible with MERLIN Plus extra alert devices (-48V).

If you want the SAA to automatically turn on the extra alert devices connected to the extra alert switch plug the extra alert switch into the Alerter jack of the SAA.

If you want to use extra-alerting devices simultaneously, you need to plug the modular cord for each device into a Line Bridging Adapter which you can connect to either position (1) or position (2) on the bottom of the extra alert switch.

For more information, contact your equipment dealer.

ADMINISTRATION   None

HOW TO USE   To set up your SAA:

1   Unplug the appropriate voice terminal from its modular wall jack, and plug it into the jack labeled V.T. on your SAA.

2   Plug one end of the modular cord into the jack labeled C.U. on the SAA and the other end into the voice terminal's modular wall jack.

3   Plug the modular cord from the extra alert device into the jack labeled Alerter on the SAA.

To have the extra alert device turn on when a call rings at the appropriate voice terminal, turn the SAA to the On position.

If you want to use more than one extra alert device *alternately:*

1   Turn the extra alert switch's knob to the appropriate On position labeled (1) or (2). For example, if you connect a bell to position (1) and a strobe to position (2), turn the control switch to position (1) to operate the bell and to position (2) to operate the strobe.

If you want to use more than one extra alert device *simultaneously:*

1   Turn the extra alert switch knob to the appropriate On position labeled (1) or (2). For example, if you connect a bell and a strobe to a line bridging adapter and the adapter to position (1) on the SAA, turn the control switch to this position.

Section 6: Quick Reference Guides

Quick Reference Guide to System Administration

The following table is a quick guide to administration procedures for the MERLIN®Plus Communications System. If you need more information on a procedure than the table gives you, look up the procedure in Section 5, "Reference."

Before you perform the steps given for any procedure, you first have to enter administration mode as follows:

1 Slide the T/P switch on the left side of the console to *P*.
The red lights next to the line buttons go on steady.
The green lights next to the line buttons begin flashing.
The console rings every five seconds to remind you that it's in programming mode.

2 Touch **Administer.**
*The red lights go on steady next to **Administer** and **Restrict.***
All other lights go off, and the ringing stops.

> **NOTE:** If you are performing several of these procedures in one administration session, you don't have to leave administration mode after each one. Simply dial the appropriate code or touch the appropriate button to begin the next procedure.

When you finish administering the system, leave administration mode as follows:

1 Slide the T/P switch to the center position.

2 Change any voice terminal (telephone) button labels and any entries on forms or directories to reflect the administration or programming changes you've made.

Administration Procedure	Do This

Specify **toll-prefix** or **area-code-only** dialing.	**1** Enter Administration mode.
	
	2 Dial the appropriate code:
	   *36 for toll-prefix dialing
	   *37 for area-code-only dialing.
	
	3 Touch **Administer.**
	The console beeps twice.
	
	4 Leave Administration mode.

Specify **Touch-Tone** or **rotary** (pulse) dialing.	**1** Enter administration mode.
	
	2 Dial the appropriate code:
	   *38 for Touch-Tone dialing
	   *39 for rotary (pulse) dialing.
	
	3 Touch **Administer.**
	The console beeps twice.
	
	4 Leave administration mode.

Administration Procedure	Do This
Make Line A and/or Line E private.	**1** Enter administration mode. **2** Dial *57. The green lights next to the buttons for Line A and Line E indicate their status: *Green light on = privacy active* *Green light off = privacy inactive* **3** Touch the line button until the green light indicates the privacy status you want. **4** Touch **Administer.** *The console beeps twice.* **5** Leave administration mode.
Customize line assignments to a telephone.	**1** Enter administration mode. **2** Touch the Auto Intercom button or dial the intercom number for the phone. **3** Touch the line buttons to add or remove lines. *Green light on = line is assigned* *Gree light off = line is not assigned* **4** Leave administration mode.
Assign **Button-Free Line Operation** to a telephone.	**1** Enter administration mode. **2** Touch the Auto intercom button or dial the intercom number for the phone. **3** Remove all lines from the phone by touching each line button that has a green light on next to it. *The green lights go out when you touch the buttons.* **4** Touch the line button for each line you want the phone to have access to. *The green lights go on next to the buttons you watch.* **5** Dial either *31 if you want the phone to ring on incoming calls or *32 if you don't want it to ring. **6** Touch **Administer.** *The console beeps twice.* **7** Leave administration mode. **NOTE:** To make all outside lines reappear on the voice terminal, enter administration mode, touch the Auto intercom button or dial the intercom number of the phone, dial *34, touch **Administer,** and leave administration mode.
Assign **call restrictions** to a telephone.	**1** Enter administration mode. **2** Touch the Auto Intercom button or dial the intercom number for the phone. **3** Touch **Restrict** repeatedly until the green light indicates the desired restriction. *Green light on steady = Unrestricted (all calls)* *Green light flashing = Toll restricted (no long distance)* *Green light off = Outward restricted (no outside calls)* **4** Leave administration mode.

Administration Procedure	Do This
Add an entry to an **allowed list.**	**1** Enter administration mode. **2** Dial the code for the right list; for lists 1 through 8 dial *01 through *08. **3** Dial the item number (01 through 10). **4** Dial the entry (up to six digits). *The console beeps twice on the sixth digit.* **5** Touch **Administer.** *The console beeps twice.* **6** Leave administration mode.
Remove an entry from an **allowed list.**	**1** Enter administration mode. **2** Dial the code for the right list; for lists 1 through 8 dial *01 through *08. **3** Dial the item number (01 through 10). **4** Touch **Drop.** **5** Touch **Administer.** *The console beeps twice.* **6** Leave administration mode.
Assign an **allowed list** to a telephone.	**1** Enter administration mode. **2** Dial the code for the right list; for lists 1 through 8 dial *01 through *08. **3** Dial 00. **4** Touch the Auto Intercom button or dial the intercom number for the telephone. Green light on = list is assigned to the telephone Green light off = list is not assigned to the telephone **5** Leave administration mode.
Copy line assignments, call restirctions, and programmed freatures from one telephone (the source) to another (the target).	**1** Enter administration mode. **2** Touch the Auto Intercom button or dial the intercom number for the target phone. **3** Touch **Copy.** **4** Touch the Auto intercom button or dial the intercom number for the source phone. **5** Touch **Administer.** *The console beeps twice.* **6** Leave administration mode.

Administration Procedure	Do This

Assign **System Speed Dial** codes to telephone numbers and account numbers.	**1** Enter administration mode.
	
	2 Dial the 3-character code (#60 through #99) you are assigning to the number.
	
	3 Dial either:
	  *90 to assign the code without Restriction Override
	  *92 to assign the code with Restriction Override
	  *88 to assign the code to an account number.
	
	4 Dial the telephone number or account number.
	
	NOTE: To designate a telephone number as private (not printed on call reports), dial * *before* the number m step 3.
	
	If the telephone number or account number has the maximum allowed 16 digits, the console beeps twice when you enter the sixteenth digit.
	
	5 Touch **Administer.**
	The console beeps twice.
	
	6 Leave administration mode.

Assigning or removing a telephone from a **paging group.**	**1** Enter administration mode. **2** Dial the code for the paging group (*71 or *72). **3** Touch the Auto Intercom button for the phone you want to add or remove. *Green light on = telephone is assigned* *Green light off = telephone is removed* **4** Leave administration mode.

Set the **transfer return interval.**	**1** Enter administration mode.
	
	2 Dial the code for the transfer return interval you want (up to nine rings):
	  *2 plus the number of rings wanted (*25 = five rings).
	  *20 for transferred calls to not be returned.
	
	3 Touch Administer.
	The console beeps twice.
	
	4 Leave administration mode.

Set the **music-on-hold volume.**	**1** Enter administration mode.
	
	2 Dial the code for the volume you want:
	  *12 to turn off music-on-hold.
	  *13 to set the volume to low.
	  *14 to set the volume to medium.
	  *15 to set the volume to high-
	Or **use** the music source volume control instead.
	
	3 Touch **Administer.**
	The console beeps twice.
	
	4 Leave administration mode.

Administration Procedure	Do This

Set the **background music volume.**	**1** Enter administration mode.
	
	 2 Dial the code for the volume you want:
	     *16 to turn off the background music.
	     *17 to set the volume to low.
	     *18 to set the volume to medium.
	     *19 to set the volume to high.
	
	 Or **use** the music source volume control instead.
	
	 3 Touch **Administer.**
	 The console beeps twice.
	
	 4 Leave administration mode.

Set the **date** for **call reports.**	**1** Enter administration mode. **2** Dial *80. **3** Dial two digits for the month (01 through 12), two for the day (01 through 31), and two for the year (00 through 99). **4** Touch **Administer.** *The console beeps twice.* **5** Leave administration mode.
Set the **time** for **call reports.**	**1** Enter administration mode. **2** Dial *81. **3** Dial two digits for the hour (00 through 23) and two for the minute (00 through 59). **4** Touch **Administer.** *The console beeps twice.* **5** Leave administration mode.
Designate a telephone jack on the control unit For **call reports.**	**1** Enter administration mode. **2** Dial *82. *The green light goes on next to the Auto Intercom button for the jack to which the data collector and printer are currently assigned.* **3** Touch the Auto Intercom button for the new telephone jack to which you are assigning the data collector and printer. *The green light goes off next to the Auto Intercom button for the old jack, and the green light next to the Auto Intercom button for the new jack goes on.* **4** Leave administration mode.

Set the calls reported option for **call reports.**	**1** Enter administration mode.
	
	 2 Dial *84.
	
	 3 Dial the code for the calls reported option you want:
	     0 means no calls reported
	     1 means outgoing calls only
	     2 means outgoing and incoming calls
	
	 4 Touch **Administer.**
	 The console beeps twice.
	
	 5 Leave administration mode.

Administration Procedure	Do This
Set the minimum call duration for **call report records.**	**1** Enter administration mode. **2** Dial *83. **3** Dial one digit (0 through 9) for the minimum number of minutes. **NOTE:** The system adds 10 seconds to the number of minutes you select. **4** Touch **Administer.** *The code beeps twice.* **5** Leave administration mode.
Print out a **System Feature Report.**	**1** Enter administration mode. **2** Dial the code for the report or set of reports you want: *60 for one system administration report and individual phone reports. *61 for a system administrate ion report. *62 plus touch one or more Auto intercom buttons or dial one or more intercom numbers for individual phone reports. *63 to abort a printout and cancel all other report requests. **3** Touch **Administer.** *The console beeps twice.* **4** Leave administration mode.
Program a telephone using **Centralized Programming.**	**1** Enter administration mode. **2** Touch the Auto Intercom button or dial the intercom number for the phone you want to program. **3** Touch **Conference.** **4** Program the telephone. **5** Leave administration mode.
Reset the system.	**WARNING:** This procedure erases all system administration and telephone programming, returns the system to its factory settings, and restores initial feature assignments to the phones. Use this feature *only* when you want to change the system radically. **1** Enter administration mode. **2** Dial *99198. *The console beeps twice.* **3** Turn the power off and then on again. **4** Leave administration mode.

Quick Reference Guide to Administration Codes

Administration Code	Other Numbers	Feature
*01 through *08	00	Add (or remove) an allowed list (1 through 8) to a voice terminal
	01 through 10 plus telephone number digits	Add telephone numbers to an allowed list (1 through 8)
*12		Turn off Music-on-Hold
*13		Set Music-on-Hold to low volume
*14		Set Music-on-Hold to medium volume (the default setting)
*15		Set Music-on-Hold to high volume
*16		Turn off Background Music
*17		Set Background Music to low volume
*18		Set Background Music to medium volume (the default setting)
*19		Set Background Music to high volume
*20 through *29		Set the Transfer Return interval for 0 through 9 rings
*31		Set a line for immediate ring on a voice terminal with Button-Free Line Operation
*32		Set a line for no ring on a voice terminal with Button-Free Line Operation
*34		Reassign lines to a voice terminal that has Button-Free Line Operation
*36		Set the system for toll prefix, a 0 or a 1
*37		Set the system for area code only
*38		Set the system for Touch-Tone dialing
*39		Set the system for rotary dialing
*4	0 through 8 (lines)	Assign the number of lines in the system
*57		Assign Privacy to Lines A and E
*60		Print a System Feature Report for the system and for every voice terminal in the system
*61		Print a System Feature Report for the whole system
*62	an intercom number of the voice terminal	Print a System Feature Report for an individual voice terminal
*63		Cancel a System Feature Report in progress and all report requests

Administration Code	Other Numbers	Feature
*71		Assign voice terminals to Group Page group 1
*72		Assign voice terminals to Group Page group 2
*80	a 2-digit month, a 2-digit day of the month, and a 2-digit year	Set the date for the Call Report feature
*81	a 2-digit hour, a 2-digit minute of the hour	Set the time for the Call Report feature
*82	an intercom number of the voice terminal	Set the control unit jack for the Call Report feature
*83	0 through 9 (minutes)	Set the minimum call duration for the Call Report feature
*84	0 = no calls reported 1 = only outgoing calls reported 2 = outgoing and incoming calls reported	Set the type of calls that are printed on the call report
*85		Set the control unit jack for the System Feature Report
*88		Assign System Speed Dial codes to account numbers for the Account Number Entry feature
*90	telephone number digits	Assign System Speed Dial codes to outside telephone numbers
	a * plus the telephone number digits	Assign System Speed Dial codes to outside telephone numbers that are private (only the dial code is printed on the call report)
*92	telephone number digits	Assign System Speed Dial codes with Restriction Override to outside telephone numbers
	a * plus the telephone number digits	Assign System Speed Dial codes with Restriction Override to outside telephone numbers that are private (only the dial code is printed cm the call report)
*99198		Reset the system (for service personnel only)

Quick Reference Guide to Voice Terminal Features

The table below acquaints you with the preassigned features that come with the MERLIN Plus system voice terminal and the features that you can program onto your voice terminal. Some features can also be accessed by using a dial code; those features are identified with a "+." For your convenience, the features in tis table are listed by function, and a brief description of each feature is provided. For more information about each feature, read the individual feature descriptions in Section 5, "Reference."

Feature Name	Description	Preassigned or Programmable	Programming Code
PLACING CALLS			
Line Request	Request the use of a busy line	Preassigned	
Line Select	Select a line other than the line the system automatically selects for you	Preassigned	
Touch-Tone Enable	Change from rotary to Touch-Tone signals during a dialing sequence	Programmable	Dial *76
ANSWERING CALLS			
Auto Answer-All	Have optional equipment such as a modem, answering machine, or facsimile machine turn on when a call comes in	Programmable	Dial *75
Recall	Disconnect a call without hanging up	Preassigned	
Ringing Line Preference	Lift the handset and instantly be connected to the ringing line	Preassigned	
Voice Terminal Tones	Know by the ring, or by an announcement, the kind of call that is coming in	Preassigned	
CALL HANDLING			
Call Pickup	Pick up a ringing call at another voice terminal	Programmable†	Dial *85 (or dial *85 + an intercom number)
Conference	Have a telephone conference with several people at one time	Preassigned	
Drop	Disconnect a person from a conference call	Preassigned	
Hold Retrieve	Return to a call on hold (for people with 5-button voice terminals)	Programmable†	Did *95*
Transfer	Transfer a call to another voice terminal	Preassigned	

---

† You can also access this feature by using a dial code.

Feature Name	Description	Preassigned or Programmable	Programming Code
CALL-HANDLING REPORTS			
Account Number Entry	Enter an account number on a Call Report (SMDR) by dialing the number or a System Speed Dial code Requires a button with lights	Programmable	Dial *82
Account Number Entry with one touch	Enter an account number on a Call Report	Programmable	Dial *88 - an account number (up to 16 digits) *or* Dial *95 + a System Speed Dial code (60 through 99)
QUICK DIALING			
Auto Intercom	Dial an intercom number with one touch A button with lights is recommended	Programmable	Dial *91 + an intercom number
Last Number Redial	Dial with one touch the number that you last dialed	Programmable†	Dial *73
Outside Auto Dial	Dial an outside number with one touch	Programmable	Dial *90 + an outside telephone number, PBX, Centrex, or Custom Calling feature code (up to 16 digits)
Personal Speed Dial	Dial a number quickly by dialing a code (Does not require a button)	Programmable	Dial a Personal Speed Dial code (#01 through #22) + one of the following codes: *90 + an outside number, or a PBX, Centrex, or Custom Calling feature code, or *88 + an account number
Saved Number Redial	Save a number and dial it later	Programmable†	Dial *74
System Speed Dial	Dial a number quickly by dialing an administered code	Programmable	Dial *90 + a System Speed Dial code (60 through 99)
PAGING			
Group Page	Page a group of people through their voice terminal speakers	Programmable†	Dial *91 + one of the following codes: 70 for all voice terminal 71 for Group 1 72 for Group 2
Loudspeaker Page	Page someone through a loudspeaker system	Programmable†	Dial *91 + 6

---

† You can also access this feature by using a dial code.

Feature Name	Description	Preassigned or Programmable	Programming Code
PRIVACY			
Do Not Disturb	Prevent tails from ringing while you are busy Requires a button with lights	Programmable	Dial *71
Privacy	Prevent others from accidentally joining your calls Requires a button with lights	Programmable	Dial *72
LINE OPTIONS			
Automatic Line Selection	Choose the order of the lines you will get when you pick up the handset	Programmable	No programming code necessary; for programming information, see Section 5, "Reference"
RINGING OPTIONS			
Ring Option Override	Have a line ring immediately even though it is programmed to ring after a delay or not at all Requires a button with lights	Programmable	Dial *78
Personalized Ringing	Choose a ringing sound you like for your voice terminal	Programmable	No programming code necessary; for programming information, see Section 5, "Reference"
Ringing Options	Have lines ring immediately, ring after a delay, or not ring at all	Programmable	Dial *35 for no ring Dial *36 for delayed ring Dial *37 for immediate ring
Voice Announcement Disable	Have intercom calls ring at your voice terminal	Programmable	No programming code necessary; for prrogramming information, see Section 5, "Reference"
INTEROFFICE COMMUNICATION			
Manual Signaling	Signal someone within your MERLIN Plus system	Programmable	Dial *6 + an intercom number
Message	Know when the attendant has taken a message for you	Preassigned	
Send Message	Turn on the message light at someone else's voice terminal (attendant console only)	Preassigned	

Quick Reference Guide to Programming Codes

Programming Codes	Other Numbers	Feature
*6	an intercom number	Manual Signaling
*71		Do Not Disturb
*72		Last Number Redial
*73		Privacy
*74		Saved Number Redial
*75		Auto Answer-All
*76		Touch-Tone Enable
*78		Ring Option override
*82		Account Number Entry
*85		Call Pickup
	an intercom number	Call Pickup with One Touch
*88	an account number	Account Number Entry with One Touch
*90	a telephone number	Outside Auto Dial
*91	an intercom number	Auto Intercom
	6	Loudspeaker Page
	70 = All voice terminals 71 = Group 1 72 = Group 2	Group Page
*95	A 3-character System Speed Dial code (60 through 99)	System Speed Dial (programmed on a button)
95		Hold Retrieve

Section 7: Troubleshooting the System

Troubleshooting Procedures

As with any piece of equipment, there are times when some of your MERLIN® Plus Communication System parts may not be working properly. Rather than call someone immediately, you can often determine the cause of the problem yourself. Simply follow the step-by-step procedures outlined in this section. Then, with the problem identified, you can either correct the problem yourself or know from the chart who can help you correct it. If you're having trouble with your MERLIN Plus system, locate the symptom on the next few pages and perform the recommended action to isolate and correct the problem. The symptoms and possible causes are listed on the contents page of this section.

If you are unable to identify a problem, perform the General Test found on the last page of this section before calling your equipment supplier for assistance.

SYMPTOM: You can't place outside calls.

Possible Cause 1: Faulty accessory connected to voice terminal.

Do This	If	Then
Disconnect the accessory from the malfunctioning voice terminal.	The trouble no longer occurs	Do not reconnect the faulty accessory. Contact your equipment supplier to replace it.
	The trouble still occurs	Reconnect accessory and go to Possible Cause 2.

Possible Cause 2: System incorrectly set to Touch-Tone or rotary (pulse) service.

Do This	If	Then
Check the instructions in Section 3, "Administering the System," to determine whether your system is set for Touch-Tone or rotary (pulse) service.	The system is set to Touch-Tone and you have rotary (pulse) service	Set the system to rotary (pulse). Doing so may not solve this particular problem, but will allow you to move on to Possible cause 3.
	The system is set to rotary and you have Touch-Tone service	Set the system to Touch-Tone.
	The system is set correctly	Go to Possible Cause 3.

SYMPTOM: You can't place outside calls (continued).

Possible Cause 3: Call Restriction feature activated on malfunctioning voice terminal.

Do This	If	Then
Refer to Section 5, "Reference," to learn how to administer the Call Restriction feature.	The feature is activated on the malfunctioning voice terminals	Deactivate the feature following the instructions in Secrion 5, "Reference."
	Feature is not activated	Go to Possible Cause 4.

Possible Cause 4: Outside Auto Dial, Saved Number Redial or Last Number Redial are programmed or used incorrectly.

Do This	If	Then
See the *MERLIN Plus System Training Manual* to make sure these features are programmed and used correctly.	Any of these features are programmed incorrectly	Program each feature correctly and determine whether this action solves the problem.
	Each feature is programmed correctly and the trouble still occurs	Go to Possible Cause 5.

Possible Cause 5: Faulty MERLIN system components.

Do This	If	Then
Try to place an outside call and an intercom call from several voice terminals.	The trouble appears only on intercom calls or the trouble appears only on one voice terminal	The trouble is caused by a component in your system. Go to the troubleshooting procedure for the symptom, "Trouble with terminal lights, speaker, and ringing."
	The trouble appears only on outside calls from all voice terminals, or the trouble appears on only some voice terminals	Go to Possible Cause 6.

SYMPTOM: You can't place outside calls (continued).

Possible Cause 6: Faulty telephone company wiring.

Do This	If	Then
At the control unit location, find the network interface associated with the outside line from which you cannot make a call. Unplug the line cord from the network interface and, in its place, plug in a basic Touch-Tone or rotary telephone. (Do not use a MERLIN system voice terminal.) Try to place an outside call from the telephone.	The trouble appears on the basic telephone and the network interface uses a line adapter	Go to Possible Cause 7.
	The trouble appears on the basic telephone, and the network interface does not have a line adapter	Your outside line is faulty. Report the trouble to your local telephone company representative.

Possible Cause 7: Faulty network interface line adapter.

Do This	I f	Then
Replace the network interface line adapter with another one. Plug the basic telephone into each of the jacks, and try to place an outside call.	The trouble still appears on the basic telephone	Your outside lines are faulty. Report the trouble to your local telephone company representative.
	The trouble does not appear on the basic telephone	The old line adapter is faultry. Replace it with a new line adapter.

SYMPTOM: A voice terminal doesn't ring.

Possible Cause 1: Volume Control Switch.

Do This	If	Then
Slide the volume control to a high setting.	The voice terminal still doesn't ring	Go to Possible Cause 2.

Possible Cause 2: Voice terminal is programmed not to ring.

Do This	If	Then
Refer to Section 3, "Administering the system," to learn how to program ringing	The voice terminal is programmed not to ring	Change the ringing option by following the instructions in Section 3, "Administering the System."
	The voice terminal is programmed to ring	Go to Possible Cause 3.

Possible Cause 3: Do Not Disturb feature is activated.

Do This	If	Then
Refer to Section 5, "Reference," to see if the Do Not Disturb feature is activated.	The feature is activated	Deactivate the feature following the instructions in Section 5, "Reference," or see the "Do Not Disturb" entry in the *MERLIN Plus System Training Manual.*
	The feature is not activated	Refer to the troubleshooting procedure for the symptom, "Trouble with lights, speakers, and ringing."

SYMPTOM: Trouble with voice terminal lights, speaker, and ringing.

Possible Cause 1: Control Unit.

Do This	If	Then
Slide the T/P switch on the side of the voice terminal to the *T* position and hold it there.	All the red and green lights flash alternately and a tone sounds continually	The voice terminal is working properly. Go to Possible Cause 3.
	Some red and green lights flash continually and/or a tone sounds at irregular internals	The trouble is caused by either the voice terminal or the cable connection. Go to Possible Cause 2.
	None of the lights turn on and a tone sounds continually or irregularly	The trouble is either the control unit, the voice terminal, or the cable connection. Go to Possible Cause 2.
	The lights are dim	The trouble is a faulty control unit or power supply. Contact your equipment supplier for assistance.

Possible Cause 2: Faulty voice terminal.

Do This	If	Then
Unplug the modular voice terminal cord from the malfunctioning voice terminal. Plug the cord into a working voice terminal. Slide its T/P switch to the *T* position and hold it there.	The same trouble appears on the working voice terminal	The trouble is either in the control unit or the cables. Plug the malfunctioning voice terminal into its original jack and go to Possible Cause 3.
	The trouble does *not* appear on the working voice terminal	The malfunctioning voice terminal is faulty. Contact your equipment supplier for assistance.

SYMPTOM: Trouble with voice terminal lights, speaker, and ringing (continued).

Possible Cause 3: Cable connections.

Do This	If	Then
Step 1. Go to the control unit and locate the intercom jack for the malfunctioning voice terminal and an intercom jack for a working voice terminal. Unplug both from the control unit and replug each into the other's jack See if the trouble occurs on the working voice terminal.	The trouble still occurs on the previously working voice terminal	The problem is caused by your control unit. Call your equipment supplier for assistance.
	The trouble no longer occurs on the working voice terminal	The trouble is caused by a cable (there may be more than one) in the wiring run to the malfunctioning voice terminal. However, check the previous two causes for this symptom first. If the problem persists go on to Step 2 of this cause.
Step 2. Test each cable in the wiring run to the previously malfunctioning voice terminal by following this procedure: **a.** Connect the wiring run to a functioning voice terminal. **b.** Replace the first cable in the wiring run with one known to be working.	The trouble still occurs	Check the connection; if the connections are correct and secure, remove the second cable in the wiring run and replace it with another Cable that is known to work properly. If the problem still occurs, replace the third cable in the run and so on until all the cable in the run has been replaced. If the problem still persists, call your local equipment supplier for assistance.
	The trouble no longer occurs	The cable was the source of the problem; discard the malfunctioning cable.

SYMPTOM: A voice terminal rings constantly.

Possible Cause 1: Voice terminal T/P switch isn't in the center position.

Do This	If	Then
Check T/P switch position.	It is set at either *T* or *P*	Slide it to the center position
	The T/P switch is in the center position	Your voice terminal is faulty. Unplug it from the modular jack and contact your equipment supplier for assistance.

SYMPTOM: All voice terminal lights are out; none has a dial tone.

Possible Cause 1: Control unit is not receiving power.

Do This	If	Then
Set the control unit power switch to *Off* and then back to On. Doing so resets the control unit.	The green power light on the control unit is on and the trouble remains	Call your equipment supplier for assistance.
	The green power light is on and the trouble is gone	The problem was corrected when you reset the control unit.
	The green power light is off	Go to Possible Cause 3.
	The red warning light on the control unit is on	Go to Possible Cause 4.

Possible Cause 2: Switch-controlled power outlet.

Do This	If	Then
Make sure the control unit is not plugged into an outlet controlled by a wall switch.	The control unit is not plugged into a switch-controlled outlset	Go to Possible Cause 3.

SYMPTOM: All voice terminal fights are out; none has a dial tone (continued).

Possible Cause 3: Faulty power outlet.

Do This	If	Then
Test the outlet by plugging in an appliance such as a lamp or a radio.	The appliance doesn't work	The outlet is faulty.
	The appliance works	Go to Possible Cause 4.

Possible Cause 4: A module is loose.

Do This	If	Then
Set the control unit power switch to *Off*. **NOTE:** You will damage the modules if you don't turn the power off. Remove the top cover and then remove and replace each module, making sure each is securely seated in its slot. Replace the top cover and fasten its screw. Set the power switch back to *On*.	All modules are secure and the red warning light goes off	You've solved the problem.
	All modules are secure and the red warning light remains on	Contact your equipment supplier.

SYMPTOM: Programmed voice terminal feature doesn't work.

Possible Cause 1: Feature is programmed or being used incorrectly.

Do This	If	Then
Review the programming instructions in Section 5, "Reference," to make sure the feature is programmed correctly, and the user instructions for the feature in the *MERLIN Plus System Training Manual* to make sure it is being used correctly.	The feature is programmed correctly and the feature still doesn't work	Go to Possible Cause 2.

Possible Cause 2: Control unit or voice terminal may be defective.

Do This	If	Then
Step 1. Program the feature on a second voice terminal and try to use the feature.	The feature works correctly	The trouble is either the voice terminal on which the feature did not work or the control unit. To determine which, go to Step 2.
	The feature still doesn't work	The problem is in the control unit. Contact your equipment supplier for assistance.
Step 2. Replace the first voice terminal with a voice terminal known to be working correctly.	The trouble remains	The problem is in the control unit. Contract your equipment supplier for assistance.
	The trouble no longer occurs	The first voice terminal is defective. Replace it.

General Test

If you are experiencing a problem other than those described in the previous tests, try the following procedure before calling your equipment supplier.

SYMPTOM: System not working; trouble not described in above procedures.

Possible Cause 1: The control unit may need to be reset.

Do This	If	Then
Set the control unit power switch to *Off* and then back to *On*.	The trouble remains	Go to Possible Cause 2.

Possible Cause 2: A module may be loose.

Do This	If	Then
Set the control unit power switch to *Off*. **NOTE:** You will damage the modules if you don't turn the power off. Remove the top cover, pull out each module and reinsert it so that it is securely seated in its slot. Replace the cover and fasten its screw. Set the power switch to *On*.	The trouble remains	Contact your equipment supplier for assistance.

Section 8: Installation

MERLIN Plus System Installation

INTRODUCTION

This section contains technical reference material for a MERLIN® Plus Communications System installer. For more detailed information on wiring, installing, adding accessories to, and upgrading your MERLIN Plus system, order the *MERLIN® Plus System Installation Manual* from your equipment supplier.

Figure 8-1 illustrates system connectivity.

FIGURE 8-1 Typical MERLIN Plus System (Overview)
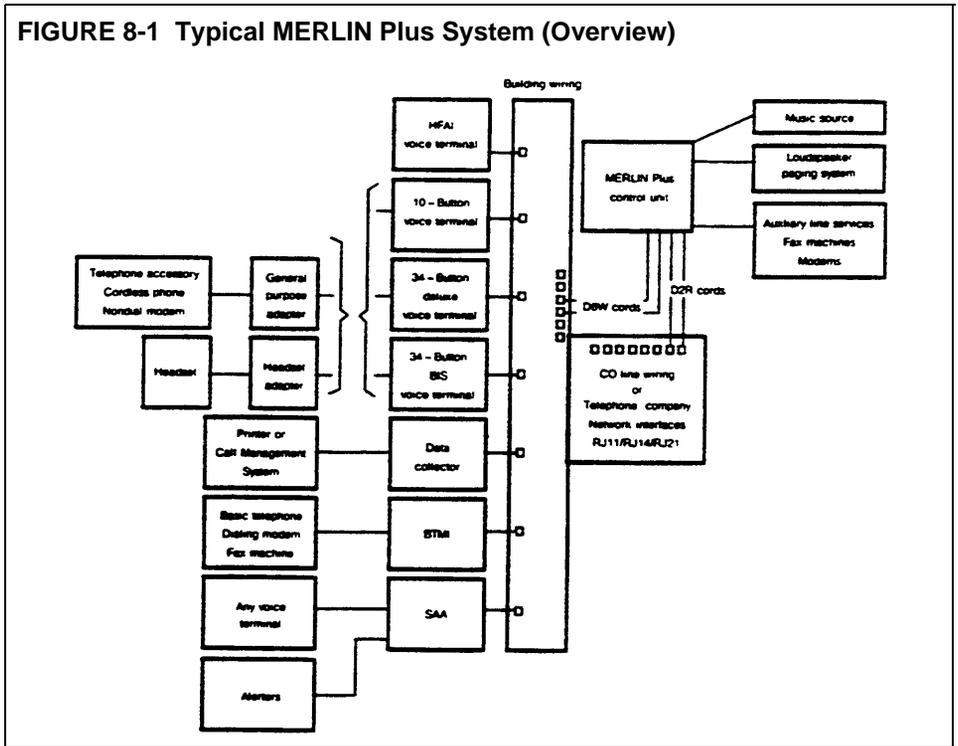
INSTALLATION REQUIREMENTS

Before you install the control unit, make sure that the installation area meets the following requirements.

Environment

The environment for the control unit should be as follows:

- *Termperature:* 40 to 104 °F (4 to 40 °C).

- *Humidity:* not to exceed 80%.

- *Airborne Contamination:* no exposure to corrosive gases, dust, chemicals, or similar substances.

- *Ventilation:* 1-inch space above and to the sides.

Grounding/Wiring

The control unit should be within:

- A single cord length of the network interface, allowing for slack. You can use up to 400 feet of DIW cable.

- 6 inches of the jack field that is centered beneath it.

- 5 feet of a **grounded** ac power source (not switch-controlled).

Also, a wiring run from the control unit to a voice terminal location cannot exceed 1000 feet.

FIGURE 8-2 Typical MERLIN Plus System Grounding Plan
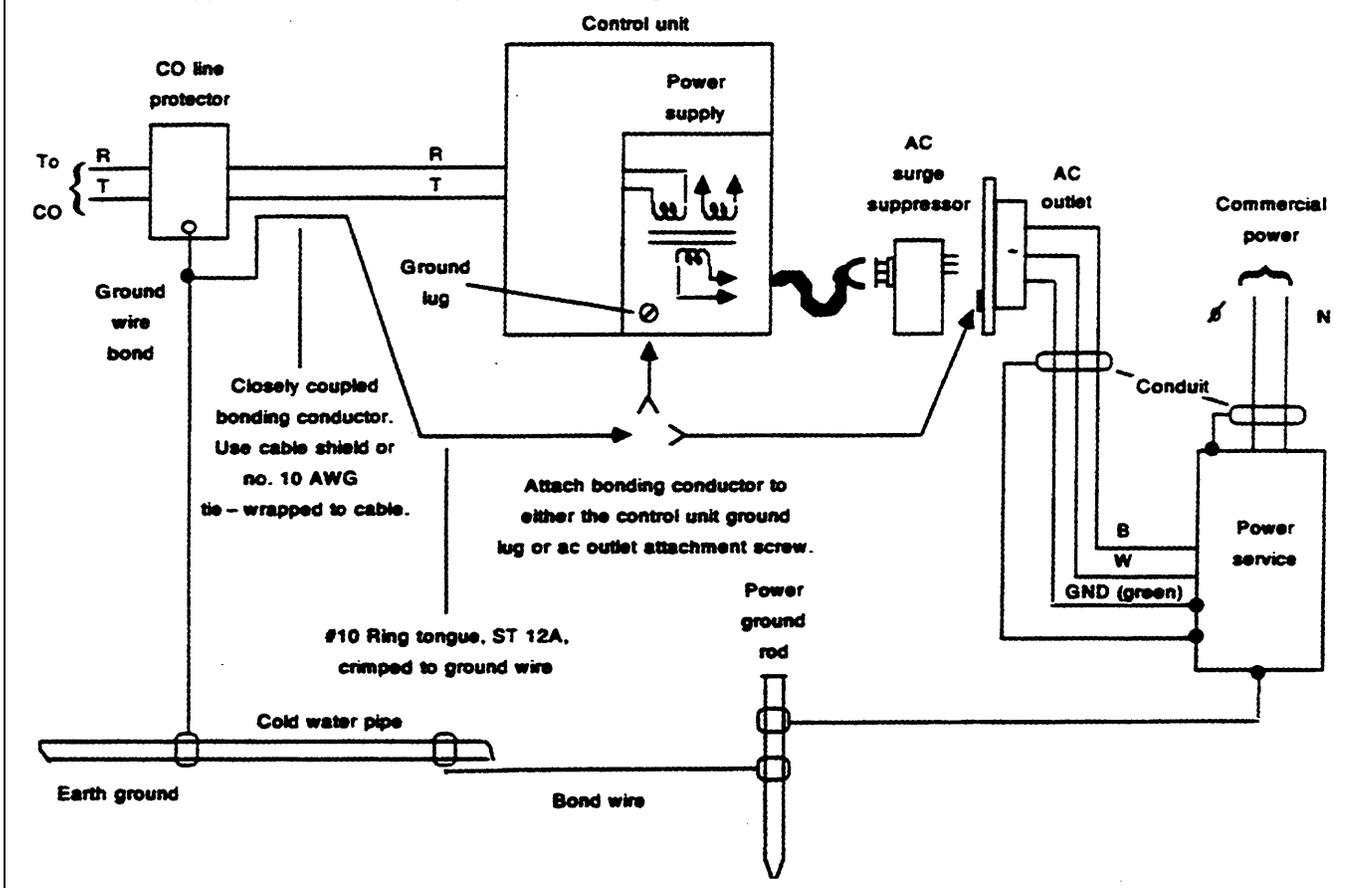
The control unit, the CO line protector, and the ac power service panel should be as close to each other as possible in order to provide a protected and grounded system. If equipment is spread throughout a building, the National Electric Code requires that the ground point for the CO line protector must be bonded to the ac power ground.

If the ac voltage is subject to heavy transient activity from electrical storms or power company ac power switching, use a T II Powerline Protector (AT&T 8310-001) as the interface to the power source. A phone line surge suppressor provides added protection against lightning, and, if the distance between the equipment and the protector is less than 50 feet, a Coupled Bonding Conductor (CBC) provides additional lightning protection. Use the plan in Figure 8-2 as a guide when verifying that a system is grounded properly.

> **Warning:** Hazardous voltages that may cause death or injury are present during electrical measurement tests. Use great care when working with ac power line voltages.

A properly grounded system has the individual CO line protectors in place and the following ac outlet voltages:

- Hot to ground-about 115 VAC.

- Neutral to ground-less than 2.5 VAC.

- CO protector ground lug to nearest ac outlet of circuit to be used-less than 1 VAC, less than 1 ohm.

Mounting the Control Unit

The control unit is designed to be wall mounted 6 inches above the jack field that is centered beneath it in two columns. The slots at the bottom of the control unit provide for simple, neat cord management.

FIGURE 8-3 Mounting the Control Unit on the Wall
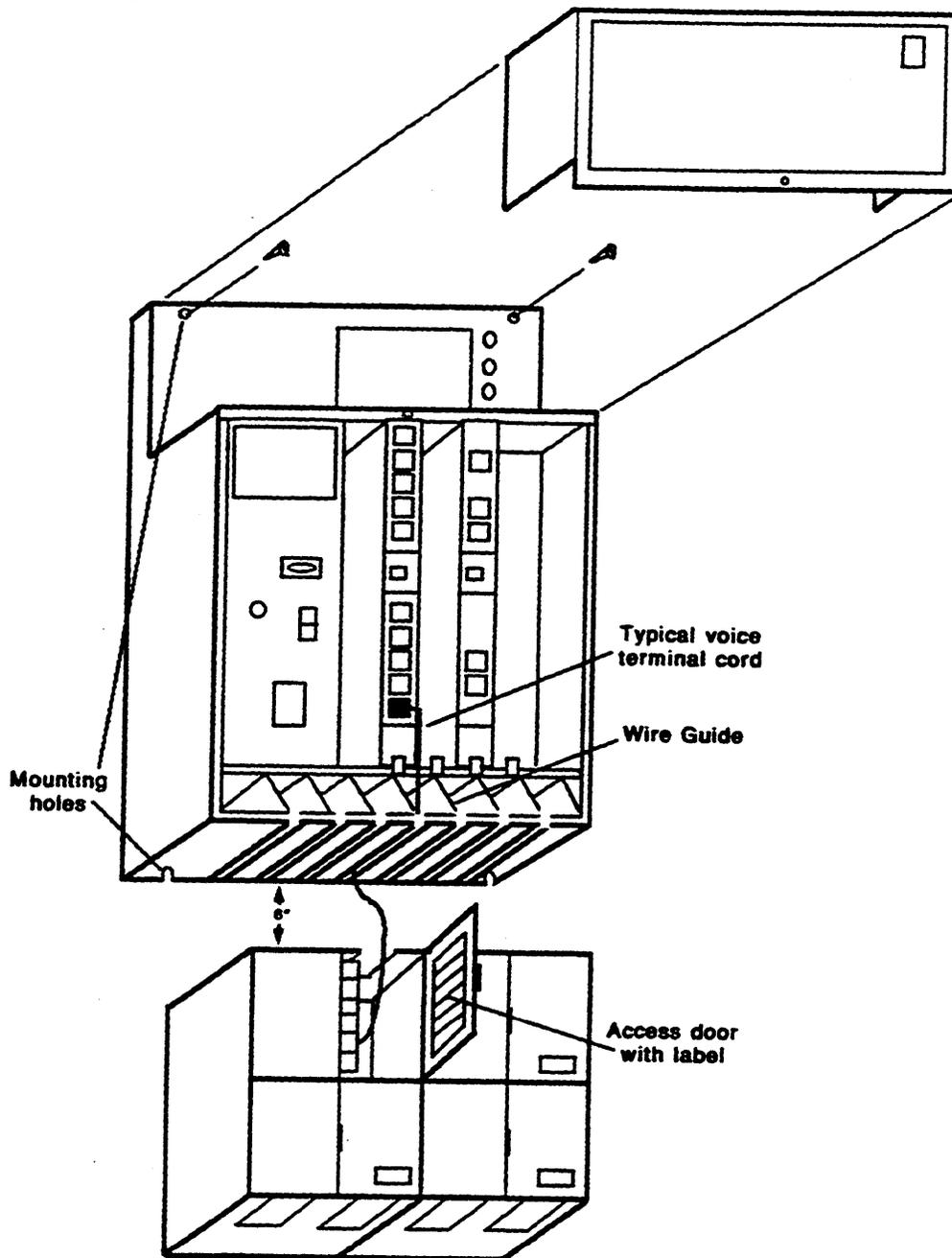
CONNECTING THE CONTROL UNIT

Before connecting the control unit to the system, you must be sure of the following:

- The building wiring is completely installed.
- The jack field labels correspond with the distant end location.
- The distant end labels correspond with the jack field labels (optional).
- The network interface labels have the correct telephone numbers.

FIGURE 8-4 Connecting the Control Unit
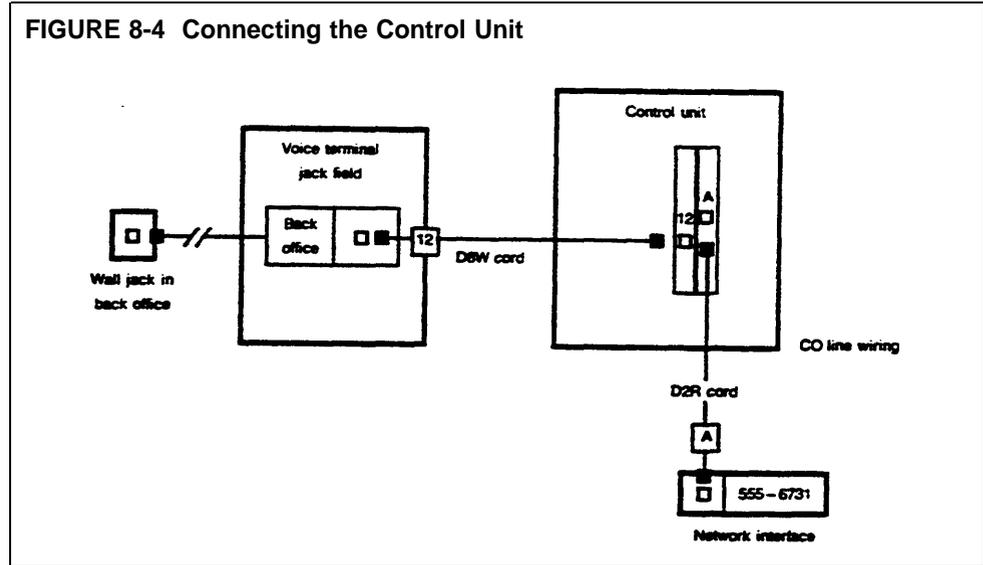
Make sure the control unit power is off before connecting system wires. Then, refer to the System Configuration Form for each step in the following procedures.

Voice Terminal Wiring

1 Label one end of each D8W cord for each intercom number.

2 Plug the unlabeled end of each intercom cord into the corresponding voice terminal jack of the control unit.

3 Plug the labeled end of each intercom into the appropriately labeled jack in the apparatus box of the jack field.
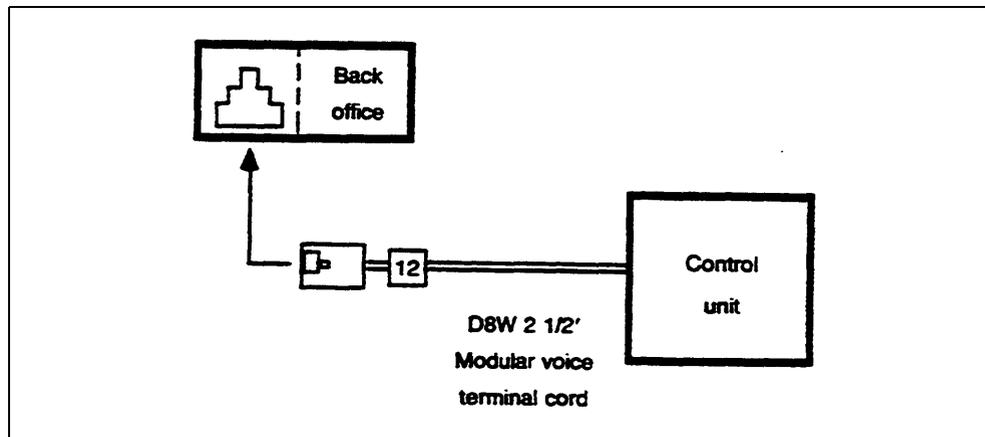
CO Line Wiring

1 Label each line cord running from the network interface to the control unit (A through H).

2 Plug the unlabeled end of each line cord into the corresponding control unit line jack.

3 Plug the labeled end of each line cord into the appropriately labeled jack at the network interface.
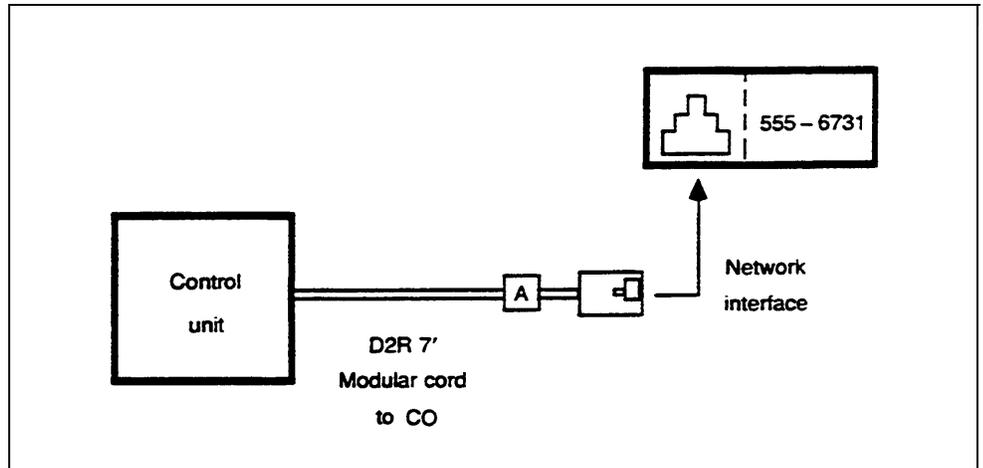
For future reference, you may want to make a copy of all the assignments that are labeled at the jack field.

Table 3-1 Wiring Parts Cross Reference

PPEC	Description	Apparatus Code	COMCODE	SKU
		2122C Apparatus Box	103980843	58080
		2A Adapter Mounting	103970562	58078
		Z601A Adapter	103946653	58082
		Z610A Adapter	103950556	58085
61400	Net Intf Adptr	267C Adapter	103715652	53300
2750-D14	Net Brdg Adptr	267A2 Adapter	103715082	51970
2750-D08		103A Corm Block	103104220	56390
2750-D07		102A Corm Block	103083200	56120
		65B Faceplate	103658498	51930
61407	NI/CU Mod Cord	D2R-29 Cord 7 ft	103732541	53800
	CU Jumper Cord	D8W-87 Cord 2.5 ft	104860148	57368
61208	Cbl Strp Tool	953A Tool	103951588	51990
32910	1000 ft 4-Pr Cable	(Spooled DIW Cable)	403101140	

Table 3-2 4-Pair Wiring for the MERLIN Plus System

Signal	Pair	Modjk Pins	Modular Cord Wire Colors	102A 103A Z601A Term. Strep	DIW Cable Colors	25-Pair Cable Colors	25-Pair Conn. Pin No.	Paging Jack	AUX Jack
V1T		5	GREEN	1	W-Bl	W-Bl	1	V1T	V1R*
V1R	1	4	RED	2	BLUE	Bl-W	26	V1R	V1T*
CT		1	BLUE	3	W-O	W-O	2		
CR	2	2	ORANGE	4	ORANGE	O-W	27		
-48V		3	BLACK	5	W-G	W-G	3	1	
GND	3	6	YELLOW	6	GREEN	G-W	28	2	
V2T		7	BROWN	7	W-BR	W-BR	4		
V2R	4	8	SLATE	8	BROWN	BR-W	29		

---
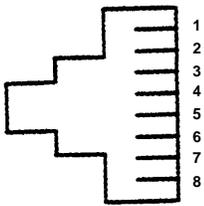
* Note that the cord (e.g., D2R) used with AUX Service reverses these signals.
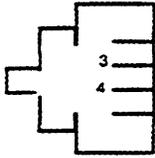
Table 6-3 CO Line Wiring, 6-Position Jack, Single-Pair

RJ11 NI Specification			D2R Cord		CU Line Jack	
Signal	**Pin**	**Color**	**Plug**	**Plug**	**Pin**	**Signal**
T	4	GREEN	4	3	3	T
R	3	RED	3	4	4	R

Table 6-4 CO Line Wiring, 6-Position Jack, Two-Pair
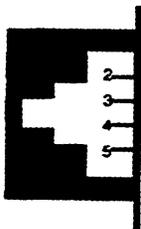
RJ14 NI Specification			267A2 Adapter			267C Adapter		
Signal	**Pin**	**Color**	**Plug**	**Jack 1**	**Jack 2**	**Plug**	**Jack**	**Pin**
T1	4	GREEN	4	4	4	4		4
R1	3	RED	3	3	3	3	1	3
T2	2	BLACK	2	2	2	2		4
R2	5	YELLOW	5	5	5	5	2	3

Table 8-5 CO Line Wiring, 6-Position Jack, Multipair

RJ21 NI Specification				CO Line Wiring		Z610A Adapter		
Signal	**Color**	**Terminal**	**Conn Pin**	**25-Pair Number**	**Jack No.**	**Terminal**	**Jack**	**Pin No.**
T1	Bl-W	1	26		4	1		4
R1	W-Bl	2	1	1	3	2	1	3
T2	O-W	3	27		4	3		4
R2	W-O	4	2	2	3	4	2	3
T3	G-W	5	28		4	5		4
R3	W-G	6	3	3	3	6	3	3
T4	BR-W	7	29		4	7		4
R4	W-BR	8	4	4	3	8	4	3
T5	S-W	9	30		4			
R5	W-S	10	5	5	3			
T6	Bl-R	11	31		4			
R6	R-Bl	12	6	6	3			
T7	O-R	13	32		4			
R7	R-O	14	7	7	3			
T8	G-R	15	33		4			
R8	R-G	16	8	8	3			

TYPICAL MERLIN PLUS
SYSTEM WIRING

The figure below shows a typical wiring installation for a MERLIN Plus System. Local telephone lines connect with system wiring at a network interface. Voice terminal wiring connects to the control unit through building wiring and a jack field. Table 8-6 lists the material needed for the sample configuration shown in Figure 8-5.

FIGURE 8-5 Typical MERLIN Plus System Wiring Installation
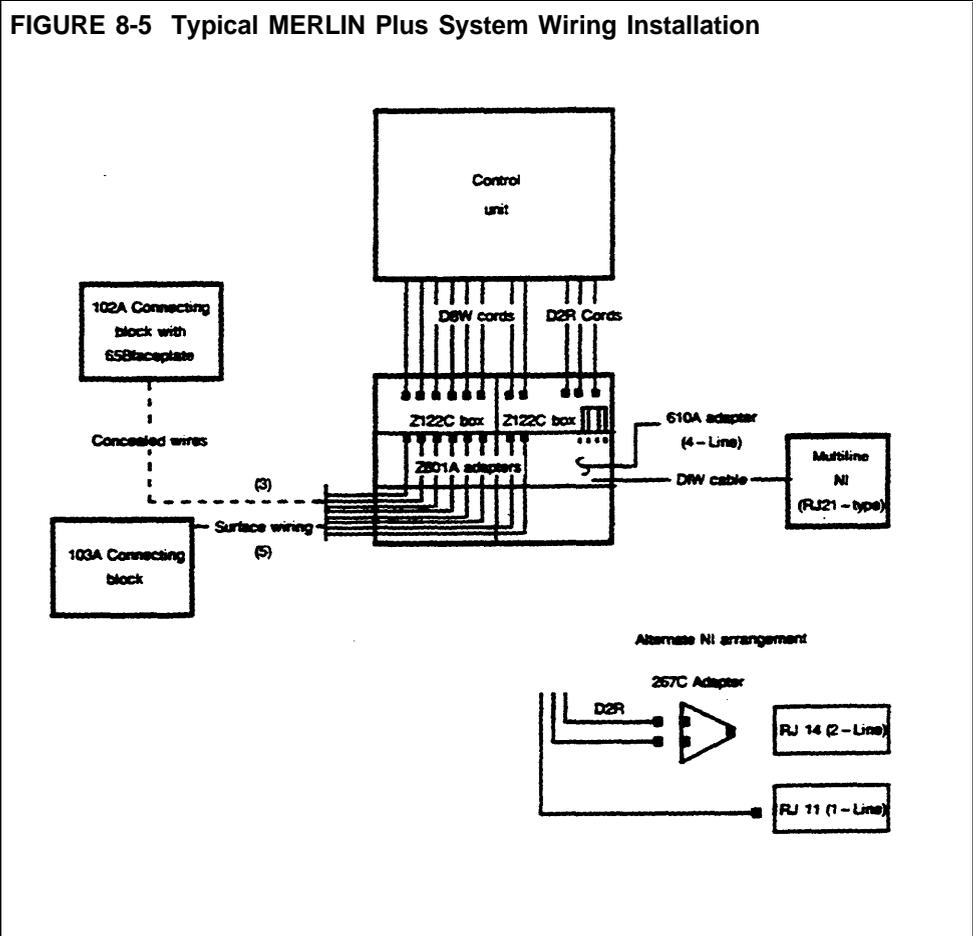
Table 8-6. Material List for 8 Telephones and 3 Lines

Voice Terminal Wiring

Qty	Item
3	102A Connecting Block (1 shown)
3	65B Faceplate (1 shown)
5	103A Connecting Block (1 shown)
1	1000 ft Cable Spool, DIW
2	Z122C Apparatus Box
8	Z601A Adapters
8	D8W Cords, 2.5 ft

Line Side Wiring

Option 1: Using Multiline Network Interface (RJ21):

Qty	Item
3	D2R Cords
1	Z610A Adapter
span capacity	Z122C Apparatus Box

*Option 2: Using One-Pair/Two-Pair
Network Interface (RJ11/RJ14):*

Qty	Item
3	D2R Cords
1	267C Adapter

**INTERFERENCE
INFORMATION NOTICE**

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions in this manual, may cause interference to radio communications. The equipment has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when the equipment is operated in a commercial environment. Operating this equipment in a residential area is likely to cause interference, in which case the user, at his or her own expense, will be required to do whatever is necessary to correct the interference.

FCC REGISTRATION AND REPAIR INFORMATION

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

1 *Means of Connection:* Connection of this equipment to the telephone network must be through several standard network interface jacks: USOC RJ11C or RJ14C, or a multiline network interface cable and connector USOC RJ21. You can order these from your local phone company. This equipment may not be used with party lines or coin telephone lines.

2 *Notification of the Local Telephone Company:* Before connecting this equipment, you or your equipment supplier must notify your local telephone company's business office of the following:

 — The telephone numbers you will be using with this equipment.

 — The registration number for the MERLIN Plus system:

 AS593M-13529-KF-E

 — The ringer equivalence number (REN) for the MERLIN Plus system:

 0.8A

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

3 *Installation and Operational Procedures:* The System Manual and the MERLIN Plus Installation Guide contain information about installation and operational procedure.

4 *Repair Instructions:* If you experience trouble because your equipment is malfunctioning, the FCC requires that the equipment not be used and that it be disconnected from the network until the problem has been corrected. Repairs to this equipment can only be made by the manufacture, their authorized agents, or by others who may be authorized by the FCC.

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

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

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

Index

Warranty

AT&T warrants that this product will be free from defects in material and workmanship on the dare of your purchase, and that it will repair or replace, at its option, without charge for parts or labor, the product if it fails to work, provided that the defect is reported to AT&T within one year of your purchase. If AT&T determines that any defective product cannot be replaced, it may refund your purchase price. Replacement parts or products may be new or equivalent to new in performance, and will be provided on an exchange basis. For information on repair procedures, call your authorized dealer.

The warranties provided in this section do not cover damages, defects, malfunctions or product failures caused by:

- Failure to follow AT&T installation, operation or maintenance instructions;

- Modification of the Products;

- Abuse, misuse or negligent acts by persons other than AT&T, or

- Power failures or surges, fire, flood, accident, actions of third parties and other events outside AT&T control.

Except as specifically made in this agreement, AT&T and its affiliated subcontractors and agents make no warranties, express or implied, and specifically disclaim any warranty of merchantability or fitness for a particular purpose.

In no event will AT&T or its dealer be liable for any claims, suits, liabilities, damages, costs or expenses in excess of $50,000 regardless of the form of action, whether in contract, tort (including negligence) and strict liability or otherwise, and whether or not foreseeable, except for direct damages for personal injury (including death). In no event will AT&T or its dealer be liable for indirect, special reliance, incidental or consequent loss or damage arising out of the subject matter of this agreement.

AT&T

999-507-144