

**Lucent Technologies**  
Bell Labs Innovations



# **The 8400-Series Voice Terminals**

## **Instructions for Installation, Switch, Administration, and Programming the Options**

(For the 8403, 8405, 8410, 8411, and 8434DX Voice Terminals)  
(Instructions and Information for the Installer, System Manager,  
and Provisioning Personnel)

555-015-725  
Comcode 107537094  
Issue 1  
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This voice terminal is Hearing Aid Compatible (HAC). In addition, some units have "HAC" printed on them.

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EMC Directive	89/336/EEC
Low-Voltage Directive	73/23/EEC



The "CE" mark affixed to this equipment means that it conforms to the above directives.

## DO NOT DISCARD THE BLANK DESIGNATION CARD

The voice terminal is shipped with a blank button designation card in place under the transparent cover. **Do not discard this button designation card.** Instead, place the preprinted designation card over the blank button designation card which comes with the voice terminal. This blank designation card can then be used as a substitute if, in the future, there are changes in features, telephone numbers, or extension assignments on the voice terminal.

## ENVIRONMENTAL INFORMATION

In accordance with international environmental standards, parts of these voice terminal and equipment have been manufactured with recyclable plastic resins. These telephone parts have been marked >ABS< so they can be easily identified at recycling or waste recovery facilities when appropriate. The paper used in this documentation is also recyclable.

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## Comments

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## Acknowledgment

This document was prepared by Product Documentation Development, Lucent Technologies, Middletown, NJ 07748-9972.

## IMPORTANT SAFETY WARNINGS

When this product is located in a separate building from the telephone communications system, a line current protector **MUST** be installed at the entry/exit points of ALL buildings through which the line passes. However, note that there is a difference between 4-wire and 2-wire installations.

The following are the **ONLY** acceptable devices for use in a 4-wire installation: (note that two protectors are needed at each installation point)

- Lucent Technologies 4-type protectors
- ITW LINX LP-type protectors

For 2-wire installations, the following is recommended: (only one protector is needed at each installation point)

- Lucent Technologies 4-type protectors
- ITW LINX LP-type protectors

However, if the above two protectors are not used, the following is acceptable in a 2-wire installation:

- Lucent Technologies 3BIC (Carbon block) or Lucent Technologies 3BEW (gas tube) protectors

The 3BIC and 3BEW protectors can be used **ONLY** for 2-wire installations. They **CANNOT** be used for 4-wire installations.



### **CAUTION:**

*This voice terminal is NOT for residential use. It is for business systems applications ONLY. Use in a residential environment could result in an electrical short circuit when the telephone wiring is set up to provide other applications, for example, for appliance control or power transformers. The AC power used in these applications may create a safety hazard by placing a direct short circuit across the telephone wiring.*

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# The 8400-Series Voice Terminals

# 1

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There are ten different types of 8400-Series voice terminals: the 8403, 8405B, 8405B Plus, 8405D, and 8405D Plus, 8410B and 8410D, 8411B and 8411D, and 8434DX. The following table lists the voice terminals and shows the features you can use with each of them.

**Table 1-1. The 8403 and 8405 Voice Terminals**

<b>Feature</b>	<b>8403</b>	<b>8405B</b>	<b>8405B Plus</b>	<b>8405D</b>	<b>8405D Plus</b>
Liquid Crystal Display (LCD)				✓	✓
Vacuum Fluorescent Display (VFD)					
Softkeys and Display Control Buttons				✓	✓
Call appearance/ Feature buttons	3	5	5	5	5
1-way Speaker	✓	✓	✓*	✓	✓*
2-way Speakerphone			✓		✓
Feature Button	✓				
Shift Button		✓	✓	✓	✓
Transfer, Hold, Conf, and Drop Buttons	✓	✓	✓	✓	✓
Test Button	✓	✓	✓	✓	✓
Mute Button	✓	✓	✓	✓	✓
Volume Control Button	✓	✓	✓	✓	✓
Message Light	✓	✓	✓	✓	✓
Personalized Ringing	✓	✓	✓	✓	✓
Adjunct Jack	✓	✓	✓	✓	✓

\* The 2-way speakerphone can be optioned as a 1-way (listen-only) speaker, (or it can be disabled).

**Table 1-2. The 8410, 8411, and 8434DX Voice Terminals**

Feature	8410B	8410D	8411B	8411D	8434DX
Liquid Crystal Display (LCD)		✓		✓	
Vacuum Fluorescent Display (VFD)					✓
Softkeys and Display Control Buttons		✓		✓	✓
Call appearance/ Feature buttons	10	10	10	10	34
1-way Speaker	✓*	✓*	✓*	✓*	✓*
2-way Speakerphone	✓	✓	✓	✓	✓
Shift Button	✓	✓	✓	✓	✓
Transfer, Hold, Conf, and Drop Buttons	✓	✓	✓	✓	✓
Test Button	✓	✓	✓	✓	✓
Diagnostics Feature (used with Test Button)			✓	✓	
Mute Button	✓	✓	✓	✓	✓
Volume Control Button	✓	✓	✓	✓	✓
Message Light	✓	✓	✓	✓	✓
Personalized Ringing	✓	✓	✓	✓	✓
Kickstand			✓	✓	
Adjunct Jack	✓	✓	✓	✓	✓
EIA-232-D Jack			✓	✓	
Analog Adjunct Jack			✓	✓	

\* The 2-way speakerphone can be optioned as a 1-way (listen-only) speaker, (or it can be disabled).



## Checklist of Parts (with PECs and Comcodes)

# 2

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### The 8403 Voice Terminal Package

The 8403 voice terminal package includes the following items. Comcodes and Price Element Codes (PECs) are included so you can order additional equipment.

#### **8403 (8403D01A) Voice Terminal**

Black 8403 Set PEC: 3233-03B(A) \*

Comcode: 106705106

White 8403 Set PEC: 3233-03W(A) \*

Comcode: 106705114

#### **8403 (8403D02A) Voice Terminal**

Black 8403 Set PEC: 3233-03B(A) \*

Comcode: 107702144

White 8403 Set PEC: 3233-03W(A) \*

Comcode: 107702177

#### **K2S8 Handset**

Comcode: Black=107545584; White=107545568

#### **Handset Cord (9-foot)**

Comcode: Black=407632819; White=407632835

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\* For ordering domestic voice terminals with English labels, use the attribute **CTR15**. For ordering non-domestic voice terminals, those with international button labels, use the attribute **CTR98**.

### **Designation Card Cover**

PEC: 32306(A)

Comcode: 846506780

### **Line Cord, D8W 8-conductor, 7-foot**

Comcode: 103786778

The voice terminal comes with a deskstand and blank button designation card.

The following quantities of 8403 button designation cards can be ordered:

### **8403 Button Designation Cards**

Tractor Feed For 25 Sets, 5 Sheets

PEC: 32307(A)

Comcode: 847167962

Tractor Feed, For 100 Sets, 20 Sheets

PEC: 32308(A)

Comcode: 847167970

## **The 8405 Voice Terminal Package**

There are four 8405 models: the 8405B (no display, one-way speaker), 8405B Plus (no display, two-way speakerphone), 8405D (with display, one-way speaker), and 8405D Plus (with display, two-way speakerphone).

The following items are included in the package with the 8405 voice terminal. Comcodes and PECs are included for ordering additional equipment.

### **8405B (8405D04A) Voice Terminal without display, with one-way speaker**

Black 8405 Set PEC: 3233-5BB(A) \*

Comcode: 107821969

White 8405 Set PEC: 3233-5BW(A) \*

Comcode: 107821977

### **8405B (8405D08A) Voice Terminal without display, with one-way speaker**

Black 8405 Set PEC: 3233-5BB(A) \*

Comcode: 107858847

White 8405 Set PEC: 3233-5BW(A) \*

Comcode: 107858854

\* For ordering domestic voice terminals with English labels, use the attribute **CTR15**.  
For ordering voice terminals with international icons, use the attribute **CTR98**.

**8405B Plus (8405D02A) Voice Terminal without display, with two-way speakerphone**

Black 8405 Set PEC: 3233-5SB(A) \*  
Comcode: 107821944  
White 8405 Set PEC: 3233-5SW(A) \*  
Comcode: 107821951

**8405B Plus (8405D06A) Voice Terminal without display, with two-way speakerphone**

Black 8405 Set PEC: 3233-5SB(A) \*  
Comcode: 107858359  
White 8405 Set PEC: 3233-5SW(A) \*  
Comcode: 107858367

**8405D (8405D03A) Voice Terminal with display, with one-way speaker**

Black 8405D Set PEC: 3233-6BB(A) \*  
Comcode: 107821928  
White 8405D Set PEC: 3223-6BW(A) \*  
Comcode: 107821936

**8405D (8405D07A) Voice Terminal with display, with one-way speaker**

Black 8405D Set PEC: 3233-6BB(A) \*  
Comcode: 107858615  
White 8405D Set PEC: 3223-6BW(A) \*  
Comcode: 107858623

**8405D Plus (8405D01A) Voice Terminal with display, with two-way speakerphone**

Black 8405D Plus Set PEC: 3223-6SB(A) \*  
Comcode: 107821902  
White 8405D Plus Set PEC: 3223-6SW(A) \*  
Comcode: 107821910

**8405D Plus (8405D05A) Voice Terminal with display, with two-way speakerphone**

Black 8405D Plus Set PEC: 3223-6SB(A) \*  
Comcode: 107858110  
White 8405D Plus Set PEC: 3223-6SW(A) \*  
Comcode: 107858128

**K2S8 Handset**

Comcode: Black=107545584; White=107545568

**Handset Cord (9-foot)**

Comcode: Black=407632819; White=407632835

\* For ordering domestic voice terminals with English labels, use the attribute **CTR15**.  
For ordering voice terminals with international icons, use the attribute **CTR98**.

### **Line Cord, D8W 8-conductor, 7-foot**

Comcode: 103786778

### **8405 Designation Card**

Single Card

Comcode: 847770682

The voice terminals come with a deskstand and blank button designation card.

The following quantities of 8405 button designation cards can be ordered.

### **8405 Button Designation Cards**

Tractor Feed, Quantity 25

PEC: 32310A

Comcode: 847770666

Tractor Feed, Quantity 100

PEC: 32311A

Comcode: 847770674

## **The 8410 and 8411 Voice Terminal Packages**

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The 8410 and 8411 voice terminal packages are almost exactly the same except for the voice terminal. Also, the 8411 is shipped with an MSP-1 power supply; a power supply does NOT come with the 8410.

Note that there are two types of 8410 and 8411 sets: the 8410B and the 8411B do NOT have displays; the 8410D and the 8411D have displays.

The following items are included in these packages. Comcodes and PECs are included for ordering additional equipment.

### **8410B (8410D02A) Voice Terminal without display**

Black 8410B Set PEC: 3234-04B(A) \*

Comcode: 106790454

White 8410B Set PEC: 3234-04W(A) \*

Comcode: 106790462

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\* For ordering domestic voice terminals with English labels, use the attribute **CTR15**.  
For ordering voice terminals with international icons, use the attribute **CTR98**.

**8410B (8410D04A) Voice Terminal without display**

Black 8410B Set PEC: 3234-04B(A) \*  
Comcode: 107703696  
White 8410B Set PEC: 3234-04W(A) \*  
Comcode: 107703738

**8410D (8410D01A) Voice Terminal with display**

Black 8410D Set PEC: 3235-05B(A) \*  
Comcode: 106705122  
White 8410D Set PEC: 3235-05W(A) \*  
Comcode: 106705130

**8410D (8410D03A) Voice Terminal with display**

Black 8410D Set PEC: 3235-05B(A) \*  
Comcode: 107702870  
White 8410D Set PEC: 3235-05W(A) \*  
Comcode: 107702920

**8411B (8411D02A) Voice Terminal without display**

Black 8411B Set PEC: 3234-TRB(A) \*  
with power supply PEC: 3234-PTB(A) \*  
Comcode for black set: 107526535  
White 8411B Set PEC: 3234-TRW(A) \*  
with power supply PEC: 3234-PTW(A) \*  
Comcode for white set: 107526543

**8411D (8411D01A) Voice Terminal with display**

Black 8411D Set PEC: 3235-TRB(A) \*  
with power supply PEC: 3235-PTB(A) \*  
Comcode for black set: 107526501  
White 8411D Set PEC: 3235-TRW(A) \*  
with power supply PEC: 3235-PTW(A) \*  
Comcode for white set: 107526519

**K2S8 Handset**

Comcode: Black=107545584; White=107545568

**Handset Cord (9-foot)**

Comcode: Black=407632819; White=407632835

**Designation Card Cover**

PEC: 32309(A)  
Comcode: 846320216

**Line Cord, D8W 8-conductor, 7-foot**

Comcode: 103786778

\* For ordering domestic voice terminals with English labels, use the attribute **CTR15**.  
For ordering voice terminals with international icons, use the attribute **CTR98**.

The voice terminals come with a deskstand and blank button designation card.

The 8410 and the 8411 voice terminal use the same button designation card.  
The following quantities of these button designation cards can be ordered.

### **8410 and 8411 Button Designation Cards**

Tractor Feed For 36 Sets, 3 Sheets (12 cards per sheet)  
PEC: 32310A  
Comcode: 847161817

Tractor Feed For 108 Sets, 9 Sheets (12 Cards per Sheet)  
PEC: 32311A  
Comcode: 847161916

The following PassageWay<sup>®</sup> package contains PassageWay software, documentation, and cables for PassageWay connectivity: (This package can be ordered from the Customer Information Center at 1-800-432-6600.)

### **PassageWay connection software, documentation, and cables**

PEC: 8302-800  
Comcode: 407504646

PassageWay documentation can be ordered separately — *PassageWay Direction Connection Solution For DEFINITY<sup>®</sup> Communications System 8411 Voice Terminal User's Guide*. (This document can be ordered from the Lucent Technologies Publications Center at 1-800-457-1235 by requesting Document Ordering Number: 585-201-115.)  
Comcode: 107782195

## **The 8434DX Voice Terminal Package**

The 8434DX voice terminal package includes the following items. Comcodes and PECs are included for ordering additional equipment.

### **NOTE:**

The 8434DX voice terminal has two separate designation cards: on the left there is a 10-button “small” designation card, and on the right there is a 24-button “large” designation card.

**8434DX (8434D02A) Voice Terminal**

Black 8434DX Set PEC: 3236-06B(A) \*  
Comcode: 107239436  
White 8434DX Set PEC: 3236-06W(A) \*  
Comcode: 107239444

**8434DX (8434D04A) Voice Terminal**

Black 8434DX Set PEC: 3236-06B(A) \*  
Comcode: 107707986  
White 8434DX Set PEC: 3236-06W(A) \*  
Comcode: 107707994

**K2S8 Handset**

Comcode: Black=107545584; White=107545568

**Handset Cord (9-foot)**

Comcode: Black=407632819; White=407632835

**Small Designation Card Cover**

PEC: 32309(A)  
Comcode: 846320216

**Large Designation Card Cover**

PEC: 32314(A)  
Comcode: 847037553

**Line Cord, D8W 8-conductor, 7-foot**

Comcode: 103786778

The 8434DX voice terminal comes with a deskstand and blank small and large designation card.

The following quantities of 8434DX button designation cards can be ordered:

**Small 8434DX Button Designation Cards (for 10 buttons on left of terminal)**

Tractor Feed For 25 Sets, 3 Sheets (12 cards per sheet)  
PEC: 32310(A)  
Comcode: 847161817

Tractor Feed For 100 Sets, 9 Sheets (12 Cards per Sheet)  
PEC: 32311(A)  
Comcode: 847161916

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\* For ordering domestic voice terminals with English labels, use the attribute **CTR15**.  
For ordering voice terminals with international icons, use the attribute **CTR98**.

### **Large 8434DX Button Designation Cards (for 24 buttons on right of terminal)**

Tractor Feed For 25 Sets, 13 Sheets (two cards per sheet)

PEC: 32315(A)

Comcode: 847141504

Tractor Feed For 100 Sets, 50 Sheets (two cards per sheet)

PEC: 32316(A)

Comcode: 847168747

## **Auxiliary Power Supplies for the 8400-Series Voice Terminals**

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The following power supplies can be used with the 8400-Series voice terminals:

- Stand-alone MSP-1 (PEC: 2404-010; Comcode: 406743419)
- 1145A Bulk Power Supply (PEC: 2404-011; Comcode: 106448939)  
Battery for the 1145A (2.5 amp per hour battery)  
(Comcode: 106448921)
- 1145B1 Bulk Power Supply (PEC: 2404-010)  
Battery for the 1146B1 (2 amp battery = PEC: 24700;  
or 5 amp battery = PEC: 24701)
- KS-22911 L2 (replaced by the MSP-1 Power Supply)

### **⇒ NOTE:**

This type of power supply cannot be used with the 8411 voice terminal.

### **⇒ NOTE:**

The MSP-1 and the 1145B are global power supplies.

It is recommended that the 1145A and the 1145B Bulk Power Supplies be used as auxiliary power for the 8411 and 8434DX voice terminals. These power supplies provide battery back-up, and therefore when power outages occur, the 8411B and 8411D voice terminals and the 8434DX display will continue to operate.

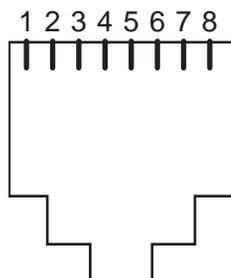
## Installing Your Voice Terminal

# 3

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### Wiring Information

The 8400-Series voice terminals work in both 4-wire and 2-wire DCP configurations. Figure 3-1 shows an enlargement of a voice terminal 8-pin "LINE" jack. The figure and the table which follows it describe the pins on this jack; the table shows the 8-pin modular jack connections.



**Figure 3-1. A Voice Terminal Line Jack**

**Table 3-1. Line Interface**

Pin	Pair	Name	Description
1	2	OD1	4-Wire Output
2	2	OD2	4-Wire Output
3	3	ID1	4-Wire Input
4	1	U-T	2-Wire (Tip)
5	1	U-R	2-Wire (Ring)
6	3	ID2	4-Wire Input
7	4	P1-	Adjunct Power -48V
8	4	P2+	Adjunct Power Common

## INSTALLATION WARNING

**FAILURE TO FOLLOW THESE INSTRUCTIONS CAN CAUSE DAMAGE TO THE TERMINAL OR CAUSE THE ASSOCIATED PBX CIRCUIT PACK TO REMOVE POWER TO THE TERMINAL. IN EITHER CASE THE TERMINAL WILL NOT FUNCTION CORRECTLY.**

The design of this product allows it to operate on either 2-wire or 4-wire DCP circuits. In order for the terminal to function properly in either 2-wire or 4-wire installations, there must be **NO INTERCONNECTIONS** between the wire pairs used for 2-wire and 4-wire operation. Bridging or paralleling of these pairs can result in damage to the terminal or can cause the PBX circuit pack to remove power to the terminal.

**REMOVE ALL CONNECTIONS BETWEEN PAIRS BEFORE CONNECTING THE TERMINAL.**

For 2-wire operation, if you need to plug the voice terminal into a 4-pin or 6-pin wall jack, instead of a standard 8-pin modular jack, see Table 3-1 ("Line Interface") to insure that the wires from the 4-pin or 6-pin wall jack are connected to the correct pins on the terminal "LINE" jack.

4-WIRE installations **MUST ONLY** have PBX connections on pair 2 and pair 3 and, if necessary, auxiliary power must be connected to pair 4.

2-WIRE installations **MUST ONLY** have PBX connections on pair 1 and, if necessary, auxiliary power must be connected to pair 4.

All of this information applies to all 8400 series voice terminals, the CALLMASTER III, and the 302B1 and 302C1 Attendant Console.

## General Notes on Wiring and Installation

Regardless of which configuration is in use, ALL wiring between the PBX and the terminal MUST consist of twisted-pairs, including the modular line cord. The line cord must be a D8W, which consists of four twisted-pairs, or a Lucent Technologies-approved equivalent.

Twisted-pair wiring is used to make lines less sensitive to crosstalk. Therefore, failure to use twisted pair wiring may result in less-than-optimum performance of the terminal and may also contribute to problems with the line.

An 8-wire modular cord MUST be used for all 4-wire and any 2-wire installations requiring auxiliary power.

You do NOT need to change any settings on the voice terminal for 2-wire or 4-wire installations. The voice terminal is able to detect whether it is in a 2-wire or a 4-wire configuration.

## The 2-Wire/4-Wire Line Adapter

The 2-wire/4-wire line adapter (PEC: 32302; Comcode: 407124114 for a single adapter; PEC: 32303 for a package of 25 adapters) is available to accommodate situations in which customers need to upgrade from an analog-type RJ11C jack to an 8-wire RJ45X-type jack. This adapter eliminates the need to remove RJ11C jacks which are presently being used and install new RJ45X jacks in their place.

Please read the **CAUTION** statement directly below before beginning the installation. If all connections are correct, plug the adapter into the RJ11C jack to provide the proper wiring translation to the 8400-Series terminals.



### **NOTE:**

This adapter works **ONLY** when using an 8400-Series terminal on a 2-wire DCP digital line circuit card (for example, the TN2181). It will **NOT** work if you are connecting an 8400-Series terminal to a 4-wire, 4-port, or 4-wire, 8-port DCP line circuit card (such as the TN754B, TN754, TN413, SN270B, or SN270).



### **CAUTION:**

*In a previous installation of the premises line jacks, customers may have wired the jack connections as bridged or in parallel. These jacks must be rewired, at customer expense, in order for the 8400-Series terminals to function properly in either 2-wire or 4-wire installations. There must be **NO INTERCONNECTIONS** between the wire pairs used for 2-wire and 4-wire operations. Bridging or paralleling of these pairs can result in damage to the terminal or can cause the PBX line circuit card to remove power to the terminal. All interconnections between these pairs **MUST BE REMOVED BEFORE** the 8400-Series terminals are connected to the jack.*

## Auxiliary Power

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In both a 4-wire or 2-wire configuration, most of the 8400-Series voice terminals are phantom powered from the PBX. However, you will need auxiliary power in the following instances:

- If you are using an 8411 or 8434DX voice terminal



**NOTE:**

You must use auxiliary power with these sets.

- If you have an 801A Expansion Module connected to an 8434DX voice terminal (This expansion module can ONLY be used with the 8434DX connected to a DEFINITY® Communications System G3V3.3 or later switch.)



**NOTE:**

If an 8434DX voice terminal with attached adjunct equipment is connected to an expansion module, it should be locally powered by an MSP-1. If this configuration is closet powered by an 1145A, two ports must be used. A KS-22911 L2 cannot be used in this situation.

- If there is attached adjunct equipment, such as an S201A Speakerphone, to any of the 8400-Series voice terminals

For a list of possible auxiliary power supplies, see “Auxiliary Power Supplies for the 8400-Series Voice Terminals” in Chapter 2: **Checklist of Parts (with PECs and Comcodes)** in this manual.

## Distance Limitations

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**In 4-wire operation**, the voice terminal must be within 5,000 feet of the PBX using 22-gauge or 24-gauge wire, and within 4,000 feet of the PBX using 26-gauge wire.

**In 2-wire operation**, the voice terminal must be within 5,500 feet (1676.4 meters) of the PBX using 22-gauge wire, within 3,500 feet (1066.8 meters) of the PBX using 24-gauge wire, and within 2,200 feet (670.56 meters) of the PBX using 26-gauge wire.

The adjunct power supply must be no more than 250 feet from the voice terminal.

## Desktop Installation

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The following instructions are for a desktop installation. If you are mounting the voice terminal on the wall, proceed to the next section, "Wall Installation."

1. Turn the voice terminal face down on a flat surface. Then, use the following figures for installation.
  - Figure 3-2 shows the bottom of the 8403 voice terminal. You can use this diagram for installing the 8403, 8405, or the 8410. However, note that the location of the routing channels on the 8405 and 8410 differs slightly from the 8403. Also, the Handset jack on the 8405 and 8410 is in a different location.
  - Figure 3-3 shows the bottom of the 8411 voice terminal.

### NOTE:

The rear of the 8411 set includes two jacks: the Analog Adjunct jack, for connecting answering machines, fax machines, PC or laptop data/fax modem cards, data sets or modems, audio teleconferencing equipment, and TTY machines commonly used by hearing impaired, and the RS-232-D Jack for connecting the voice terminal to a COM port on an IBM®-compatible personal computer on which you can load PassageWay Solution software. For instructions on connecting hardware to these jacks, see "Connecting a Personal Computer and an Analog Adjunct to the 8411 Voice Terminal" which appears later in this manual.

- Figure 3-4 shows the bottom of the 8434DX voice terminal. This diagram can be used for installing the 8434DX.

According to the 8400-Series model you are using, refer to these three figures for the location of the jacks referred to in the following steps.

### NOTE:

If you are installing an 8405D, 8405D Plus, or 8410D voice terminal, refer to "Adjusting the 8405D, 8405D Plus, and 8410D Voice Terminal Desktop Stand" for choosing whether the desktop stand should be in the high or low position. On the 8411, decide whether you want the kickstand in the up or the down position.

2. For all voice terminals, snap one end of the line cord into the "LINE" jack and the adjunct cord (if applicable) into the Adjunct jack on the bottom of the voice terminal. (The Adjunct jack is labeled  on all sets except the 8411, on which the jack is labeled "ADJUNCT.") For more information on installing adjuncts, refer to the section "Attaching Adjunct Equipment."

 **NOTE:**

If you are routing the cords on the 8405D, 8405D Plus, or 8410D voice terminal and the desktop stand is in the high position, you may need to place the cords through the long, rectangular opening that surrounds the jacks and plug the cords into the jacks BEFORE you insert the desktop stand onto the back of the voice terminal.

 **NOTE:**

If you are routing cords on the 8411, lift the kickstand and place the cords under the kickstand.

3. For all sets, thread the line cord (and adjunct cord, if applicable) through the routing channel leading to the top of the desktop stand, as shown in Figure 3-2, Figure 3-3, or Figure 3-4, according to the type of terminal you are using. Make sure that each cord is placed securely under the square tabs in the routing channel.
4. If you are using an 8434DX with an attached 801A Expansion Module, plug the D6AP-87 cord, shipped with the expansion module, into the Expansion Module jack on the 8434DX (labeled "EX MOD") and then plug the free end of the cord into the jack on the expansion module. The cord should be threaded through the routing channels on the voice terminal. See Figure 3-4. For more detailed instructions on installing the expansion module to the 8434DX, use the instructions titled "801A Expansion Module Instruction Manual," shipped with the expansion module.

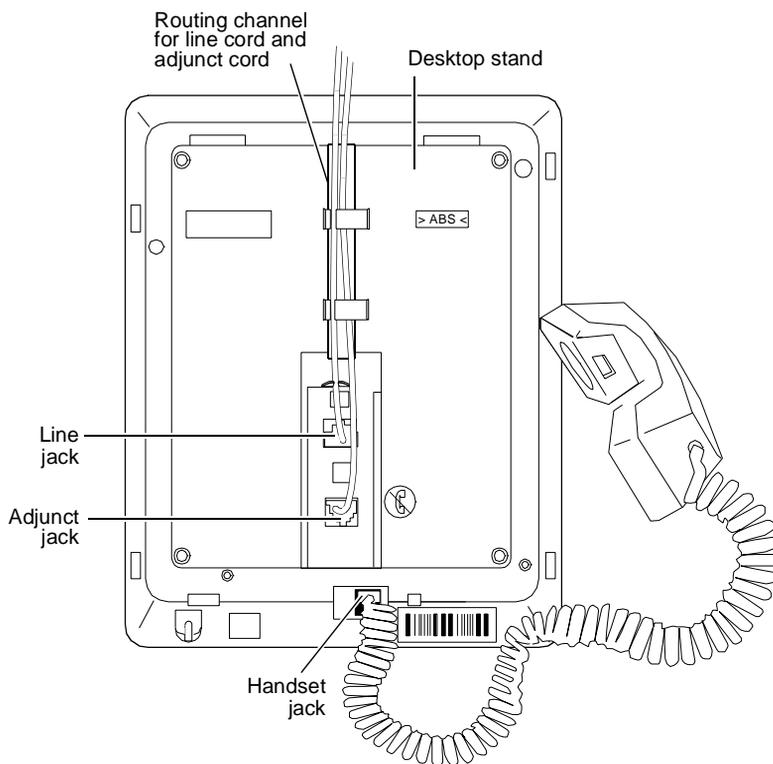
 **NOTE:**

An 801A Expansion Module can be used ONLY with an 8434DX voice terminal connected to a DEFINITY G3V3.3 or later switch.

5. For all voice terminals, snap one end of the coiled cord into the Handset jack (this jack is labeled ). On an 8403, thread the cord into the channel leading to the side edge of the voice terminal; the handset cord will then lead off the side of the voice terminal.

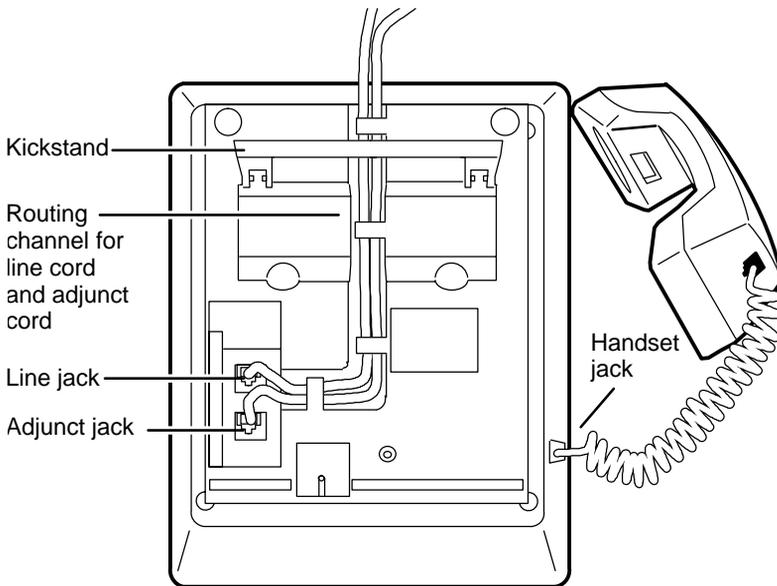
 **WARNING:**

*Do NOT insert the handset cord into the Adjunct jack. It may cause equipment damage.*

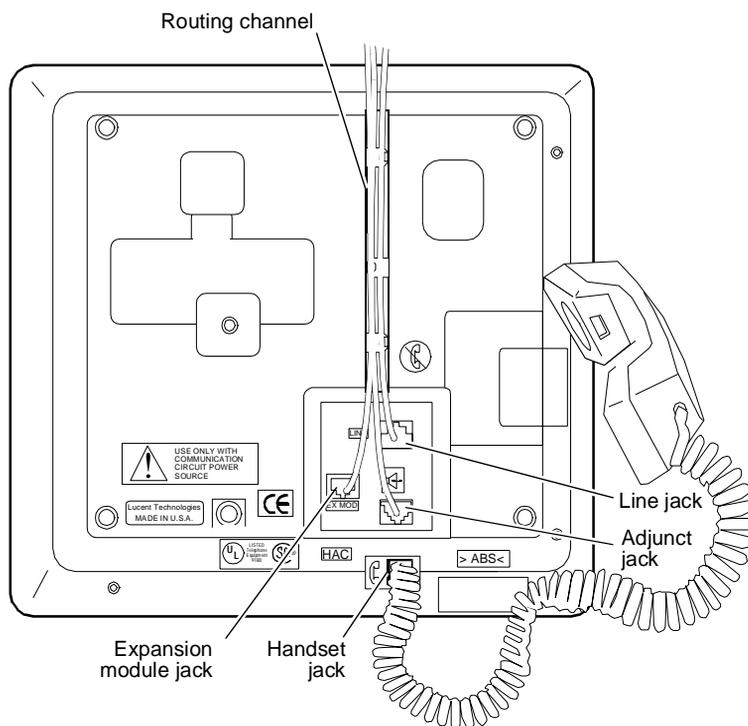


**NOTE:** The location of the jacks and the routing channel on the back of your voice terminal may differ slightly from the location shown in this figure.

**Figure 3-2. Line, Adjunct, & Handset Cord Routing for Desktop Installation on the 8403, 8405, and 8410 Voice Terminals**



**Figure 3-3. Line, Adjunct, and Handset Cord Routing for Desktop Installation on the 8411 Voice Terminal**



**NOTE:** The location of the jacks and the routing channel on the back of your voice terminal may differ slightly from the location shown in this figure.

**Figure 3-4. Line, Adjunct, Handset, & Expansion Module Cord Routing on the 8434DX Voice Terminals**

6. Turn the voice terminal right side up, with the front facing you.
7. Snap the free end of the handset cord into the handset and place the handset in the cradle.
8. Snap the free end of the line cord into the modular wall jack.



**NOTE:**

If you are installing an 8411 or 8434DX, connect the voice terminal line cord to the PHONE jack on the MSP-1 power supply and then connect a cord from the LINE jack on the MSP-1 to the wall jack.

You can use a 2-wire/4-wire adapter to upgrade an analog-type RJ11C jack to an 8-wire RJ45X-type jack. For more information, see "The 2-Wire/4-Wire Line Adapter" earlier in this chapter.

Refer to the section, "Attaching Adjunct Equipment" later in this chapter, for information about connecting any 8400-Series voice terminal to the wall jack when an adjunct is used.

Refer to the sections, "Connecting a Personal Computer and an Analog Adjunct to the 8411 Voice Terminal," later in this chapter, for information about connecting a personal computer to an 8411 voice terminal for use with the Lucent Technologies PassageWay Solution software or connecting the 8411 voice terminal with analog equipment such as an answering machine, fax machine, or modem.

9. Lift the handset and listen for dial tone. If there is no dial tone, check all wire connections to make sure they are secure. Also, perform a self-test to see if the terminal is receiving power from the switch. (See "Using the Test Feature and the Diagnostics Feature" in Chapter 6: **The Test Feature and the Diagnostics Feature** in this manual.)

## Adjusting the 8405D, 8405D Plus, and 8410D Voice Terminal Desktop Stand

To ensure better display visibility on the 8405D, 8405D Plus, and 8410D sets, the accompanying desktop stand can be installed in a high or low position. (When each of these voice terminals is shipped from the factory, the stand is in the low position.) **Figure 3-5** shows you the set of tabs to use for each position. Check which position allows the user the best viewing angle of the display, and then use the following short procedure for installing the desktop stand in the selected position.

**To reinstall the desktop stand on the 8405D, 8405D Plus, and 8410D voice terminal for the low or the high position** (See Figure 3-5.)

1. Place the lower desktop stand tab in the appropriate voice terminal tab slot.
2. Slowly lower the desktop stand until the top tab fits into the appropriate tab slot at the top of the voice terminal. You may need to press inward on the top of the desktop stand (see Figure 3-5) in order for the tab to fit into the slot.



### NOTE:

As noted before, if you choose to install the desktop stand in the high position, you may need to pass the cords through the long, rectangular opening that surrounds the jacks and then plug the cords into the jacks **BEFORE** you place the stand on the back of the voice terminal.

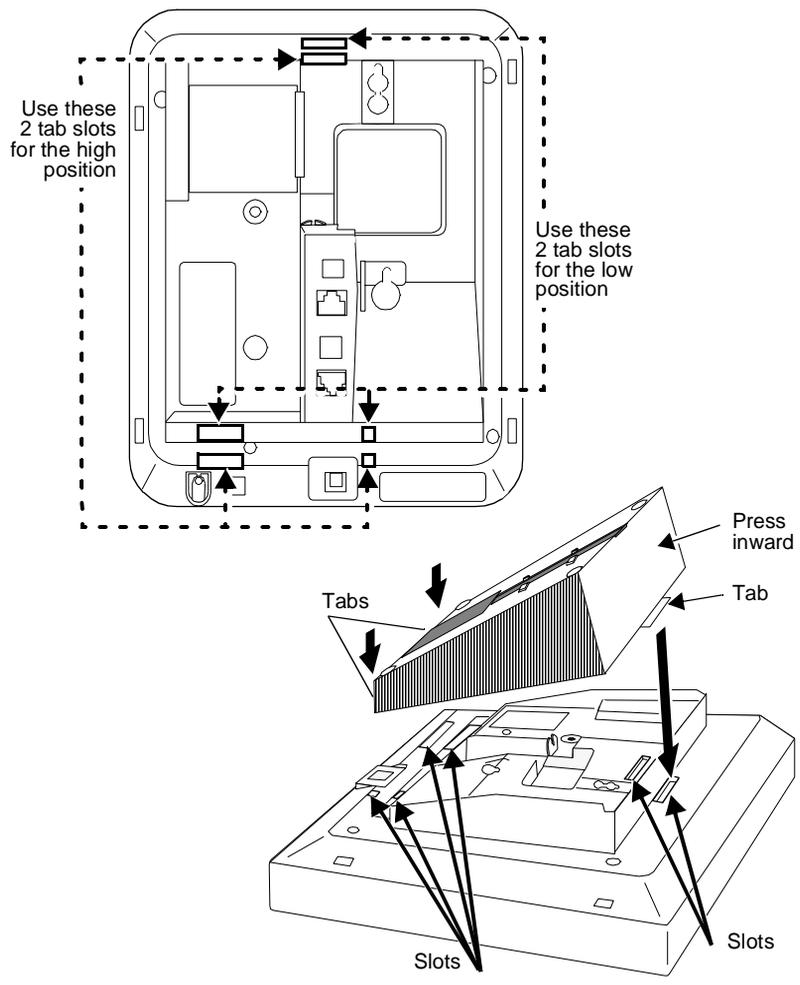


Figure 3-5. Adjusting the 8405D, 8405D Plus, and 8410D Desktop Stand

## Wall Installation

Only the 8403, 8405, and 8410 voice terminals can be wall-mounted. The 8411 and 8434DX voice terminals CANNOT be wall-mounted.

Use the following directions for wall-mounting the 8403, 8405, and 8410 voice terminals.

### Wall-Mounting the 8403, 8405, and 8410 Voice Terminals

#### NOTE:

For wall-mounting these voice terminals, you need a 1-foot D8W line cord (not supplied with the voice terminal; Comcode: 103786760).

1. Make sure the 8-conductor wall mount plate is in place.
2. Press down on the handset retainer hook located under the handset and slide it toward the top of the voice terminal. See Figure 3-6.
3. Rotate the hook and slide it back into its slot so the bottom part now sticks out from the top. Snap the hook firmly into place. See Figure 3-6.

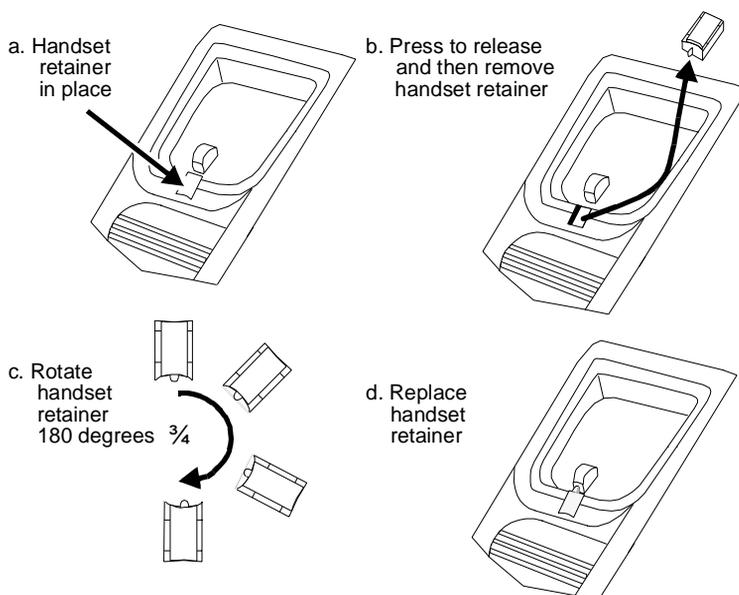
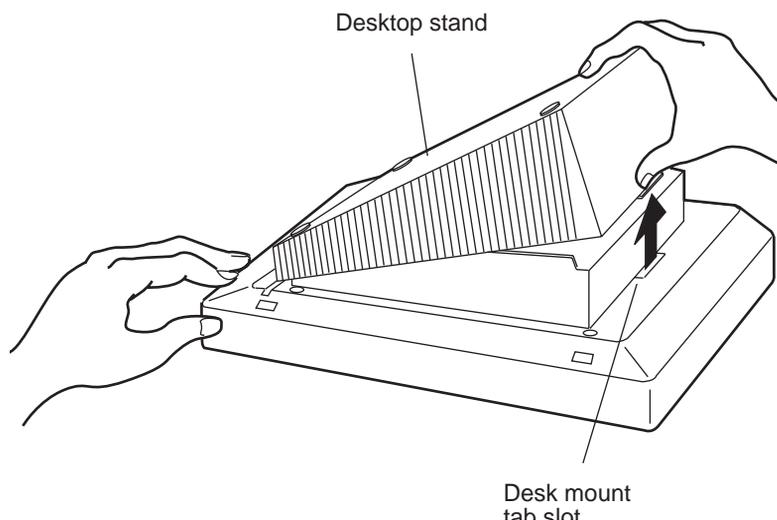


Figure 3-6. Reversing the Handset Hook

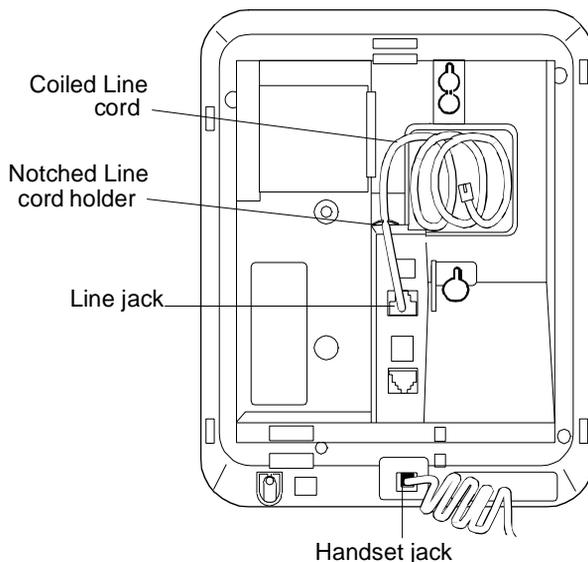
4. Place the voice terminal face down on a flat surface.
  5. Remove the desktop stand which is attached to the base of the voice terminal by tabs on the top and bottom of the stand. See Figure 3-7.
    - Press inward on the top of the stand until you can lift the top of the stand out of the tab slot on the voice terminal.
    - Lift the bottom of the stand out of the lower tab slot.
- 



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**Figure 3-7. Removing the Desktop Stand**

6. Snap the 1-foot line cord into the "LINE" jack in the back of the voice terminal.
7. Pass the 1-foot line cord through the channel, as shown in Figure 3-8. (Figure 3-8 shows the 8403 voice terminal.) Coil any remaining part of the cord and place it in one of the recesses on the back of the voice terminal.



**Figure 3-8. Line Cord Routing for Wall Mount**

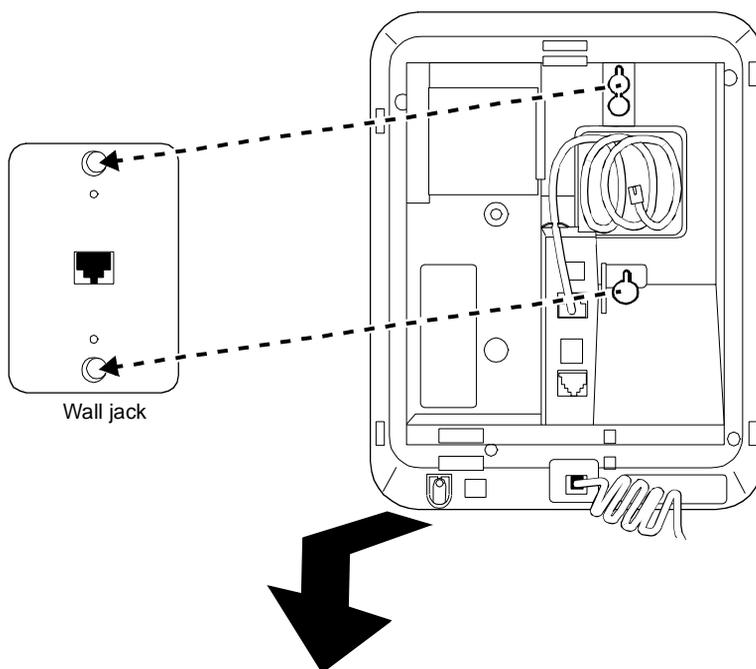
8. Snap one end of the coiled cord into the Handset jack (labeled ) , as shown in Figure 3-8. On the 8403, thread the cord into the channel leading to the side edge of the voice terminal; the handset cord will then lead off the side of the voice terminal.



**WARNING:**

*Do NOT insert the handset cord into the Adjunct jack. It may cause equipment damage.*

9. Snap the free end of the 1-foot line cord into the wall jack.
10. Place the base of the voice terminal on the wall-jack mounting studs, and pull downward until it is secure, as shown in Figure 3-9.



**Figure 3-9. Placing the Voice Terminal onto the Wall Jack Mounting Studs**

11. Snap the free end of the handset cord into the handset and place the handset in the cradle.



**NOTE:**

The handset hook you repositioned will hold the handset in place.

12. Lift the handset and listen for dial tone. If there is no dial tone, check all wire connections to make sure they are secure. Also, perform a self-test to see if the terminal is receiving power from the switch. (See "Using the Test Feature and the Diagnostics Feature" In Chapter 6: **The Test Feature and the Diagnostics Feature** in this manual.)

## Attaching Adjunct Equipment

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If you are installing a speakerphone (Lucent Technologies models S101A, S201A, or QUORUM<sup>®</sup> CS201A), a headset adapter (Lucent Technologies model 500A1), or other adjunct that may be offered, follow these steps to connect the adjunct equipment to your voice terminal.

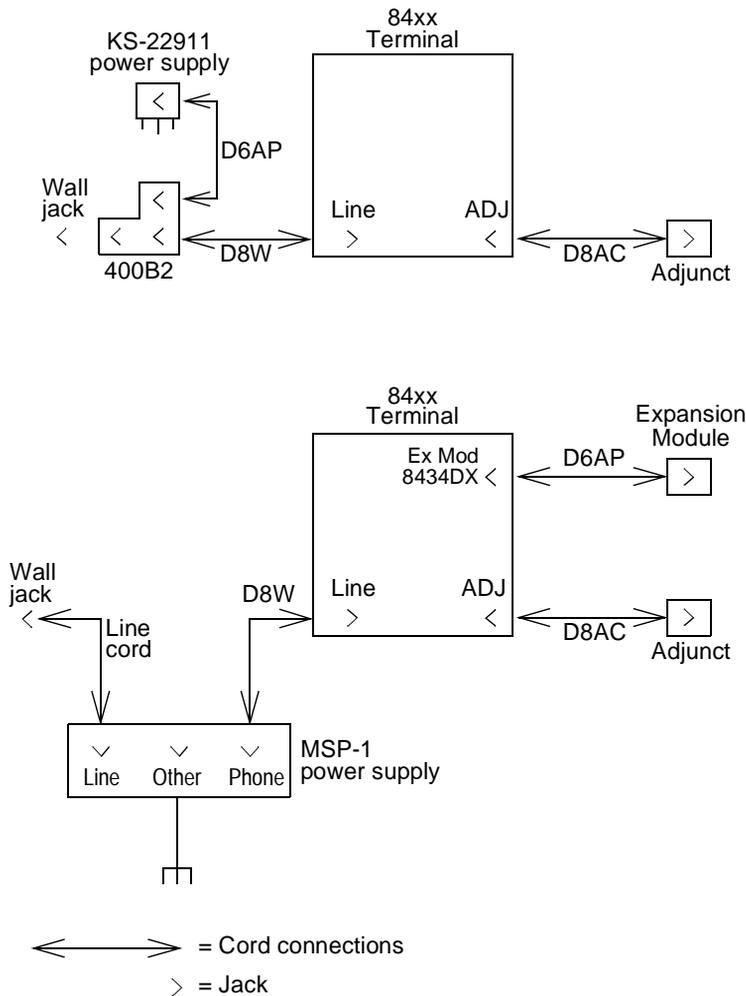
### NOTE:

On the rear of the 8411 voice terminal, there are two jacks: the Analog Adjunct Jack for connecting analog equipment such as answering machines, fax machines, data sets or modems, or audio teleconferencing equipment, and a RS-232-D Jack for connecting the 8411 to an IBM-compatible personal computer for use with PassageWay software. For directions on connecting equipment to these jacks, see "Connecting a Personal Computer and an Analog Adjunct to the 8411 Voice Terminal" which appears later in this chapter.

The adjunct requires auxiliary power from either a local, individual power supply or a closet supply serving multiple phones. Refer to the adjunct's installation documentation for its power requirements.

1. Place the voice terminal face down on a flat surface.
2. Snap the adjunct cord into the Adjunct jack (labeled , on all sets except the 8411, on which it is labeled "ADJUNCT") until you hear a click. See Figure 3-2 for the location of the Adjunct jack on the 8403, 8405, and 8410 voice terminals. See Figure 3-3 for the location of the Adjunct jack on the 8411 voice terminal. See Figure 3-4 for the location of the jack on the 8434DX voice terminal.
3. Refer to the "Desktop Installation" section for instructions on routing the adjunct cord through the channel.
4. Connect the free end of the adjunct cord to your speakerphone, headset adapter, or other adjunct.
5. Then, do one of the following:
  - If auxiliary adjunct power is provided by a bulk closet supply, connect the line cord from the voice terminal to the wall jack.
  - If a local, individual auxiliary power supply is being used, refer to Figure 3-10 for information about how to connect the telephone to the wall jack.

If the voice terminal is being used with the 4-wire 7400B Plus or 2-wire 8400B Plus data module, the telephone line cord connects to the Phone jack on the data module instead of to the wall jack. The Line connector on the data module is then connected to the wall jack or power supply. Refer to the *7400B Plus Data Module User's Guide* or the *8400B Plus Data Module User's Guide* for further information on using these data modules.



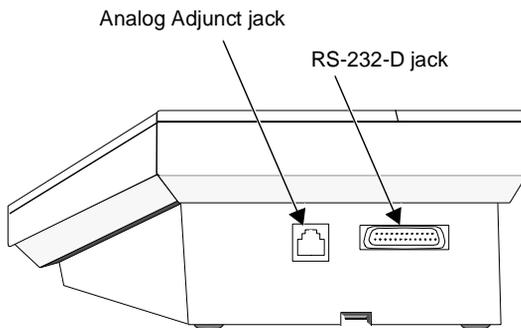
**Figure 3-10. Connections for All Telephones with Adjuncts Using an Individual Power Supply**

## Connecting a Personal Computer and an Analog Adjunct to the 8411 Voice Terminal

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The rear of the 8411 voice terminal has two jacks (see Figure 3-11 and the explanations below the figure):

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**Figure 3-11. The Jacks on the Rear of the 8411 Voice Terminal**

- **The Analog Adjunct jack** — for connecting answering machines, fax machines, PC or laptop data/fax modem cards, data sets or modems, audio teleconferencing equipment, and TTY machines commonly used by the hearing impaired.
- **The RS-232-D Jack** — for connecting the voice terminal to a COM port on an IBM-compatible personal computer on which you can load PassageWay Solution software.

## Connecting the 8411 to a Personal Computer for PassageWay Applications

The RS-232-D jack on your 8411 voice terminal provides you with a direct interface between an IBM-compatible personal computer and your DEFINITY switch. This connection with the PC allows you to access Lucent Technologies PassageWay Solution applications.

For information about installing and setting up the PassageWay software, see the *PassageWay Direct Connection Solution For DEFINITY Communications System 8411 Voice Terminal User's Guide*, 555-201-115.

### ⇒ NOTE:

In order for your 8411 voice terminal to operate, the voice terminal must have auxiliary power, either locally using an MSP-1 or remotely using an 1145B1 closet supply. Also, before you set up your PassageWay connection, you must know which COM port number (that is, COM1, COM2, COM3, or COM4) to which you are connecting your 8411 voice terminal.

### To connect your 8411 to the PassageWay PC:

1. Make sure that the PC is turned off.
2. Connect one end of the 25-pin cord to the EIA jack on the rear of the 8411 voice terminal.
3. Connect the other end of the cord to the serial (COM) port on the PC.

#### NOTE:

You may need a 25-pin to 9-pin adapter in order to make this connection.

4. Connect, or reconnect, the line cord from the "LINE" jack on the voice terminal to the modular wall jack or to the MSP-1 power supply.
5. Turn on your PC.

#### NOTE:

Refer to Chapter 5: **Switch Administration** for directions on administering the 8411 for PassageWay connection.

## Connecting an Analog Adjunct to the 8411 Voice Terminal

Through the Analog Adjunct RJ11C jack on the rear of the set, the 8411 voice terminal provides connection with Analog Adjuncts such as answering machines, fax machines, PC or laptop data/fax modem cards, data sets or modems, audio teleconferencing equipment, and TTY machines commonly used by the hearing impaired. On System 75, System 85, and a DEFINITY G1, G2, and G3 switch prior to G3V4, Issue 3, the analog equipment shares the telephone line (or I-1 Channel) with the voice terminal. Therefore, while the telephone is being used, you *cannot* use the Analog Adjunct at the same time, or vice versa. Beginning with the DEFINITY G3V4, Issue 3, the 8411 and Analog Adjunct can use separate telephone lines (the I-1 Channel and I-2 Channel) and thus the voice terminal and the Analog Adjunct can be used simultaneously.

### To connect an Analog Adjunct to the 8411:

1. Connect the line cord of the Analog Adjunct to the Analog Adjunct jack on the rear of the 8411 voice terminal.



**WARNING:**

*Do NOT connect the Analog Adjunct to the wall jack. It will cause equipment damage.*



**NOTE:**

The 8411 voice terminal connected to a DEFINITY G3V4, Issue 3, switch must be optioned to use the appropriate DCP I-channel (either the I-1 Channel or the I-2 Channel). For administration of the 8411 with the DEFINITY G3V4, Issue 3, and later switches, see "Administering the 8410 and 8411 Voice Terminal" in Chapter 5: **Switch Administration** in this manual.

### The PassageWay Button (Button #9) and the Analog Adjunct Button (Button #10)

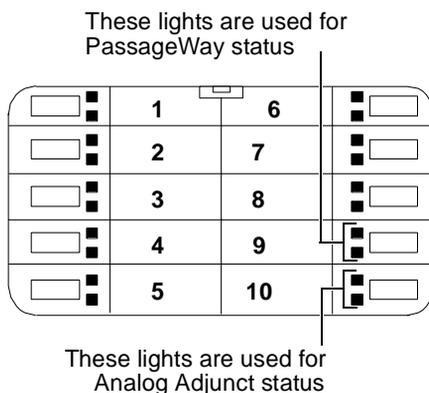
The system manager may choose to option Button #9 on the 8411 voice terminal, the next-to-last button in the second column, (see Figure 3-12 below for the location of this button) so that the red and green lights next to the button provide PassageWay status information. [See Table 3-2 ("PassageWay Status Indications") on the next page.] If Button #9 is optioned in this manner, it is then disabled and CANNOT be used as a call appearance button or feature button.

The system manager may also choose to option Button #10 (again, see Figure 3-12 below for its location) so that its adjacent red and green lights provide Analog Adjunct status information. [See Table 3-3 ("Analog Adjunct Status Indications") later in this section.] If Button #10 is optioned in this way, the button's function changes from a call appearance/feature button to a local button that can be used to send a disconnect signal to the analog adjunct. (See "Sharing the 8411 Telephone Line with the Analog Adjunct" later in this section.)



**NOTE:**

When the status indication feature is optioned, Button #9 is always used to monitor the PassageWay connection, and Button #10 is always used to monitor the Analog Adjunct. No other buttons on the 8411 can be used for these purposes. If these two buttons are not used for PassageWay and an Analog Adjunct, they can be used for switch features.



**Figure 3-12. The location of Buttons #9 and #10 on the 8411**

### PassageWay Status Indications

The 8411 provides the following status indications, next to Button #9 for the PassageWay connection:

**Table 3-2. PassageWay Status Indications**

PassageWay Status	Green Light	Red Light
AT Command Mode	Off	On
PassageWay Mode	On	Off
DCP Looparound	Flash <sup>*</sup>	Flash
Switch Link Down	Wink <sup>†</sup>	Wink
EIA Out-of-Sync	Flash	Off
Program Mode	On	Flash

<sup>\*</sup> A Flash is a repeating pattern of 500 ms ON and 500 ms OFF.

<sup>†</sup> A Wink is a repeating pattern of 750 ms ON and 250 ms OFF.

## Analog Adjunct Status Indications

The 8411 uses the GREEN and the RED lights next to Button #10 to provide the following status indications for the Analog Adjunct connection.

**Table 3-3. Analog Adjunct Status Indications**

Analog Adjunct Status	Green Light	Red Light
The Analog Adjunct is off-hook	On	
The Analog Adjunct is on-hook and idle	Off	
The voice terminal is sending a ringing signal to the Analog Adjunct	Flash	
The Analog Adjunct is using the telephone line		On
The 8411 Voice Terminal is using the telephone line (that is, the Analog Adjunct is NOT using the line)		Off

### NOTE:

For the DEFINITY G3V4, Issue 3, or later switches, where the Data Options field is set for *analog* and the Analog Adjunct has been assigned its own telephone line, the RED light is always on.

### NOTE:

When the 8411 is programmed for the Analog Adjunct to use a separate telephone line (that is, the I-2 Channel), the red light is always on.

## Sharing the 8411 Telephone Line with the Analog Adjunct

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When your 8411 voice terminal has not been assigned a separate telephone number for your analog adjunct, that is, the telephone line must be shared between your voice terminal and the analog adjunct connected to the Analog Adjunct jack, you CANNOT use your 8411 and the analog adjunct at the same time. If you desire to use your 8411 (the handset, the built-in speakerphone, or any adjunct equipment connected to the Speakerphone/Headset jack) while the analog adjunct is using the line, you must first disconnect from the analog adjunct call.

You may disconnect from the analog adjunct call manually using a button on the analog adjunct or use a PC command if the analog adjunct is connected to the PC. Button #10 can also be used to disconnect the call on the analog adjunct if that button has been enabled for the disconnect function.

In addition to the manual and Button #10 methods for disconnecting from the analog adjunct call, going off-hook and pressing the appropriate call appearance button will also cause the line to be switched to the voice terminal (handset, speakerphone, or any adjunct equipment connected to the Speakerphone/Headset jack) and a disconnect signal will be sent to the analog adjunct. This method allows you to automatically disconnect the analog adjunct to:

1. Answer an incoming call on another call appearance
2. Originate a call on an idle call appearance
3. Interrupt the analog adjunct and use the active call appearance

### NOTE:

This feature requires the 8411 to use the first three call appearance/feature buttons (the top three buttons in the first column) as call appearance buttons. If there are more than three call appearance buttons administered, the feature will still work with these (top) three buttons, but NOT with the additional call appearance buttons.

For incoming calls, the device that answers first (that is, the 8411 handset, 8411 built-in speakerphone, any adjunct equipment connected to the Speakerphone/Headset jack on the 8411, or the analog adjunct connected to the 8411 Analog Adjunct jack) gets control of the call. Note that not all incoming calls will cause a ringing signal to be sent to the analog adjunct. A ringing signal will be sent only if all call appearances are idle and the incoming call is either an inside call, a DID call, or a Priority call.

## Labeling the Designation Card

# 4

The designation card is a removable card placed behind a transparent protective cover on which the user can type or print call appearance or feature assignments. In most cases, the voice terminal's designation card is filled out before the user begins to use the set. *Do not discard the blank button designation card.* Instead, if there is a preprinted designation card, place it over the blank button designation card which comes with the voice terminal. The blank designation card can then be used as a substitute if, in the future, there are changes in features, telephone numbers, or extension assignments on the voice terminal.

The following information describes the designation card(s) for each voice terminal and explains how the cards are to be filled out, if necessary, and reinstalled under the plastic cover.

### For the 8403 Voice Terminal

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The designation card for the 8403 consists of two sections:

- **The Feature Directory section** — Provides a convenient quick reference list for 12 features. (These features can be accessed by pressing **Feature** and then entering the number assigned to the feature, 1 through 9, or 0, or the character \* or #.) The system manager or user can print the name of the feature next to **F1** through **F9**, **F\***, **F0** and **F#**.
- **The Call Appearance section** — Sections **a**, **b**, and **c** are provided for noting the telephone number or extension of your voice terminal.

To label the card, use the instructions under "How to Label the Blank Designation Card" later in this chapter.

## For the 8405, 8410, and the 8411 Voice Terminals

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The **Call Appearance/Feature Button Designation Card** for the 8410 and 8411 voice terminal contains 10 spaces labeled **a** through **j** for specifying the telephone number, extension, or feature assigned to each button. The card for the 8405 has five spaces, labeled **a** through **e**.



### NOTE:

On the 8411, you may also label the telephone number card and place it under the telephone number card cover located beneath the handset.

To label the card, use the instructions under "How to Label the Blank Designation Card" later in this chapter.

## For the 8434DX Voice Terminal

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There are two Call Appearance/Feature Button Designation Cards for the 8434DX voice terminal:

- The smaller card contains two columns with five buttons in each column: the first column is labeled **a** through **e**; the second column is labeled **f** through **j**.
- The larger card also contains two columns with 12 buttons in each column. The button labels on this larger card are blank; that is, they are NOT prelabeled with letters like the smaller card.

The four columns on the 8434DX voice terminal, totaling 34 button spaces, can be used for specifying the telephone number, extension, or feature assigned to each button.

To label the card, use the instructions under "How to Label the Blank Designation Card" later in this chapter.

## How to Label the Blank Designation Card

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To label the designation card, do the following:

 **NOTE:**

Be sure to print the voice terminal's full telephone number, including the area code, on the first call appearance button.

1. The transparent cover is attached to the frame of the voice terminal by tabs on the top and bottom of the cover. Remove the cover by pulling the top tab forward and then lifting the bottom of the transparent cover from the voice terminal.
2. Print or type the desired labels on the blank designation card.
  - On the 8403, print or type the assigned features on your Feature Directory next to the appropriate number or character, and print or type the voice terminal user's extension in Sections **a**, **b**, and **c**.
  - On the 8405, 8410, 8411, and 8434DX, print or type the voice terminal user's extension on the call appearance buttons and the assigned features on the feature buttons.
3. Once you have placed the designation card(s) on the voice terminal, you can replace the transparent cover by inserting the tabs at the bottom and then pressing the top down until it clicks.

**4 Labeling the Designation Card**

*How to Label the Blank Designation Card*

## Switch Administration

# 5

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### **Programming the Terminal's Transmission and Softkey Parameters**

The following applies to 8400-Series voice terminals installed in a DEFINITY G3V3 (or later) system.

The 8400-Series voice terminals have programmable voice and Touch Tone transmission parameters that must be set to the correct values in order for the terminals to operate within the required limits of the installation.

For installations within the United States (or other sites that use the U.S. transmission limits), no further action is required by the system manager since the terminals and the switch will default automatically to the proper limits (assuming the terminals have not been previously programmed with other transmission parameters).

For installations using a non-US transmission plan, the terminals must be programmed with the correct parameters before being placed into service. The PBX administration "change terminal-parameters" command should be used to select the desired transmission parameters. Then, as each terminal is administered and installed, it will automatically be programmed with the selected parameters. A replacement terminal that has not been pre-programmed with the proper transmission parameters should not be placed into service until it has been programmed with the administered transmission parameters. This can be accomplished by doing one of the following:

- From the system maintenance console, enter the command "busyout station" followed by "release station."
- Dial the "Refresh Terminal Parameters" feature access code from the terminal, then press "#" and hang up. (From another terminal that is already in service, you must specify the extension of the desired terminal to be programmed). The system indicates a successful program operation by turning on the first three green call appearance lights on the programmed set.

On the DEFINITY G3V3 (or later) systems, the terminals will automatically be programmed with the administered transmission parameters shortly after system initialization. The program status of a terminal can be determined by using the "status station" command and noting the contents of the "download status" field. The "busyout station" and "release station" commands can be used to force the administered transmission parameters (and softkey labels for the 8405D, 8405D Plus, 8410D, 8411D, and 8434DX) to be sent to the terminal immediately.

A terminal that has not been programmed with the proper parameters may experience incorrect volume levels while on a call, incorrect Touch Tone levels while placing a call, or incorrect softkey labels. If incorrect parameters are suspected, use the "busyout station" and "release station" commands or "Refresh Terminal Parameters" feature access code to force the currently administered parameters to be sent to the terminal. The "status station" command should then be used to verify that the "download status" field indicates the parameters were successfully downloaded.

All 8400-Series terminals are checked each day by the switch (during scheduled maintenance) to ensure they are operating with the currently-administered transmission parameters. If the switch detects an incorrectly-programmed terminal, it will automatically send the correct parameters to the terminal. Note that softkey labels are not checked by the switch and will not be automatically corrected. Use the "busyout station" and "release station" commands or the "Refresh Terminal Parameters" feature access code to manually correct the softkey labels on a particular terminal.

## Circuit Packs Used for the 8400-Series Sets

The following circuit packs can be used with all of the 8400-Series sets.

**Table 5-1. Circuit Packs for the 8400-Series Voice Terminals**

Circuit Pack	2/4-Wire	Will Support These Switches
TN2181 – 16-port	2-wire	G3V2, G3V3 or later
TN754B – 8-port	4-wire	All switches except System 85
TN754* – 8-port	4-wire	All switches except System 85
TN413 – 8-port	4-wire	International System 75
SN270 or SN270B – 4-port	4-wire	System 85 R2V2 – R2V4

\* G3V3 will support the 8403, 8405, 8410, and 8434DX voice terminals in the Native Mode with the TN754 V11 or later packs. G3V3 with TN754 V10 and earlier packs must alias these terminals as 7400-Series terminals.

## A Note on Bulk Administration and on LABELMASTER

All the 8400-Series voice terminals can be used with LABELMASTER, Issue 3.1 and later.

The sets can be bulk-administered with the following (all allow aliased support only):

- G3MA (used with G1, G3, G3V2, G3V3, and GD'91)
- SATPC (used with System 75 and International System 75)
- MGR IV (used with G2.1 and G2.2)
- CSM, MAAP (used with System 85)

## Administering the 8403 Voice Terminal

Use the following table for administering the 8403 voice terminal:

**Table 5-2. Administering the 8403 Voice Terminal**

<b>If you have this System</b>	<b>and this Release</b>	<b>(which can support this type of operation)</b>	<b>Administer the 8403 as a</b>
System 75	R1V1 — R1V3	4-wire only	7405
System 85	R2V2 — R2V4	4-wire only	7405
International System 75	IR1V4, etc.	4-wire only	7405
DEFINITY G1		4-wire only	7405
Global DEFINITY '91		4-wire only	7405
DEFINITY G2V1 and DEFINITY G2V2		4-wire only	7405
DEFINITY G3i, G3r, G3s, G3vs		4-wire only	7405
DEFINITY G3V2		2- or 4-wire	7405
DEFINITY G3V3 or later (including the DEFINITY ECS)		2- or 4-wire	8403

Figure 5-1 shows the button numbering schemes for administering the 8403 voice terminal to a System 75, a DEFINITY Generic 1 or Generic 3, or a DEFINITY ECS. Figure 5-2 shows the button numbering scheme for administering the 8403 voice terminal to a System 85 or a DEFINITY Generic 2.

**⇒ NOTE:**

On the voice terminals in the diagrams, both numbers and letters are printed on the dial pad keys. However, on some voice terminals only numbers appear on these keys.

**⇒ NOTE:**

The 8403 can be administered as itself ONLY IF it is connected to a DEFINITY G3V3 (or later) switch.

5 Switch Administration

Administering the 8403 Voice Terminal

If administered as a 7405D, F1 through F7 are administered as "BUTTON ASSIGNMENTS" 4 through 10. F8, F9, F\*, F0, and F# are administered as "FEATURE BUTTON ASSIGNMENTS" 1 through 5.

If administered as itself, administer F1 through F9, F\*, F0, and F# as "FEATURE BUTTON ASSIGNMENTS" 1 through 12.

Call appearance buttons a, b, and c are administered as call appearance "BUTTON ASSIGNMENTS" 1, 2, and 3.

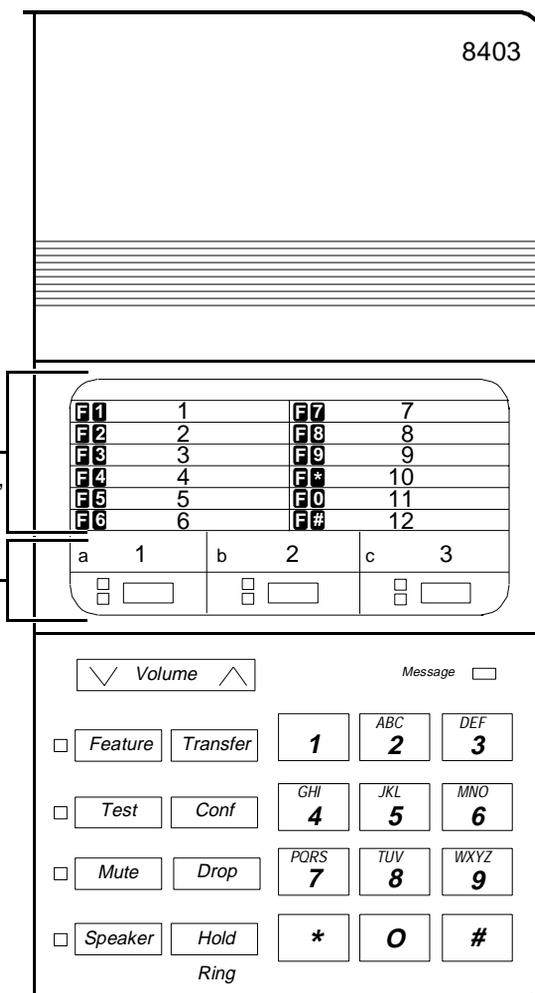


Figure 5-1. Button Numbering Scheme for Administering the 8403 Voice Terminal Connected to System 75, DEFINITY Generic 1 or Generic 3, or a DEFINITY ECS

5 Switch Administration

Administering the 8403 Voice Terminal

If administered as a 7405D, F1 through F7 are administered as "BUTTON ASSIGNMENTS" 6 through 12. F8, F9, F\*, F0, and F# are administered as "FEATURE BUTTON ASSIGNMENTS" 13 through 17.

If administered as itself, administer F1 through F9, F\*, F0, and F# as "FEATURE BUTTON ASSIGNMENTS" 1 through 12.

Call appearance buttons a, b, and c are administered as call appearance "BUTTON ASSIGNMENTS" 3, 4, and 5.

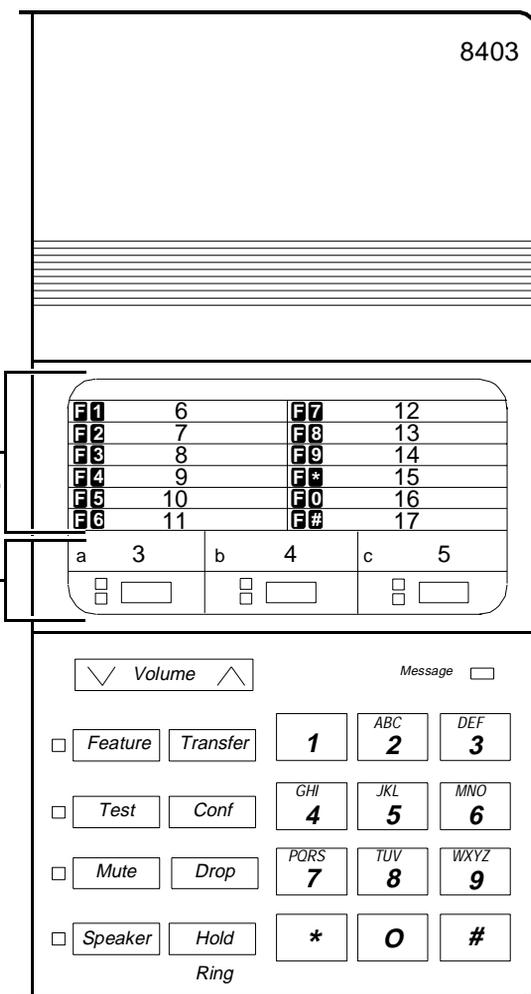


Figure 5-2. Button Numbering Scheme for Administering the 8403 Voice Terminal Connected to System 85 or DEFINITY Generic 2

## Administering the 8405, 8410, and 8411 Voice Terminals

There are four 8405 voice terminal models: the 8405B and 8405B Plus do *not* have a display; the 8405D and 8405D Plus are equipped with a display.

There are two types of 8410 and 8411 voice terminals: the 8410B and the 8411B are basic sets *without* a display. The 8410D and the 8411D have displays.

Use the following tables for administering the 8405B, 8405B Plus, 8410B, and 8411B without a display, and the 8405D, 8405D Plus, 8410D, and 8411D voice terminals with a display. (BE SURE to refer to the administration table for the voice terminal you are using):

**Table 5-3. Administering the 8405B, 8405B Plus, and 8410B Voice Terminals**

<b>If you have this System</b>	<b>and this Release</b>	<b>(which can support this type of operation)</b>	<b>Administer the 8405B, 8405B Plus, and 8410B as a</b>
System 75	R1V1 — R1V3	4-wire only	7403D
System 85	R2V2 — R2V4	4-wire only	7403D
International System 75	IR1V4, etc.	4-wire only	7403D
DEFINITY G1		4-wire only	7403D
Global DEFINITY '91		4-wire only	7410D
DEFINITY G2V1		4-wire only	7410D
DEFINITY G2V2		4-wire only	7410 Plus
DEFINITY G3i, G3r, G3s, G3vs		4-wire only	7410D
DEFINITY G3V2		2- or 4-wire	7410 Plus
DEFINITY G3V3 or later (including the DEFINITY ECS)		2- or 4-wire	8410B

**NOTE:**

The 8410B can be administered as itself ONLY IF it is connected to a DEFINITY G3V3 (or later). Native support for the 8405 sets can be done only with a DEFINITY ECS Release 5 (G3V5) or later.

5 Switch Administration

Administering the 8405, 8410, and 8411 Voice Terminals

When administering an 8405B on the DEFINITY G3 or G4, you must select “One-Way” or “None” as the Speaker option on the 8410 Administration Form. If the voice terminal is incorrectly optioned as having a two-way speakerphone, the light next to the Speaker button will continually flutter. In that case, you must readminister the terminal.

**Table 5-4. Administering the 8405D, 8405D Plus, and 8410D Voice Terminals**

<b>If you have this System</b>	<b>and this Release</b>	<b>(which can support this type of operation)</b>	<b>Administer the 8405D, 8405D Plus, and 8410D as a</b>
System 75	R1V1 — R1V3	4-wire only	7405D +D
System 85	R2V2 — R2V4	4-wire only	7405D +D
International System 75	IR1V4, etc.	4-wire only	7405D +D
DEFINITY G1		4-wire only	7405D +D
Global DEFINITY '91		4-wire only	7405D +D
DEFINITY G2V1 and DEFINITY G2V2		4-wire only	7405D +D
DEFINITY G3i, G3r, G3s, G3vs		4-wire only	7405D +D
DEFINITY G3V2		2- or 4-wire	7405D +D
DEFINITY G3V3 or later (including the DEFINITY ECS)		2- or 4-wire	8410D

**⇒ NOTE:**

As noted in the above table, an 8410D aliased as a 7405 voice terminal must be administered as a 7405 +D, that is, *with Display Module*. On the administration page, type a “y” (for Yes) on the blank next to “Display?”

The 8410D can be administered as itself ONLY IF it is connected to a DEFINITY G3V3 (or later) switch. Native support for the 8405 sets can be done only with a DEFINITY ECS Release 5 (G3V5).

When administering an 8405D on the DEFINITY G3 or G4, you must select “One-Way” or “None” as the Speaker option on the 8410 Administration Form. If the voice terminal is incorrectly optioned as having a two-way speakerphone, the light next to the Speaker button will continually flutter. In that case, you must readminister the terminal.

**Table 5-5. Administering the 8411B Voice Terminal**

<b>If you have this System</b>	<b>and this Release</b>	<b>(which can support this type of operation)</b>	<b>Administer the 8411B as a</b>
System 75	R1V1 — R1V3	4-wire only	7403D
System 85	R2V2 — R2V4	4-wire only	7403D
International System 75	IR1V4, etc.	4-wire only	7403D
DEFINITY G1		4-wire only	7403D
Global DEFINITY '91		4-wire only	7410D
DEFINITY G2V1		4-wire only	7410D
DEFINITY G2V2		4-wire only	7410 Plus
DEFINITY G3i, G3r, G3s, G3vs		4-wire only	7410D
DEFINITY G3V2		2- or 4-wire	7410 Plus
DEFINITY G3V3 and G3V4, Issue 1 and 2		2- or 4-wire	8410B
DEFINITY G3V3 or later (including the DEFINITY ECS)		2- or 4-wire	8411B

 **NOTE:**

**Notes on 8411 Administration (if used with DEFINITY G3V4, Issue 3, or later):** The 8411B can be administered as itself ONLY IF it is connected to a DEFINITY G3V4, Issue 3, (or later) switch. In Native Mode the voice terminal is administered through a digital line circuit card with a line number (with the usual three call appearances) assigned to the I-1 Channel. A second line number can be administered through the same digital line card on the I-2 Channel, but this line number can only be used for Analog Adjuncts connected to the Analog Adjunct jack on the 8411. This Analog Adjunct is assigned a private number, but can be used only for placing or terminating a call. It cannot be used for any other analog functions such as transferring a call or setting up a conference call. If a second line on the 8411 is administered on the I-2 Channel (for analog equipment) on the 8411, type "analog" in the **Data Option** field on the administration screen.

If the 8411 is connected to a personal computer for use with PassageWay software, type a "y" in the **PassageWay** field also on the administration screen. (However, DO NOT enter a "y" in the **PassageWay** field unless the user has a licensed PassageWay application.)

**Table 5-6. Administering the 8411D Voice Terminal**

<b>If you have this System</b>	<b>and this Release</b>	<b>(which can support this type of operation)</b>	<b>Administer the 8411D as a</b>
System 75	R1V1 — R1V3	4-wire only	7405D +D
System 85	R2V2 — R2V4	4-wire only	7405D +D
International System 75	IR1V4, etc.	4-wire only	7405D +D
DEFINITY G1		4-wire only	7405D +D
Global DEFINITY '91		4-wire only	7405D +D
DEFINITY G2V1 and DEFINITY G2V2		4-wire only	7405D +D
DEFINITY G3i, G3r, G3s, G3vs		4-wire only	7405D +D
DEFINITY G3V2		2- or 4-wire	7405D +D
DEFINITY G3V3 and G3V4, Issue 1 and 2		2- or 4-wire	8410D
DEFINITY G3V4, Issue 3 or later (including the DEFINITY ECS)		2- or 4-wire	8411D

**⇒ NOTE:**

As shown in the above table, an 8411D aliased as a 7405 voice terminal must be administered as a 7405 +D, that is, *with Display Module*. On the administration page, type a “y” (for Yes) on the blank next to “Display?”

**⇒ NOTE:**

**Notes on 8411 Administration (if used with a DEFINITY G3V4, Issue 3, or later):** The 8411D can be administered as itself ONLY IF it is connected to a DEFINITY G3V4, Issue 3 (or later) switch. In Native Mode the voice terminal is administered through a digital line circuit card with a line number (with the usual three call appearances) assigned to the I-1 Channel. A second line number can be administered through the same digital line card on the I-2 Channel, but this line number can only be used for Analog Adjuncts connected to the Analog Adjunct jack on the 8411. This Analog Adjunct is assigned a private number, but can be used only for placing or terminating a call. It cannot be used for any other analog functions such as transferring a call or setting up a conference call. If a second line on the 8411 is administered on the I-2-Channel (for analog equipment) on the 8411, type “analog” in the **Data Option** field on the administration screen.

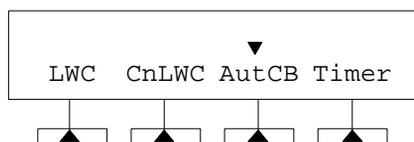
If the 8411 is connected to a personal computer for use with PassageWay software, type a “y” in the **PassageWay** field also on the administration screen. (However, DO NOT enter a “y” in the **PassageWay** field unless the user has a licensed PassageWay application.)

## Administering Softkey Features on the 8405D, 8405D Plus, 8410D, and 8411D

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On the 8405D, 8405D Plus, 8410D, and 8411D voice terminals, up to 12 features can be administered with the softkeys. (There are three feature option screens with up to four available features listed on the second line of each screen.)

When the voice terminal is shipped from the factory, there are 12 softkey features already assigned to the feature option screens; their feature abbreviations appear on the second line of the display, such as the following:



If this feature option screen appears on a user’s voice terminal display, the user would press the softkey below **LWC** in order to activate the Leave Word Calling feature or press the softkey below **AutCB** to use the Automatic Callback feature. When the feature is activated, an arrow (▼) appears above the feature abbreviation.

For a list of the default softkey features, see “The Default Softkey Features on the 8405D, 8405D Plus, 8410D, and 8411D” later in this section. Other softkey features that can be administered on the 8405D, 8405D Plus, 8410D, and 8411D voice terminals are listed in “Alternate Softkey Features on the 8405D, 8405D Plus, 8410D, and 8411D.”

Alternate softkey features (to replace default softkey features), international transmission levels and parameters, and A/Mu Law companding can be administered and supported ONLY on a terminal connected to a G3V3 or later.



**CAUTION:**

*It is not recommended nor will it be supported for anyone to administer alternate softkey features, international transmission levels and parameters, and A/Mu Law companding on a terminal from a G3V3 switch and subsequently connect this same terminal to an earlier switch release, such as a DEFINITY G3V2, G2, G1, or a System 75 or System 85. Any problems in the functionality or in readministration of this terminal will be the responsibility of the customer, not Lucent Technologies.*



**NOTE:**

With G3V3 and later switches, the system can download BLANK softkey labels for positions where there are no features administered.

The 12 softkey features on the 8405D, 8405D Plus, 8410D, and 8411D should be administered in the following manner:

- **If the 8405D, 8405D Plus, or 8410D is connected to a DEFINITY G3V3 (or later), or if the 8411D is connected to a DEFINITY G3V3 or G3V4, Issue 1 or 2,** administer either of the voice terminals as an 8410D. **An 8411D voice terminal connected to a DEFINITY G3V4, Issue 3 (or later)** can be administered as itself. In any of these cases (that is, if the voice terminal is connected to a G3V3 or later), the system manager may choose to leave the default softkey features in place (see “The Default Softkey Features on the 8405D, 8405D Plus, 8410D, and 8411D” on the next page) **OR** select features from the list of alternative softkey features (see “Alternate Softkey Features on the 8405D, 8405D Plus, 8410D, and 8411D”). Administer the softkey features on “SOFTKEY BUTTON ASSIGNMENTS” Buttons #1 through 12.
- **If the 8405D, 8405D Plus, 8410D, or 8411D is connected to a System 75, DEFINITY G1, or DEFINITY G3V2 (or earlier),** administer the voice terminal as a 7405D + Display Module. Only the default softkey features can be used. (See “The Default Softkey Features on the 8405D, 8405D Plus, 8410D, and 8411D” on the next page.) Administer the 12 softkey features on “FEATURE BUTTON ASSIGNMENTS” Buttons #2 through 13. (The Normal feature should be administered on Button #1 on this administration screen.)

5 Switch Administration

*Administering the 8405, 8410, and 8411 Voice Terminals*

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For example, on the default feature option screen on the previous page, the Leave Word Calling (LWC) feature would be administered on "FEATURE BUTTON ASSIGNMENTS" Button #2; the Automatic Callback (AutCB) feature would be administered on Feature Button #4.

- **If the 8405D, 8405D Plus, 8410D, or 8411D is connected to a System 85 or a DEFINITY G2**, administer the voice terminal as a 7405D + Display Module. Only the default softkey features can be used. (See "The Default Softkey Features on the 8405D, 8405D Plus, 8410D, and 8411D" on the next page.) Administer the 12 softkey features on "FEATURE BUTTON ASSIGNMENTS" Buttons #14 through 25. (The Normal feature should be administered on Button #13 on this administration screen.)

For example, for the features on the first default feature option screen shown on the previous page, the Leave Word Calling feature should be administered on "FEATURE BUTTON ASSIGNMENTS" Button #14. The Automatic Callback feature should be administered on Feature Button #16.

## The Default Softkey Features on the 8405D, 8405D Plus, 8410D, and 8411D

Below is a list of the 12 default softkey features assigned to the 8405D, 8405D Plus, 8410D, and 8411D voice terminals and the order in which they appear.

**Table 5-7. Default Softkey Features on the 8405D, 8405D Plus, 8410D, and 8411D**

Abbreviation	Feature and Description
<i>First Screen</i> <b>LWC</b>	<b>Leave Word Calling</b> – Leave a message for another extension to call you back
<b>CnLWC</b>	<b>Cancel Leave Word Calling</b> – Cancel a Leave Word Calling message
<b>AutoCB</b>	<b>Automatic Callback</b> – Sends you a 3-burst ring indicating that a previously busy number is now available
<b>Timer</b>	<b>Timer</b> – Measure elapsed time, such as time spent on a call
<i>Second Screen</i> <b>CFrwd</b> *	<b>Call Forward</b> – Temporarily forward your calls to another extension or outside number
<b>CPark</b> †	<b>Call Park</b> – Put a call on hold for retrieval at another telephone
<b>TmDay</b>	<b>Time/Date</b> – Shows you the date and time
<b>PCall</b>	<b>Priority Calling</b> – Call an extension with a distinctive 3-burst ring to indicate your call needs immediate attention
<i>Third Screen</i> <b>Prog</b>	<b>Abbreviated Dialing (AD) Program</b> – Program a telephone number, extension, or feature access code on an AD button
<b>Pause</b>	<b>AD Special Function Pause</b> – Places a 1.5 second pause between numbers on an AD button, such as between an access code and a telephone number
<b>Mark</b>	<b>AD Special Function Mark</b> – Numbers included after a Mark are dialed in Touch-Tone signal form
<b>Wait</b> ‡	<b>AD Special Function Wait</b> – Numbers included after a Wait are delayed 5 to 25 seconds until dial tone is received from the switch

\* This feature is named Call Forward-Follow Me on a DEFINITY G2 or System 85 switch.

† On a DEFINITY G2 and System 85, there is no Call Park feature that can be assigned to assigned to a feature button. In order to have the Call Park function on a softkey or hard button, administer the button as an Abbreviated Dial button and program the Call Park trunk group access code onto it. This button can then be labeled "Call Park." In addition, on a DEFINITY G2 or System 85, the Recall feature must be administered on a standard feature button.

‡ When administering the Wait feature, use "-w"; when administering the Stop feature, use "-W".

## Alternate Softkey Features on the 8405D, 8405D Plus, 8410D, and 8411D

On 8405D, 8405D Plus, 8410D, and 8411D voice terminals connected to a DEFINITY G3V3 (or later), the system manager can choose to keep all, some, or none of the above default softkey features on each individual voice terminal display. The following table lists the alternate softkey features, those features that can be substituted for the default softkey features listed above.



### NOTE:

Alternate softkey features can be administered ONLY on terminals connected to a DEFINITY G3V3 (or later) switch.

**Table 5-8. Alternate Softkey Features on the 8405D, 8405D Plus, 8410D, and 8411D**

Abbreviation	Feature and Description
<b>AD</b>	<b>Abbreviated Dialing buttons</b> (can be multiple AD buttons, but they are labeled “AD” rather than the button’s destination, such as a telephone number or person’s name)
<b>Cnslt</b>	<b>Consult</b> – After answering a coverage call, you can discuss the call with the person for whom the call was intended
<b>Count</b>	<b>ACD Stroke Count</b> (can be up to 10 buttons) – Allows an ACD agent to record the number of times a particular customer-related event occurs, such as the number of questions about a particular sale item
<b>CPkUp</b>	<b>Call Pickup</b> – Lets you answer a call at your voice terminal for another extension in the same pickup group
<b>Dir*</b>	<b>Directory</b> – Searches for the extension of another user in the same location
<b>Excl</b>	<b>Manual Exclusion</b> – Keeps other users with whom you share a bridged call appearance from listening in on an existing call
<b>HFAns†</b>	<b>Internal (Hands-Free) Auto Answer</b> – Answers on the speakerphone whenever an internal call comes in to your voice terminal
<b>IAuto</b>	<b>Automatic Intercom</b> – Automatically dials the number of a predetermined partner
<b>IDial</b>	<b>Dial Intercom</b> – Automatically dials the number of a member of a predetermined group of users (for this feature, you need to know the member’s 2- or 3-digit code)
<b>Inspt</b>	<b>Inspect</b> – Shows you call-related information for an active call

**Table 5-8. Alternate Softkey Features on the 8405D, 8405D Plus, 8410D, and 8411D — Continued**

<b>Last</b>	<b>Last Number Dialed</b> – Automatically redials the last extension or outside number you dialed
<b>RingOf</b>	<b>Ringer Off</b> – Turns the ringer off on your voice terminal (however, you will hear a half-ring whenever a call comes in to your voice terminal)
<b>SAC</b>	<b>Send All Calls</b> – Temporarily sends all your calls to the extension of a person designated by the system manager
<b>SFunc</b>	<b>AD Special Function</b> – Insert one of the AD Special Functions (such as Pause, Mark, or Wait) by pressing a dial pad key that corresponds with that function
<b>Spres</b>	<b>AD Special Function Suppress</b> – Suppress numbers on an AD button, such as numbers needed for a password so they are dialed but not shown on the screen
<b>Stats<sup>†</sup></b>	<b>ACD View Statistics</b> – Logged-in ACD agents can view their own ACD measurements
<b>Stop<sup>**</sup></b>	<b>AD Indefinite Wait or Stop</b> – A Stop or Indefinite Wait is included in an AD number, so that all action is stopped until a dial tone is received from the switch
<b>View<sup>††</sup></b>	<b>View Stored Number</b> – Allows you to check the number stored on an AD button or in an AD list

\* A **Call Display** standard feature button should be administered, if access to System Directory is provided. It is also desirable for a **Next Display** standard feature button to be administered. This feature is NOT available on a DEFINITY G2 or System 85.

† This feature is available only on a DEFINITY G3V2 (or later) switch.

‡ This feature can be used ONLY on a DEFINITY G3V3 or later. Also, note that after you press the softkey under the VuStats feature (**Stats**), the statistics information will remain on the display for only approximately five seconds before it is overwritten by the softkey menu. In order to continuously display the statistical information, you should administer this feature on one of the call appearance/feature buttons instead of administering it as a softkey feature.

\*\* When administering the Wait feature, use “-w”; when administering the Stop feature, use “-W.”

†† This feature CANNOT be administered on a DEFINITY G2 or System 85.

## Button Numbering for 8405, 8410, and 8411 Voice Terminal Administration

---

Use the following diagrams for administering the 8405, 8410, and 8411 voice terminals.

The button numbering schemes for these three voice terminals are almost exactly the same, except that the 8405 has five call appearance/feature buttons whereas the 8410 and the 8411 voice terminals have 10 call appearance/feature buttons.

Figure 5-3 shows the button numbering scheme for administering the 8405 voice terminal to a System 75, a DEFINITY Generic 1 or Generic 3, or a DEFINITY ECS. (The drawing shows the 8405D Plus, but you can use this drawing to administer all four of the 8405 models.) Figure 5-4 shows the button numbering for administering the 8405 voice terminal to a System 85 or a DEFINITY Generic 2. (Again, the 8405D Plus is used as an example.)

Figure 5-5 shows the button numbering scheme for administering the 8410 or 8411 voice terminal to a System 75, a DEFINITY Generic 1 or Generic 3, or a DEFINITY ECS. (The drawing shows the 8410D; however, the button numbering for the 8410B, 8411B, and 8411D is the same). Figure 5-6 shows button numbering for administering the 8410 or 8411 voice terminals to a System 85 or a DEFINITY Generic 2. (Again, the figure shows the 8410D.)

### ⇒ NOTE:

On the voice terminals in the diagrams, both numbers and letters are printed on the dial pad keys. However, on some voice terminals only numbers appear on these keys.

### ⇒ NOTE:

All of these voice terminals have **Transfer**, **Test**, **Conf**, **Mute**, **Drop**, **Speaker** and **Hold** buttons. However, your 8405, 8410, or 8411 voice terminal may differ from the ones shown in Figures 5-3 through 5-6 in the following ways:

- Some voice terminals have a **Ring** button in the upper left column of fixed features; others have a **Shift** button.
- Some of these voice terminals also have the Reset Speakerphone feature (labeled **Reset Spkr** which appears under the **Speaker** button).
- On some voice terminals, the Message light is labeled **Message**; on others the Message light is labeled .

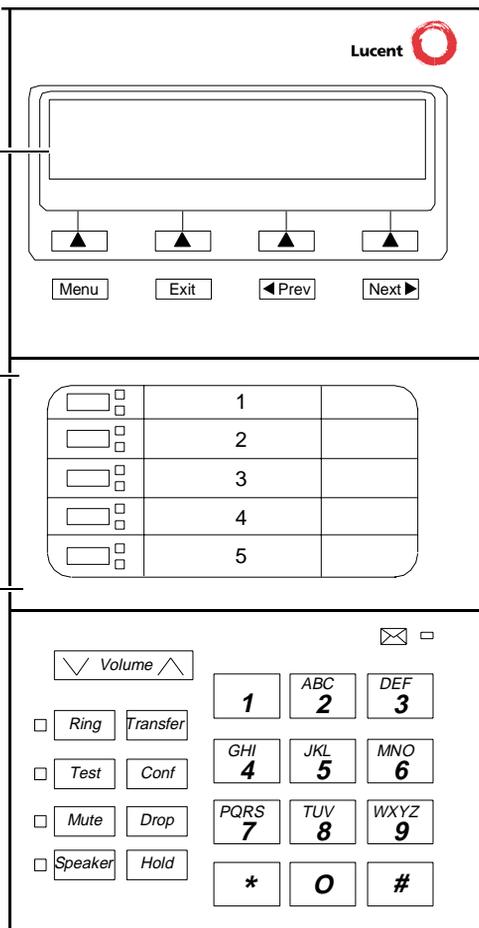
5 Switch Administration

Administering the 8405, 8410, and 8411 Voice Terminals

If the 8405D or 8405D Plus is administered as a 7405D, administer the 12 softkey features on "FEATURE BUTTON ASSIGNMENTS" 2 through 13; administer the Normal feature on Button #1.

If the 8405D or 8405D Plus is administered as an 8410D, administer the 12 softkey features on "SOFTKEY BUTTON ASSIGNMENTS" 1 through 12.

The 5 call appearance/feature buttons are administered as "BUTTON ASSIGNMENTS" 1 through 5.



**Figure 5-3. Button Numbering Scheme for Administering the 8405 Voice Terminal Connected to System 75, DEFINITY Generic 1 or Generic 3, or a DEFINITY ECS**

5 Switch Administration

Administering the 8405, 8410, and 8411 Voice Terminals

If the 8405D or 8405D Plus is administered as a 7405D, administer the 12 softkey features on "FEATURE BUTTON ASSIGNMENTS" 14 through 25; administer the Normal feature on Button #13.

If the 8405D or 8405D Plus is administered as an 8410D, administer the 12 softkey features on "SOFTKEY BUTTON ASSIGNMENTS" 1 through 12.

The 5 call appearance/feature buttons are administered as "BUTTON ASSIGNMENTS" 3 through 7.

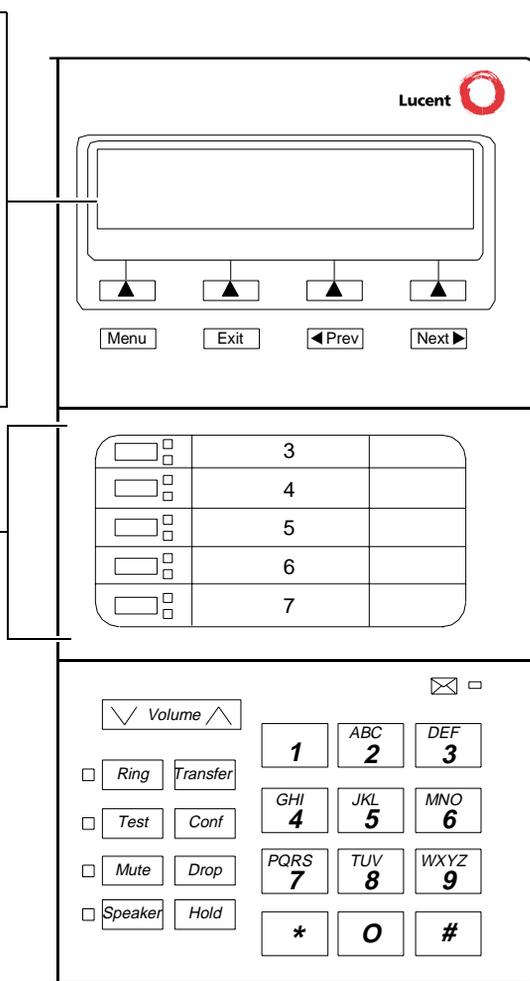


Figure 5-4. Button Numbering Scheme for Administering the 8405 Voice Terminal Connected to System 85 or DEFINITY Generic 2

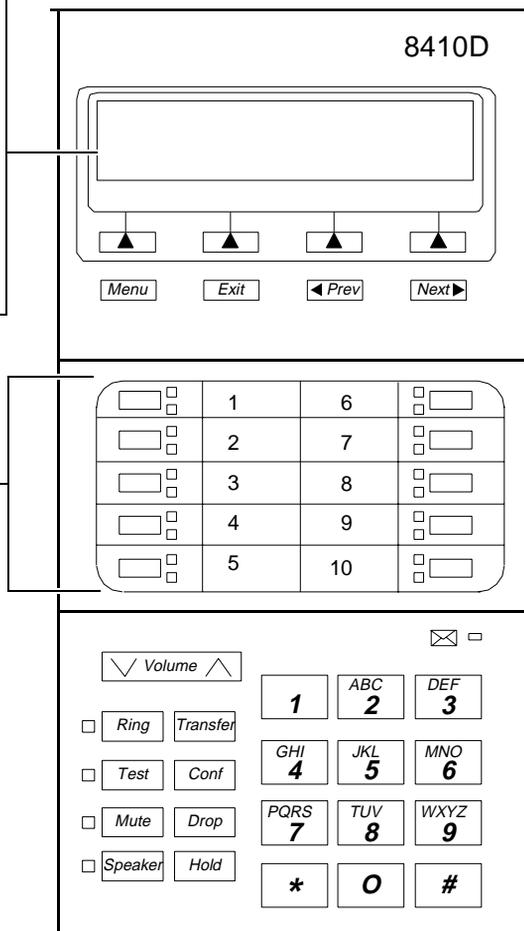
5 Switch Administration

Administering the 8405, 8410, and 8411 Voice Terminals

If the 8410D is administered as a 7405D, administer the 12 softkey features on "FEATURE BUTTON ASSIGNMENTS" 2 through 13; administer the Normal feature on Button #1.

If the 8410D is administered as itself, administer the 12 softkey features on "SOFTKEY BUTTON ASSIGNMENTS" 1 through 12.

The 10 call appearance/feature buttons are administered as "BUTTON ASSIGNMENTS" 1 through 10.



**Figure 5-5. Button Numbering Scheme for Administering the 8410 and 8411 Voice Terminals Connected to System 75, DEFINITY Generic 1 or Generic 3, or a DEFINITY ECS**

5 Switch Administration

Administering the 8405, 8410, and 8411 Voice Terminals

If the 8410D is administered as a 7405D, administer the 12 softkey features on "FEATURE BUTTON ASSIGNMENTS" 14 through 25; administer the Normal feature on Button #13.

If the 8410D is administered as itself, administer the 12 softkey features on "SOFTKEY BUTTON ASSIGNMENTS" 1 through 12.

The 10 call appearance/feature buttons are administered as "BUTTON ASSIGNMENTS" 3 through 12.

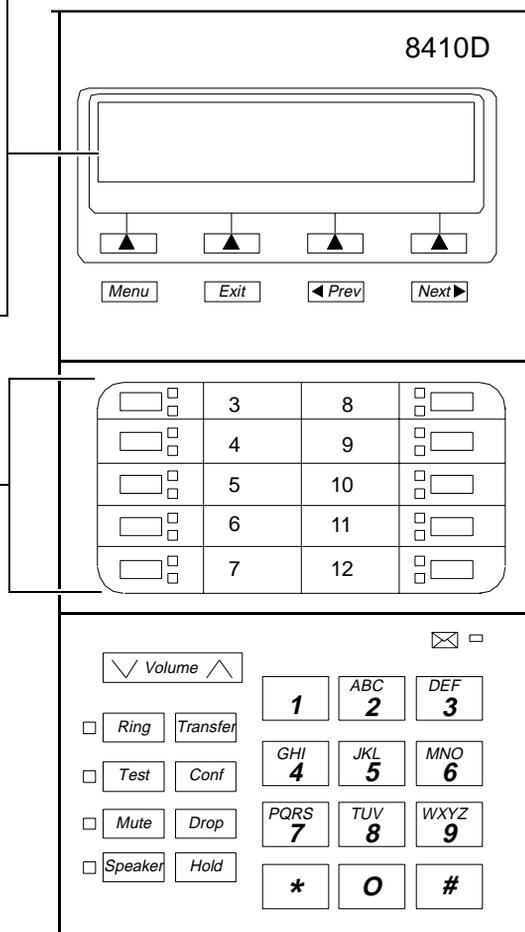


Figure 5-6. Button Numbering Scheme for Administering the 8410 and 8411 Voice Terminals Connected to System 85 or DEFINITY Generic 2

## Administering the 8434DX Voice Terminal

Use the following table to administer the 8434DX voice terminal:

The voice terminal can be administered so it can access the softkey features OR it can be administered so that it has access to more coverage buttons.

**Table 5-9. Administering the 8411D Voice Terminal**

<b>If you have this System</b>	<b>and this Release</b>	<b>(which can support this type of operation)</b>	<b>Administer the 8434DX as a</b>
System 75	R1V1 — R1V3	4-wire only	7405D +D +F
System 85	R2V2 — R2V4	4-wire only	7405D +D +F
International System 75	IR1V4, etc.	4-wire only	7405D +D +F
DEFINITY G1		4-wire only	7405D +D +F
Global DEFINITY '91		4-wire only	7405D +D +F or 7434 +D
DEFINITY G2V1 and DEFINITY G2V2		4-wire only	7405D +D +F or 7434 +D
DEFINITY G3i, G3r, G3s, G3vs		4-wire only	7405D +D +F or 7434 +D
DEFINITY G3V2		2- or 4-wire	7405D +D +F or 7444
DEFINITY G3V3 or later (including the DEFINITY ECS)		2- or 4-wire	8434D

### Key to Abbreviations:

+D = with Display Module

+F = with Feature Key Module

### CAVEATS:

The 8434DX may be aliased as a 7405 +D +F to support features on all systems. However, in this case, while all the call appearance/feature buttons AND the softkey features will be functional, there can be a maximum of only 10 call appearances. On the 7405, the Display Module is a 1-line display, and thus the 1-line display option should be selected.

On some systems, the 8434DX can be aliased as a 7434 +D or a 7444 to support coverage. In this case, there can be up to 34 call appearances (including bridged

5 Switch Administration

Administering the 8434DX Voice Terminal

Page 5-23

call appearances), but the 15 softkey features will NOT be functional because the Feature Key Module is not allowed with the 7434 or 7444. On the 7434, the Display Module is a 1-line display, and thus the 1-line display option should be selected. If the set is administered as a 7444, it can be optioned for a 2-line display.

 **NOTE:**

An 801A Expansion Module can be used with an 8434DX voice terminal connected to a DEFINITY G3V3.3 or later switch.

For switch administration procedures for an 8434DX voice terminal with an expansion module connected to it, see the *801A Expansion Module Instruction Manual* shipped with the expansion module.

 **NOTE:**

The 8434DX can be administered as an 8434D ONLY IF it is connected to a DEFINITY G3V3 (or later) switch.

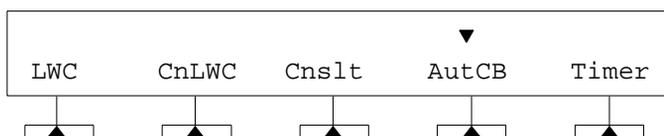
Alternate softkey features (to replace default softkey features), international transmission levels and parameters, and A/Mu Law companding can be administered and supported ONLY on a terminal connected to a G3V3 or later.

 **CAUTION:**

*It is not recommended nor will it be supported for anyone to administer alternate softkey features, international transmission levels and parameters, and A/Mu Law companding on a terminal from a G3V3 switch and subsequently connect this same terminal to an earlier switch release, such as a DEFINITY G3V2, G2, G1, or a System 75 or System 85. Any problems in the functionality or in readministration of this terminal will be the responsibility of the customer, not Lucent Technologies.*

## Administering Softkey Features on the 8434DX

On the 8434DX, up to 15 softkey features can be administered on the three feature option screens (five features on each screen). When the voice terminal is shipped from the factory, there are 15 features already assigned to the feature option screens; their feature abbreviations appear on the second line of the display, such as the following:



If this feature option screen appears on a user's voice terminal display, the user would press the softkey below **LWC** in order to activate the Leave Word Calling feature or press the softkey below **AutCB** to use the Automatic Callback feature. When the feature is activated, an arrow (▼) appears above the feature abbreviation.

### ⇒ NOTE:

With G3V3 and later switches, the system can download BLANK softkey labels for positions where there are no features administered.

The 15 softkey features on the 8434DX should be administered in the following manner:

- **If the 8434DX is connected to a DEFINITY G3V3**, administer the voice terminal as an 8434. In any of these cases (that is, the voice terminal is connected to a DEFINITY G3V3 or later), the system manager may choose to leave the default softkey features in place (see "The Default Softkey Features on the 8434DX" on the next page) *OR* select features from the list of alternative softkey features (see "Alternate Softkey Features on the 8434DX"). Administer the softkey features on "SOFTKEY BUTTON ASSIGNMENTS" Buttons #1 through 15.
- **If the 8434DX is connected to a System 75, System 85, a DEFINITY G1, G2, or G3V2 (or earlier)**, and you want to use the softkey features, administer the voice terminal as a 7405D + Display Module and Feature Key Module. (If you administer the voice terminal as a 7434 or a 7444, you cannot use the softkey features.) Only the default softkey features can be used. Administer the 15 softkey features on "FEATURE MODULE BUTTON ASSIGNMENTS" Buttons #1 through 15. (The Normal feature should be administered on Button #1 on the "DISPLAY BUTTON ASSIGNMENTS" screen.)

For example, for the features on the default feature option screen on the previous page, the Leave Word Calling feature would be administered on "FEATURE MODULE BUTTON ASSIGNMENTS" Button #1; the Automatic Callback feature would be administered on Button #4.

## The Default Softkey Features on the 8434DX

Below is a list of the 15 default softkey features assigned to the 8434DX and the order they appear in. (For a description of these features, see “Administering Softkey Features on the 8405D, 8405D Plus, 8410D, and 8411D” earlier in this chapter.)

**Table 5-10. Default Softkey Features on the 8434DX**

<b>Abbreviation</b>	<b>Feature</b>
<i>First Screen</i> <b>LWC</b>	Leave Word Calling
<b>CnLWC</b>	Cancel Leave Word Calling
<b>Cnslt</b>	Consult
<b>AutCB</b>	Automatic Callback
<b>Timer</b>	Timer
<i>Second Screen</i> <b>CFrwd*</b>	Call Forward
<b>CPark†</b>	Call Park
<b>Excl</b>	Manual Exclusion
<b>TmDay</b>	Time/Date
<b>PCall</b>	Priority Calling
<i>Third Screen</i> <b>Prog</b>	AD Program
<b>Pause</b>	AD Special Function Pause
<b>Spres</b>	AD Special Function Suppress
<b>Mark</b>	AD Special Function Mark
<b>Wait‡</b>	AD Special Function Wait

\* This feature is named Call Forward-Follow Me on a DEFINITY G2 or System 85 switches.

† On a DEFINITY G2 and System 85, there is no Call Park feature that can be assigned to a feature button. In order to have the Call Park function on a softkey or hard button, administer the button as an Abbreviated Dial button and program the Call Park trunk group access code onto it. This button can then be labeled “Call Park.” In addition, on a DEFINITY G2 or System 85, the Recall feature must be administered on a standard feature button.

‡ When administering the Wait feature, use “-w”; when administering the Stop feature, use “-W.”

## **Alternate Softkey Features on the 8434DX**

If the 8434DX is connected to a DEFINITY G3V3 (or later) switch, the system manager can choose to keep all, some, or none of the above default softkey features on each individual voice terminal display. The following table lists the alternate softkey features, those features that can be substituted for the default softkey features listed above. (For a description of these features, see "Administering Softkey Features on the 8405D, 8405DPlus, 8410D and 8411D" earlier in this chapter.)

Alternate softkey features can be administered **ONLY** on terminals connected to a DEFINITY G3V3 (or later) switch.

**Table 5-11. Alternate Softkey Features for the 8434DX**

Abbreviation	Feature
AD	Abbreviated Dialing buttons (can be multiple buttons)
Count	ACD Stroke Count (can be up to 10 buttons)
CPkUp	Call Pickup
Dir*	Directory
HFAAns <sup>†</sup>	Internal (Hands-Free) Auto Answer
IAuto	Automatic Intercom
IDial	Dial Intercom
Inspt	Inspect
Last	Last Number Dialed
RingOf	Ringer Off
SAC	Send All Calls
SFunc	AD Special Function Pause
Stats <sup>‡</sup>	AD Special Function Suppress
Stop**	AD Special Function Mark
View <sup>††</sup>	AD Special Function Wait

\* A **Call Display** standard feature button should be administered, if access to the System Directory is provided. It is also desirable for a **Next Display** standard feature button to be administered.

† This feature is available only with a DEFINITY G3V2 (or later) switch.

‡ This feature can be used ONLY on a DEFINITY G3V3 or later. Also, note that after you press the softkey under the VuStats feature (**Stats**), the statistics information will remain on the display for only approximately five seconds before it is overwritten by the softkey menu. In order to continuously display the statistical information, you should administer this feature on one of the call appearance/feature buttons instead of administering it as a softkey feature.

\*\* When administering the Wait feature, use “-w”; when administering the Stop feature use “-W.”

†† This feature CANNOT be administered on a DEFINITY G2 or System 85 switch.

## Button Numbering for 8434DX Voice Terminal Administration

---

Use the following diagrams for administering the 8434DX voice terminal.

Figure 5-7 shows the button numbering scheme for administering the 8434DX voice terminal to a System 75, a DEFINITY Generic 1 or Generic 3, or a DEFINITY ECS. Figure 5-8 shows the button numbering scheme for administering the 8434DX voice terminal to a System 85 or DEFINITY Generic 2.

### NOTE:

On the voice terminals in the diagrams, both numbers and letters are printed on the dial pad keys. However, on some voice terminals only numbers appear on these keys.

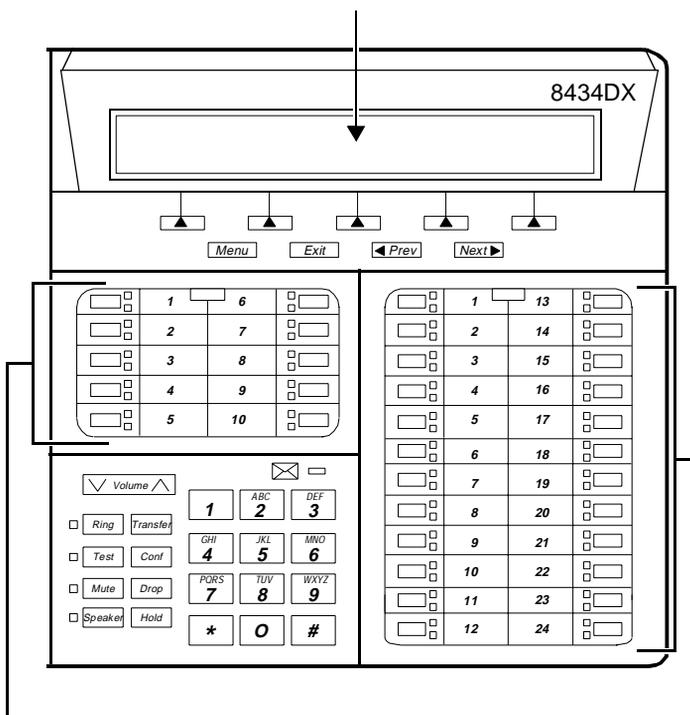
### NOTE:

The 8434DX voice terminal has **Transfer**, **Test**, **Conf**, **Mute**, **Drop**, **Speaker** and **Hold** buttons. However, your 8434DX may differ from the ones shown in Figures 5-7 and 5-8 in the following ways:

- Some voice terminals have a **Ring** button in the upper left column of fixed features; others have a **Shift** button.
- Some 8434DX voice terminals also have a Reset Speakerphone feature (labeled **Reset Spkr** which appears under the **Speaker** button).
- On some 8434DX voice terminals, the Message light is labeled **Message**; on others the Message light is labeled .

If administered as a 7405D, administer the 15 softkey features as "FEATURE MODULE BUTTON ASSIGNMENTS" 2 through 16. Administer the Normal feature on Button #1 on the "DISPLAY BUTTON ASSIGNMENTS" screen.

If administered as itself, administer the 15 softkey features on "SOFTKEY BUTTON ASSIGNMENTS" 1 through 15.



The 10 call appearance/feature buttons in the left 2 columns are administered as "BUTTON ASSIGNMENTS" 1 through 10.

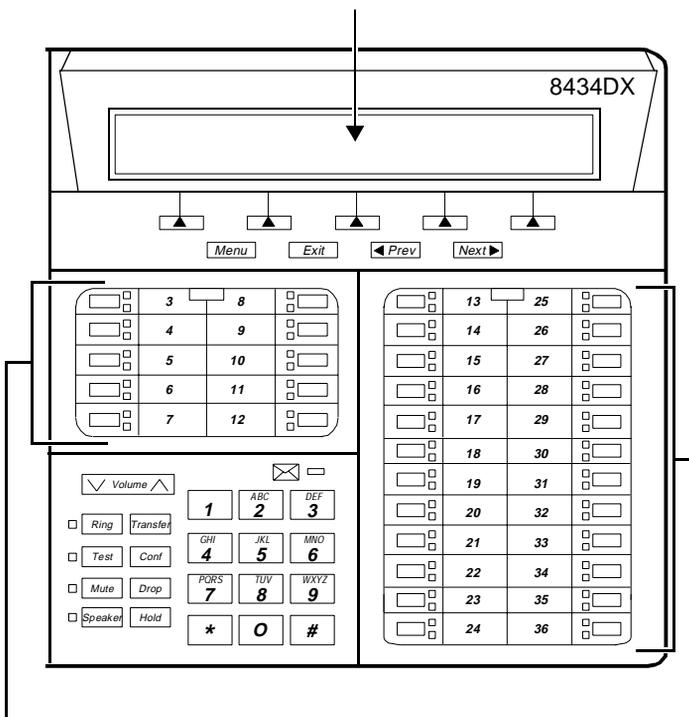
The 24 call appearance/feature buttons in the right 2 columns are administered as "FEATURE BUTTON ASSIGNMENTS" 1 through 24.

(On the 7434 or 7444, these buttons are labeled "BUTTON ASSIGNMENTS" and numbered 11 through 34).

**Figure 5-7. Button Numbering Scheme for Administering the 8434DX Voice Terminal Connected to System 75, DEFINITY Generic 1 or Generic 3, or a DEFINITY ECS**

If administered as a 7405D, administer the 15 softkey features as "FEATURE MODULE BUTTON ASSIGNMENTS" 2 through 16. Administer the Normal feature on Button #1 on the "DISPLAY BUTTON ASSIGNMENTS" screen.

If administered as itself, administer the 15 softkey features on "SOFTKEY BUTTON ASSIGNMENTS" 1 through 15.



The 10 call appearance/feature buttons in the left 2 columns are administered as "BUTTON ASSIGNMENTS" 3 through 12.

The 24 call appearance/feature buttons in the right 2 columns are administered as "FEATURE BUTTON ASSIGNMENTS" 13 through 36.

(On the 7434 or 7444, these buttons are labeled "BUTTON ASSIGNMENTS" and numbered 11 through 34).

**Figure 5-8. Button Numbering Scheme for Administering the 8434DX Voice Terminal Connected to System 85 or DEFINITY Generic 2**

# The Test Feature and the Diagnostics Feature

# 6

## The Test Feature (For ALL 8400-Series Voice Terminals)

When an 8400-Series voice terminal is initially powered up, the green light (or red light on the 8411) next to **Test** flashes if the voice terminal is not (or not yet) able to communicate with the PBX. The light changes to steady when the PBX link is operational. After a short period of time, the light turns off in order to conserve power.

### NOTE:

If the light next to **Test** does not come on, the voice terminal is *not* receiving power from either the PBX or from the auxiliary power supply, if one is being used.

### To test the lights and the display on your voice terminal:

1. While on-hook, press and hold down **Test**.

- Light next to **Test** goes on.

### NOTE:

If the light next to **Test** flashes rather than goes on steadily, it means that the voice terminal is not able to communicate with the PBX.

- The button lights on your voice terminal go on (and, if the terminal has a display, all the display segments fill in):
  - On the 8403, all the lights go on together

- On the 8405, 8410, and 8411, the lights go on in two groups, and the display, if there is one, fills in all the segments
- On the 8434DX, the lights go on in four groups, and the display fills in all the segments

2. Release **Test** to end test.
  - Lights return to pretest state.
  - Light next to **Test** goes off.



**NOTE:**

You can test the tone ringer on your voice terminal by pressing either side of the Volume control button when the handset is on-hook and the speaker is not in use.

## **The Diagnostics Feature** **(Used ONLY with the 8411 Voice Terminal)**

---

On the 8411 voice terminal, the user can use the Diagnostics feature to monitor the status of the PassageWay connection and the Analog Adjunct. Use the following procedure.

1. Press **Shift**.
  - The red light next to **Shift** goes on steadily.
2. Press **Test**.
  - The light next to **Shift** goes off and the light next to **Test** flutters intermittently.
  - The red and green lights go on next to Buttons #9 and #10 and an appropriate display message appears on the 8411 display screen to indicate the status of these two functions. (If optioned, Button #9 is always used to monitor the status of the PassageWay connection. Button #10 is always used to monitor the Analog Adjunct.) For more information about the meaning of these diagnostics lights, see "PassageWay and Analog Adjunct Status Indications on the 8411" in Chapter 3: **Installing Your Voice Terminal** in this manual.



**NOTE:**

If you press any voice terminal buttons or if you receive or place a call during the diagnostics test, the test is terminated and the voice terminal returns to Normal Mode.

# Programming the Options

# 7

---

Depending on the needs of the telecommunications administrator and individual users at an installation site, a service technician may be called upon to change the following settings for the 8400-Series voice terminal:

- Enable or disable the speakerphone or listen-only speaker (the default for the 8403, 8405B, and 8405D is the 1-way listen-only speaker enabled; the default for the 8405B Plus, 8405D Plus, 8410, 8411, and 8434DX voice terminals is full 2-way speakerphone enabled)
- Enable or disable the Mute function (the default is Mute enabled)
- Select a ringing preference for an incoming call when you are busy on another call (the default is Continuous Ringing)
- Enable or disable status lights on the 8411 for the PassageWay interface (the default setting is Status Lights disabled)
- Enable or disable status lights on the 8411 for the Analog (Tip/Ring) Adjunct connected to the Analog Adjunct jack (the default setting is Status Lights disabled)
- Select whether the I-1 Channel or the I-2 Channel on the 8411 voice terminal will be used for the Analog Adjunct transmission

- Set the audio volume control levels for the speakerphone and handset on the 8411 voice terminal (the default is retention of the current volume setting for both speakerphone and handset until the user changes the settings).
- Set the display for one or two lines (this option is available only on the 8434DX voice terminal; the default setting is a 2-line display)



**NOTE:**

On all 8405D, 8405D Plus, 8410D, 8411D, and 8434DX voice terminal displays, you can view information on options and parameters already set for that particular terminal. For procedures, see “Viewing Information on Terminal Options and Parameters” at the end of this section of the manual.

In order to “hide” these features for security purposes, four button presses are necessary to enter Programming Mode: Press **Feature** (on the 8403) or **Shift** (on the 8405, 8410, 8411, and 8434DX) followed by **Mute** and then enter the specified 2-digit code on the dial pad. If an error is made during the programming sequence, the terminal will exit the Programming Mode without providing any error indication or affecting the operation of the terminal.



**CAUTION:**

*Be sure the voice terminal is on-hook, the ringer is off, and the display (if the set has one) is in Normal Mode. If a headset adapter is connected to the set, make sure this is also in the on-hook state. You can do that either by pressing an appropriate button on the headset adapter or by unplugging the headset from the headset adapter.*

If a call should come in while programming the options, the alerter will sound, but the terminal will remain in Programming Mode unless the call is answered. If the call is answered, the Programming Mode is exited without saving any changes in progress.

## **A Shortcut in Programming the Options (for Display Sets)**

---

If you have a voice terminal equipped with a display, the display screen shows the option being programmed and you may use the following keys to program the options.

- The **\*** toggles the option setting (such as between “enabled” and “disabled”) or shows you the next setting on the display.
- The **#** stores the option setting shown and exits Programming Mode.

## Enabling/Disabling the Speakerphone or Speaker (or Changing to a Listen-Only Speaker)

### NOTE:

The 8403, 8405B, and 8405D voice terminals are equipped with a 1-way, listen-only speaker that can be enabled or disabled; these voice terminals CANNOT be optioned for a 2-way speakerphone.

### To enable or disable the 2-way speakerphone or the listen-only speaker, or to change the 2-way speakerphone to a 1-way, listen-only speaker:

1. While on-hook, press **Feature** or **Shift** .
  - The light next to **Feature** or **Shift** goes on.
2. Press **Mute** .
  - The light next to **Feature** or **Shift** goes off.
3. Enter the 2-digit code, "77" ("SP").
  - The red light next to **Speaker** flutters.
  - The current setting (**ENABLE SPEAKERPHONE** or **ENABLE ONE-WAY SPEAKER** or **DISABLE SPEAKER**) is shown on the display, if there is one.
4. Press one of the following to change the current setting:
  - Press "1" to enable the 2-way speakerphone  
(This setting *cannot* be used with the 8403, 8405B, and 8405D)
  - Press "2" to enable the 1-way speaker
  - Press "3" to disable the 1-way speaker or the 2-way speakerphone

**or** if the voice terminal has a display, you may choose to press **\*** to change the setting. Press **#** to save the desired option and then exit programming.

  - After pressing "1," "2," or "3" or pressing "#", one of the following voice terminal responses occurs:

If the voice terminal saves your selection, the first three green call appearance lights go on and, if you have a display, a confirmation message is displayed.

If the voice terminal cannot save this selection, the first three red call appearance lights go on and, if you have a display, an error message is displayed. In this case, the selected option will be in effect until power is removed from the set. If this happens, try repeating the process. If the option still cannot be saved, the terminal may be faulty.

## Enabling/Disabling the Mute Function

### To enable or disable the Mute function:

1. While on-hook, press **Feature** or **Shift** .
  - The light next to **Feature** or **Shift** goes on.
2. Press **Mute** .
  - The light next to **Feature** or **Shift** goes off.
3. Enter the 2-digit code, "68" ("MU").
  - The red light next to **Mute** flutters.
  - The current setting (**ENABLE MUTE BUTTON** or **DISABLE MUTE BUTTON**) is shown on the display, if there is one.
4. Press either "1" or "2" to change the setting:
  - Press "1" to enable the Mute function
  - Press "2" to disable the Mute function

**or** if the voice terminal has a display, press **\*** to change the setting. Press **#** to save the desired option and then exit programming.

- After pressing "1" or "2" or pressing "#", one of the following voice terminal responses occurs:

If the voice terminal saves your selection, the first three green call appearance lights go on and, if you have a display, a confirmation message is displayed.

If the voice terminal cannot save this selection, the first three red call appearance lights go on and, if you have a display, an error message is displayed. In this case, the selected option will be in effect until power is removed from the set. If this happens, try repeating the process. If the option still cannot be saved, the terminal may be faulty.

## Selecting Ringing Preference (for a Second Incoming Call)

---

You can select one of the following types of rings for an incoming call while you are busy on another call.

- No Ring
- One Ring
- Continuous Ringing



### NOTE:

Ringling preference may also be set at the switch, and this switch setting may override the selection done at the voice terminal.

### To select ringing preference (No Ring, One Ring, or Continuous Ringing):

1. While on-hook, press **Feature** or **Shift** .
  - The light next to **Feature** or **Shift** goes on.
2. Press **Mute** .
  - The light next to **Feature** or **Shift** goes off.
3. Enter the 2-digit code, "74" ("RG").
  - The light next to **Feature** or **Shift** flutters.
  - The current setting (**NO RING**, **ONE RING**, or **CONTINUOUS RING**) is shown on the display, if there is one.
4. Press one of the following options:
  - Press "0" for No Ring
  - Press "1" for One Ring
  - Press "2" for Continuous Ringing

or if the voice terminal has a display, press **\*** to move to the next setting shown on the display screen. Press **#** to save the desired option and then exit programming.

- After pressing “0,” “1,” or “2” or pressing “#”, one of the following voice terminal responses occurs:

If the voice terminal saves your selection, the first three green call appearance lights go on and, if you have a display, a confirmation message is displayed.

If the voice terminal cannot save this selection, the first three red call appearance lights go on and, if you have a display, an error message is displayed. In this case, the selected option will be in effect until power is removed from the set. If this happens, try repeating the process. If the option still cannot be saved, the terminal may be faulty.

### **Enabling/Disabling the Status Lights for the PassageWay Connection (For the 8411 Voice Terminal Only)**

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If a PC for the PassageWay Solution has been connected to the RS-232-D jack on the rear of the 8411, the user can use Button #9 (the next-to-last button in the second column) to see the status of the PassageWay connection. For a list of PassageWay indications, see “PassageWay and Analog Adjunct Status Indications on the 8411” in Chapter 3: **Installing Your Voice Terminal** in this manual.

#### **To enable or disable the status lights for the PassageWay connection:**

1. While on-hook, press **Shift**.
  - The light next to **Shift** goes on.
2. Press **Mute**.
  - The light next to **Shift** goes off.
3. Enter the 2-digit code, “79” (“PW”).
  - The red and green lights next to Button #9 flutter.
  - The current setting (**ENABLE PWY STATUS LAMPS** or **DISABLE PWY STATUS LAMPS**) is shown on the display, if there is one.
4. Press either “1” or “2” to change the setting:
  - Press “1” to enable the status lights for the PassageWay connection (next to Button #9)
  - Press “2” to disable the status lights for the PassageWay connection (so the button is used as a call appearance button or a feature button)

**or** if the voice terminal has a display, press **\*** to change the setting. Press **#** to save the desired option and then exit programming.

- After pressing “1” or “2” or pressing “#”, the red and green lights stop fluttering and one of the following voice terminal responses occurs:

If the voice terminal saves your selection, the first three green call appearance lights go on and, if you have a display, a confirmation message is displayed.

If the voice terminal cannot save this selection, the first three red call appearance lights go on and, if you have a display, an error message is displayed. In this case, the selected option will be in effect until power is removed from the set. If this happens, try repeating the process. If the option still cannot be saved, the terminal may be faulty.

### **Enabling/Disabling the Status Lights for the Analog (Tip/Ring) Adjunct Interface (For the 8411 Voice Terminal Only)**

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If an Analog Adjunct has been connected to the Analog Adjunct jack on the rear of the 8411 voice terminal, the user can use the lights next to Button #10 (the last button in the second column) to see the status of the Analog Adjunct connection. These indications show:

- Status of the ringing signal being sent from the voice terminal to the Analog Adjunct) (on OR off)
- Switchhook status of the Analog Adjunct (off-hook OR on-hook and idle)
- Status of the I-Channel (used by the Analog Adjunct OR by the 8411 voice terminal)

For a more detailed list of Analog Adjunct (Tip/Ring) status light indications, see “PassageWay and Analog Adjunct Status Indications on the 8411” in Chapter 3: **Installing Your voice Terminal** in this manual.

#### **To enable or disable the status lights for the Analog Adjunct interface:**

1. While on-hook, press **Shift** .
  - The light next to **Shift** goes on.
2. Press **Mute** .
  - The light next to **Shift** goes off.
3. Enter the 2-digit code, “25” (“AL”).
  - The red and green lights next to Button #10 flutter.
  - The current setting (**ENABLE T/R STATUS LAMPS** or **DISABLE T/R STATUS LAMPS**) is shown on the display, if there is one.
4. Press either “1” or “2” to change the setting:
  - Press “1” to enable the status lights for the Analog (Tip/Ring) Adjunct connected to the Analog Adjunct jack

- Press “2” to disable status lights for Analog Adjunct connection (so the button is used as a call appearance button or a feature button)

or if the voice terminal has a display, press  to change the setting. Press  to save the desired option and then exit programming.

- After pressing “1” or “2” or pressing “#”, the red and green lights stop fluttering and one of the following voice terminal responses occurs:

If the voice terminal saves your selection, the first three green call appearance lights go on and, if you have a display, a confirmation message is displayed.

If the voice terminal cannot save this selection, the first three red call appearance lights go on and, if you have a display, an error message is displayed. In this case, the selected option will be in effect until power is removed from the set. If this happens, try repeating the process. If the option still cannot be saved, the terminal may be faulty.

### Selecting Whether the I-1 Channel or the I-2 Channel Will Be Used for the Analog Adjunct (For the 8411 Only)

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If the 8411 is connected to a DEFINITY G3V4, Issue 3 (or later) switch, the Analog (Tip/Ring) Adjunct and voice terminal can handle calls simultaneously over the I-1 Channel or the I-2 Channel. The system manager can option the voice terminal to select which of the two channels the Analog (Tip/Ring) Adjunct will use.

#### NOTE:

The following are reasons why you would change the factory setting for the Analog Adjunct from the I-2 Channel to the I-1 Channel:

- The voice terminal is connected to a switch before G3V4, Issue 3
- Anytime the 8411 voice terminal is NOT administered as an 8411B or 8411D
- If you need to use an analog device on the I-1 Channel

#### To select which channel (the I-1 Channel or the I-2 Channel) the Analog (T/R) Adjunct will use:

1. While on-hook, press  .
  - The light next to  goes on.
2. Press  .
  - The light next to  goes off.

3. Enter the 2-digit code, "42" ("IC").
  - The red light next to **Shift** flutters.
  - The current setting (either **T/R ON I1 CHANNEL** or **T/R ON I2 CHANNEL**) is shown on the display, if there is one.
4. Press either "1" or "2" to change the setting:
  - Press "1" to select the I-1 Channel for Analog Adjunct transmission
  - Press "2" to select the I-2 Channel for Analog Adjunct transmission

**or** if the voice terminal has a display, press **\*** to change the setting. Press **#** to save the desired option and then exit programming.

  - After pressing "1" or "2" or pressing "#", the light next to **Shift** goes off and one of the following voice terminal responses occurs:

If the voice terminal saves your selection, the first three green call appearance lights go on and, if you have a display, a confirmation message is displayed.

If the voice terminal cannot save this selection, the first three red call appearance lights go on and, if you have a display, an error message is displayed. In this case, the selected option will be in effect until power is removed from the set. If this happens, try repeating the process. If the option still cannot be saved, the terminal may be faulty.

## Setting the Audio Volume Control (on the 8411)

The 8411 sets will support the following set of audio volume control features for the handset and speakerphone.

- The speakerphone and handset volume remains at its current setting until the user changes it (that is, the volume level does NOT revert back to its mid-range volume after each call) (this is the default setting)
- The speakerphone and handset volume reverts back to its mid-range level after each call
- The handset volume is fixed at a mid-range volume setting, and the speakerphone volume remains at its current setting until the user changes it (that is, the speakerphone volume does NOT automatically revert back to its mid-range level after each call)
- The handset volume level is fixed at a mid-range volume setting, and the speakerphone volume reverts back to its mid-range level after each call

### **To set the audio volume control for the handset and the speakerphone:**

1. While on-hook, press **Shift**.

- The light next to **Shift** goes on.
2. Press **Mute**.
- The light next to **Shift** goes off.
3. Enter the 2-digit code, "48" ("HV").
- The red light next to **Shift** flutters.
  - The current setting (**RETAIN SP, RETAIN HS** or **RESET SP, RESET HS** or **RETAIN SP, FIXED HS** or **RESET SP, FIXED HS**) is shown on the display, if there is one.
4. Press one of the following to change the current setting:
- Press "1" to **RETAIN** the **HANDSET AND SPEAKERPHONE** volume at its current volume level (that is, the volume level does **NOT** automatically revert back to the mid-range level after each call)
  - Press "3" to **RESET** the **HANDSET AND SPEAKERPHONE** volume to its mid-range volume level after each call
  - Press "2" to **FIX** the **HANDSET** volume at a mid-range level, and **RETAIN** the **SPEAKERPHONE** at its current level (does **NOT** revert back to mid-range level after each call)
  - Press "0" to **FIX** the **HANDSET** volume at a mid-range level, and **RESET** the **SPEAKERPHONE** volume level to a mid-range level after each call
- or** if the voice terminal has a display, you may choose to press **\*** to change the setting. Press **#** to save the desired option and then exit programming.
- After pressing "0," "1," "2," or pressing "#", the light next to **Shift** goes off and one of the following voice terminal responses occurs:

If the voice terminal saves your selection, the first three green call appearance lights go on and, if you have a display, a confirmation message is displayed.

If the voice terminal cannot save this selection, the first three red call appearance lights go on and, if you have a display, an error message is displayed. In this case, the selected option will be in effect until power is removed from the set. If this happens, try repeating the process. If the option still cannot be saved, the terminal may be faulty.

## Setting the Display for 1- or 2-Lines (for the 8434DX only)

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### To change the display to 1 or 2 lines (on the 8434DX only):

1. While on-hook, press **Shift**.
  - The light next to **Shift** goes on.
2. Press **Mute**.
  - The light next to **Shift** goes off.
3. Enter the 2-digit code, "35" ("DL").
  - The current setting (**1-LINE DISPLAY** or **2-LINE DISPLAY**) is shown on the display.
4. Press either "1" or "2" to change the setting:
  - Press "1" to select a 1-line display
  - Press "2" to select a 2-line display

**or** press **\*** to change the setting. Press **#** to save the desired option and then exit programming.

  - After pressing "1" or "2" or pressing "#", one of the following voice terminal responses occurs:

If the voice terminal saves your selection, the first three green call appearance lights go on and, if you have a display, a confirmation message is displayed.

If the voice terminal cannot save this selection, the first three red call appearance lights go on and, if you have a display, an error message is displayed. In this case, the selected option will be in effect until power is removed from the set. If this happens, try repeating the process. If the option still cannot be saved, the terminal may be faulty.

## Viewing Information on Terminal Options and Parameters

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You can use the 8405D, 8405D~Plus, 8410D, 8411D, and 8434DX display screen to view options and parameters that have been set at a particular voice terminal.

### NOTE:

In order for you to view this information, the set must be on-hook and idle, and it *must* be equipped with a display.

### To view voice terminal options and parameters for a specific set:

1. While on-hook at that voice terminal, press **Shift** .
  - The light next to **Shift** goes on.
2. Press **Mute** .
  - The light next to **Shift** goes off.
3. Enter "00" OR "11" OR "##" according to the type of information you wish to view.
  - Press "00" to view what Speakerphone, Mute, Handset Expander, Ringer Preference, and 1- or 2-line display options are set.
  - Press "11" to view the Componder, Display Font (Domestic or International), and DLI settings. Also shown is information about the Primary and Adjunct levels selected (either ROM if the defaults are operating or the checksum bytes of the parameter message that set the levels).
  - Press "##" to check the software version currently installed in the terminal and whether the terminal is operating in 4-wire or 2-wire mode.

### NOTE:

Be aware that the 8405 voice terminal uses the 8410 software, and thus the display, in this case, will report that you are using an 8410B or an 8410D rather than an 8405 set.

- The information is displayed on the screen for approximately five seconds and then disappears.

## Other 8400-Series Voice Terminals Documentation

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The following documentation provides instructions for using both the fixed and the switch features. These documents can be ordered from the Lucent Technologies BCS Publications Center.

**Write:** Lucent Technologies BCS Publications Center  
P.O. Box 4100  
Crawfordsville, IN 47933

**Call:** Domestic: 1 800 457-1235  
International: 1 317 361-5353

**Fax:** Domestic: 1 800 457-1764  
International: 1 317 361-5355

When ordering any of these documents, be sure to specify the title *and* the “555” ordering number.

- *DEFINITY Communications System Generic 1 and Generic 3 and System 75* **8403 Voice Terminal User’s Guide**, 555-230-761
- *DEFINITY Communications System Generic 1 and Generic 3 and System 75* **8403 Voice Terminal Quick Reference Guide**, 555-230-762
- *DEFINITY Communications System Generic 2 and System 85* **8403 Voice Terminal User’s Guide**, 555-104-761
- *DEFINITY Communications System Generic 2 and System 85* **8403 Voice Terminal Quick Reference Guide**, 555-104-762
- *DEFINITY Enterprise Communications Server (ECS) Release 5* **8405 Voice Terminal User’s Guide**, 555-230-736
- *DEFINITY Enterprise Communications Server (ECS) Release 5* **8405 Voice Terminal Quick Reference Guide**, 555-230-737

- *DEFINITY Communications System Generic 2 and System 85*  
**8405 Voice Terminal User's Guide**, 555-104-726
- *DEFINITY Communications System Generic 2 and System 85*  
**8405 Voice Terminal Quick Reference Guide**, 555-104-725
- *DEFINITY Communications System Generic 1 and Generic 3 and*  
*System 75* **8410 Voice Terminal User's Guide**, 555-230-763
- *DEFINITY Communications System Generic 1 and Generic 3 and*  
*System 75* **8410 Voice Terminal Quick Reference Guide**, 555-230-764
- *DEFINITY Communications System Generic 2 and System 85*  
**8410 Voice Terminal User's Guide**, 555-104-763
- *DEFINITY Communications System Generic 2 and System 85*  
**8410 Voice Terminal Quick Reference Guide**, 555-104-764
- *DEFINITY Enterprise Communications Server (ECS) Release 5*  
**8411 Voice Terminal User's Guide**, 555-230-872
- *DEFINITY Enterprise Communications Server (ECS) Release 5*  
**8411 Voice Terminal Quick Reference Guide**, 555-230-873
- *DEFINITY Communications System Generic 2 and System 85*  
**8411 Voice Terminal User's Guide**, 555-104-769
- *DEFINITY Communications System Generic 2 and System 85*  
**8411 Voice Terminal Quick Reference Guide**, 555-104-770
- *DEFINITY Communications System Generic 1 and Generic 3 and*  
*System 75* **8434DX Voice Terminal User's Guide**, 555-230-856
- *DEFINITY Communications System Generic 1 and Generic 3 and*  
*System 75* **8434DX Voice Terminal Quick Reference Guide**,  
555-230-857
- *DEFINITY Communications System Generic 2 and System 85*  
**8434DX Voice Terminal User's Guide**, 555-104-767
- *DEFINITY Communications System Generic 2 and System 85*  
**8434DX Voice Terminal Quick Reference Guide**, 555-104-768
- **801A Expansion Module Instruction Manual**, 555-015-136
- *PassageWay Direct Connection Solution For DEFINITY Communications*  
*System 8411 Voice Terminal User's Guide*, 555-201-115.