



The 8400-Series Voice Terminals

Instructions for Installation, Switch Administration, and Programming the Options

**(for the 8403, 8410, 8411, and 8434DX
Voice Terminals)**

**(Instructions and Information
for the Installer, System Manager,
and Provisioning Personnel)**

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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)

- AT&T 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)

- AT&T 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:

- AT&T 3BIC (Carbon block) or AT&T 3BEW (gas tube) protectors

 **NOTE:**

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.

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 this AT&T voice terminal 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.

The "CE" Mark

The "CE" mark affixed to this equipment means that it conforms to the European Union Electromagnetic Compatibility Directive (89/336/EEC).

RESPONSIBILITY FOR THE SYSTEM'S SECURITY

The system manager for each PBX system is responsible for the system's security. AT&T does not warrant that this product is immune from or will prevent unauthorized use of common-carrier telecommunication services or facilities accessed through or connected to it. AT&T will not be responsible for any charges that result from such unauthorized use. Product administration to prevent unauthorized use is the responsibility of the system manager, and he or she should read all documents provided with this product to fully understand the features available that may reduce the risk of incurring unauthorized charges.

WARRANTY

All terms and conditions specified in the owner's agreement with AT&T apply.

HEARING AID COMPATIBILITY

This voice terminal is compatible with inductively coupled hearing aids as required by the Federal Communications Commission (FCC).

TRADEMARKS

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IBM and PS/2 are registered trademarks of International Business Machines Corporation.
PassageWay is a trademark of AT&T.

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The 8400-Series Voice Terminals

There are six different types of 8400-Series voice terminals: the 8403, 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.

THE 8400-SERIES VOICE TERMINALS						
Feature	8403	8410B	8410D	8411B	8411D	8434DX
Liquid Crystal Display (LCD)			√		√	
Vacuum Fluorescent Display (VFD)						√
Softkeys and Display Control Buttons			√		√	√
Call appearance/ Feature buttons	3	10	10	10	10	34
1-way Speaker	√	√*	√*	√*	√*	√*
2-way Speakerphone		√	√	√	√	√
Feature Button	√					
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 (on back of set)				√	√	
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)

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

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

K2S6 Handset

Comcode: Black=107180549; White=107181471

Handset Cord (9-foot)

Comcode: Black=105635429; White=105701809

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 8410 and 8411 Voice Terminal Packages

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

8410D (8410D01A) Voice Terminal with display

Black 8410D Set PEC: 3235-05B(A) *

Comcode: 106705122

White 8410D Set PEC: 3235-05W(A) *

Comcode: 106705130

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

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

K2S6 Handset

Comcode: Black=107180549; White=107181471

Handset Cord (9-foot)

Comcode: Black=105635429; White=105701809

Designation Card Cover

PEC: 32309(A)
Comcode: 846320216

Line Cord, D8W 8-conductor, 7-foot

Comcode: 103786778

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

The following quantities of 8410 button designation cards can be ordered:



NOTE:

The 8410 voice terminal uses a different button designation card than the 8411. Both types of cards are listed below.

8410 Button Designation Cards

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

Laser Printer Forms (8 1/2"x11")
67 Sheets (six cards per sheet)
PEC: 32312(A)
Comcode: 847065497

The following quantities of 8411 button designation card (and telephone number card which fits under the handset) can be ordered:

8411 Button Designation Cards

Package of six 8 1/2" by 11" cards, 67 sheets

PEC: 31170

Comcode: 847065467

Package of tractor feed nine 8" by 17" cards, 34 sheets, to be used by LabelMaster

PEC: 31170

Comcode: 846819530

The following PassageWay™ 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: not yet assigned at time of printing

PassageWay documentation can be ordered separately — *PassageWay Solution User's Guide for DEFINITY Communications System* . (This document can be ordered from the Publications Fulfillment Center at 1-800-457-1235.)

Comcode: 107149148

PFC Ordering Number: 560-201-102

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

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

K2S6 Handset

Comcode: Black=107180549; White=107181471

Handset Cord (9-foot)

Comcode: Black=105635429; White=105701809

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

**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

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 8411D and 8434DX voice terminals. These power supplies provide battery back-up, and therefore when power outages occur, the voice terminal display will continue to operate.

Installing Your Voice Terminal

Wiring Information

The 8400-Series voice terminals work in both 4-wire and 2-wire DCP configurations. **Figure 1** shows an enlargement of a voice terminal 8-pin “LINE” jack. The table and figure below describe the pins on this jack and shows the 8-pin modular jack connections.

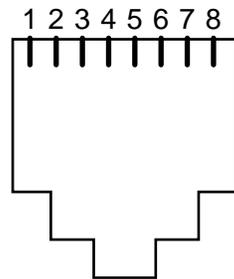


Figure 1. A Voice Terminal Line Jack

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, refer to the "Line Interface" table below **Figure 1** 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.

This applies to all 8400 series voice terminals, the CALLMASTER III, and the 302B1 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 an AT&T 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 16-port (TN2181) digital line circuit card. 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 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

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® 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” earlier in this manual.

Distance Limitations

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.

Desktop Installation

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 2** shows the bottom of the 8403 voice terminal. You can use this diagram for installing the 8403 or the 8410. However, note that the location of the routing channels on the 8410 differs slightly from the 8403. Also, the Handset jack on the 8410 is in a different location.
 - **Figure 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 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 8410D voice terminal, refer to “Adjusting the 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.”

 **Important:**

If you are routing the cords on the 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 2**, **Figure 3**, or **Figure 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 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.

Important: 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.

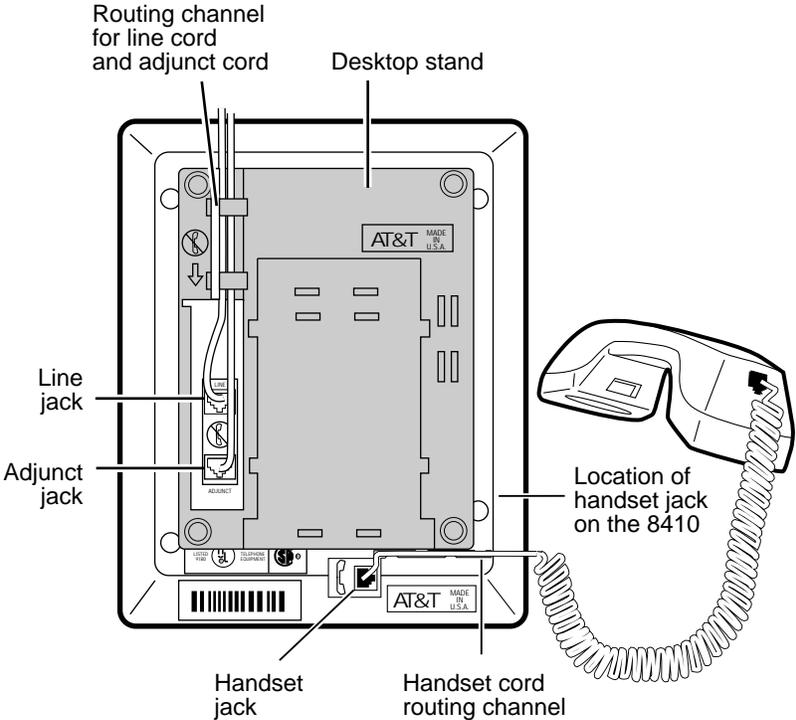


Figure 2. Line, Adjunct, & Handset Cord Routing for Desktop Installation on the 8403 and 8410 Voice Terminals

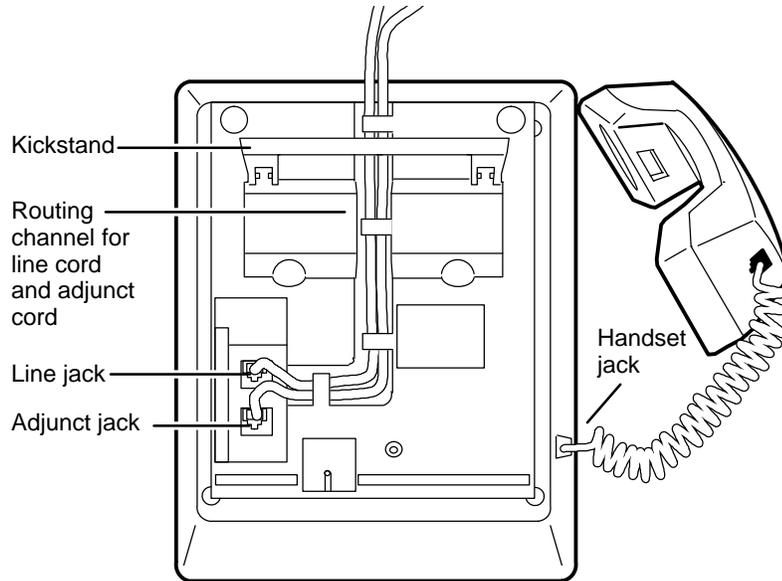


Figure 3. Line, Adjunct, and Handset Cord Routing for Desktop Installation on the 8411 Voice Terminal

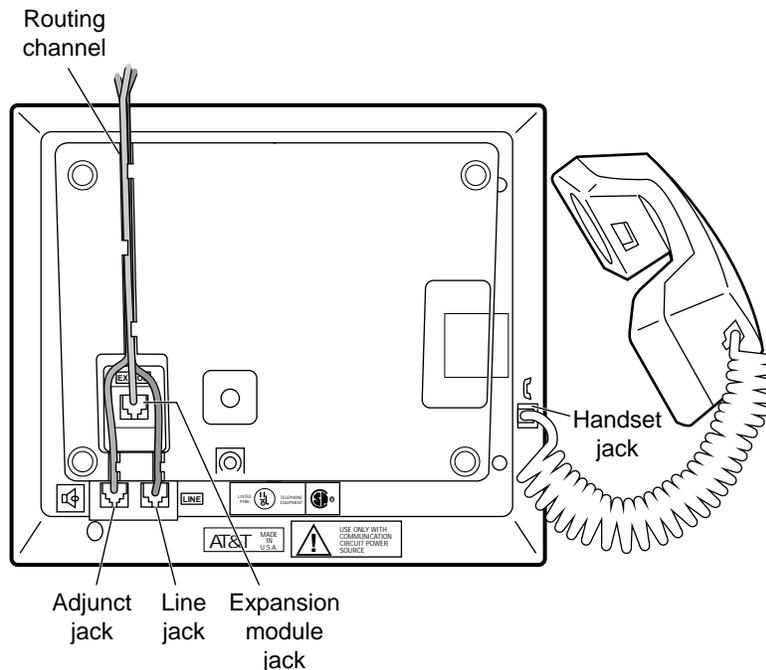


Figure 4. Line, Adjunct, Handset, & Expansion Module Cord Routing on the 8434DX Voice Terminals

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.

⇒ Notes:

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 manual.

Refer to the section, “Attaching Adjunct Equipment” later in this manual, 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 manual, for information about connecting a personal computer to an 8411 voice terminal for use with the AT&T 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" later in this manual.)

Adjusting the 8410D Voice Terminal Desktop Stand

To ensure better display visibility on the 8410D set, 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 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 8410D voice terminal for the low or the high position (See Figure 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 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.

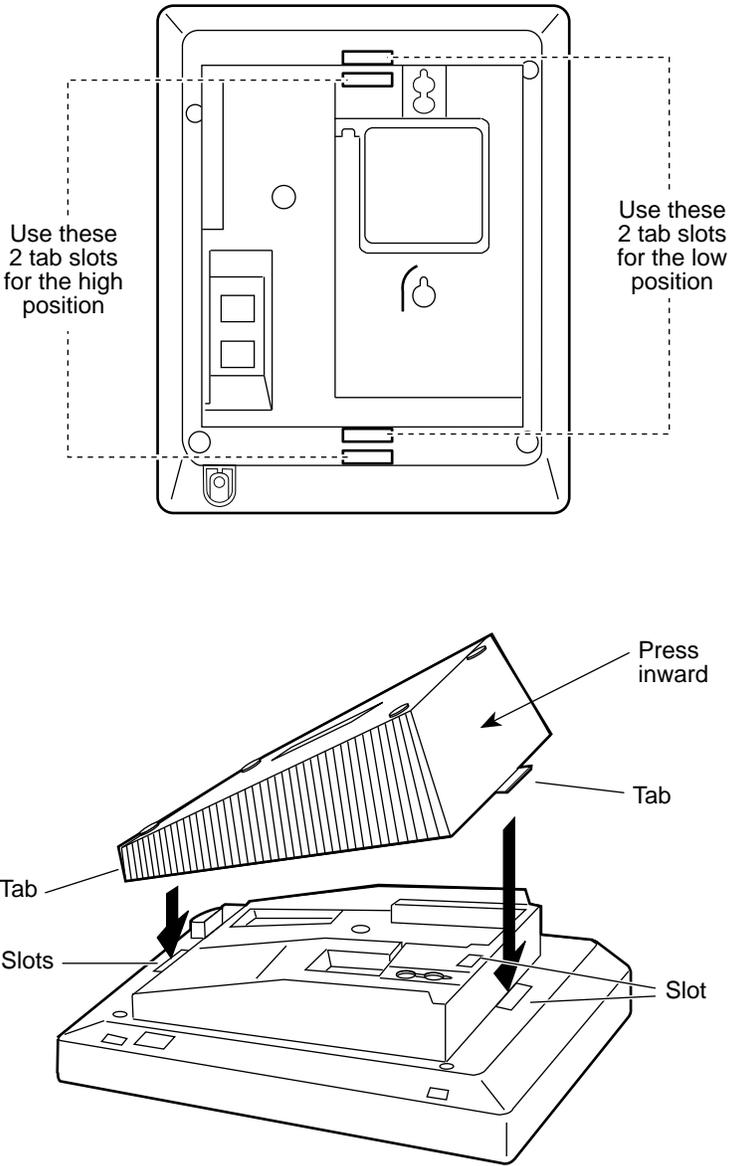


Figure 5. Adjusting the 8410D Desktop Stand

Wall Installation

Only the 8403 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 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 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 6**.

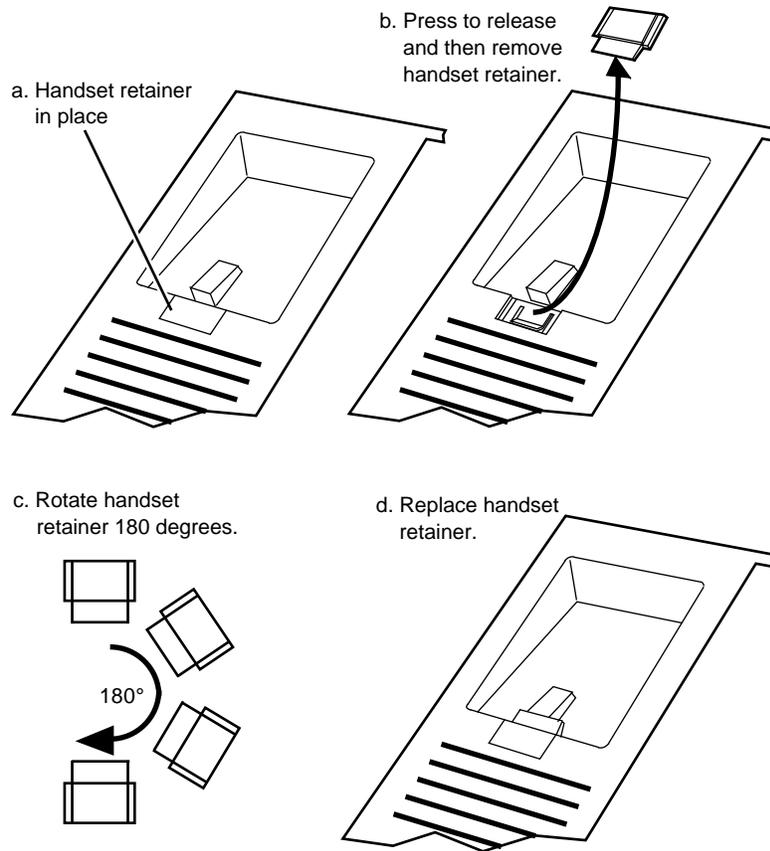


Figure 6. Reversing the Handset Hook

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 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.

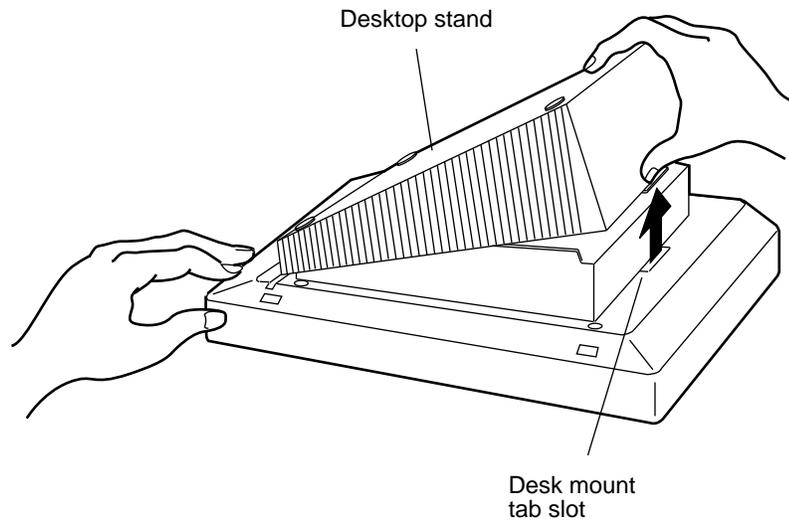


Figure 7. Removing the Desktop Stand

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 8**. (**Figure 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.

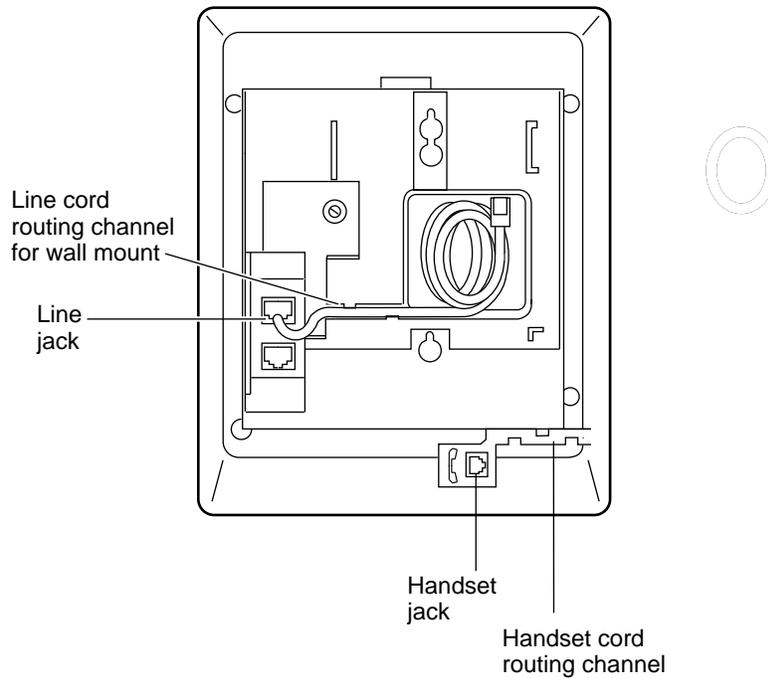


Figure 8. Line Cord Routing for Wall Mount

8. Snap one end of the coiled cord into the Handset jack (labeled ), as shown in **Figure 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 9**.

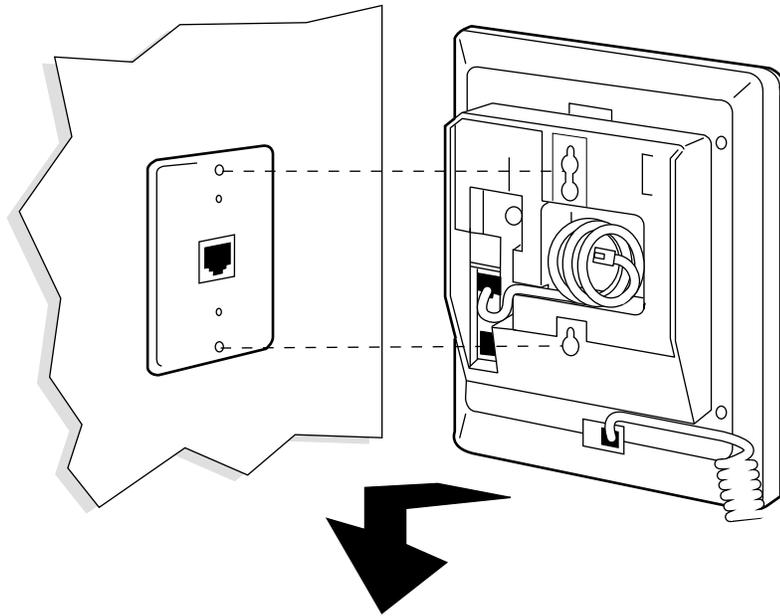


Figure 9. Placing the Voice Terminal onto the Wall Jack Mounting Studs

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.

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” later in this manual.)

Attaching Adjunct Equipment

If you are installing a speakerphone (models AT&T S101A, S201A, or QUORUM® CS201A), a headset adapter (model AT&T 500A), 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 manual.

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 2** for the location of the Adjunct jack on the 8403 and 8410 voice terminals. See **Figure 3** for the location of the Adjunct jack on the 8411 voice terminal. See **Figure 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 10** for information about how to connect the telephone to the wall jack.



NOTE:

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.

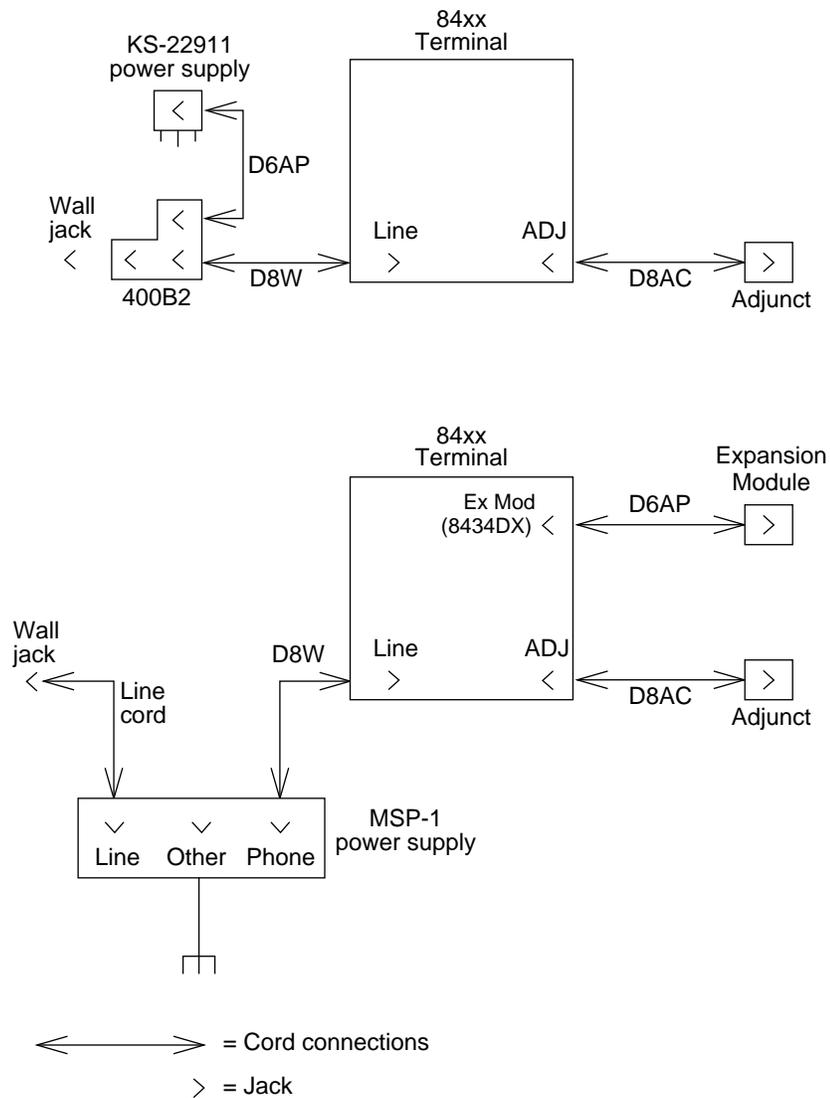


Figure 10. Connections for All Telephones with Adjuncts Using an Individual Power Supply

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

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

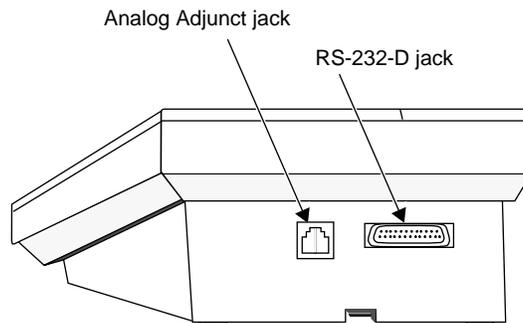


Figure 11. The Jacks on the Rear of the 8411 Voice Terminal

- **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 AT&T PassageWay Solution applications.

To use the PassageWay software, you must have the following components:

- An IBM-PC compatible or PS/2® -compatible PC with the following hardware:
 - An 80286 or higher processor (an 80386 or higher model number is recommended)

- An available serial port
 - A minimum of 2 MB of RAM (4 MB is recommended)
 - A 3.5-inch, 1.44 MB, high-density drive. (If you do not have a 3.5-inch drive, you can order PassageWay Solution on a 5.25-inch diskette.)
 - A hard disk with 2 MB of space available
 - A VGA monitor
 - A Windows-compatible pointing device (a mouse or trackball is recommended)
- Microsoft Windows 3.1 or later release running in standard or enhanced mode
 - Your 8411 voice terminal must be connected to a DEFINITY Generic 1, Generic 2, or Generic 3, or System 75 or System 85.

Important:

In order for PassageWay to operate, your 8411 must have auxiliary power, either locally using a 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. Unplug the line cord from the modular wall jack or the MSP-1 power supply, if the line cord is already connected.
3. Connect one end of the 25-pin cord to the EIA jack on the rear of the 8411 voice terminal.
4. 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.

5. 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.
6. Turn on your PC.

For information about installing and setting up the PassageWay software, see the section titled **Installing and Setting Up PassageWay Solution** in the *PassageWay™ Solution User's Guide For DEFINITY® Communications System*, 560-201-102.

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 DEFINITY G1 and G2 switches and DEFINITY G3 systems prior to G3V4, Issue 3, the analog equipment shares the telephone line (or I1-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 DEFINITY G3V4, Issue 3, the 8411 and Analog Adjunct can use separate telephone lines (the I1-Channel and I2-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:

At the DEFINITY G3V4, Issue 3, switch, the 8411 voice terminal must be optioned to use the appropriate DCP I-channel (either the I1-Channel or the I2-Channel). For administration of the 8411 with DEFINITY G3V4, Issue 3, and later switches, see “Administering the 8410 and 8411 Voice Terminal” later in this manual.

PassageWay and Analog Adjunct Status Indications on the 8411

The system manager may choose to administer Button #9 on the 8411 voice terminal, the next-to-last button in the second column, so that the lights next to these buttons show the status of the PassageWay connection (the PC can be connected to the RS-232-D jack on the rear of the 8411). Button #10, the last button in the second column, can be administered to monitor the status of the Analog Adjunct (this adjunct equipment can be connected to the Analog Adjunct jack on the rear of the 8411). See **Figure 12** for the location of Buttons #9 and #10.



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.

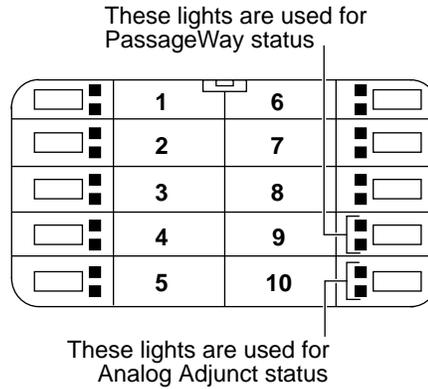


Figure 12. The location of Buttons #9 and #10 on the 8411

PassageWay Status Indications

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

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

* A *Flash* is a repeating pattern of 500 ms ON and 500 ms OFF.

† 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.

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 I-Channel)		Off

⇒ NOTE:
The flash indication has priority over the on-hook and off-hook indications listed immediately above.

⇒ NOTE:
When the 8411 is programmed for the Analog Adjunct to use a separate telephone line (that is, the I2-Channel), the red light is always on.

Labeling the Designation Card

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

The designation card for the 8403 voice terminal consists of two sections:

- **The Feature Directory section** — Provides a convenient quick reference list for 12 features. (These features can be accessed by pressing 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 section.

For the 8410 and 8411 Voice Terminals

The **Call Appearance/Feature Button Designation Card** on the 8410 and 8411 voice terminals contains 10 spaces labeled **a** through **j** 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” on the next page.

⇒ Notes:

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

Also, if the Analog Adjunct connected to the 8411 uses the I2-Channel, the telephone number of the Analog Adjunct should be written or typed on the button label next to Button #10 (labeled **j**).

For the 8434DX Voice Terminal

There are two **Call Appearance/Feature Button Designation Cards** on the 8434DX voice terminals:

- 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 pre-labeled with letters like the smaller card.

The four columns on either 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” on the next page.

How to Label the Blank Designation Card

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. To remove the cover, pull the top tab forward and lift the bottom of the transparent cover from the voice terminal.
2. Remove the card.
3. 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 8410, 8411, or 8434DX, print or type the voice terminal user's extension on the call appearance buttons and the assigned features on the feature buttons.
4. 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.

Switch Administration

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-U.S. transmission plan, the terminals must be programmed with the correct parameters before being placed into service. The "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 (or from another terminal that is already in service, specifying 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 new 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/or “release station” commands can be used to force the administered transmission parameters (and softkey features for the 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/or “release station” commands 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/or “release station” commands 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.

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
SN 270 or SN 270B - 4-port	4-wire	System 85 R2V2 - R2V4

* G3V3 will support the 8403, 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:

Administering the 8403 Voice Terminal			
If you have this System	and this Release	(which can support this type of operation)	administer the 8403 as a
System 75	R1V1 — R1V3	4-wire only	7405
System 85	R2V2 — R2V4	4-wire only	7405
Internat'l System 75	IR1V4, etc.	4-wire only	7405
DEFINITY G1		4-wire only	7405
Global DEFINITY '91		4-wire only	7405
DEFINITY G2V1		4-wire only	7405
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		2- or 4-wire	8403

Figure 13 shows the button numbering schemes for administering the 8403 voice terminal to a System 75 or DEFINITY Generic 1 or Generic 3. **Figure 14** shows the button numbering scheme for administering the 8403 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 8403 can be administered as itself ONLY IF it is connected to a DEFINITY G3V3 (or later) switch.

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.

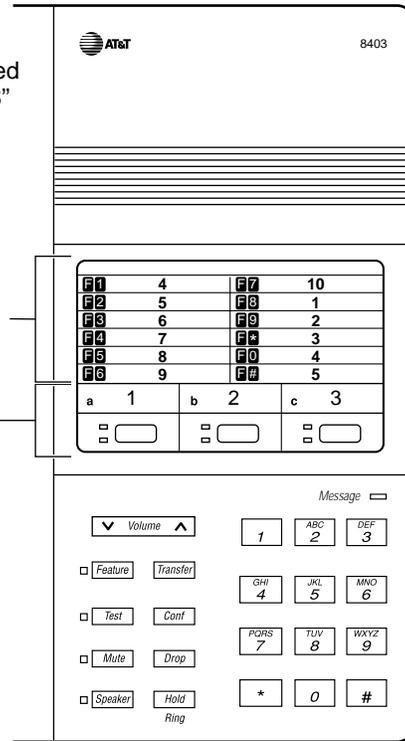


Figure 13. Button Numbering Scheme for Administering the 8403 Voice Terminal Connected to System 75 or DEFINITY Generic 1 or Generic 3

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.

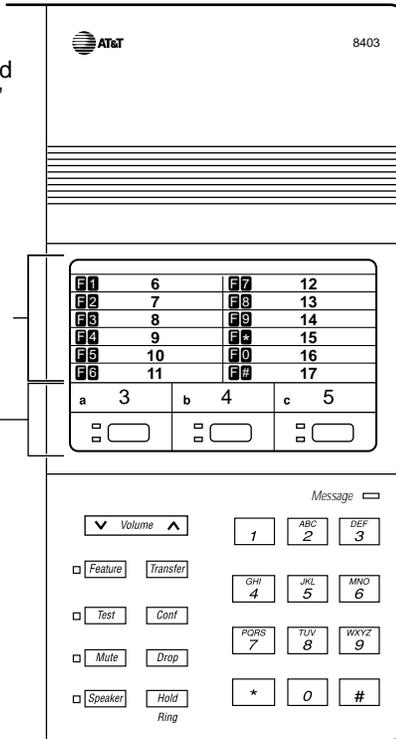


Figure 14. Button Numbering Scheme for Administering the 8403 Voice Terminal Connected to System 85 or DEFINITY Generic 2

Administering the 8410 and 8411 Voice Terminals

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 8410B, 8410D, 8411B, and 8411D voice terminals (BE SURE to use the administration table for the voice terminal you are using):

Administering the 8410B Voice Terminal			
If you have this System	and this Release	(which can support this type of operation)	administer the 8410B as a
System 75	R1V1 — R1V3	4-wire only	7403D
System 85	R2V2 — R2V4	4-wire only	7403D
Internat'l 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		2- or 4-wire	8410B



NOTE:

The 8410B can be administered as itself ONLY IF it is connected to a DEFINITY G3V3 (or later) switch.

Administering the 8410D Voice Terminal			
If you have this System	and this Release	(which can support this type of operation)	administer the 8410D as a
System 75	R1V1 — R1V3	4-wire only	7405D+D
System 85	R2V2 — R2V4	4-wire only	7405D+D
Internat'l System 75	IR1V4, etc.	4-wire only	7405D+D
DEFINITY G1	R1V4	4-wire only	7405D+D
Global DEFINITY '91		4-wire only	7405D+D
DEFINITY G2V1		4-wire only	7405D+D
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		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?”

**NOTE:**

The 8410D can be administered as itself ONLY IF it is connected to a DEFINITY G3V3 (or later) switch.

Administering the 8411B Voice Terminal			
If you have this System	and this Release	(which can support this type of operation)	administer the 8411B as a
System 75	R1V1 — R1V3	4-wire only	7403D
System 85	R2V2 — R2V4	4-wire only	7403D
Internat'l 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 & 2		2- or 4-wire	8410B
DEFINITY G3V4, Issue 3 and later		2- or 4-wire	8411B
DEFINITY G3V5		2- or 4-wire	8411B

⇒ 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 I1-Channel. A second line number can be administered through the same digital line card on the I2-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 I2 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 the 8411D Voice Terminal			
If you have this System	and this Release	(which can support this type of operation)	administer the 8411D as a
System 75	R1V1 — R1V3	4-wire only	7405D+D
System 85	R2V2 — R2V4	4-wire only	7405D+D
Internat'l System 75	IR1V4, etc.	4-wire only	7405D+D
DEFINITY G1	R1V4	4-wire only	7405D+D
Global DEFINITY '91		4-wire only	7405D+D
DEFINITY G2V1		4-wire only	7405D+D
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 & 2		2- or 4-wire	8410D
DEFINITY G3V4, Issue 3 and later		2- or 4-wire	8411D
DEFINITY G3V5		2- or 4-wire	8411D

**NOTE:**

As noted 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?”

**Notes on 8411 Administration (if used with 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 I1-Channel. A second line number can be administered through the same digital line card on the I2-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.

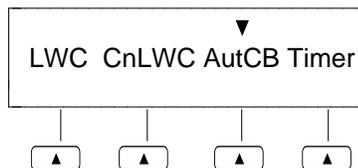
If a second line on the 8411 is administered on the I2 channel (for analog equipment) on the 8411, type “analog” in the *Data Option* field on the administration screen. If the 8411 is connected to a personal computer for use with PassageWay software, type a “y” in the *PassageWay* field also

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 8410D and 8411D

On the 8410D and 8411D, 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 8410D and 8411D” later in this section. Other softkey features that can be administered on the 8410D and 8411D voice terminals are listed in “Alternate Softkey Features on the 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 AT&T.



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 8410D and 8411D should be administered in the following manner:

- **If the 8410D is connected to a DEFINITY G3V3 (or later) switch, 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 8410D and 8411D” on the next page) *OR* select features from the list of alternative softkey features (see “Alternate Softkey Features on the 8410D and 8411D”). Administer the softkey features on “SOFTKEY BUTTON ASSIGNMENTS” Buttons #1 through 12.
- **If the 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 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.)

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 8410D or 8411D is connected to a System 85 or 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 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 8410D and 8411D

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

Default Softkey Features on the 8410D and 8411D	
ABBREVIATION	FEATURE and DESCRIPTION
<i>First Screen</i> LWC	Leave Word Calling – Leave a message for another extension to call you back
CnLWC	Cancel Leave Word Calling – Cancel a Leave Word Calling message
AutCB	Automatic Callback – Sends you a 3-burst ring indicating that a previously busy number is now available
Timer	Timer – Measure elapsed time, such as time spent on a call
<i>Second Screen</i> CFrwd ¹	Call Forward – Temporarily forward your calls to another extension or outside number
CPark ²	Call Park – Put a call on hold for retrieval at another telephone
TmDay	Time/Date – Shows you the date and time
PCall	Priority Calling – Call an extension with a distinctive 3-burst ring to indicate your call needs immediate attention

¹ This feature is named Call Forward-Follow Me on DEFINITY G2 or System 85 switches.

² On 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.

Default Softkey Features on the 8410D and 8411D (continued)	
ABBREVIATION	FEATURE and DESCRIPTION
<i>Third Screen</i> Prog	Abbreviated Dialing (AD) Program – Program a telephone number, extension, or feature access code on an AD button
Pause	AD Special Function Pause – Places a 1.5 second pause between numbers on an AD button, such as between an access code and a telephone number
Mark	AD Special Function Mark – Numbers included after a Mark are dialed in Touch-Tone signal form
Wait ³	AD Special Function Wait – Numbers included after a Wait are delayed 5 to 25 seconds until dial tone is received from the switch

³ When administering the Wait feature, use “-w”; when administering the Stop feature, use “-W.”

Alternate Softkey Features on the 8410D and 8411D

On 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.

Alternate Softkey Features on the 8410D and 8411D	
ABBREVIATION	FEATURE and DESCRIPTION
AD	Abbreviated Dialing buttons (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)
Cnslt	Consult – After answering a coverage call, you can discuss the call with the person for whom the call was intended
Count	ACD Stroke Count (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
CPkUp	Call Pickup – Lets you answer a call at your voice terminal for another extension in the same pickup group
Dir ¹	Directory – Searches for the extension of another user in the same location
Excl	Manual Exclusion – Keeps other users with whom you share a bridged call appearance from listening in on an existing call
HFAns ²	Internal (Hands-Free) Auto Answer – Answers on the speakerphone whenever an internal call comes in to your voice terminal

¹ A standard feature button should be administered, if access to System Directory is provided. It is also desirable for a standard feature button to be administered. This feature is NOT available on DEFINITY G2 or System 85.

² This feature is available only on a DEFINITY G3V2 (or later) switch.

Alternate Softkey Features on the 8410D and 8411D (continued)	
ABBREVIATION	FEATURE and DESCRIPTION
IAuto	Automatic Intercom – Automatically dials the number of a predetermined partner
IDial	Dial Intercom – 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)
Inspt	Inspect –Shows you call-related information for an active call
Last	Last Number Dialed – Automatically redials the last extension or outside number you dialed
RngOf	Ringer Off – Turns the ringer off on your voice terminal (however, you will hear a half-ring whenever a call comes in to your voice terminal)
SAC	Send All Calls – Temporarily sends all your calls to the extension of a person designated by the system manager
SFunc	AD Special Function –Insert one of the AD Special Functions (such as Pause, Mark, or Wait) by pressing a dial pad key that corresponds with that function
Spres	AD Special Function Suppress — Suppress numbers on an AD button, such as numbers needed for a password so they are dialed but not shown on the screen
Stats ³	ACD View Statistics – Logged-in ACD agents can view their own ACD measurements
Stop ⁴	AD Indefinite Wait or Stop – 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
View ⁵	View Stored Number — Allows you to check the number stored on an AD button or in an AD list

³ 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.

⁴ When administering the Wait feature, use “-w”; when administering the Stop feature, use “-W.”

⁵ This feature CANNOT be administered on a DEFINITY G2 or System 85.

Button Numbering for 8410 and 8411D Voice Terminal Administration

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

Figure 15 shows the button numbering scheme for administering the 8410 or 8411 voice terminal to a System 75 or DEFINITY Generic 1 or Generic 3. (The drawing shows the 8410D; however, the button numbering for the 8411 is the same). **Figure 16** shows the button numbering scheme for administering the 8410 or 8411 voice terminals to a System 85 or 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.

Although **Figures 15 and 16** show the 8410D, the button numbering scheme for administering the 8411 is the same.

If the 8410D or 8411D 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 or 8411D 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.

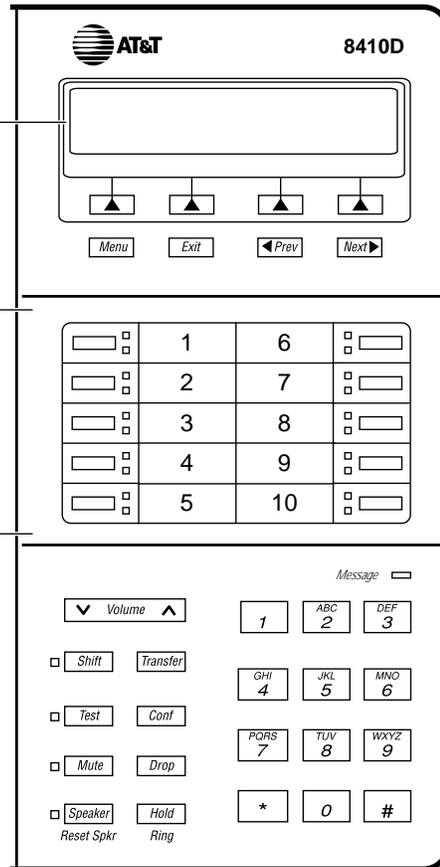


Figure 15. Button Numbering Scheme for Administering the 8410 and 8411 Voice Terminals Connected to System 75 or DEFINITY Generic 1 or Generic 3

If the 8410D or 8411D 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 or 8411D 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.

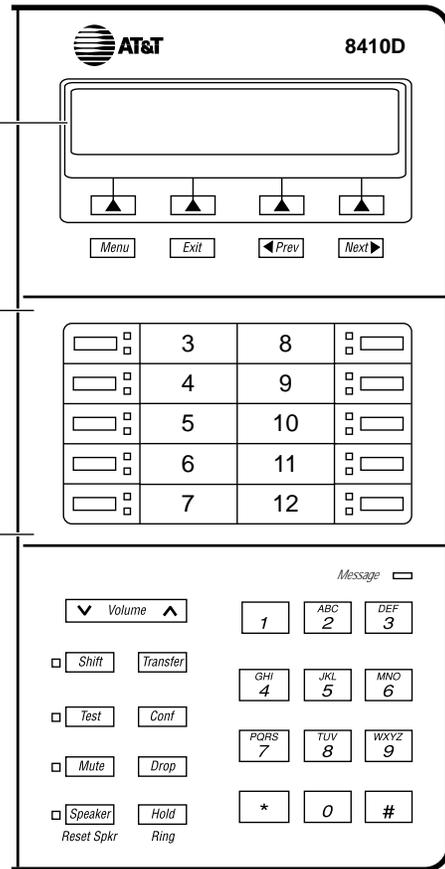


Figure 16. Button Numbering Scheme for Administering the 8410 and 8411 Voice Terminals Connected to System 85 or DEFINITY Generic 2

Administering the 8434DX Voice Terminal

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



NOTE:

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.

Administering the 8434DX Voice Terminal			
If you have this System	and this Release	(which can support this type of operation)	administer the 8434DX as a
System 75	R1V1 — R1V3	4-wire only	7405D+D+F
System 85	R2V2 — R2V4	4-wire only	7405D+D+F
Internat'l 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		4-wire only	7405D+D+F or 7434+D
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		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 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.

Important: 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:

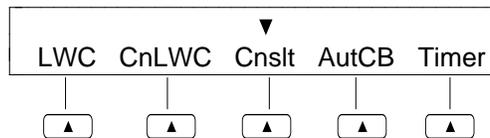
The 8434DX can be administered as an 8434D ONLY IF it is connected to a DEFINITY G3V3 (or later) switch.

Alternate softkey features (to replace the 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 AT&T.

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 switch**, administer the voice terminal as an 8434. In any of these cases (that is, the voice terminal is connected to a G3V3 switch 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, DEFINITY G1, DEFINITY G2, or DEFINITY 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.) sp .5 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 8410D and 8411D” earlier in this manual.)

Default Softkey Features on the 8434DX	
ABBREVIATION	FEATURE
<i>First Screen</i>	
LWC	Leave Word Calling
CnLWC	Cancel Leave Word Calling
Cnslt	Consult
AutCB	Automatic Callback
Timer	Timer
<i>Second Screen</i>	
CFrwd ¹	Call Forward
CPark ²	Call Park
Excl	Manual Exclusion
TmDay	Time/Date
PCall	Priority Calling

¹ This feature is named Call Forward-Follow Me on DEFINITY G2 or System 85 switches.

² On 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.

Default Softkey Features on the 8434DX (cont.)	
ABBREVIATION	FEATURE
<i>Third Screen</i> Prog	AD Program
Pause	AD Special Function Pause
Spres	AD Special Function Suppress
Mark	AD Special Function Mark
Wait ³	AD Special Function Wait

³ 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 8410D and 8411D” earlier in this manual.)



NOTE:

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

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 ¹	Directory
HFAns ²	Internal (Hands-Free) Auto Answer
IAuto	Automatic Intercom
IDial	Dial Intercom
Inspt	Inspect
Last	Last Number Dialed
RngOf	Ringer Off
SAC	Send All Calls

¹ A standard feature button should be administered, if access to the System Directory is provided. It is also desirable for a standard feature button to be administered.

² This feature is available only with the DEFINITY G3V2 (or later) switch.

Alternate Softkey Features for the 8434DX (cont.)	
Abbreviation	Feature
SFunc	Abbreviated Dialed Special Function
Stats ³	ACD View Statistics
Stop ⁴	Abbreviation Dialing Indefinite Wait
View ⁵	Stored Number

³ 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.

⁴ When administering the Wait feature, use “-w”; when administering the Stop feature, use “-W.”

⁵ 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 17 shows the button numbering scheme for administering the 8434DX voice terminal to a System 75 or DEFINITY Generic 1 or Generic 3. **Figure 18** shows the button numbering scheme for administering the 8434DX voice terminal to a System 85 or DEFINITY Generic 2.

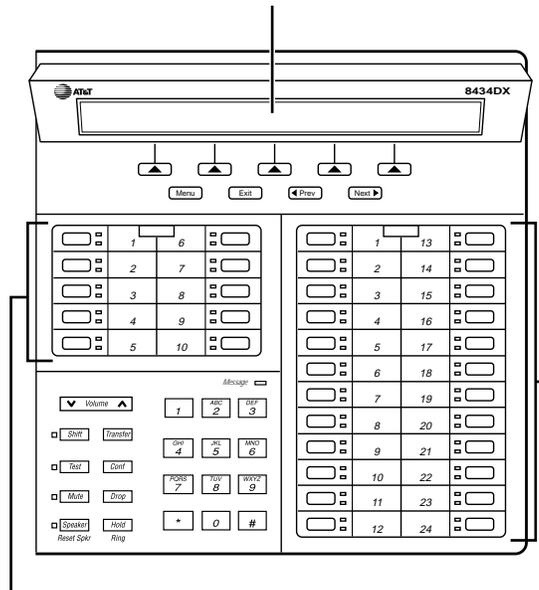


NOTE:

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.

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.

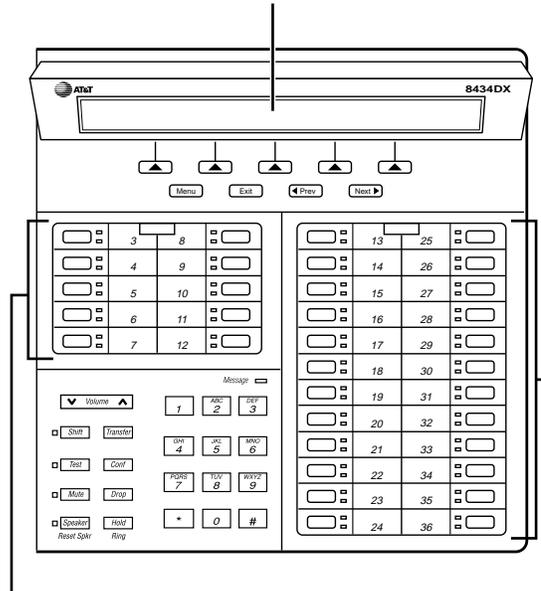
The 24 call appearance/feature buttons in the right 2 columns are administered as "FEATURE BUTTON ASSIGNMENTS" 1 through 24.

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

Figure 17. Button Numbering Scheme for Administering the 8434DX Voice Terminal Connected to System 75 or DEFINITY Generic 1 or Generic 3

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.

Figure 18. Button Numbering Scheme for Administering the 8434DX Voice Terminal Connected to System 85 or DEFINITY Generic 2

The Test Feature and the Diagnostics Feature

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 flashes if the voice terminal is not (or not yet) able to communicate with the PBX or with the auxiliary power supply, whichever is appropriate. 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 does not come on, the voice terminal is *not* receiving power from the PBX or from the auxiliary power supply.

To test the lights and the display on your voice terminal

1. While on-hook, press and hold down .
 - Light next to goes on.

⇒ NOTE:

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

- 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 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 to end test.
 - Lights return to pretest state.
 - Light next to 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
 - The red light next to goes on steadily.
2. Press
 - The light next to goes off and the light next to flutters intermittently.
 - The red and green lights go on next to Buttons #9 and #10 to indicate the status of these two functions. (If administered, 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" earlier 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

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 is the 1-way listen-only speaker enabled; the default for the 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 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 (on the 8403) or (on the 8410, 8411, and 8434DX) followed by 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 is equipped with a 1-way, listen-only speaker that can be enabled or disabled; this voice terminal *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 or .
 - The light next to or goes on.
2. Press .
 - The light next to or goes off.
3. Enter the 2-digit code, “77” (“SP”).
 - The red light next to flutters.
 - If the voice terminal has a display, 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)
 - ▶ 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 or .
 - The light next to or goes on.
2. Press .
 - The light next to or goes off.
3. Enter the 2-digit code, "68" ("MU").
 - The red light next to 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

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

1. While on-hook, press or .
 - The light next to or goes on.
2. Press .
 - The light next to or goes off.
3. Enter the 2-digit code, "74" ("RG").
 - The light next to or 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)

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” earlier in this manual.

To enable or disable the status lights for the PassageWay connection

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, “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

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)

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” earlier in this manual.

To enable or disable the status lights for the Analog Adjunct interface

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, “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 thus used in the normal way, that is, for call appearance or feature indications)

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 I1-Channel or the I2-Channel Will Be Used for the Analog Adjunct (For the 8411 Only)

If the 8411 is connected to a DEFINITY G4, Issue 3 (or later) switch, the Analog (Tip/Ring) Adjunct and voice terminal can handle calls simultaneously over the I1-Channel or the I2-Channel. The system manager can administer the voice terminal to select which of the two channels the Analog (Tip/Ring) Adjunct will use.

To select which channel (the I1-Channel or the I2-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 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 I1-Channel for Analog Adjunct transmission
 - ▶ Press "2" to select the I2-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 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 a 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.
 - If the voice terminal has a display, 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 “2” to RESET the HANDSET AND SPEAKERPHONE volume to its mid-range volume level after each call
- ▶ Press “3” 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 “4” 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 “1,” “2,” “3,” or “4,” *or* pressing “#”, the light next to 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)

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

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, "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

You can use the 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 equipped with a display.*

To view voice terminal options and parameters for a specific set

1. While on-hook at that voice terminal, press .
 - The light next to goes on.
2. Press .
 - The light next to 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, and Ringer Preference options are set.
 - ▶ Press “11” to view the Compander, 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.
 - The information is displayed on the screen for approximately five seconds and then disappears.
4. To view more information on terminal options and parameters, repeat Steps 1 through 3.

Other 8400-Series Voice Terminals Documentation

The following documentation provides instructions for using both the fixed and the switch features. These documents can be ordered from the AT&T GBCS Publications Fulfillment Center.

Write: AT&T GBCS Publications Fulfillment Center
P.O. Box 4100
Crawfordsville, IN 47933

Call: 1 800 457-1235
Outside US: 1 317 361-5353

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 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 Communications System Generic 1 and Generic 3 and System 75*
8411 Voice Terminal User's Guide, 555-230-872
- ▶ *DEFINITY Communications System Generic 1 and Generic 3 and System 75*
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™ Solution User's Guide For DEFINITY® Communications System**, 560-201-102.