

Lucent Technologies  
Bell Labs Innovations



SPIRIT<sup>®</sup>  
Communications System  
Model 2448  
Administration Manual

999-500-235  
105772644  
Issue 5  
June, 1989

### LIMITED WARRANTY AND LIMITATION OF LIABILITY

AT&T Information Systems, Inc. ("AT&T") warrants to you that your SPIRIT® Communications System ("SPIRIT system") will be free from defects in material and workmanship when title to your SPIRIT system passes to you. If you notify AT&T that your SPIRIT system fails to operate as warranted within one year of the date title to your SPIRIT system passes to you, AT&T will, at its option, repair or replace the component or components of your SPIRIT system that fail to operate as warranted. Any repair or replacement components may be new or refurbished and will be provided on an exchange basis. If AT&T determines that your SPIRIT system component cannot be repaired or replaced, AT&T will refund the purchase price to you.

If you purchased your SPIRIT system directly from AT&T, AT&T will perform warranty repair on your premises in accordance with the terms and conditions of AT&T's "Business Day" or "Around-the-Clock" warranty plans depending on which you have selected. The details of AT&T's warranty plans may be obtained by calling or writing to AT&T. If you purchased your SPIRIT system from an Authorized AT&T Dealer, you will be covered by AT&T's Authorized Dealer Warranty Plan during the warranty period. Contact your Authorized Dealer for details of AT&T's Authorized Dealer Warranty Plan. AT&T'S OBLIGATION TO REPAIR, REPLACE OR REFUND IS AS SET FORTH ABOVE AND IS YOUR EXCLUSIVE REMEDY.

The limited warranties provided above do not cover damages, defects, malfunctions or product failures caused by:

- Failure to follow AT&T's installation, operation or maintenance instructions;
- Failure to provide an appropriate electrical environment for the equipment;
- Unauthorized modification or alteration of the SPIRIT system or its components;
- Product abuse, misuse or the negligent acts of persons not under the reasonable control of AT&T, or;
- Actions of third parties and acts of God other than power surges.

This limited warranty applies only to a SPIRIT system purchased directly from AT&T or purchased directly from an Authorized AT&T Dealer. This limited warranty does not apply to SPIRIT systems purchased or operated outside the United States.

You may be required to provide AT&T with proof of purchase before AT&T will perform any warranty repair or provide any warranty replacements.

EXCEPT AS SPECIFICALLY SET FORTH ABOVE, AT&T, ITS AFFILIATES, SUPPLIERS AND DEALERS MAKE NO WARRANTIES, EXPRESS OR IMPLIED, AND SPECIFICALLY DISCLAIM ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

EXCEPT FOR PERSONAL INJURY, THE LIABILITY OF AT&T, ITS AFFILIATES, SUPPLIERS AND DEALERS FOR ANY CLAIM, LOSS, DAMAGE OR EXPENSE FROM ANY CAUSE WHATSOEVER, REGARDLESS OF THE FORM OF THE ACTION, WHETHER IN CONTRACT, TORT OR OTHERWISE, SHALL NOT EXCEED THE LESSER OF DIRECT DAMAGES PROVEN OR THE REPAIR OR REPLACEMENT COST OF THE SPIRIT SYSTEM OR THE SPIRIT SYSTEM'S PURCHASE PRICE. IN NO EVENT SHALL AT&T, ITS AFFILIATES, SUPPLIERS AND DEALERS BE LIABLE FOR INCIDENTAL, RELIANCE, CONSEQUENTIAL OR ANY OTHER INDIRECT LOSS OR DAMAGE (INCLUDING LOST PROFITS OR REVENUES SUSTAINED OR INCURRED IN CONNECTION WITH THE SPIRIT SYSTEM). THIS LIMITATION OF LIABILITY SHALL SURVIVE FAILURE OF THE EXCLUSION REMEDY SET FORTH IN THE LIMITED WARRANTY ABOVE.

This limitation of liability shall apply to all users of SPIRIT systems and shall apply whether or not the above limited warranty applies.

### INSTALLATION/MAINTENANCE INFORMATION

There are several types of installation and maintenance plans available from AT&T and/or your dealer. Please call your AT&T sales representative or authorized dealer for details.

For warranty service, contact your authorized dealer or call the AT&T Hotline listed below.

You may place your  
AT&T Sales and Service  
Label here

Prior to calling the Hotline refer to the Testing and Troubleshooting pages in the Customer Installation Instructions.

Record the following information:

AT&T Account Number \_\_\_\_\_

Number of outside/PBX lines \_\_\_\_\_

Number of telephones \_\_\_\_\_

## Table of Contents

Parts of the System	2
Parts of the Telephone Used in Administration	3
Groups and Intercom Extensions	3
How to Use this Manual	4
<b>SECTION 1 Customizing</b>	5
Description of Features that May be Customized	5
How to Use the System Planner and the Customization Chart	7
System Planner	8
Customization Chart	10
How to Customize	12
Confirmation and Error Tones	12
Instructions for Customizing	13
Kinds of Customization	
System Reset to Factory-Set Values - 0	14
System Customization - 1	15
Telephone Customization - 2	18
System <i>SpeedCall</i> - 3	23
SMDR Call Report - 4	25
Printing Customization Information - 5	27
<b>SECTION 2 Additional Information</b>	30
Ringing Options	30
System Changes	30
Using with a PBX Centrex System	30
L A Jacks (Dedicated Lines and Power Failures)	31
Optional Equipment	31
Additional Feature Information	32
Helpful Hints	34
System <i>SpeedCall</i> Directory	35
Intercom Extension and Group Directory	36
Index	37

NOTICE: While reasonable efforts were made to ensure that the information in this document was complete and accurate at the time of printing, Lucent Technologies assumes no responsibility for any errors. Changes or corrections to the information contained in this document may be incorporated into future re-issues.

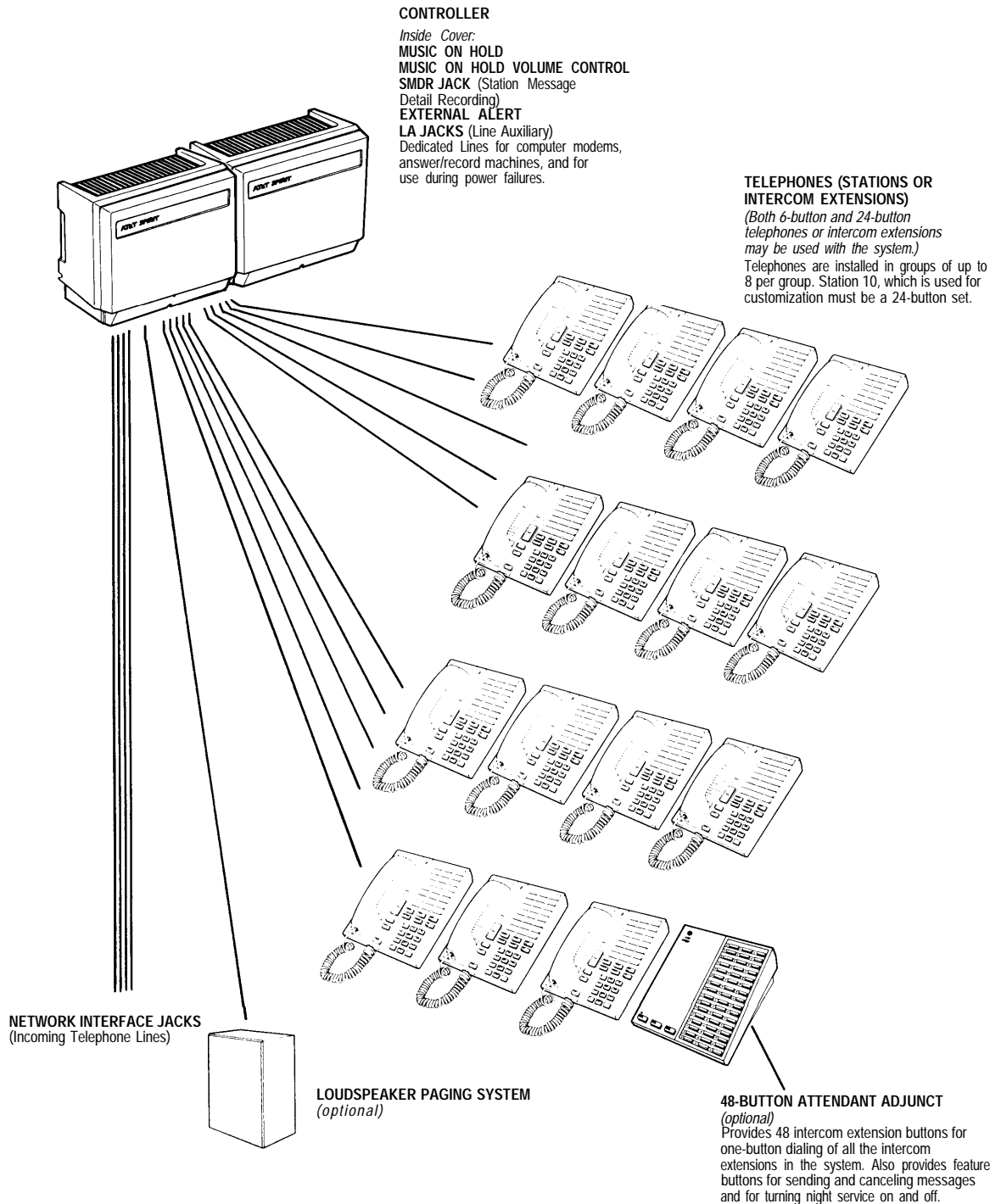
Intellectual property related to this product (including trademarks) and registered to AT&T Corporation has been transferred to Lucent Technologies Incorporated.

Any references within this text to American Telephone and Telegraph Corporation or AT&T should be interpreted as references to Lucent Technologies Incorporated. The exception is cross references to books published prior to December 31, 1996, which retain their original AT&T titles.

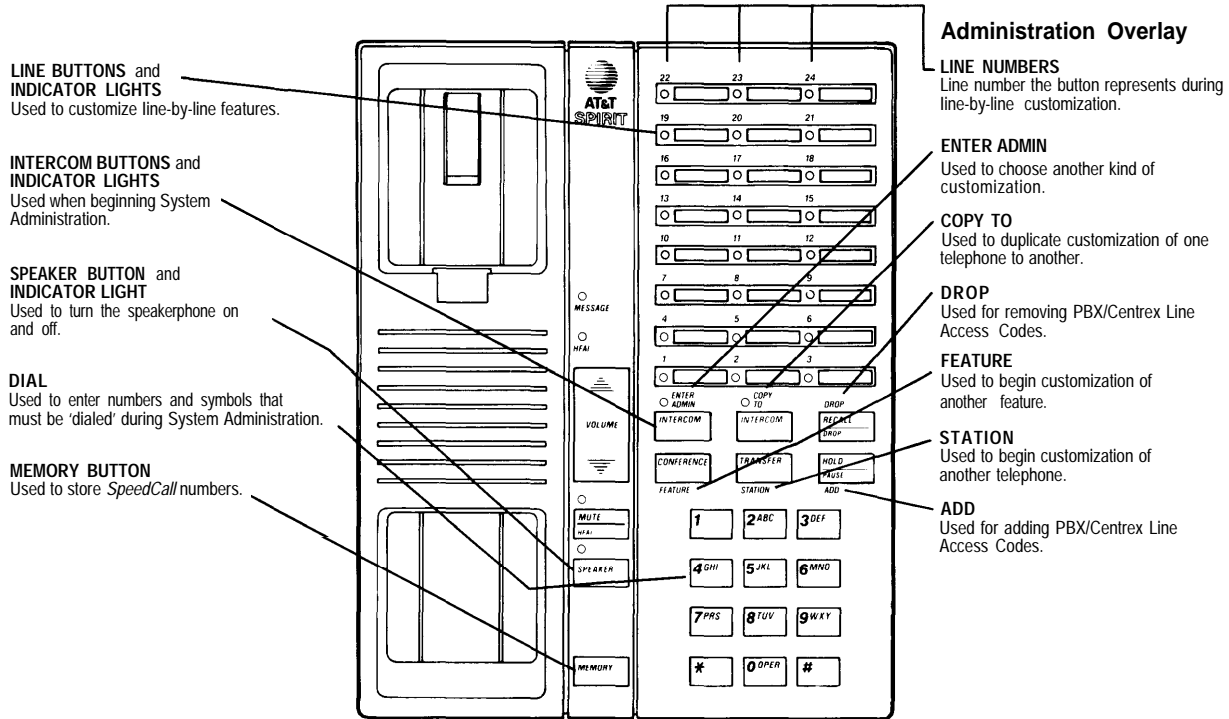
Lucent Technologies – formed as a result of AT&T's planned restructuring – designs, builds, and delivers a wide range of public and private networks, communication systems and software, consumer and business telephone systems, and microelectronic components. The world-renowned Bell Laboratories is the research and development arm for the company.

## Parts of the System

The SPIRIT<sup>®</sup> Communications System, Model 2448, consists of a *CONTROLLER* that controls the system, *TELEPHONES*, and some optional equipment. Outside telephone lines from your local telephone company or from a PBX, or switchboard, system are connected to the controller. The controller is connected to all the telephones in the system.



# Parts of the Telephone Used in Administration



## Groups and Intercom Extensions

Each telephone in the system has a 2-digit intercom extension number. The intercom extensions are grouped according to the numbers on the right. Groups are used for some features, such as group paging and picking up a call within a group. Consider carefully how intercom extension numbers are assigned to the people in the system so that the group features are used most efficiently for your company. The numbers do not have to be consecutive; for instance, you may have intercom extensions 10 through 15, 18 through 22, and 28 through 33 in your system, depending on the telephone capacity of your system.

Intercom Extension Numbers      Group Number

10-17	61
18-25	62
26-33	63
34-41	64
42-49	65
50-57	66

**NOTE:** When you assign intercom extension numbers to users, remember that all customization of the system must be done at telephone set 10, and when users dial 0 (zero) using the intercom, they reach intercom extension 10.

## How to Use this Manual

This manual is divided into two basic sections. Following is a description of the parts of the manual.

### **Customizing (Section 1)**

The **SPIRIT** Communications System can be customized to fit the needs of your company. This means that, as the administrator of the system, you will be able to change how some features operate. The system can be used just as it is installed. You may, however, want to take advantage of some of the customizing options. You can do as much or as little customizing as you choose. Section 1 of the manual tells you how to customize the system.

Customization is easy to do and doesn't have to be permanent. Your system is flexible and easy to change. As you use the system you may think of other changes you want to make, so don't be concerned that you have to make all your customizing decisions right now.

Section 1 includes the six kinds of customization possible. These are:

- **System Reset - 0**

The reset procedure describes how to return all customization to the installed, or factory-set values, except *SpeedCall* numbers and Call Report date and time.

- **System Customization - 1**

System customization describes how to make changes that are system-wide.

- **Telephone Customization - 2**

Telephone customization describes how to make different telephones work in different ways.

- **System *SpeedCall* - 3**

*SpeedCall*, a number memory, is an important timesaver for your users. There are two kinds of *SpeedCall* numbers: Personal and System. Personal numbers are stored by the individual telephone user and are available only at the telephone where they are stored. System numbers are stored in the system memory by you and are available at all the telephones in the system. System *SpeedCall* tells you how to store System *SpeedCall* numbers.

- **SMDR Call Report - 4**

SMDR (Station Message Detail Recording) Call Report explains how to set the system to provide a record of incoming and outgoing calls. If your system includes a printer, personal computer with appropriate software, or specialized hardware you can take advantage of this feature.

- **Print Customization Information - 5**

The call-reporting equipment can be used to print or receive customization information, including the System *SpeedCall* directory.

### **Additional Information (Section 2)**

This section includes additional information on features, optional equipment, and how to make changes in your system.

## SECTION 1 Customizing

Following is a list and brief description of the features you can change. There are two kinds of features, **SYSTEM FEATURES** and **TELEPHONE FEATURES**. When you customize a system feature, you have made a change in the whole system that affects all the telephone extensions. *In this manual, information about system features is always printed with a grey background.*

When you customize a telephone feature, the change is made for one telephone only. *In this manual, information about telephone features is always printed with a green background.*

### Description of Features that May be Customized

#### System Features *(instructions for customizing begin on page 15)*

- **AUTOMATIC PRIVACY** — This feature prevents others from joining your call without your permission. If Privacy is **On**, other people in the system can be added to a call only through conferencing or a special release of Privacy. If Privacy is **Off**, another user can join a telephone conversation by pressing the line button that the call is on or by dialing a dial code (see User Manual). *(Possible settings are On and Off. Installed setting is On.)*

---

- **TOLL CALL CHECK** — If you are in an area that requires a "1" before every toll call, leave this at the preset value of **1 Required**. If your local telephone service does not require a "1" before dialing a toll call, change the setting to **1 Not Required**. If you must dial an access digit in order to make an outside call, you have PBX or Centrex lines. If you have PBX or Centrex lines, the **SPIRIT** system, will not check for a toll call until after the code is dialed, *if the PBX/Centrex code and lines are correctly customized. Calls will be checked only for telephones that have been customized as Toll Restricted. (Possible settings are 1 Required and 1 Not Required. Installed setting is 1 Required.)*

---

- **HELD CALL REMINDER** — The system can remind a user that a call is on hold. You can set the number of minutes it will wait before providing the reminder. *(Possible settings are Zero for no reminder, One, Two, Three, and Four Minutes. Installed setting is One Minute.)*

---

- **LINE TYPE** — All incoming lines are either **PBX/Centrex Lines** or direct **Outside Lines**. If your system is not at incoming-line capacity you have **Unavailable Lines**. (For example, if you have 11 incoming lines on a system that has 12 incoming line jacks on the controller, line 12 is **Unavailable**). Find out how many incoming lines you have, and customize **Unavailable Lines** as such for proper operation of **AUTOMATIC LINE SELECTION**. *(Possible settings are Unavailable Line, Outside Line, and PBX/Centrex Line. Installed setting is Outside Line.)*

---

- **PBX/CENTREX LINE ACCESS CODES** — If you have PBX/Centrex lines, a code is necessary to dial an outside call. By entering the code(s) required, you will allow the **SPIRIT** system to check for toll calls and to automatically insert pauses in *SpeedCall* numbers on PBX/Centrex lines. *(Up to four one- or two-digit codes may be entered. One code, the digit 9, is already installed for your convenience, but may be removed or changed.)*

---

- **EXTERNAL ALERT** — If an optional external alerter (buzzer) is part of your system, you can set when it will turn on for *each line*. *(Possible settings are No Alert, Night Only, Day Only, and Always On. Installed setting is Night Only.) NOTE: Night Only and Day Only are determined by whether Night Service is on or off (see User Manual).*

---

- **DIAL TYPE** — Set *each line* for the kind of service you have with your local telephone company. *(Possible settings are Touch Tone and Dial Pulse. Installed setting is Dial Pulse.)*

## Telephone Features (*instructions for customizing begin on page 18*)

Telephone customization is used to make different telephones in the system work in different ways.

- **LINE BUTTON ASSIGNMENTS** — The telephones in your system have six or twenty-four buttons that can be line buttons assigned by you or multi-purpose buttons that the user programs (see User Manual). When you have assigned a line to a button, that button cannot be used for anything else unless you change the customization for that telephone.

You can assign any outside line to a button on any telephone. The system determines to what button the line will be assigned (ascending order, starting with button 1 — see page 9). The installed setting assigns the first 12 lines to the first 12 buttons on 24-button sets and the first 6 lines to the 6 buttons on a 6-button set. If you have fewer than 12 lines, for proper operation "remove" the "lines" you don't have (See page 20). Remember, the more line buttons you assign to a telephone, the fewer *SpeedCall* and Intercom Extension buttons the telephone can have. After a line is assigned to a button, the user can select the line by pressing the button. If a line is not assigned to a button on a particular telephone, the user can select the line by dialing a code (see User Manual).

- **LINE USE PERMISSION** — You can assign to each line of each telephone one of the following permissions. All lines may be customized for LINE USE PERMISSION, including those lines not assigned to buttons on the telephone.

- **No Permission.** The telephone may not use that line at all except when a call on that line is transferred to it.
- **Full Permission.** The user may place and answer calls on that line. (*Installed setting*)
- **Answer Only Permission.** The user may answer calls or retrieve held calls on that line.

- **AUTOMATIC LINE SELECTION** — This feature provides the dial tone when you pick up the receiver, without having to first select a line by pressing a line button. The SPIRIT system has been factory set to assign Line 2 as the first choice for outgoing calls. This cannot be changed. Customizing all lines as **Not Eligible** will mean that the user must select a specific line every time a call is made. A line that is assigned to a line button and has **Full Permission** can be set as **Eligible**, which means it can be used by simply picking up the receiver, or **Not Eligible**, which means the line button will have to be pressed first to use that line. If lines that are not assigned to buttons on the telephone are set as **Eligible** for AUTOMATIC LINE SELECTION, the setting is ignored. (*Installed setting is Eligible.*)

- **LINE RINGING OPTIONS** — You can assign to any line (with **Full** or **Answer Only Permission**) of any telephone one of the following ringing options for incoming calls.

- **No Ring.** The line does not ring for incoming calls.
- **Normal Ring.** The line rings normally. (*Installed setting*)
- **Abbreviated Ring.** The line rings for 12 seconds only.
- **Delayed Ring.** The line does not start ringing until 12 seconds after the call comes in.

- **NIGHT RINGING** — You can assign to each telephone one of the following options. The options you assign are in effect when Night Service (see User Manual) is on.

- **Normal Ring** at Night. When Night Service is on, the telephone will disregard customized LINE RINGING OPTIONS and ring normally for all permitted lines.
- **Customized Ring** at Night. The telephone will ring the same whether Night Service is on or off. (*Installed setting*).



## Telephone Features

- **OUTSIDE SERVICE** — This feature determines the kinds of outside calls that may be made from each telephone. The three choices are the following:
  - **Outward Restricted.** No outside calls may be placed at that telephone except 911 and unrestricted System *SpeedCall* numbers. (see page 23).
  - **Unrestricted.** Calls may be placed at that telephone with no restriction. (*Installed setting*)
  - **Toll Restricted.** No toll calls may be placed at that telephone except unrestricted System *SpeedCall* numbers — see page 23.

---

### System *SpeedCall* Numbers (*instructions for customizing begin on page 23*)

The System *SpeedCall* memory allows you to store telephone numbers that can be dialed by the users of the system with a two-digit code (30-99).

### SMDR Call Report (*instructions for customizing begin on page 25*)

Call Report explains how to set the system to list outgoing, and, if you want, incoming calls. If your system includes a printer, personal computer with appropriate software, or specialized hardware you can take advantage of this feature. You must enter the day and time when this equipment is installed at the SMDR jack.

- 
- **DAY OF WEEK** — This sets the day portion of a clock so the correct day can be printed.

---

  - **TIME OF DAY** — This sets a clock so the correct time can be printed.

---

  - **REPORTED CALL DURATION** — Decide what length call you want reported. Calls under thirty seconds are probably not completed calls. (*Installed setting is 30 seconds*)

---

  - **INCOMING CALL REPORT** — **Enable** or **Disable** reporting of incoming calls (*Installed setting is Enabled*)

---

### Print Customization Information (*instructions begin on page 27*)

If you have a printer, personal computer with appropriate software, or specialized hardware installed at the SMDR jack you can list all customizing information, including the System *SpeedCall* directory.

## How to Use the System Planner and the Customization Chart

A *System Planner* is provided on pages 8 and 9 to guide you in planning how you will customize your system. The System Planner is not only a useful guide in the decision-making process of setting up your system, but also provides a valuable record of the system. **The planner should be changed each time the system is changed.**

Record your system-wide decisions on the first page or a copy of the first page of the planner. You may want to use pencil so that you can make changes in the future. Make a copy of the second page of the planner for each telephone in your system. Using one copy of the telephone section of the planner for each telephone in your system, record your telephone customization decisions.

When the System Planner is complete you can start customizing your system. After becoming familiar with the confirmation and error tones (see page 12), the customization chart on pages 10 and 11 may be all you will need to complete the customization of your system. More detailed instructions, however, begin on page 12.

If you use the customization chart on pages 10 and 11, remember to follow the dotted line path. As on the System Planner, grey-shaded areas are the system features and green-shaded areas are the telephone features.

# System Planner

## INCOMING LINES

Use this page to plan the customization for your system. Permission is granted to make a copy of this page to record your decisions for the whole system.

Telephone Number of Line

Line 01 \_\_\_\_\_

Line 02 \_\_\_\_\_

Line 03 \_\_\_\_\_

Line 04 \_\_\_\_\_

Line 05 \_\_\_\_\_

Line 06 \_\_\_\_\_

Line 07 \_\_\_\_\_

Line 08 \_\_\_\_\_

Line 09 \_\_\_\_\_

Line 10 \_\_\_\_\_

Line 11 \_\_\_\_\_

Line 12 \_\_\_\_\_

Line 13 \_\_\_\_\_

Line 14 \_\_\_\_\_

Line 15 \_\_\_\_\_

Line 16 \_\_\_\_\_

Line 17 \_\_\_\_\_

Line 18 \_\_\_\_\_

Line 19 \_\_\_\_\_

Line 20 \_\_\_\_\_

Line 21 \_\_\_\_\_

Line 22 \_\_\_\_\_

Line 23 \_\_\_\_\_

Line 24 \_\_\_\_\_

## SYSTEM CUSTOMIZATION

### AUTOMATIC PRIVACY

- 1 Privacy Off \_\_\_\_\_
- 2 Privacy On \_\_\_\_\_ †

### TOLL CALL CHECK

- 1 1 Required \_\_\_\_\_ †
- 2 1 Not Required \_\_\_\_\_

### HELD CALL REMINDER

- 0 0 minutes \_\_\_\_\_
- 1 1 minute \_\_\_\_\_ †
- 2 2 minutes \_\_\_\_\_
- 3 3 minutes \_\_\_\_\_
- 4 4 minutes \_\_\_\_\_

### LINE TYPE

- 1 Unavailable
- 2 Outside †
- 3 PBX/Centrex

Line 22 _____	Line 23 _____	Line 24 _____
Line 19 _____	Line 20 _____	Line 21 _____
Line 16 _____	Line 17 _____	Line 18 _____
Line 13 _____	Line 14 _____	Line 15 _____
Line 10 _____	Line 11 _____	Line 12 _____
Line 07 _____	Line 08 _____	Line 09 _____
Line 04 _____	Line 05 _____	Line 06 _____
Line 01 _____	Line 02 _____	Line 03 _____

### PBX/CENTREX LINE ACCESS CODES

- 9 \_\_\_\_\_ †
- \_\_\_\_\_
- \_\_\_\_\_

### EXTERNAL ALERT

- 1 No Alert
- 2 Night Only †
- 3 Day Only
- 4 Always On

Line 22 _____	Line 23 _____	Line 24 _____
Line 19 _____	Line 20 _____	Line 21 _____
Line 16 _____	Line 17 _____	Line 18 _____
Line 13 _____	Line 14 _____	Line 15 _____
Line 10 _____	Line 11 _____	Line 12 _____
Line 07 _____	Line 08 _____	Line 09 _____
Line 04 _____	Line 05 _____	Line 06 _____
Line 01 _____	Line 02 _____	Line 03 _____

### DIAL TYPE

- 1 Touch Tone
- 2 Dial Pulse †

Line 22 _____	Line 23 _____	Line 24 _____
Line 19 _____	Line 20 _____	Line 21 _____
Line 16 _____	Line 17 _____	Line 18 _____
Line 13 _____	Line 14 _____	Line 15 _____
Line 10 _____	Line 11 _____	Line 12 _____
Line 07 _____	Line 08 _____	Line 09 _____
Line 04 _____	Line 05 _____	Line 06 _____
Line 01 _____	Line 02 _____	Line 03 _____

## CALL REPORT

### DAY OF WEEK

(Enter digit 1-7, 1 is Sunday)  
*Installed setting: ?*

### TIME OF DAY

Enter 4-digit time, 24-hour format  
*Installed setting: 99:99*

### REPORTED CALL DURATION

(Enter digit 109) \_\_\_\_\_  
 (1 is ten seconds)  
*Installed setting: 3 (30 sec.)*

### INCOMING CALL REPORT

- 1 Disabled \_\_\_\_\_
- 2 Enabled \_\_\_\_\_ †

## SYSTEM CONFIGURATION

(Larger version on page 36)

STATION	LOCATION	GROUP
10		61
11		61
12		61
13		61
14		61
15		61
16		61
17		61
18		62
19		62
20		62
21		62
22		62
23		62
24		62
25		62
26		63
27		63
28		63
29		63
30		63
31		63
32		63
33		63
34		64
35		64
36		64
37		64
38		64
39		64
40		64
41		64
42		65
43		65
44		65
45		65
46		65
47		65
48		65
49		65
50		66
51		66
52		66
53		66
54		66
55		66
56		66
57		66

† Installed Setting

# System Planner

## TELEPHONE CUSTOMIZATION

TELEPHONE(S) \_\_\_\_\_ LOCATION(S) \_\_\_\_\_ GROUP(S) \_\_\_\_\_

*Make a copy of this page for every different Telephone Customization. Complete one page for each telephone or group of telephones that will be customized identically.*

LINE BUTTON ASSIGNMENTS <i>Check below the lines assigned to buttons on telephone(s). Installed setting is lines 01-12 Assigned and lines 13-24 Not Assigned</i>	LINE USE PERMISSION <b>1 No Permission</b> <b>2 Full Permission †</b> <b>3 Answer Only</b>	AUTOMATIC LINE SELECTION <b>1 Not Eligible</b> <b>2 Eligible †</b>	LINE RINGING OPTIONS <b>1 No Ringing</b> <b>2 Normal Ringing †</b> <b>3 Abbreviated Ringing</b> <b>4 Delayed Ringing</b>
Line 01			
Line 02			
Line 03			
Line 04			
Line 05			
Line 06			
Line 07			
Line 08			
Line 09			
Line 10			
Line 11			
Line 12			
Line 13			
Line 14			
Line 15			
Line 16			
Line 17			
Line 18			
Line 19			
Line 20			
Line 21			
Line 22			
Line 23			
Line 24			

### NIGHT RINGING

- 1 Normal Ring \_\_\_\_\_
- 2 Customized Ring † \_\_\_\_\_

### OUTSIDE SERVICE

- 1 Outward Restricted \_\_\_\_\_
- 2 Unrestricted † \_\_\_\_\_
- 3 Toll Restricted \_\_\_\_\_

† *Installed Setting*

*The system assigns the lines to buttons in numerical order, starting with the lowest numbered line on the lower left button and proceeding left to right.*

*Using the Line Button Assignments above, write on the button chart at the right the lines you have assigned to the telephone(s).*

24-  
button  
set

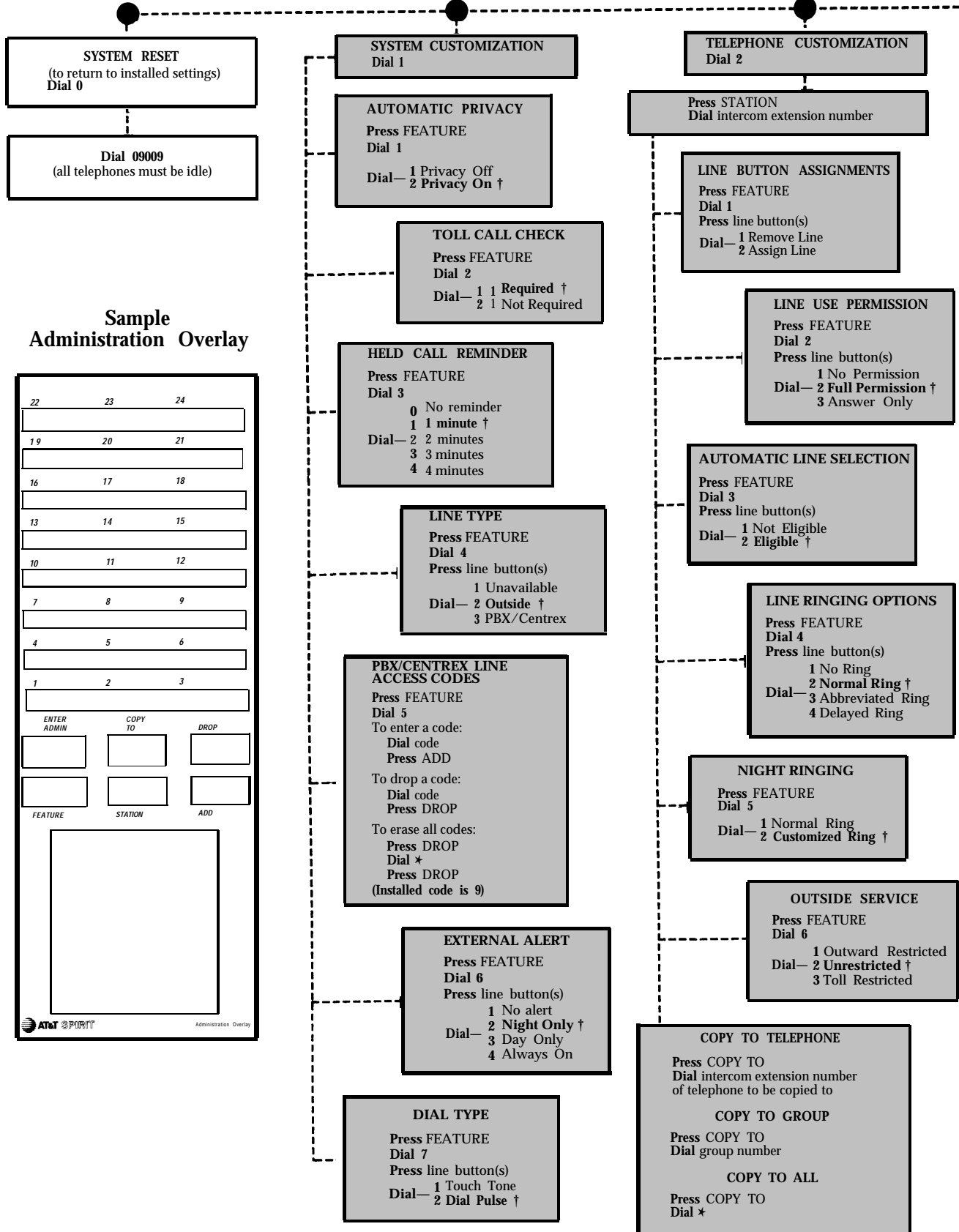
6-  
button  
set

Line _____ Button 22	Line _____ Button 23	Line _____ Button 24
Line _____ Button 19	Line _____ Button 20	Line _____ Button 21
Line _____ Button 16	Line _____ Button 17	Line _____ Button 18
Line _____ Button 13	Line _____ Button 14	Line _____ Button 15
Line _____ Button 10	Line _____ Button 11	Line _____ Button 12
Line _____ Button 7	Line _____ Button 8	Line _____ Button 9
Line _____ Button 4	Line _____ Button 5	Line _____ Button 6
Line _____ Button 1	Line _____ Button 2	Line _____ Button 3

# Customization Chart

Guide for use on page 11.

At Telephone Set 10  
 Press INTERCOM  
 Press SPEAKER  
 Dial \* 9 2 4 4 8  
 Install Administration Overlay



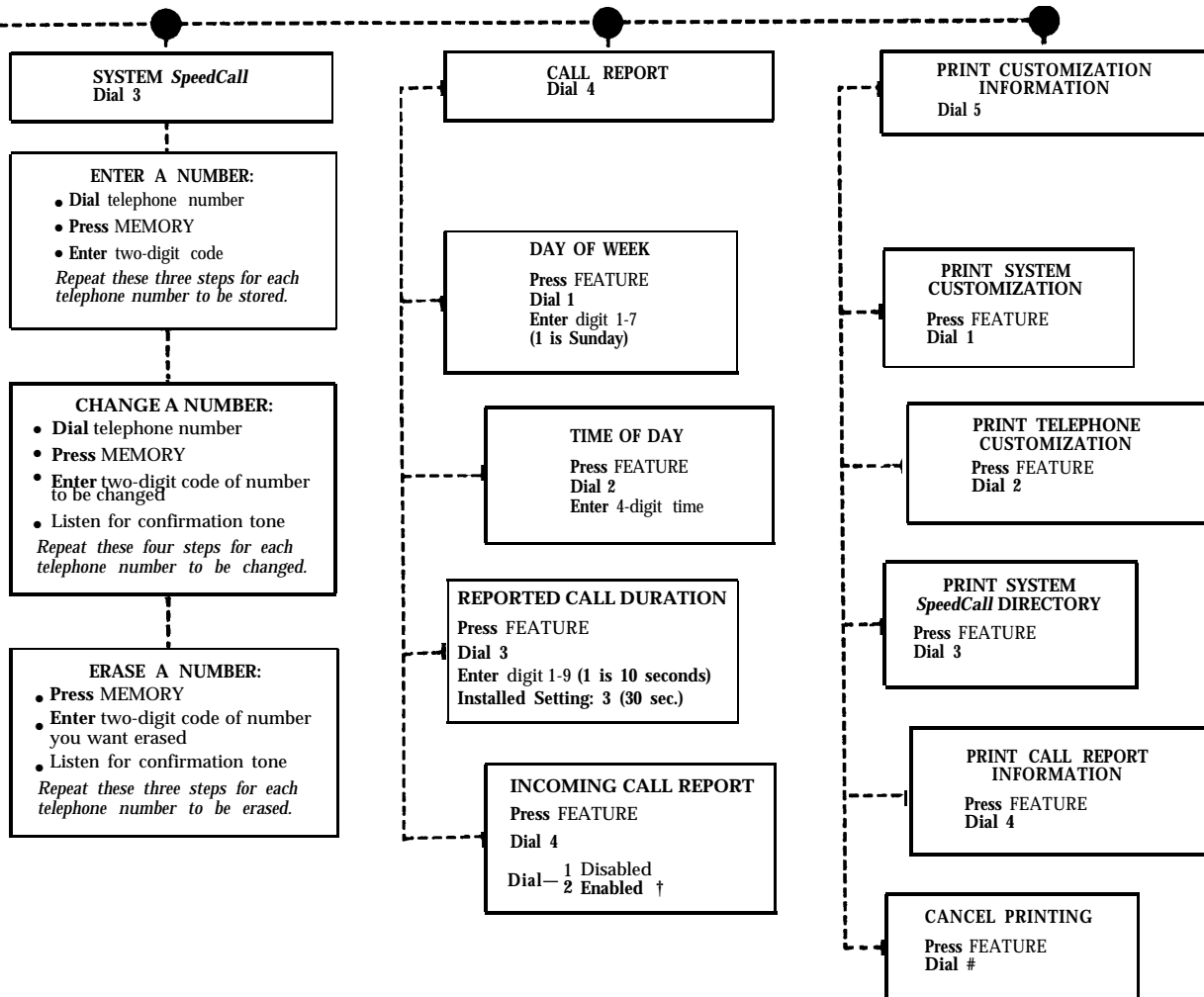
## Sample Administration Overlay

22	23	24
19	20	21
16	17	18
13	14	15
10	11	12
7	8	9
4	5	6
1	2	3

ENTER ADMIN      COPY TO      DROP

FEATURE      STATION      ADD

AT&T SPIRIT Administration Overlay



## Guide to Customization Chart

A more detailed set of instructions starts on page 13.

- To get to a different column of features, at ●, press ENTER ADMIN.
- To customize another feature in the same column, press FEATURE.
- To customize another telephone, press STATION.
- To copy the settings on that telephone to another telephone(s) press COPY TO.
- To leave customization hang up and replace overlay in pocket.
- Light patterns indicate current setting:
  - OFF is 1
  - ON is 2
  - Even Flash is 3
  - Wink (short on, long off) is 4

† **Installed setting**

## How to Customize

### Getting Started

When you have finished your plans you are ready to customize the system. **You must do all customizing from telephone set 10, which must be a 24-button set.** You cannot use an attendant adjunct for customization. For telephone customization, including the COPY functions, the telephone(s) being customized must not be in use. If you want to reset the system, all telephones in the system (except set 10) must not be in use, so you will want to choose a time when people are not using their telephones.

If you want, you can plan for future needs while you customize. If your system is not at capacity (for instance, you have 18 lines and 30 telephones in your **SPIRIT** system now, but plan to expand to 24 lines and 40 telephones in the future) you may customize the unequipped lines and extensions now. For proper operation of AUTOMATIC LINE SELECTION, you should customize LINE TYPE as **Unavailable** for the unequipped lines.

## Confirmation and Error Tones

Throughout this manual you are told that you will receive a **confirmation** tone after correct dialing and an **error** tone when you have made a mistake. It is important to become familiar with the confirmation and error tones before you start customizing the system. The following exercise provides examples of these tones.

- Press INTERCOM. ● Lift handset (or press SPEAKER).

*To hear a confirmation tone,*

- Dial # 2

*To hear an error tone,*

- Dial ✱ 0. ● Press MEMORY. ● Dial 28.

# Instructions for Customizing

Following are step-by-step instructions for customizing.

## ■ STEP 1 PRESS ONE OF THE INTERCOM BUTTONS ON TELEPHONE SET 10

An INTERCOM button press times out after five seconds. If more than five seconds elapse before you proceed to STEP 2, press the INTERCOM button again.

## ■ STEP 2 PRESS SPEAKER (or lift the receiver)

You will hear a dial tone.

## ■ STEP 3 DIAL \* 9 2 4 4 8

You will hear a confirmation tone. If you do not hear the confirmation tone, hang up and start over.

## ■ STEP 4 PLACE ADMINISTRATION OVERLAY

*(This step is not necessary if you are going to reset features back to the installed setting or enter SpeedCall numbers and do no other customization.)*

Place the administration overlay on telephone set 10. The overlay is provided in the pocket on the back cover of this manual. The ENTER ADMIN light will be on to show that the system is ready for administration. No calls may come in to or go out from telephone set 10 during customization.

## ■ STEP 5 CHOOSE KIND OF CUSTOMIZATION

The chart on pages 10 and 11 shows six customizing choices at the top. The chart also shows what customizable features are reached through each choice. Using the chart as a guide, make the appropriate choice.

- Dial 0 to reset the system. (All telephones except set 10 must be idle. If a telephone other than set 10 is in use you will hear a busy tone and the system will not reset.)
- Dial 1 to do System Customization.
- Dial 2 to do Telephone Customization.
- Dial 3 to store or erase numbers in the System *SpeedCall* memory.
- Dial 4 to customize the SMDR Call Report feature.
- Dial 5 to print customization information.

## ■ STEP 6 COMPLETE CUSTOMIZATION CHOSEN IN STEP 5

Following the instructions on pages 14-27, complete the customization chosen in STEP 5.

## ■ STEP 7 BEGIN ANOTHER KIND OF CUSTOMIZATION

To continue with another kind of customization, press the ENTER ADMIN button and repeat steps 5 and 6. For example, if you complete the desired customization under System Customization and want to continue with Telephone Customization, press the ENTER ADMIN button and repeat steps 5 and 6.

## ■ STEP 8 EXIT CUSTOMIZATION

When you are finished or want to stop customizing, replace the receiver (or press SPEAKER).

**Replace the Administration Overlay in the pocket on the back cover of this manual.**

## System Reset to Factory-Set Values-0

**CAUTION: Use of reset eliminates all customization.**

If you dialed 0 in STEP 5 on page 13, and if all telephones except the one you are using are idle, you can reset the system to the installed settings shown on the chart on pages 10-11. If all telephones are not idle, you will hear the busy signal.

Enter the System Reset code 09009. If you make a mistake you will hear the error tone, and you must exit and re-enter reset to try again (press ENTER ADMIN and dial 0). If you enter the reset code successfully you will hear the confirmation tone and all features except System *SpeedCall* numbers and call report day and time will be returned to installed settings. Lines 1 through 12 again will be assigned to buttons 1 through 12 on all telephones. If any telephones were customized so that some of those buttons were multi-purpose, and those buttons were programmed by the users, one-touch access to Personal *SpeedCall* numbers and all other user programming for those buttons will be lost. User programming of buttons 13 through 24 will be unaffected.

The reset procedure requires up to five seconds. You will hear the confirmation tone after the procedure is completed.

To exit you may replace the receiver or press SPEAKER, or, if you want to continue customizing features, press the ENTER ADMIN button to reenter administration at STEP 5 on page 13.



## System Customization - 1

If you dialed 1 in STEP 5 on page 13 you began System Customization. The features on the following pages may be programmed in any order, and you may exit customization at any time, leaving unchanged features at previously-set values. You may also use System Customization to check the setting of a feature. You do not have to make changes.

Features are customized by entering a digit, as shown on the following pages. If the digit you enter is valid, you will hear a confirmation tone and the indicator light(s) will reflect the new setting. If the digit you enter is not valid, you will hear the error tone and the system will remain ready to customize that feature until a valid digit is entered or you exit the feature. No change will be made in a feature until you hear a confirmation tone.

After customizing a feature, you may do any of the following:

- press the FEATURE button to customize another feature
- press the ENTER ADMIN button to go back to STEP 5
- hang up the receiver or press SPEAKER to exit customization

During customization, all the buttons on your 24-button set at station 10 represent lines. Numbering starts at the lower left with line 1 (see illustration). When you are customizing a feature that is not changed on a line-by-line basis, the Line 1 indicator light will show the current status of the feature. When you are customizing a feature that is changed on a line-by-line basis (line selectable), the status of *each line* will be shown on the indicator light for that line.

Line 22	Line 23	Line 24
Line 19	Line 20	Line 21
Line 16	Line 17	Line 18
Line 13	Line 14	Line 15
Line 10	Line 11	Line 12
Line 07	Line 08	Line 09
Line 04	Line 05	Line 06
Line 01	Line 02	Line 03

Button Assignments  
During Customization  
(Telephone Set 10)

When you are customizing features that require a setting for each incoming line in the system, you do not have to press the FEATURE button for each line. Press all the line buttons for which you want the same setting.

**EXAMPLE:** Your system has the capacity for 24 incoming lines. Lines 01 through 10 are **PBX/Centrex Lines**. Lines 11 through 20 are **Outside Lines**. Lines 21 through 24 are not used (**Unavailable**).

**PROCEDURE:** Press FEATURE, then dial 4. Press line buttons 01 through 10. Dial 3. Press line buttons 21 through 24. Dial 1

(You do not have to customize lines 11 through 20 because the installed setting is **Outside Line**.)

*The indicator light of a selected line button will flash rapidly to let you know which line you are currently customizing. If you have selected a line and then change your mind and do not want to customize that line, simply press the line button again.*

## System Customization

---

### ■ AUTOMATIC PRIVACY

Press FEATURE. Dial 1.

The indicator light for Line 1 will show the current system-wide privacy status. If the light is ON, AUTOMATIC PRIVACY is **On**. If the light is OFF, AUTOMATIC PRIVACY is **Off**.

To change the privacy status, enter one of the following:

DIAL	INDICATOR LIGHT	SETTING
1	OFF	<b>Privacy Off</b>
2	ON	<b>Privacy On (installed)</b>

---

### ■ TOLL CALL CHECK

Press FEATURE. Dial 2.

All the line indicator lights will go OFF. If you are required to dial 1 before placing toll calls, enter 1; otherwise, enter 2. Possible choices are 1, **1 Required (installed)** and 2, **1 Not Required**.

---

### ■ HELD CALL REMINDER

Press FEATURE. Dial 3.

All of the line indicator lights will go OFF. Enter the number of minutes for the HELD CALL REMINDER. If you enter 0 the feature is turned off and no HELD CALL REMINDER will be provided. You may also enter 1, 2, 3, or 4, so that the HELD CALL REMINDER will be provided after **One, Two, Three, and Four Minutes**. The installed setting is **One Minute**.

---

### ■ LINE TYPE

Press FEATURE. Dial 4.

Each line indicator light will show the current status for that line. (Line assignments are labeled on the Administration Overlay and shown in the table on page 15). If a light is ON the line is set as an **Outside Line**. If a light is OFF the line is set as an **Unavailable Line**, that is not part of your system. You should set as **Unavailable**, lines that are not part of your system. If the light is flashing an even flash, the line is set as a **PBX/Centrex Line**. To change any individual line(s), press the line button(s) and dial 1, 2 or 3 (see table, below). You may press more than one line button to make the change on more than one line. If you dial the number without pressing a line button first you will hear the error tone. (The system may require up to five seconds to complete the procedure. You will hear the confirmation tone after the procedure is completed.)

DIAL	INDICATOR LIGHT	SETTING
1	OFF	<b>Unavailable line</b>
2	ON	<b>Outside Line (installed)</b>
3	Even Flash	<b>PBX/Centrex Line</b>

---

## System Customization

---

### ■ PBX/CENTREX LINE ACCESS CODE

Press FEATURE. Dial 5.

All of the line indicator lights will go off.

#### To ENTER a system-wide PBX/Centrex dial code.

Dial the desired dial code. Press ADD button. You will hear the confirmation tone when the code is added. If there are already four other codes programmed you will hear the error tone. The digit **9** is preset as the PBX/Centrex code, so there is room for three other codes. You may, of course, erase the **9** code if you want.

#### To ERASE a system-wide PBX/Centrex dial code.

Dial the code you want to erase. Press DROP. You will hear the confirmation tone when the code is erased. If the code is not there to be erased, you will hear the error tone.

#### To ERASE all codes.

Press DROP. Dial **\***. Press DROP. You will hear the confirmation tone if you successfully followed the DROP procedure.

You may continue to enter or erase codes or you may exit the feature.

---

### ■ EXTERNAL ALERT

Press FEATURE. Dial 6.

Each line indicator light will show the current EXTERNAL ALERT status for that line. (Line assignments are labeled on the system administration overlay and shown in the table on page 15.)

To make changes, press the line button(s) for the line(s) on which you want to make a particular change and dial one of the digits from the table below. You may press more than one line button to make the change on more than one line. If you enter a digit without first pressing a line button you will hear the error tone.

DIAL	INDICATOR LIGHT	SETTING
1	OFF	No Alert
2	ON	Night Only ( <i>installed</i> )
3	Even Flash	Day Only
4	“Wink” (Short ON, Long OFF)	Always On

---

### ■ DIAL TYPE

Press FEATURE. Dial 7.

Each line indicator light will show the current DIAL TYPE for that line. (Line assignments are labeled on the system administration overlay and shown in the table on page 15.) If the light is OFF, that line is set for **Touch Tone** dialing. If the light is ON, the line is set for **Dial Pulse** dialing. To change the DIAL TYPE for a line or lines, press the line button(s) and dial the appropriate digit from the table below. You may press more than one line button to make the change on more than one line. If you enter a digit without first pressing a line button you will hear the error tone.

DIAL	INDICATOR LIGHT	SETTING
1	OFF	Touch Tone
2	ON	Dial Pulse ( <i>installed</i> )

---

## Telephone Customization - 2

If you dialed 2 in STEP 5 on page 13, you began Telephone Customization. The features on the following pages may be programmed in any order, and you may exit customization at any time, leaving unchanged features at previously-set values. You may also use Telephone Customization to check the setting of a feature. You do not have to make changes.

Features are customized by entering a digit, as shown on the following pages. If the digit you enter is valid, you will hear a confirmation tone, and the indicator light(s) will reflect the new setting. If the digit you enter is not valid, you will hear the error tone and the system will remain ready to customize that feature until a valid digit is entered or you exit the feature. No change will be made until you hear the confirmation tone.

All telephone features are customized on a set-by-set basis, so you must enter the telephone number before customizing. The changes you make on set 12, for example, will not be made on set 14, or any other, unless you specifically copy a customizing set-up from one telephone to another. *Making changes via Telephone Customization is not always necessary for all telephones. You may, for example, want to leave all the telephones except one at the installed setting for a feature.*

EXAMPLE: All of the telephones except set 16 are used by employees who should not be restricted from placing long distance calls. Set 16, however, is in the lobby, and is used by company visitors. You might want to set OUTSIDE SERVICE on the lobby telephone to **Toll Restricted**, leaving the other telephones **Unrestricted**.

After customizing a feature, you may do any of the following:

- press the FEATURE button to customize another feature
- press the STATION button to customize another telephone
- press the ENTER ADMIN button to go back to STEP 5 on page 13
- press the COPY TO button to copy the customization of this telephone to another telephone
- hang up the receiver (or press SPEAKER) to finish customization

During customization, all the buttons on your 24-button set represent line buttons. Numbering starts at the lower left with line 1 (see illustration, page 15). When you are customizing a feature that is not changed on a line-by-line basis, the Line 1 indicator light will show the current status of the feature on that telephone. When you are customizing a feature that is changed on a line-by-line basis (line selectable), the status of *each line* of that telephone will show on the indicator light for that line.

When you are customizing features that require a setting for each incoming line in the system, you do not have to press the FEATURE button for each line. Press all the line buttons for which you want the same setting.

EXAMPLE: You are customizing LINE USE PERMISSION and you want to make lines 4, 5, and 6 **No Permission** and lines 7 and 8 **Answer Only**.

PROCEDURE: Press FEATURE, dial 2, press line buttons 4, 5, and 6, and dial 1. Press line buttons 7 and 8 and dial 3.

*The indicator light of a selected line button will flash rapidly to let you know which line you are currently customizing. If you have selected a line and then change your mind and do not want to customize that line, simply press the line button again.*

## Telephone Customization

COPY TO is a useful procedure if you plan identical customizing for more than one set. If you want to copy the telephone customization you have completed for one telephone to another telephone, use the COPY TO TELEPHONE feature (see page 22). If you want to copy the telephone customization to all the other telephones in a group, use the COPY TO GROUP feature (see page 22). If you want to copy the telephone customization to all the other telephones in the system, use the COPY TO ALL feature (see page 22).

**EXAMPLE:** You have a system with 20 telephones. The customization for all sets except sets 10 and 15 is the same. The customization for set 10 is different from the customization for set 15.

**PROCEDURE:** Customize a set other than 10 or 15. Copy that customization to all sets. Customize set 10. Customize set 15.

**EXAMPLE:** You have a system with 24 telephones. The sets are in three groups – Group 61, Group 62, and Group 63. (See page 22 or page 3 for group assignments.) For customization of the telephones in Group 61, only telephones 14 and 15 are identical. The customization for all telephones in Group 62 matches the settings for telephone set 12 in Group 61. The customization for all telephones in Group 63 matches the settings for telephones 14 and 15 in Group 61.

**PROCEDURE:** Customize set 12. Copy customization of set 12 to Group 62 using the COPY TO GROUP feature. Customize set 13. Customize set 14. Copy the customization of set 14 to set 15 using the COPY TO TELEPHONE feature. Copy the customization of set 14 to Group 63 using the COPY TO GROUP feature. Customize the rest of the telephones in Group 61 (Telephones 10, 11, 13, 16, 17).

**EXAMPLE:** You have a system with 24 telephones. The customization for all the sets is the same except for AUTOMATIC LINE SELECTION.

**EXAMPLE:** Customize set 10. Copy the customization to all sets in the system using the COPY TO ALL feature. Customize AUTOMATIC LINE SELECTION for each set.

You can see that use of the COPY TO (COPY TO TELEPHONE, COPY TO GROUP, and COPY TO ALL) feature may save you from having to customize every telephone individually.

### ■ To customize a telephone (STATION),

Press STATION and dial the intercom extension number of the telephone to be customized.

If the telephone is being used, you will hear a busy signal and you must wait until the telephone is not busy before you can customize it. You can press STATION and dial another intercom extension to customize another telephone, or you may choose to leave telephone customization.

## Telephone Customization

### ■ LINE BUTTON ASSIGNMENTS

Press FEATURE. Dial 1.

The line indicator lights will show which lines have or have not been assigned to buttons on that telephone. (Line assignments are labeled on the system administration overlay and shown in the table on page 15.) To remove a line from a button, press the line button and dial 1.

To assign a line to a button, press the line button and dial 2. You may change multiple lines by pressing more than one line button before dialing 1 or 2. If you enter a digit without first pressing a line button you will hear the error tone.

Lines are assigned to buttons in ascending order from left to right, bottom to top. For example, if lines 1, 4, 5, 8, 10, and 12 are assigned to a telephone, the bottom row of buttons on that set will be assigned lines 1, 4, and 5. The second row of buttons will be assigned lines 8, 10, and 12, in that order, left to right.

**REMEMBER**, the more lines you assign to buttons, the fewer *SpeedCall* and *Intercom Extension* buttons the telephone can have.

The installed setting is for the first 12 lines to appear on buttons. **If you have fewer than 12 lines, it is important to “remove” the “lines” you don’t have. To determine the number of lines to remove, subtract the number of lines you have from 12.** If more than 6 lines are assigned to an intercom extension number, only the first 6 lines will appear on buttons if a 6-button set is installed at that position.

As the administrator of the system, you assign what lines will appear on a telephone. The system automatically assigns the line to a button. It is important that each button that serves as a line button is labeled **AT EACH TELEPHONE** and that the label includes **BOTH** the number of the line for the system (01 through 24) and the incoming line telephone number.

DIAL	INDICATOR LIGHT	SETTING
1	OFF	<b>Remove Line</b> (Line Not Assigned to a Button)
2	ON	<b>Assign Line</b> (Line Assigned to a Button)

### ■ LINE USE PERMISSION

Press FEATURE. Dial 2.

Each line indicator light will show the telephone's current permission for that line. (Line assignments are labeled on the system administration overlay and shown in the table on page 15.)

To change the option for individual line(s) on that telephone, press the line button(s) and dial a valid digit from the table below. You may press more than one line button to make the change on more than one line. If you enter a digit without first pressing a line button you will hear the error tone.

DIAL	INDICATOR LIGHT	SETTING
1	OFF	<b>No Permission</b>
2	ON	<b>Full Permission</b> ( <i>installed</i> )
3	Even Flash	<b>Answer Only</b>

## Telephone Customization

---

### ■ AUTOMATIC LINE SELECTION

Press FEATURE. Dial 3.

Each line indicator light will show the current status for that line. (Line assignments are labeled on the system administration overlay and shown in the table on page 15.) To change the option for individual line(s) on that telephone, press the line button(s) and dial a valid digit from the table below. You may press more than one line button to make the change on more than one line. If you enter a digit without first pressing a line button you will hear the error tone.

DIAL	INDICATOR LIGHT	SETTING
1	OFF	<b>Not Eligible</b>
2	ON	<b>Eligible</b> ( <i>installed</i> )

Lines customized without **Full Permission** from the telephone being customized will show as **Not Eligible** for AUTOMATIC LINE SELECTION. Selecting such a line will be ignored. Lines that are not assigned to buttons are never eligible for AUTOMATIC LINE SELECTION, even if they are customized as such.

---

### ■ LINE RINGING OPTIONS

Press FEATURE. Dial 4.

Each line indicator light will show the current ringing option for that line. (Line assignments are labeled on the system administration overlay and shown in the table on page 15.) To change the option for individual line(s) on that telephone, press the line button(s) and dial a digit from the table below. You may press more than one line button to make the change on more than one line. If you enter a digit without first pressing a line button you will hear the error tone.

DIAL	INDICATOR LIGHT	SETTING
1	OFF	<b>No Ring</b>
2	ON	<b>Normal Ring</b> ( <i>installed</i> )
3	Even Flash	<b>Abbreviated Ring</b>
4	“Wink” (Short ON, Long OFF)	<b>Delayed Ring</b>

Lines that have been customized as **No Permission** will show **No Ring**. Selecting such lines will be ignored.

---

### ■ NIGHT RINGING

Press FEATURE. Dial 5.

The indicator light for line 1 will show the current NIGHT RINGING option for this telephone. To change the option, dial one of the digits from the following table:

DIAL	INDICATOR LIGHT	SETTING
1	OFF	<b>Normal Ring</b> (Disregards customized LINE RINGING OPTIONS when Night Service is on.)
2	ON	<b>Customized Ring</b> ( <i>installed</i> ) (The telephone will ring according to customized LINE RINGING OPTIONS whether Night Service is on or off.)

---

## Telephone Customization

---

### ■ OUTSIDE SERVICE

Press FEATURE. Dial 6

The indicator light for line 1 will show the current overall OUTSIDE SERVICE for the telephone. To change the overall OUTSIDE SERVICE, dial one of the digits from the following table.

DIAL	INDICATOR LIGHT	SETTING
1	OFF	<b>Outward Restricted</b>
2	ON	<b>Unrestricted</b> ( <i>installed</i> )
3	Even Flash	<b>Toll Restricted</b>

---

### ■ COPY TO

You can use the three COPY TO features to save time if the customization of two or more telephones is similar or identical. The telephone(s) being copied to must not be busy. If you hear a busy tone, cancel the copy request by pressing the COPY TO button again.

#### Copy To Telephone

To copy the choices for the telephone being customized to another telephone, press COPY TO. The COPY TO indicator light will go on, and all the line indicator lights will go off. While the COPY TO indicator light is on, dial the intercom extension number of the telephone to which you want to copy. The telephone being copied to must not be busy. All of the telephone customization settings for the set being customized will be copied to the specified telephone set and you will hear a confirmation tone. The COPY TO light indicator will go off. To do another copy, repeat the process.

To cancel a copy, press the COPY TO button again without dialing the intercom extension number.

#### Copy To Group

The groups within your SPIRIT Communications System are numbered from 61 to 66.

INTERCOM EXTENSION NUMBER	GROUP NUMBER
10-17	61
18-25	62
26-33	63
34-41	64
42-49	65
50-57	66

You can copy the customization for the telephone being customized to all the telephones in a group by pressing the COPY TO button and then dialing the two-digit group number (61-66). All telephones in the group (except set 10) must be idle.

#### Copy To All

To copy the set-up for the telephone being customized, to all other telephones in the system, press COPY TO, then press ★ . All the telephones in the system (except set 10) must be idle. The Copy To All procedure may require up to five seconds to complete. You will hear a confirmation tone when Copy To All is completed.

---



## System *SpeedCall* - 3

The *SpeedCall* feature is an important time saver for users. There are two kinds of *SpeedCall* numbers: Personal and System. Personal *SpeedCall* numbers are entered by the users of the sets. Each user may store 12 Personal *SpeedCall* numbers. System *SpeedCall* numbers are stored in the system memory and are for the use of everyone in the system. The system can store 70 System *SpeedCall* numbers; of these 70, 50 are unrestricted and 20 are restricted (see below). *SpeedCall* numbers are dialed by using a two-digit code.

### Restricted and Unrestricted *SpeedCall* Numbers

Unrestricted *SpeedCall* numbers (including toll numbers) may be called by using a two-digit code from any telephone in the system that has full permission to an outside line, including telephones restricted from making outside calls or toll calls. For this reason, emergency numbers such as FIRE, POLICE, and AMBULANCE, should be entered as unrestricted numbers.

Unrestricted numbers are stored with codes 30-79. The OUTSIDE SERVICE restrictions you may have assigned to each telephone apply to numbers stored with codes 80-99, which are restricted *SpeedCall* numbers. The number 911 can be dialed from any telephone that has at least one line with full line use permission, and need not be entered as a *SpeedCall* number.

In summary,

Unrestricted *SpeedCall* numbers:

- may be called from any telephone regardless of OUTSIDE SERVICE customization.

Restricted *SpeedCall* numbers:

- may be called from telephones with **Unrestricted** OUTSIDE SERVICE.
- may be called from telephones with **Toll Restricted** OUTSIDE SERVICE, if the numbers are local.
- may **not** be called from telephones with **Outward Restricted** OUTSIDE SERVICE.

### *SpeedCall* Directory

Be sure you keep an accurate directory of the numbers you have stored in the System *SpeedCall* memory. Since numbers may be erased and added often, it's a good idea to make several spare, blank copies of the sample directory. Photocopy the System *SpeedCall* Directory on page 35.

## Storing System *SpeedCall* Numbers

If you dialed 3 in STEP 5 on page 13, you began customization of the System *SpeedCall* memory.

### A. DIAL THE TELEPHONE NUMBER

Dial the number to be entered in the System *SpeedCall* directory. A total of 16 digits, including pauses and one flash, may be stored as one number.

*NOTE: Press the HOLD/PAUSE button to enter a 1½ second pause in the number (i.e., to wait for a dial tone or access tone). If your system is part of a PBX/Centrex system you may store the outside access code as part of the number. If the line is customized as a PBX/Centrex line and the access code is entered in system customization, the system will automatically insert a pause after the code when you use your SpeedCall numbers.*

If you make a mistake entering the number, begin again by pressing ENTER ADMIN and dialing 3.

### B. PRESS MEMORY

### C. ENTER TWO-DIGIT CODE

Enter the two-digit code you want to assign to the number you have stored. Remember, codes 30 through 79 are for unrestricted numbers that can be dialed by anyone in your system, regardless of OUTSIDE SERVICE restrictions that may be customized on a telephone. Codes 80 through 99 are restricted according to the OUTSIDE SERVICE you customize for each telephone (see OUTSIDE SERVICE, page 7).

If you use a code that is already in use for another number, the new number will be stored over the old number and the old number will be lost. If you enter an invalid code (a code other than 30-99) you will hear the error tone (see page 12 for instructions on how to recognize the error tone). This means you will have to start over again at A, entering the telephone number. When you have successfully stored a number in the System *SpeedCall* memory you will hear a confirmation tone (three short beeps).

When you hear the confirmation tone you may continue to store numbers in the System *SpeedCall* memory by going back to A and entering a new number. If you want to continue with another kind of customization, press ENTER ADMIN. If you are finished storing numbers and want to exit customization, hang up the receiver (or press SPEAKER if you were using the speakerphone).

### Erasing a Number from the System *SpeedCall* Memory

You may enter a new number over an old number instead of erasing the old number. If you want to erase a number, follow the storing procedure described above, except do not enter a new number. After you press the MEMORY button, enter the code of the number you want to erase. A confirmation tone indicates your success. You may continue erasing, or you may enter a new number by going back to A. If you want to continue with another kind of customization, press ENTER ADMIN. If you want to exit the procedure, hang up the receiver (or press SPEAKER if you were using the speakerphone).

## **SMDR Call Report - 4**

The Call Report feature provides the information needed to track telephone usage. Using the output, you can observe line and telephone usage that will help your company make the best use of the system. Do you need more or fewer incoming lines? Should the telephones in a particular area be customized as **Toll Restricted**? These and other questions may be answered after viewing an accurate history of the incoming and outgoing calls on your system.

No action is necessary to "start" or "stop" the Call Report feature. If a printer, personal computer with appropriate software, or specialized hardware is installed with your system and is plugged into the "SMDR" jack on the controller, information will be sent to it as calls are completed. As long as the device is on, a Call Report (see page 28) will be printed.

**Call Reports may contain confidential information and should be kept private.**

### **Account Codes**

Some companies find it useful to assign account codes to telephone calls. For instance, an attorney's office may want to be able to bill the time spent on a call to a specific client. Account codes for Call Report purposes may be up to 16 digits long. The user must program a multi-purpose button as an "account code" entry button (see User Manual). If the user presses the programmed button, enters the account code, and then presses the programmed button again, the account code will be included as part of the Call Record.

### **Customizing SMDR Call Report**

You must enter the day of the week and the time of day when the optional equipment is installed and after long periods without power so that the information on the report is accurate. The reported call duration means the length of call you want to be reported—the system will not report calls that are ended before the customized time. INCOMING calls will be reported unless you customize the incoming Call Report feature described on the next page.

Call Report features are customized by entering a digit. If the digit you enter is valid, you will hear a confirmation tone. If the digit you enter is not valid you will hear the error tone and the system will remain ready to customize that feature until a valid digit is entered or you exit the feature.

To customize the Call Report feature in your system, follow the first four customization steps on page 13. At STEP 5, dial 4.

## SMDR Call Report

---

### ■ DAY OF WEEK

Press FEATURE. Dial 1.

Line indicator lights will be OFF. Enter a digit from 1-7 (1 is **Sunday**, 2 is **Monday**, etc.).

You will hear a confirmation tone if you enter a valid digit and an error tone if the digit you entered is not valid. The information will be used as part of the call record. If the day of the week is not entered, ? will appear on the call record.

A System Reset (see page 14) will not affect the day of week setting.

---

### ■ TIME OF DAY

Press FEATURE. Dial 2.

Line indicator lights will be OFF. Enter a four-digit time in 24-hour format (for example, if the time is 2:15 in the afternoon, enter 1415). Valid times are 0000 to 2359. You will hear a confirmation tone if you enter a valid time and an error tone if you enter an invalid time.

The time is set at 9999 when shipped from the factory and will not change until a time is entered. If you reset the system (see page 14), the TIME OF DAY setting will not be affected.

---

### ■ REPORTED CALL DURATION

Press FEATURE. Dial 3.

Line indicator lights will be OFF. Enter a digit from 1 to 9 to indicate the minimum length of call to be reported. If a 1 is entered, the system will report any call longer than **10 seconds**.

If a 2 is entered, the system will wait for **20 seconds** before reporting the call, and so on.

Maximum entry is 9, for ninety seconds. You will hear a confirmation tone after entering a valid digit, and an error tone after an invalid entry. *Installed setting is 30 seconds.*

---

### ■ INCOMING CALL REPORT

Press FEATURE. Dial 4.

Line 1 indicator light shows the current setting for incoming call reporting on a system-wide basis. Outgoing calls are always reported. Enter a 1 to prevent incoming calls from being reported. Enter a 2 to report incoming calls.

DIAL	INDICATOR LIGHT	SETTING
1	OFF	Incoming Calls Not Reported <b>Disabled</b>
2	ON	Incoming Calls Reported <b>Enabled</b> ( <i>installed</i> )

After customizing a feature, you may do any of the following:

- press the FEATURE button to customize another feature
  - press the ENTER ADMIN button to go back to STEP 5 on page 13
  - hang up the receiver or press SPEAKER to exit customization
-

## Printing Customization Information - 5

If your system has optional equipment for Call Report information, you can print the results of your system and telephone customization, your System *SpeedCall* directory, and the call reporting customization information.

NOTE: You can also send this same information about your system to a personal computer.

To begin, follow steps 1-4 on page 13. At STEP 5, dial 5.

---

### ■ PRINT SYSTEM CUSTOMIZATION

Press FEATURE. Dial 1.

The printer will print the customization information for system features.

---

### ■ PRINT TELEPHONE CUSTOMIZATION

Press FEATURE. Dial 2.

The printer will print the telephone customization information. The print-out will show information for a system capacity of 48 telephones, whether you have that many in your system or not.

---

### ■ PRINT SYSTEM *SpeedCall* DIRECTORY

Press FEATURE. Dial 3.

The printer will print a System *SpeedCall* directory.

---

### ■ PRINT CALL REPORT INFORMATION

Press FEATURE. Dial 4.

The printer will print the Call Report customization information.

---

### ■ CANCEL PRINTER

Press FEATURE. Dial #.

Use this procedure to cancel the current activity and resume sending call records.

---

After you request a printing activity, you may exit customization and the printing will continue. You should not, however, continue with other customization procedures while customization information is still being printed.

NOTE: During the printing of customization information, the printing of call records by the Call Report feature is interrupted. The system will store the information for 24 calls, but information on more calls than that will be lost. Since the printing of the telephone customization information can take as long as five minutes, you may want to schedule printing activities during times when your system is not very busy.

Some sample print-outs of Call Records and customization information are shown on the next pages.

After completing a printing operation, you may do any of the following:

- press the FEATURE button to go to another print feature
- press the ENTER ADMIN button to go back to STEP 5 on page 13
- hang up the receiver or press SPEAKER to exit customization

### Sample SMDR Call Report

	DAY	APPROX. TIME	CALLED NUMBER	DURATI ON	LI NE	STN.	ACCOUNT CODE
C	FRI	11: 03	6847	00: 00: 37	08	21	
C	FRI	11: 02	5559876	00: 02: 28	04	10	#32165*753#
C	FRI	11: 04	9P5557654	00: 26: 01	24	40	
C	FRI	11: 04	IN*	00: 26: 03	08	13	
†C	FRI	11: 30		00: 01: 13	05		
C	FRI	11: 33	5551234	00: 00: 57	24	22	
C	FRI	11: 31	IN	00: 03: 26	08	23	
C	FRI	11: 34	IN	00: 00: 43	20		
C	FRI	11: 31	5559876#12378945?	00: 02: 55	12	40	

† This is an example of a record of a call placed with a device plugged into an LA jack.  
No called number is available for this type of call.

**KEY:**

C-Call Record

IN-Incoming Call

\*- Digits dialed on an incoming call

? - more than 16 digits entered

P-Pause

## Sample Customization Reports

### SYSTEM CUSTOMIZATION

FEATURE	SETTING
A AUTOMATIC PRIVACY	2
A TOLL CALL CHECK	1
A HELD CALL REMINDER	1
A LINE TYPE	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 2 2 2 1 1 1 1
A PBX ACCESS CODES	75 70 9
A EXTERNAL ALERT	3 3 3 1 1 3 3 1 3 3 1 4 2 1 1 1 1 1 4 4 2 2 2 2
A DIAL TYPE	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 2 2 1 1 1 1

### TELEPHONE CUSTOMIZATION

STN.	FEATURE	SETTING
A 10	LINE BUTTON ASSMT	1 1 1 1 1 1 2 2 1 1 1 2 2 1 1 1 2 1 1 2 1 1 1 1
A 10	LINE PERMISSION	2 2 2 2 2 2 2 2 1 1 1 3 3 1 1 1 2 1 1 2 1 1 1 1
A 10	AUTO LINE SELECT	2 2 2 2 2 2 1 2 2 2 2 2 2 2 2 2 2 2 1 1 1 2 2 2
A 10	LINE RINGING	2 2 2 2 2 2 1 2 2 2 2 4 4 2 2 2 3 2 2 1 2 2 2 2
A 10	NIGHT RINGING	1
A 10	OUTSIDE SERVICE	2
A 11	LINE BUTTON ASSMT	1 1 1 1 1 1 1 1 2 1 1 1 1 2 2 1 1 2 2 2 1 1 1 1
A 11	LINE PERMISSION	2 2 2 2 2 2 1 1 2 1 1 1 1 2 3 1 1 2 2 2 2 2 2 2
A 11	AUTO LINE SELECT	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 1 1 1 2 2 2
A 11	LINE RINGING	1 1 1 1 1 1 2 2 2 2 2 2 2 3 4 2 2 1 1 1 2 2 2 2
A 11	NIGHT RINGING	2
A 11	OUTSIDE SERVICE	3

Settings are reported for each line in ascending order.

### SYSTEM SPEED CALLING NUMBERS

UNRESTRICTED		RESTRICTED	
CODE	PHONE NUMBER	CODE	PHONE NUMBER
A 30	5559876	80	7015551357
A 31	#2143658709#	81	95553579
A 32	6847	82	5558642
A 33	15552345	83	7513175558765
A 34	7513175552345	84	*5551928
A 35	*9P5557654	85	03175552534
A 36	R6510	86	
A 37	95556789	87	
A 38		88	

### CALL REPORT CUSTOMIZATION

FEATURE	SETTING
A DAY OF WEEK	3
A TIME OF DAY	11:38
A CALL DURATION	30
A INCOMING CALL RPT	1

KEY:  
A-Administration

## SECTION 2 Additional Information

### Ringing Options

If an attendant answers most of the calls that come into the office, you may want to customize the lines on other telephones to **No Ring** or **Delayed Ring**.

Some businesses have one attendant and no backup, leaving no one to answer calls if the attendant is absent. If this is your situation, you may want to set the lines on all the phones in the office to **Delayed Ring** so that when the attendant is not available calls will ring automatically at the other phones after twelve seconds. You could also set NIGHT RINGING to **Normal Ring** for telephones that you want to ring when the attendant is not able to answer the telephone. The attendant must then turn on Night Service when that situation occurs.

If there is someone to cover for the attendant, you may choose to customize the lines on the backup person's phone to **Delayed Ring** and all other phones for **No Ring**.

The customizing procedure is so simple you can change call coverage and ringing patterns on an as-needed basis. Think of your customizing as flexible and easily changed.

### System Changes

From time to time you will want to make changes, either in the system or on individual lines or sets. To make changes simply follow the instructions for customizing features.

When you customize a telephone from telephone set 10 you are not actually customizing the telephone, but the *location* where the telephone line is plugged in at the controller. Therefore, if you want a telephone to retain previous customization, be sure the cord or wiring run for that telephone is plugged into the controller in the same jack as before. For example, if Linda, whose intercom extension number is 14, and Bob, whose intercom extension number is 15, exchange offices, you may switch the telephones to the new locations and plug station cord 14 into controller jack 15 and station cord 15 into controller jack 14. Relabel the cords to identify the new positions. Linda is still intercom extension number 14 and Bob is still intercom extension number 15, and they retain their individual customization and personal *SpeedCall* memories.

You may need to change a person's group assignment. Since group assignments are determined by **SPiRiT** intercom extension number assignments, the person will need a new intercom extension number. Be sure the cord or wiring run for that set is plugged into the controller at the new station jack. If the telephone customization for that person will remain about the same, use Copy To to copy the customization from the old station number to the new one. The person will have to redo programming of *SpeedCall* numbers and multi-purpose buttons at the new extension number.

If a permanent change is made in the assignment of a **SPiRiT** extension number that is already being used, the programming that was done at that extension will need to be erased. To do this from the individual telephone, erase all the two-digit *SpeedCall* codes, 10-21, using the method in the *SpeedCall* section of the User Manual, and then erase all the buttons following the procedure in the Programming Multi-Purpose Buttons section of the User Manual. A faster way of getting rid of individual programming is to enter telephone customization from set 10, and first assign all 24 possible lines (even if you do not have 24 lines at your business) to line buttons on the set (Line Button Assignment) and then remove the ones that are not wanted. All programming that the person did at the set will be erased but all programming you did, as the administrator, will be retained.

### Using with a PBX/Centrex System

Throughout the Administration Manual and the User Manual you are directed to dial an "intercom extension" number. This number is the two-digit **SPiRiT** telephone number, not a PBX/Centrex extension number. The intercom extension number refers to the controller jack into which the telephone line cord or wiring run is plugged. That information should be part of the system directory that was completed during installation of the system.



If your system requires a PBX/Centrex line access code, you should customize that code through the system customization process (see page 17). If the line access code is customized, the system will automatically enter a pause to wait for a dial tone after the code is dialed as part of a *SpeedCall* number. If the code is not customized, the system may consider the code part of the telephone number and not be able to check the digits for toll call restrictions.

A **SPiRiT** system behind a PBX or Centrex may not act as expected in some cases. For example, if you were previously using such a system, you could distinguish between "inside" and "outside" calls by the ringing pattern. Now if you are using a **SPiRiT** system behind PBX/Centrex, "inside" calls include only **SPiRiT** Intercom calls, and all other calls will ring as "outside" calls.

If you are using both **SPiRiT** and PBX/Centrex features, be sure you remember to access each feature as required. To access **SPiRiT** features, you must be using INTERCOM; to access PBX/Centrex features you must be using a PBX/Centrex line. You may have some unexpected and confusing results if you attempt to access a PBX feature on INTERCOM, or a **SPiRiT** feature on a PBX/Centrex line.

If there are some PBX/Centrex features that you use often, you can program them as personal *SpeedCall* numbers for easy access. First, make sure you have the code for the PBX/Centrex feature you wish to access. Then, following the procedure outlined in the User Manual, program the following as a *SpeedCall* number: RECALL, PAUSE, Feature Code. You can then use *SpeedCall* to access the PBX/Centrex feature.

## **LA Jacks (*Dedicated Lines and Power Failures*)**

### **Dedicated Lines**

One jack for each four line jacks is labeled LA on the controller. LA means Line Auxiliary. These jacks provide standard telephone service unaffected by system features and are useful as dedicated lines for computer modems, answer/record machines, and in power failure situations.

The controller and expansion unit have a "line card" for every four incoming lines in the system. There is one LA jack for every line card installed in your controller or expansion unit. Each LA jack uses the same incoming line as the lowest numbered line on the card. When the LA jack on a line card is being used (that is, the device plugged into that jack is "offhook" and is actually being used), the lowest numbered line on that line card will be unavailable for use by the system. Devices may be left plugged in the LA jacks, and as long as they are not in use they will not interfere with the lines.

### **Power Failures**

The LA jacks may be used with a standard telephone during a power failure when the rest of the system cannot be used. Simply plug one end of a telephone line cord into one of the LA jacks and the other end into a standard telephone.

During power failures less than 2½ days, the customization memory will be maintained; however, the system clock will not continue to run during the power outage. If you are using Call Reporting you should reset the time and possibly the day depending upon the length of the power failure. During power failures of more than 2½ days, the memory will be lost and all customized features will reset to the installed setting. Be sure to keep a record of current customization.

## **Optional Equipment**

The controller has jacks for a music on hold source, and an external alerter. A volume control for the music on hold is located next to the music on hold jack on the controller. The controller also has an SMDR (Station Message Detail Recording) jack for a serial printer or personal computer. Several models of serial printers and personal computers are available for use with the system, but a 355A or 355AF RS232 adapter **MUST** be used with **ANY** of this equipment. There are also loudspeaker paging systems available for use with the **SPiRiT** system. See your AT&T representative for more information.

*NOTE: Users of equipment that rebroadcasts copyrighted music or other material may be required to obtain a license from a third party such as ASCAP or BMI.*

## Additional Feature Information

### Outside Calls on INTERCOM Buttons

Features and operations that would normally require a line button can use the INTERCOM button instead. The INTERCOM button can act as a line button for a call if no button exists for that line on that telephone. This means not only that you may use the INTERCOM button to access a line for which you have no button, BUT ALSO that incoming calls will ring in on the INTERCOM button and may be answered in the normal way. The indicator light for the INTERCOM button will act like the line button indicator light, except during held calls (see Indicator Light Patterns in the User Manual).

Following are a few differences which may occur when you are using an INTERCOM button in place of a line button:

- If you hang up on such a call, the INTERCOM light will go out even if another person is still on the call.
- If you place the call on hold, the indicator light will show the I HOLD pattern unless the line is still in use by another person. If the line is still in use after you place it on hold, the indicator light will show the THEY USE pattern; for example, a line might still be in use if someone else had bridged onto the call.
- If you place the call on hold and the call is taken off hold at another telephone or another **SPiRiT** set was already on the call, you may not be able to rejoin the call if Privacy is on. If this occurs, that INTERCOM button and indicator light will be unavailable to you until the call is hung up.

An outside call on an INTERCOM button leaves only one button left for intercom calls or other features accessed by pressing INTERCOM, an important consideration if you are planning a conference with more than one intercom extension.

You may program into a *SpeedCall* location the code sequence (8 plus the line number desired) for dialing an outside number on a line not assigned to a line button. You may, if you want, include the telephone number if you want to use this feature for a specific outgoing call only.

### INTERCOM Indicator Lights

The indicator lights next to the INTERCOM buttons show what is happening on intercom calls or outside calls on the INTERCOM button at that telephone:

- I USE flashes a long ON and short OFF.
- I HOLD flashes a short ON and long OFF.
- Incoming alert flashes an even ON and OFF.
- If the light is OFF, that INTERCOM button is idle

A graphic description of light patterns is shown in the User Manual.

### Intercom Extension Indicator Lights

Intercom Extension buttons, whether on the station adjunct or programmed for that use on a telephone, have indicator lights that show what is happening on that telephone.

- If the light is OFF the telephone is idle.
- If the light is ON, the telephone is busy.
- If the light is FLASHING *rapidly*, the telephone is the source of an incoming intercom call or group page to your telephone, returning a transferred call to your telephone, or manually signaling your telephone.
- If the light is FLASHING *slowly*, that telephone is receiving an intercom call that you may answer by using the call pickup procedure described in the User Manual.

Intercom extension indicator lights do not flash for transferred calls.

### Conference

A maximum of four telephones may be conferenced; only three of these may be **SPiRiT** telephones. The total of four must include any telephones bridged onto the conference.

The originator of a conference call is the person who makes the initial conference. If the originator hangs up, the call is disconnected. Only the originator can add or drop other people. If one of the other telephones in a conference call is an intercom extension, the originator can leave the conference call without disconnecting the other people by placing it on hold. The

originator can then hang up and the other people can continue the call. If none of the telephones except the originator's is an intercom extension, the outside callers are on hold, and will not hear each other. In either case, the originator is still considered one of the four participants on the call, so if someone other than a conference participant sets up the conference, a total of three people can be conferenced. The call will disconnect when all the other parties hang up. If your system has a system attendant who will be responsible for originating the conference calls, be sure this procedure is explained carefully.

A conference call on hold is actually without an originator, so if someone picks up a line when a conference call is on hold, that person becomes temporary custodian of the call and will disconnect the conference call by hanging up. When retrieving a held call, it is important that the line or INTERCOM button that is pressed is flashing an I HOLD pattern; pressing a button with a THEY HOLD pattern can result in hanging up on all of the other parties.

Placing and retrieving conference calls on hold can require special treatment, particularly if outside calls appearing on an INTERCOM button are involved. You may want to form a few practice conferences involving combinations of lines and stations so that you can set up written guidelines for conferencing.

Depending on your situation (geographic location, number of conferees, distance between conferees, etc.), voice quality on conference calls may be affected (distant parties may have difficulty hearing each other).

### **Call Forwarding**

Intercom calls may be forwarded to or from any telephone that is plugged into the controller at the time of the forwarding. An intercept tone (continuous error tone) will result if the user attempts to forward calls to an intercom extension that is not plugged in.

Calls may not be forwarded to an attendant adjunct. An intercept tone will result if such an attempt is made.

Calls may be forwarded to telephones from which calls are already forwarded, but the calls will not be forwarded again. For example, if intercom extension 12 is forwarded to 20 and intercom extension 15 forwards calls to 12, the calls for intercom extension 15 will ring at extension 12, not extension 20.

Call forwarding allows users to switch locations temporarily without losing calls. For example, calls to intercom extension 12 may be forwarded to 15 and calls to 15 may be forwarded to 12. Anyone dialing extension 15 would then have the call forwarded to extension 12 and the reverse would be true for extension 12.

If a user forwards calls from one extension to the same extension number, call forwarding for that extension is canceled.

If Auto Callback is placed to an intercom extension which has calls forwarded, the call back signal from the extension with calls forwarded will not occur until call forward is canceled.

Tuning on the message light for telephones is not forwarded, even if the intercom call was forwarded.

Transferred calls will not be forwarded; only intercom calls can be forwarded not outside calls.

When a call comes into a telephone from which calls have been forwarded, that telephone will ring with one very short ring. This serves as a reminder to the user that the calls have been forwarded. It is NOT possible to answer the call at that phone.

### **Group Paging**

When a telephone is involved in a group page, the user will not hear a ring if a call comes in. If the user has HFAI on, it may be difficult to distinguish a group page from an HFAI intercom call. Announcements should be phrased in such a way as to make it clear that a page is occurring.

## Helpful Hints

As you probably already know, when people have troubles with their sets, they will come and discuss them with you. Here are some of the problems you may hear, and suggestions for handling them.

- A set will not ring when it should and the MUTE light is blinking. *Do Not Disturb may have accidentally been turned on. Have the person press INTERCOM, SPEAKER, #, 2.* The light will go out and the set should be able to ring again.
- When people think they are on outside calls, sometimes their voices can be heard over the loudspeakers. *Make sure that the "line" associated with the line jack into which the loudspeaker paging system is plugged is not eligible for Automatic Line Selection.*
- Telephones ring briefly and when answered, no one is there. *Either someone else answered the call or the user inadvertently used Line Reserve, that is, pushed an in-use line button. When the line was free, the user was signaled.*
- The typed or written labels on the sets are hard to read. *Be sure that they are typed at the very top of the label.*
- People ignore their message lights. *Tell the people who send the messages about Auto Callback.*
- People are inadvertently taking other people's calls off Hold. *Encourage the use of Exclusive Hold. Not only will no one but the person who has put a call on Hold be able to retrieve it, but the number of blinking line indicator lights will be reduced.*
- There are too many blinking lights on the telephones. *Encourage the use of Exclusive Hold. Not only will no one but the person who has put a call on Hold be able to retrieve it, but the number of blinking line indicator lights will be reduced.*
- Calls that have been placed on Hold cannot be retrieved elsewhere. *Make sure that people are not accidentally using Exclusive Hold by pressing the Hold button twice. Sometimes a finger bounces a little without the person's realizing it.*
- People complain that there are buttons on their sets that are not line buttons that they cannot program. *Make sure that line Button Assignments are customized correctly. Since the default setting is 12 line buttons on 24-button sets, even if your telephone service provides less than 12 lines, there will be 12 line buttons on sets unless some of the line buttons have been "removed" during Telephone Customization.*
- People complain that they cannot program Intercom Extension Buttons. *Make sure that they are not trying to program an intercom extension number that is already on another button.*
- People complain that they cannot program SpeedCall Buttons. *Make sure that the two-digit SpeedCall code is not already being used with another SpeedCall button.*
- A telephone will not "hang up." *Make sure that the receiver has not been switched to a non-SPIRIT one.*
- The SPIRIT user sounds fuzzy or faint. *Make sure that the receiver has not been switched to a non-SPIRIT one.*
- There is no dial tone. *Make sure that the receiver has not been switched to a non-SPIRIT one.*
- Calls cannot be placed. *Make sure that the receiver has not been switched to a non-SPIRIT one.*
- People ignore the system attendant's calls when they are on other calls. *Encourage the use of Manual Signaling, in conjunction with turning on Message Lights.*
- The 24-Button Attendant Adjunct (optional) does not work. *Make sure that it is plugged into the station jack that is numbered one higher than the station set with which it is paired.*
- A telephone starts making calls when no one has touched it. *Make sure that a 24-Button Attendant Adjunct (an optional piece of equipment that which may be located elsewhere) is not plugged into the controller's next highest station jack.*

**System SpeedCall Directory**

Name/Number	Code	Name/Number	Code
Unrestricted:			65
	30		66
	31		67
	32		68
	33		69
	34		70
	35		71
	36		72
	37		73
	38		74
	39		75
	40		76
	41		77
	42		78
	43		79
	44	Restricted:	
	45		80
	46		81
	47		82
	48		83
	49		84
	50		85
	51		86
	52		87
	53		88
	54		89
	55		90
	56		91
	57		92
	58		93
	59		94
	60		95
	61		96
	62		97
	63		98
	64		99

### Intercom Extension and Group Directory

Number	Name or Location	Group
10		61
11		61
12		61
13		61
14		61
15		61
16		61
17		61
18		62
19		62
20		62
21		62
22		62
23		62
24		62
25		62
26		63
27		63
28		63
29		63
30		63
31		63
32		63
33		63
34		64
35		64
36		64
37		64
38		64
39		64
40		64
41		64
42		65
43		65
44		65
45		65
46		65
47		65
48		65
49		65
50		66
51		66
52		66
53		66
54		66
55		66
56		66
57		66

## 2448 Administration Manual Index:

- A**  
 Abbreviated ring, 6, 9, 10, 21  
 Account codes, 25  
 Add function, 3  
 Administration overlay, 3, 10, 13  
 Answer only, permission, 6, 9, 10, 18, 20  
 Assign line, 20  
 Automatic line selection, 6, 9-10, 12, 19, 20, 21  
 Automatic privacy, 5, 8, 10, 16
- C**  
 Call forwarding, 33  
 Centrex line access codes, 5, 8, 10, 17  
 Conference, 32-33  
 Controller, 2  
 Confirmation tones, 12  
 Copy to function, 3, 10, 11, 22
- D**  
 Dedicated lines, 31  
 Delayed ring, 6, 9, 10, 21  
 Dial, 3; type, 5, 8, 10; pulse, 5  
 Drop function, 3
- E**  
 Enter admin. function, 3, 10, 11, 13-15  
 Erase all codes, 17; PBX/Centrex dial code, 17  
 Error tones, 12  
 External alert, 2, 5, 8, 10, 17  
 Extensions group, 3; intercom, 3  
 Exit telephone customization, 13
- F**  
 Features system, 5; telephone, 6-7
- G**  
 Group extensions, 3  
 Group paging, 33
- H**  
 Hands-free answer indicator,  
 HFAL button and indicator light.  
 Held call reminder, 5  
 Helpful hints, 34  
 How to use this manual, 4
- I**  
 Intercom, 2, 3, 10, 12, 32  
 Incoming call report, 7, 8, 11  
 Indicator lights, 3
- J**  
 Jacks, LA, 31; network interface, 2; SMDR, 2
- L**  
 LA jacks, 31  
 Line access codes, 5, 8, 10; assignments, 6, 10;  
 ringing options, 6, 9, 10; types, 5, 8, 10;  
 use permission, 6, 9, 10  
 Loudspeaker paging, 2, 31
- M**  
 Memory button, 3  
 Music on hold, 2, 31; volume control, 2, 31
- N**  
 Network interface jacks, 2  
 Night ringing, 6, 9, 10, 21  
 Normal ring, 6, 9, 10, 21
- O**  
 Optional equipment, 31  
 Outside service, 7, 10; restricted, 9;  
 Unrestricted, 10; toll restricted, 10
- P**  
 Paging, 33; group, 33  
 Parts of the system, 2  
 PBX line access codes, 5, 8, 10, 17  
 Permission answer only, 6; full, 6; no, 6  
 Power failures, 31  
 Privacy, 5, 8, 10, 16  
 Programmed ring, 6, 9, 10, 21
- R**  
 Recall button,  
 Remove line, 10, 20  
 Reported call duration, 7, 8, 11, 26  
 Reset system, 4, 14  
 Restricted SpeedCall numbers, 23  
 Ring, abbreviated, 6, 9-10, 21;  
 customized, 6, 9-10, 21;  
 delayed, 6, 9-10, 21; normal, 6, 9-10, 21;  
 programmed, 6, 9-10, 21;  
 night, 6, 9-10, 21; no, 6, 9-10, 21
- S**  
 SMDR call report, 4, 7, 13, 25-26;  
 customizing, 25; sample, 28  
 SpeedCall, 4, 7, 11, 23;  
 directories, 23; erasing, 24; numbers, 7;  
 print, 27; restricted, 23; storing, 24;  
 unrestricted, 23;  
 System changes, 30
- T**  
 Toll call check, 5, 8, 10, 16  
 Toll restriction, 7, 9, 10, 18, 22, 23, 25,  
 18, 22-23, 25  
 Touch Tone, 5, 8, 10, 17
- V**  
 Volume control button, 2

A copy of the Administration Overlay is located on page 10.

To order additional copies of SPIRIT® Communications System, Model 2448 documents, write:

Customer Information Center  
 P.O. Box 19901  
 Indianapolis, IN 46219  
 or call: 1-800-432-6600

Document Title	Select Code	Document Number
<b>Customer Installation Instructions, 1224 Controller</b>	<b>950-232</b>	<b>999-500-232</b>
<b>Installation Instructions, 2448 Expansion Unit</b>	<b>950-233</b>	<b>999-500-233</b>
<b>Installation Instructions, Line and Station Cards</b>	<b>950-234</b>	<b>999-500-234</b>
<b>Administration Manual</b>	<b>950-235</b>	<b>999-500-235</b>
<b>48-Button Attendant Adjunct, Instruction Card</b>	<b>950-236</b>	<b>999-500-236</b>
<b>User Manual</b>	<b>950-237</b>	<b>999-500-237</b>
<b>Reference Card (set of 10)</b>	<b>950-238</b>	<b>999-500-238</b>
<b>Set (1 each of the above)</b>	<b>950-000</b>	
<b>Administration Overlay</b>		<b>999-500-242</b>
<b>Customer Convenience Kit (blank and printed telephone set labels, plastic strips, Administration Overlay)</b>	<b>999-240</b>	<b>999-500-240</b>