



**Integrated Services
Digital Network (ISDN)**

**ISDN-10 Voice Terminal
Feature Package 3**

User's Manual

**AT&T 555-021-759
COMCODE 107331589
Issue 1, January 1995**

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HEARING AID COMPATIBILITY

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

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Some telephone equipment generates, uses and can radiate radio-frequency energy and, if not installed and used properly, may cause interference to radio and television reception.

You AT&T product has been tested and found to meet the standards for a Class B digital device, as specified in Part 15 of the FCC Rules. These specifications are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation.

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- If your telephone product runs on AC power, plug your product into an AC outlet that's not on the same circuit as one used by your radio or television.

If you need assistance, you can call our National Service Center at 1 800 222-3111.

WARNING: The user is cautioned that modifications to this telephone, not expressly approved by AT&T could void the user's authority to operate the equipment.

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IMPORTANT SAFETY INSTRUCTIONS

Only the most careful attention has been devoted to quality standards in the manufacture of your new voice terminal. Safety is a major factor in the design of every set. But, safety is YOUR responsibility too.

Please read carefully the helpful tips listed below and on the next page. These suggestions will enable you to take fullest advantage of your new voice terminal. Then, retain these tips for later use.

When using your voice terminal, the following safety precautions should always be followed to reduce the risk of fire, electric shock, and injury to persons.

- Read and understand all instructions.
- Follow all warnings and instructions marked on the voice terminal.
- This voice terminal can be hazardous if immersed in water. To avoid the possibility of electrical shock, do not use it while you are in the bathtub or shower, or when you are wet. If you accidentally drop the voice terminal into water, do not retrieve it until you have first unplugged the line cord from the modular wall jack. Do not reconnect the voice terminal until it has dried thoroughly.
- Avoid using the voice terminal during electrical storms in your immediate area. There is a remote risk of electric shock from lightning. Urgent calls should be brief. Even though protective measures may have been installed to limit electrical surges from entering your home or business, absolute protection from lightning is impossible.
- If you suspect a natural gas leak in the vicinity of the voice terminal, report it immediately, but use a telephone away from the area in question. The telephone's electrical contacts could generate a tiny spark. While unlikely, it is possible that this spark could ignite heavy concentrations of gas.
- Never push objects of any kind into the voice terminal through housing slots since they may touch hazardous voltage points or short out parts that could result in a risk of electric shock. Never spill liquid of any kind on the voice terminal. If liquid is spilled, however, dry immediately, and refer any service problems to qualified service personnel.
- To reduce the risk of electric shock, do not disassemble the voice terminal. There are no user serviceable parts inside. Opening or removing covers may expose you to hazardous voltages. Incorrect reassembly can cause electric shock when the voice terminal is subsequently used.

- Slots and openings in the housing must not be blocked or covered. The openings should never be blocked by placing the voice terminal on a sofa, rug or other similar surface. This voice terminal should never be placed near or over a radiator or heat register or placed in a built-in installation unless proper ventilation is provided.
- The voice terminal should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply being used, contact a qualified service person.
- Do not allow anything to rest on the power cord. Do not locate this voice terminal where the cord will be abused by persons walking on it.
- Do not overload the AC wall outlets and extension cords as this can result in risk of fire or electric shock.
- Before cleaning, disconnect all cords from the voice terminal. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
- Disconnect the cords on the voice terminal and refer servicing to qualified service personnel when these conditions exist:
 - ▶ When the power supply cord or plug is damaged or frayed.
 - ▶ If liquid has been spilled into the voice terminal.
 - ▶ If the voice terminal has been exposed to rain or water.
 - ▶ If the voice terminal does not operate normally by following the operating instructions. Do not attempt to adjust any other controls since doing so may result in damage and will require extensive work by a qualified technician to restore the voice terminal to normal operation.
 - ▶ If the voice terminal has been dropped or the housing has been damaged.
 - ▶ If the voice terminal exhibits a distinct change in performance.



SAVE THESE INSTRUCTIONS

When you see this warning symbol on the product, refer to the instructions booklet packed with the product for information before proceeding.

Introduction

The AT&T ISDN-10 voice terminal can be added to your Integrated Services Digital Network (ISDN) communications system. In order to provide you with excellent quality and reliability, AT&T has designed this new voice terminal with the latest advances in telecommunications technology.

The ISDN-10 voice terminal offers 10 call appearance/feature buttons on which can be programmed either call appearances or features, and a Program and a Memory button which allows you to store and then dial 22 additional telephone numbers or extensions on the call appearance/feature buttons and the dial pad keys. The ISDN-10 also provides Mute, Redial, Conference, Drop, Transfer, and Hold buttons, a Speakerphone which can also be optioned as a listen-only 1-way Speaker, a Volume control, and an Adjunct jack for adjunct equipment — all that you need for easy and efficient call-handling. You can also initiate a self-test of the voice terminal, select a personalized ringing pattern, and reset the acoustical level of the built-in speakerphone.

NOTE: The ISDN-10 voice terminal will be supported **ONLY** on a 5ESS® switch. It will **NOT** be supported on a DEFINITY® switch.

The following features have been included for the hearing and visually impaired person:



- Two small bars have been placed on the **5** dial pad key;
- Confirmation and error tones;
- Compatibility with inductively coupled hearing aids.

ORGANIZATION OF THIS MANUAL

This manual is arranged into the following sections:

- **Your ISDN-10 Voice Terminal** — shows the top and bottom views of the ISDN-10 and explains its features.
- **Feature Descriptions** — lists the voice features, tells what each feature does, and suggests how you might use it.
- **Feature Procedures** — gives step-by-step procedures on using voice features.

- **Tones and Their Meaning** — lists and describes the various voice terminal tones.
- **Labeling and Installing the Designation Cards and the Telephone Number Card** — explains how to remove and label the designation cards and the telephone number card and then install them behind the clear plastic covers.
- **Installation** — gives brief step-by-step procedures for connecting your voice terminal to the system, desktop installation such as connecting the handset and the line cord, and, if appropriate, attaching adjunct equipment.
- **Technical Description** — provides information on the technical aspects of the ISDN-10 voice terminal.

CONVENTIONS USED IN THIS MANUAL

A **rectangular box** containing a feature name, such as Redial, represents any button having a feature assigned to it, with a corresponding feature name label.

A NOTE ON THE TERM, 'SYSTEM MANAGER'

In this manual it is often suggested that you refer to your **system manager** for more information. The system manager may also be called the *system administrator* or, possibly, the *telecommunications manager*. For handy reference, use the space below to write your system manager's name, room number, and extension.

Name _____

Room _____ Extension _____

Your ISDN-10 Voice Terminal

Before you begin using your ISDN-10 voice terminal, familiarize yourself with the voice terminal features, lights, jacks, and other components available to you. To help you do this, **Figures 1** and **2** show you the top and bottom views of the ISDN-10 voice terminal.

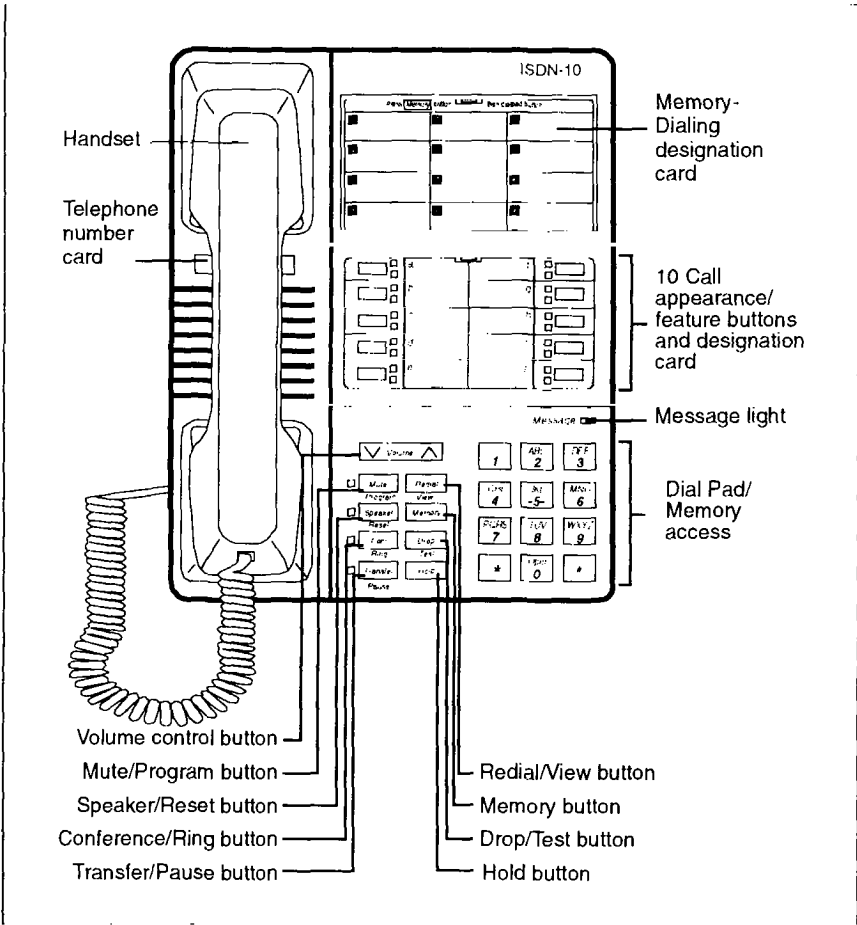


FIGURE 1 ISDN-10 Voice Terminal (Top View)

The ISDN-10 voice terminal components pictured in **Figure 1**, the top view, are described below and on the next few pages. For your convenience, they are listed alphabetically.

Call appearance/feature buttons These 10 buttons are devoted *either* to handling incoming and outgoing calls (call appearances) and are labeled with the phone number or extension number *or* they can be used as feature buttons to access voice features such as Call Forwarding or Send All Calls; these are labeled with the feature name. Each of these 10 call appearance/feature buttons has a red light, which indicates the *selected line* and a green light which indicates the *status of that line or feature*.

Memory-dialing number on each button — With the blue Memory button, you can also program and then dial the stored number on each of the 10 call appearance/feature buttons. In order to dial this memory-dialing number, you must first press Memory. These memory-dialing numbers are not related to any call appearance or feature assigned to these 10 buttons.

Call appearance/feature button designation card On this designation card, write or type the telephone number, extension, feature access code, or feature assigned to each of the 10 call appearance/feature buttons.

NOTE: Since you can program a memory-dialing number on each call appearance/feature button, you may use the lower half of each call appearance or feature space to write or type the memory-dialing number assigned to that button.

Conference/Ring button This button is labeled **Conf**.

Conference — For setting up conference calls with one additional party. Conference calls include yourself and two other parties.

Personalized Ring — By first pressing Memory and then | Conference |, you can select a personalized ringing pattern for your voice terminal. There are eight available ringing patterns for you to choose from.

Dial pad/Memory access

Dial pad — The 12-button dial pad can be used for dialing phone numbers and for accessing features. The letters “Q” and “Z” have been added to the dial pad keys 7 and 9 respectively for entering directory names, and the 5 key on your dial pad has raised bars for visually-impaired users.

Memory Access — The dial pad can also be used to program and then quickly dial telephone numbers or extensions assigned to each

of the 12 dial pad keys and the 10 call appearance/feature buttons. To store and dial these numbers, you must first press **Memory** .

Drop/Test button

Drop — For disconnecting from a call or dropping the last party added to a conference call.

Self-Test — By first pressing **Memory** and then **Drop** , you can initiate a self-test of the voice terminal lights, ringer, and dial pad keys. The test, however, will clear the contents of the Redial memory.

Handset For placing and answering calls.

Hold button A red button, for putting a call on hold.

Memory button This blue button can be used in the following ways:

- By first pressing **Memory** and then a dial pad key or call appearance/feature button, the voice terminal will automatically dial the telephone number or extension saved at each of these locations.
- By first pressing **Memory** and then **Mute** (the **Mute/Program** button), you can store telephone numbers, extensions, or feature access codes in memory-dialing locations on the dial pad keys and the call appearance/feature buttons. This Memory-Dialing option gives you a total of 22 possible memory-dialing numbers.
 - By pressing **Transfer** (the **Transfer/Pause** button) during the programming of a memory-dialing number, you can insert a 1.5-second pause into the programmed memory-dialing number, such as between an outside line access number (usually, a “9”) and an outside telephone number.
- By first pressing **Memory** and then **Redial** (the **Redial/View** button), you can view numbers stored in the Redial memory and at memory-dialing locations on the dial pad keys and the call appearance/feature buttons.
- By first pressing **Memory** and then **Speaker** (the **Speaker/Reset** button), you can set or reset the speakerphone for optimal performance. As the speakerphone performs an acoustic test of the environment, you will hear a series of tones.
- By first pressing **Memory** and then **Conference** (the **Conf/Ring** button), you can select a personalized ringing pattern from among eight different patterns.
- By first pressing **Memory** and then **Drop** (the **Drop/Test** button), you can perform a test of the voice terminal lights, ringer, and dial pad keys.

Memory-Dialing designation card On this designation card, write or type the telephone numbers, extensions, or feature access codes programmed on each of the 12 dial pad keys.

Message light A red light which goes on steadily when a message has been left for you. See your system manager for instructions regarding your local message retrieval procedures.

Mute/Program button

Mute — For turning off (and then back on again) the microphone of the handset or the speakerphone so the other person on the call cannot hear you.

Program — By first pressing **Memory** and then **Mute**, you can program a telephone number, extension, or feature access code into each of the 12 dial pad keys and the 10 call appearance/feature buttons.

Redial/View button

Redial — For automatically redialing the last number that you dialed from the dial pad.

View — By first pressing **Memory** and then **Redial**, you can view the numbers stored in the Redial memory and in memory-dialing locations on the dial pad keys and the call appearance/feature buttons.

Speaker/Reset button

Speaker/Speakerphone — For turning on and off the 2-way speakerphone or the 1-way, listen-only speaker.

Reset Speakerphone — By first pressing **Memory** and then **Speaker** (your voice terminal must be on-hook, and it must be set for the Speakerphone feature), you hear a series of tones as the speakerphone performs an acoustic test of the environment. When the tones stop, your speakerphone has finished adjusting itself for optimal performance and is ready for use.

Telephone number card For noting the area code and telephone number of your voice terminal.

Transfer/Pause button

Transfer — For transferring a call to another voice terminal.

Pause — By pressing | *Transfer* | during the programming of a telephone number or extension, you can insert a 1.5-second pause in the programmed memory-dialing number, such as between an outside line access code (usually, a “9”) and the outside telephone number.

Volume control button When on a call, this button is used to increase or decrease the receive volume of the handset or speakerphone, whichever you are using. When you are not on a call, the Volume control button is used to increase or decrease the volume of the ringer and the tones.

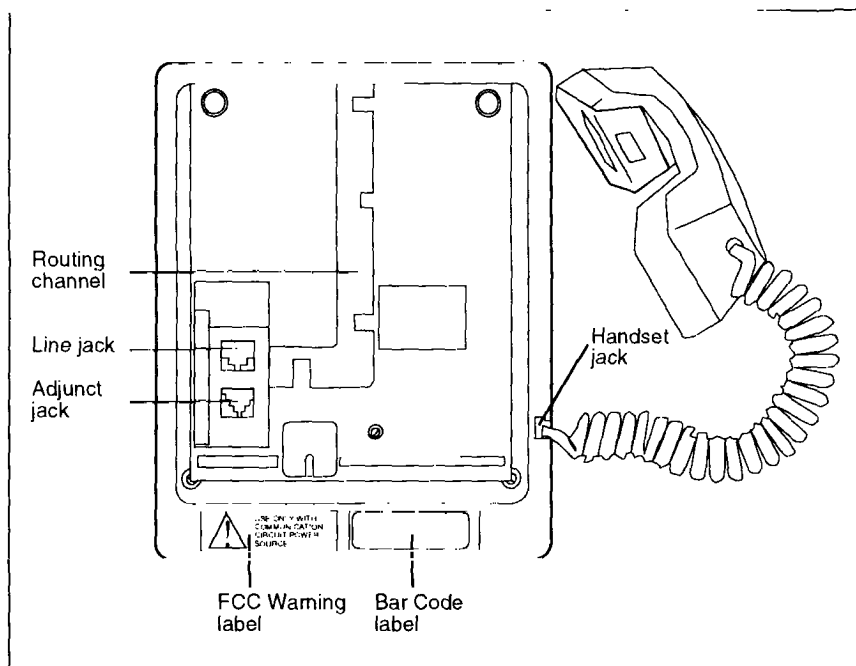


FIGURE 2 ISDN-10 Voice Terminal (Bottom View)

The various components which appear on the bottom of the ISDN-10 voice terminal are shown in **Figure 2** and listed and explained below.

Adjunct jack Used for connecting an external speakerphone, a headset adaptor, or other adjunct equipment. The jack is labeled "ADJUNCT."

WARNING: Do *not* insert the handset cord into the "ADJUNCT" jack. It will cause equipment damage.

Handset jack Used for connecting the handset cord to your voice/data terminal. The jack is labeled .

Line jack Used for connecting the line cord to your voice terminal. The jack is labeled "LINE."

Routing channel Thread the line cord (and adjunct cord, if applicable) through the routing channel. See the section titled **Installation**.

Feature Descriptions

Here are brief descriptions of the voice features and the features accessed with the softkeys, including what each one does and how you might want to use it.

Conference Allows you to add an additional party to a call so that you can conduct a conversation with more than one party. Use to set up time-saving conferences, or to spontaneously include one additional party important in a discussion.

Drop Disconnects you from a call without requiring you to hang up the handset or press the switchhook. Can also be used with the Conference feature to disconnect the last party added. Use whenever you are using the handset and want to continue using it for another action after ending a call.

Hold Temporarily disconnects you from a call, holding it until you can return to it. While a call is on hold, you can place another call, activate another feature, answer a waiting call, or leave your voice terminal to perform another task. Use when you have a call that you don't wish to drop, but which you have to interrupt briefly to do something else.

Memory-Dialing Allows you to program and store up to 12 telephone numbers or extensions on the dial pad keys and 10 additional telephone numbers or extensions on the call appearance/feature buttons (for a total of 22 memory-dialing numbers). In order to dial these numbers, press **Memory** and then the button or dial pad key on which the number is stored. Use to save time when dialing frequently-called numbers.

Message Retrieval Your Message light goes on to let you know that a caller has left a message. Follow your system's message retrieval procedures to get your message.

Mute Turns off the microphone associated with the handset or the speakerphone, whichever is currently active. Use when you want to confer with someone in the room with you, but you do not want the party on the call to hear your conversation. (You are still able to hear the person on the call.)

Personalized Ring Allows you to select your own personalized ringing pattern from among eight available patterns. Use to distinguish your voice terminal's ring from that of other nearby voice terminals.

Program Allows you to program 12 telephone numbers or extensions on the dial pad keys and 10 additional telephone numbers or extensions on the call appearance/feature buttons. To dial any of these numbers, press **Memory** and then the button or the dial pad key on which the number is stored.

Redial (Last Number Dialed) Automatically redials the last number you dialed manually from the dial pad, either an extension or an outside number. Use to save time in redialing a busy or unanswered number.

Reset Speakerphone Initiates an acoustic test of the surrounding environment by using a series of tones. When the tones stop, your speakerphone has finished adjusting itself for optimal performance. It is now ready for use. Use whenever you move your voice terminal to a different location (even in the same room) or when the red light next to **Speaker** is flashing. This feature is accessed by pressing **Memory** and then **Speaker**.

Self-Test Performs a diagnostic test of your voice terminal including the lights, ringer, and dial pad keys.

NOTE: When you perform a self-test of the voice terminal, it clears the last number dialed from the Redial memory, and returns the volume control to the default setting.

The Shift Function The blue **Memory** button acts as a Shift button to allow you to access secondary features on the following fixed feature buttons:

- When pressed before **Mute** (the **Mute/Program** button), you can program 12 telephone numbers or extensions on the dial pad keys and 10 additional telephone numbers or extensions on the call appearance/feature buttons.
 - By pressing **Transfer** (the **Transfer/Pause** button) during the programming of a memory-dialing number, you can insert a 1.5-second pause into the programmed memory-dialing number, such as between an outside line access number (usually, a “9”) and an outside telephone number.
- When pressed before **Redial** (the **Redial/View** button), you can view the numbers stored in the Redial memory or in memory-dialing locations on the dial pad keys or the call appearance/feature buttons.
- When pressed before **Speaker** (the **Speaker/Reset** button), you can set or reset your speakerphone for optimal performance.
- When pressed before **Conf** (the **Conf/Ring** button), you can select a personalized ringing pattern for your voice terminal.

- When pressed before **Drop** (the **Drop/Test** button), you can perform a test of the lights, ringer, and dial pad keys.

Speakerphone Your voice terminal has either the 1-way Speaker (listen-only) or the Speakerphone (listen and talk) function or it may have neither. Check with the system manager to see how your voice terminal is set.

The **1-way Speaker** feature allows you to place calls or access other voice features without lifting the handset. (Press **Speaker** .) However, in order to speak to the other party, you must use the handset (the speaker must be off). Use with feature activities that require *listening only*, such as on-hook dialing or monitoring calls on hold.

The **Speakerphone** feature allows you to place and answer calls or access other voice features without lifting the handset. (Press **Speaker** .) Use the built-in speakerphone any time you prefer 2-way hands-free communications, both speaking and listening, or for group conference situations.

Transfer Transfers a call from your voice terminal to another extension. Use when your caller needs to speak further with someone else.

View Allows you to view, by watching the number of call appearance/feature button lights that are lit, the number stored in the Redial memory or in memory-dialing locations on the dial pad keys and the call appearance/feature buttons.

Feature Procedures

The procedures which follow give short, step-by-step instructions for using each feature. For your convenience, the features are listed alphabetically. Unless otherwise noted, the calling procedure assumes that the handset is off-hook.

ANSWERING AND PLACING A CALL

To answer a call

- 1 Lift the handset.
 - The green light (below the red light) goes on steadily at the selected call appearance button.

NOTE: If you are not connected immediately, press the call appearance button next to the flashing green light.

To place a call

- 1 Lift the handset.
 - The green light (below the red light) goes on steadily at the selected call appearance button.
- 2 Listen for the dial tone and dial the number you want to call.

To end (or drop) a call

- 1 Hang up the handset or press the **Drop** button.

NOTE: If you use the **Drop** button, you will hear a dial tone and your voice terminal is ready for another call.

To adjust the receive volume of the handset, the speakerphone, or the listen-only speaker

- 1 While on a call, you can raise the volume by pressing the right half of the Volume control button labeled  ;
OR lower the volume by pressing the left half of the Volume control button labeled .

CONFERENCE

To add another party to a call

- 1 While on a call, press **Conf** to add the next party.

- The current call is placed on hold.
- The red Conference light flutters.

NOTE: If an idle call appearance button is not automatically selected, press one yourself.

- 2 Listen for the dial tone, and dial the number of the next party.

- 3 Press **Conf** after the next party answers.

- The red Conference light goes off.
- All parties are now connected.

To drop a party from a conference call

- 1 Press **Drop**.

- The last party you added is dropped.

DROP

To disconnect from a call and obtain dial tone without hanging up

- 1 Press **Drop**.

- Listen for dial tone.

NOTE: Pressing **Drop** will also disconnect the last party added to a conference call. See the procedures for the Conference feature.

HOLD

To put a call on hold while you answer another call

NOTE: The green light is flashing beside the call appearance button of the incoming call.

- 1 Press **Hold** .
 - The red light goes off, and the green light flutters (next to the call appearance button of the held call).
- 2 Press the call appearance button of the second call.
 - The red light goes on, and the green light goes on steadily.
 - You are connected to the second call.

NOTE: If you put a conference call on hold, the other parties remain connected.

To return to the held call

- 1 Press the call appearance button next to the held call.
 - The red light goes on, and the green light goes on steadily (next to the call appearance button of the previously held call).
 - You are connected to the previously held call.

MEMORY DIALING (STORED NUMBERS)

To program a memory-dialing number

NOTE: You can store one memory-dialing number on each of the 10 call appearance/feature buttons and on each of the 12 dial pad buttons numbered 1 through 9, 0, *, and #.

- 1 Press **Memory** .
 - The lights next to **Mute** , **Speaker** , **Conf** , and **Transfer** go on steadily.
- 2 Press **Mute** (the **Mute/Program** button).
 - The lights next to **Mute** , **Speaker** , **Conf** , and **Transfer** flutter.
- 3 Dial the telephone number or extension that you want to store (24-digit maximum).

NOTE: In order to insert a 1.5-second pause between sequences of the number, such as adding a delay between the dialing access number (usually, a "9") and the outside number to be dialed, press **Transfer** (the **Transfer/Pause** button). For example, to store 9-555-1234: dial 9, then, press **Transfer** to insert the pause, and then dial 555-1234. Remember that this pause counts as one of the 24-digit maximum for programming memory-dialing numbers.

- 4 Press **Memory** .
 - The lights next to **Mute** , **Speaker** , **Conf** , and **Transfer** flash.
- 5 Press the dial pad key or the call appearance/feature button where you want to store the number.
 - The lights next to **Mute** , **Speaker** , **Conf** , and **Transfer** return to their appropriate states.
 - The voice terminal sounds a confirmation tone and automatically takes you out of programming mode.
- 6 Be sure to record the telephone number or extension on *either* the Memory-Dialing Designation Card *or* the Call Appearance/Feature Button designation card on the front of the voice terminal. For directions on labeling and installing these designation cards, see "Labeling and Installing the Designation Cards and the Telephone Number Card" later in this manual.
- 7 To program another number, repeat Steps 1 through 5.

Memory Dialing (Stored Numbers) (Continued)

To dial a stored number

- 1 Listen for dial tone and then press **Memory**.

NOTE: If you are using the speakerphone or the 1-way speaker, you can press **Memory** without first listening for dial tone.

- The lights next to **Mute**, **Speaker**, **Conf**, and **Transfer** go on steadily.
- 2 Press the dial pad key or the call appearance/feature button where the number is stored.
 - The lights next to **Mute**, **Speaker**, **Conf**, and **Transfer** return to their appropriate states.
 - The memory-dialing number associated with that dial pad key or call appearance/feature button is automatically dialed.
-

MUTE

To turn off the microphone associated with the handset or the speakerphone so the other party cannot hear you

- 1 While on a call, press **Mute**.
 - The red Mute light goes on.
 - The other party cannot hear your conversation, but you can hear the other party.

To turn on the microphone associated with the handset or speakerphone again, so the other party can hear you again

- 1 Press **Mute** again.
 - The red Mute light goes off.
 - You can resume your conversation with the other person on the call.

PERSONALIZED RING

Choose a personalized ringing pattern for your voice terminal so you can distinguish the ringing pattern at your voice terminal from others in your office. There are eight different ringing patterns to choose from.

To select a personalized ringing pattern for your voice terminal

- 1 Press **Memory** .
 - The lights next to **Mute** , **Speaker** , **Conf** , and **Transfer** go on steadily.
- 2 Press **Conf** (the **Conf/Ring** button).
 - The lights next to **Mute** , **Speaker** , **Conf** , and **Transfer** flutter.
 - You hear the currently selected ringing pattern.
- 3 Do *one* of the following to select a ringing pattern:
 - ▶ Dial the number (1 through 8) from the dial pad to select the ringing pattern of your choice
 - ▶ **OR** press ***** to hear the next ringing pattern in the sequence (each of the eight ringing patterns is played once) and then press **#** to select the ringing pattern for your voice terminal.

NOTE: If you want to exit ring selection mode without changing your current ringing pattern, press **#** .

 - The lights next to **Mute** , **Speaker** , **Conf** , and **Transfer** return to their appropriate states.
 - The voice terminal sounds a confirmation tone and automatically takes you out of ring selection mode.

To adjust the ring volume (when you are not on a call)

- 1 To raise the volume, press the right half of the Volume control button labeled  ;
to lower the volume, press the left half of the Volume control button labeled  .

REDIAL (LAST NUMBER DIALED)

To automatically redial the last number you dialed manually (this can be an extension, outside number, or trunk/feature code)

NOTE: The ISDN-10 voice terminal redials numbers consisting of up to 37 digits.

1 When you hear dial tone, press **Redial** .

- The last number you dialed (from the dial pad) is automatically redialed.

NOTE: Memory-dialing numbers and feature access codes programmed for one-touch dialing are not stored in the Redial memory.

2 Wait for the called party to answer.

RESET SPEAKERPHONE

You should adjust the speakerphone to the surrounding room acoustics to provide optimal performance. Use the Reset Speakerphone feature in the following ways:

- Whenever you move your voice terminal to another place (even in the same room)
- Whenever the red light next to **Speaker** is flashing

NOTES: You may also use this feature when you are on a call in the unlikely event your speakerphone makes a squealing noise during the call. Your speakerphone will adjust itself to normal for that call. (No tones will be heard.)

If there has been an interruption in power (such as, the system has just been powered up again, or you have plugged in the voice terminal at another location), the light next to **Speaker** flashes until you reset the built-in speakerphone.

You should initiate the Reset Speakerphone feature only when your handset is on-hook and the built-in speakerphone is not in-use.

(Reset Speakerphone) (Continued)

Remember you can use the Reset Speakerphone feature *only* if your voice terminal is set for the Speakerphone feature (as opposed to the one-way, listen-only Speaker feature).

To reset the speakerphone for optimal performance

- 1 Press **Memory** .
- 2 Press **Speaker** (the **Speaker/Reset** button).
 - You hear a series of ascending tones as the speakerphone adjusts itself to the surrounding acoustical environment.

...

SELF-TEST

To initiate a test of your voice terminal

NOTES: The handset must be on-hook when you test the voice terminal. Performing the self-test terminates any call in progress and prevents you from receiving calls until the test is completed.

The self-test also clears the last number dialed from the Redial memory, and the volume setting is returned to the default.

- 1 While the handset is on-hook, press | **Memory** | .
- 2 Press **Drop** (the **Drop/Test** button).
 - The voice terminal emits a tone, and the Message light goes on.
 - If green lights go on next to the call appearance buttons, the test has passed; if red lights go on, the test has failed.
- 3 To exit the self-test (at any time), press **Memory** twice.

NOTE: If you do not press | **Memory** | (twice), the voice terminal automatically exits the self-test after 30 seconds.

THE SHIFT FUNCTION

The blue **Memory** button also acts as a Shift button to allow you to access secondary features on the following fixed feature buttons.

- By first pressing **Memory** and then **Mute** (the **Mute/Program** button), you can program 12 telephone numbers or extensions on the dial pad keys and 10 additional telephone numbers or extensions on the call appearance/feature buttons. See "Memory Dialing (Stored Numbers)."
 - By pressing **Transfer** (the **Transfer/Pause** button) during the programming of a memory-dialing number, you can insert a 1.5-second pause into the programmed memory-dialing number, such as between an outside line access number (usually, a "9") and an outside telephone number.
- By first pressing **Memory** and then **Redial** (the **Redial/View** button), you can view, by watching the number of call appearance/feature button lights which are lit, the number stored in the Redial memory and in memory-dialing locations on the dial pad keys and on the call appearance/feature buttons. See "Viewing Numbers Stored in Memory-Dialing Locations and in Redial."
- By first pressing **Memory** and then **Speaker** (the **Speaker/Reset** button), you can set or reset your speakerphone for optimal performance. See "Reset Speakerphone."
- By first pressing **Memory** and then **Conf** (the **Conf/Ring** button), you can select a personalized ringing pattern for your voice terminal. See "Personalized Ring."
- By first pressing **Memory** and then **Drop** (the **Drop/Test** button), you can perform a test of the lights, ringer, and dial pad keys. See "Self-Test."

SPEAKERPHONE AND 1-WAY SPEAKER

NOTE: Your voice terminal is set for the 1-way Speaker (listen-only) or for the Speakerphone (listen and speak) function or for neither. Check with your system manager to see how your voice terminal is set.

One-Way Speaker

Use the following procedures if your voice terminal is set for the 1-way, listen-only Speaker feature.

To place/answer a call without lifting the handset or to use the speaker with any listening-only feature

- 1 Press **Speaker** .
 - The red lights next to **Speaker** and **Mute** go on.
- 2 Place or answer the call or access a selected feature.
- 3 If you are placing a call, dial the telephone number.
- 4 Adjust the speaker volume, if necessary:
 - To raise the volume, press the right half of the Volume control button labeled  ;
 - To lower the volume, press the left half of the Volume control button labeled  .
- 5 Press **Speaker** to hang up.
 - The red lights next to **Speaker** and **Mute** go off.

To activate the 1-way speaker while using the handset

- 1 Press **Speaker** .
 - The red light next to **Speaker** and the red light next to **Mute** go on.
 - The speaker is active, and the handset is turned off.
- 2 Hang up the handset.

NOTE: If you want to speak to the other party, you must pick up the handset (which turns off the speaker).

Speakerphone

Use the following procedures if your voice terminal is set for the Speakerphone (listen and speak) feature.

To place or answer a call without lifting the handset or to use the speakerphone with any voice feature

- 1 Press **Speaker** .
 - The red light next to **Speaker** goes on.
- 2 Place or answer the call or access a selected feature.
- 3 If you are placing a call, dial the telephone number.
- 4 Adjust the speakerphone volume if necessary:
 - To raise the volume, press the right half of the Volume control button labeled  ;
 - To lower the volume, press the left half of the Volume control button labeled  .
- 5 Press **Speaker** to hang up.
 - The red light next to **Speaker** goes off.

To prevent the other party from hearing you

NOTE: If the Speakerphone feature is not active, the Mute feature turns off the microphone associated with the handset (not the speakerphone).

- 1 Press **Mute** .
 - The red light goes on, and the other party cannot hear you.
- 2 Press **Mute** again to resume talking to other party.
 - The red light goes off, and the other party can hear you again.

To change from speakerphone to handset

- 1 Lift the handset and talk.
 - The red light next to **Speaker** goes off.

Speakerphone (Continued)

To change from handset to speakerphone

- 1 Press **Speaker** .
 - The red light next to **Speaker** goes on.
 - The speaker is active, and the handset is turned off.
 - 2 Hang up the handset.
-

TRANSFER

To send a call to another extension

- 1 Press **Transfer** .
 - The present call is put on hold.
 - The red Transfer light flutters.
- 2 Listen for dial tone.
- 3 Dial the number that the call is to be transferred to (third party).
 - Remain on the line and announce the call when the third party answers.

NOTE: If the number of the third party is busy or there is no answer, press the call appearance button next to the fluttering green light to disconnect the incomplete call and to return to the call on hold.

- 4 Press **Transfer** again.
 - The party on hold is transferred to the third party.
 - Your voice terminal is released from the call.
- 5 Hang up.

NOTE: To prevent a transfer call from disconnecting, complete the transfer process before entering into another action, such as answering another call.

VIEWING NUMBERS STORED IN MEMORY-DIALING LOCATIONS AND IN REDIAL MEMORY

To view numbers programmed in memory-dialing locations on the dial pad keys and the call appearance/feature buttons and numbers stored in the Redial memory

- 1 Press **[Memory]** .
 - The lights to the left of **[Mute]** , **[Speaker]** , **[Conf]** , and **[Transfer]** go on steadily.
- 2 Press **[Redial]** (the **Redial/View** button).
 - The lights to the left of **[Mute]** , **[Speaker]** , **[Conf]** , and **[Transfer]** flutter.
- 3 Press **[Redial]** or the dial pad key or call appearance/feature button to view the stored number there.
 - The lights to the left of **[Mute]** , **[Speaker]** , **[Conf]** , and **[Transfer]** go off.
 - The RED LIGHT(S) next to the call appearance/feature buttons go on in sequence for each digit in the number string. Lights representing each digit go on for one second; then, all lights will go off momentarily. Lights representing the next digit will then go on for one second, and then go off, until all digits in the number string have been displayed.

For example, if the number stored is extension **1590**:

- To represent the first number in this number string, a **1**, ONE RED LIGHT (the left uppermost red call appearance/feature button light) goes on for one second and then goes off;
- To represent the second number, a **5**, FIVE RED LIGHTS (all five red call appearance/feature button lights in the left column) go on for one second and then go off;
- To represent the third number, a **9**, NINE RED LIGHTS (all the red lights in the two columns except the lower rightmost light) go on for one second and then go off;
- Finally, to represent the last number, a **0**, ALL TEN RED LIGHTS go on for one second and then go off.

NOTE: The following entries may also shown:

- A **Pause** in any sequence of numbers is indicated by the left uppermost GREEN call appearance/feature button light going on.
 - A ***** in a number sequence is indicated by six alternate GREEN lights going on: Lights #1, 3, and 5 go on in the first column. Lights #6, 8, and 10 go on in the second column.
 - A **#** in a number sequence is indicated by four alternate GREEN lights going on: Lights #2 and 4 go on in the first column. Lights #7 and 9 go on in the second column.
- When all of the digits have been displayed, the voice terminal will return to the shifted mode. The lights next to **Mute** , **Speaker** , **Conf** , and **Transfer** go on steadily for two seconds and then return to their appropriate states.
- 4 If you wish to view another memory-dialing location, press **Redial** (the **Redial/View** button) again during the 2-second interval described directly above, or, if necessary, begin again at Step 1.

NOTE: You may cancel the viewing of a memory-dialing location at any time by pressing any button. This will not affect the contents of that location.

Tones and Their Meanings

VOICE TERMINAL TONES

- **busy signal**—A low-pitched tone repeated 60 times a minute; indicates the number dialed is in use.
- **confirmation tone**—Two rising tones; indicates a feature activation or cancellation has been accepted.
- **dial tone**—A continuous tone; indicates dialing can begin.
- **error tone**—An alternating high and low tone; indicates a dialing error, a denial of the service requested, or a failure to dial within a preset interval (usually 10 seconds) after lifting the handset or dialing the previous digit.
- **local error tone**—A steady low tone; indicates an incorrect button press.
- **reorder tone**—A fast busy signal; indicates a call is blocked.
- **self-test tone**—Periodic tones; indicates that the voice terminal is continuing to perform a self-test.
- **speakerphone reset tones**—A rising set of tones; indicates the speakerphone is adjusting itself to the surrounding room acoustics.

Labeling and Installing the Designation Cards and the Telephone Number Card

There are two designation cards on which you can write or type the telephone number, extension, feature access code, or feature which you or your system manager has programmed on your voice terminal. These two cards include:

- **The Memory-Dialing Designation Card**, the upper designation card
- **The Call Appearance/Feature Button Designation Card**, located in the middle of the voice terminal

NOTE: You can also write or type your voice terminal phone number or extension on **the Telephone Number Card** which fits under the handset.

THE MEMORY-DIALING DESIGNATION CARD

This designation card fits at the top of the voice terminal. On this card you can write or type the telephone numbers, extensions, or feature access codes you have programmed on each of the dial pad keys. There are three columns on the designation card: the left column is labeled **1** through **4** for those numbers programmed on dial pad keys **1** through **4**; the middle column is labeled **5** through **8** for numbers programmed on dial pad keys **5** through **8**, and the right column is labeled **9**, **0**, *****, and **#** for numbers programmed on dial pad keys **9**, **0**, *****, and **#**.

This designation card is already in place when your voice terminal is installed. However, in order to write or type the numbers assigned to each dial pad key, you must remove the card from behind the plastic cover.

To remove, label, and reinstall the Memory-Dialing Designation Card

- 1 Remove the transparent card cover by pulling the top tab toward you and lifting the top of the transparent cover from the voice terminal.
- 2 Remove the designation card from underneath the cover, and then write or type the appropriate number in each space on the designation card.
- 3 Place the designation card behind the transparent cover and then replace the cover by inserting the tabs at the bottom and pressing the top down until it clicks.

THE CALL APPEARANCE/FEATURE BUTTON (AND THE TELEPHONE NUMBER CARD)

The other designation card matches the 10 call appearance/feature buttons on the voice terminal. There are two columns: the left column is labeled **a** through **e**; the second column is labeled **f** through **j**.

Inside the front cover of this user's manual are four button designation cards on which you can write the telephone number, extension, name, or feature that each call appearance/feature button can access. Below the perforated bottom edge of each designation card is a telephone number card on which you can write your telephone number.

At the bottom of each designation and telephone number card is an additional attached section which will make it easier for you to insert these cards in a typewriter or run the cards through a laser printer.

To label and install the Call Appearance/Feature Designation Card and Telephone Number Card

- 1 Tear the button designation card, along with the telephone number card and attached "tail," from the user's manual along the perforated edges. (You may choose to take out one card at a time and leave the remaining cards in the manual for future use, or you may choose to tear out all four at one time.)
- 2 Label the button designation card with the appropriate number, extension, name, or feature for each call appearance/feature button. Label the telephone number card with your own telephone number. You can handwrite or type the information on the cards or run the cards through a laser printer.
- 3 Separate the button designation card and telephone number card along the perforated border. You may discard the attached "tail" section.
- 4 To install the button designation card, do the following:
 - Remove the transparent card cover by pulling the top tab toward you and then lifting the top of the transparent cover from the voice terminal.
 - Place the designation card under the transparent cover and then replace the cover by inserting the tabs at the bottom and pressing the top down until it clicks.
- 5 To install the telephone number card, do the following:
 - Insert a paper clip or equivalent in the small opening at the left of the telephone number card cover located under the handset. Push toward the opposite end to raise the cover slightly from the cavity.
 - Place the telephone number card under the cover. Replace the telephone number card cover by slightly bending the cover, and then inserting the cover back in the cavity.

Installation

CONTENTS OF THE ISDN-10 PACKAGE

Before you begin, make sure you have the following parts in the box:

- ISDN-10 voice terminal (with attached desktop stand)
- K-type handset (handset with rounded rectangular earpiece and mouthpiece)
- 9-foot handset cord
- 7-foot line cord
- Designation card(s) for the Memory-Dialing numbers (on set)
- Designation card(s) for the call appearance/feature buttons with telephone number card (at the front of this manual)
- Cover(s) for the designation card(s)
- This user's manual

DESKTOP INSTALLATION

NOTE: The following instructions describe the installation of the ISDN-10 voice terminal on a desk or table. If you choose, instead, to mount the voice terminal on the wall, use the instructions included in the ISDN 8510T Voice Terminal Wall Mounting Kit (D-182604), COMCODE: 106614894.

IMPORTANT: The task of setting the terminal resistor jumpers and the phantom/auxiliary power jumpers can only be done by qualified service personnel. **DO NOT** attempt to remove the voice terminal desktop stand or set either type of jumpers yourself.

Use the following directions to connect the line cord and adjunct cord to the appropriate jacks on the voice terminal.

- 1 Place the voice terminal face down on a flat surface.
- 2 Snap one end of the 7-foot line cord into the "LINE" jack and the adjunct cord (if applicable) into the "ADJUNCT" jack on the bottom of the voice terminal. See **Figure 3** for the location of the jacks. For more information on installing adjuncts, refer to the section "Attaching Adjunct Equipment."

WARNING: Correct cord types must be used when connecting terminals and associated components. Failure to use the correct cord and/or to properly insert the cord into the jack may cause voice terminal malfunction or equipment damage.

- 3 Thread the line (and adjunct cord if applicable) through the routing channel leading to the top of the voice terminal desktop stand, as shown in **Figure 3**. Make sure that each cord is placed securely under the four square tabs in the routing channel.

NOTE: If you connect both the line cord and the adjunct cord, it may be easier if the adjunct cord is on the inside, on the right of the line cord, in the routing channel. The line cord is, therefore, on the outside, on the left of the adjunct cord.

- 4 Snap one end of the coiled cord into the Handset jack (marked with the handset symbol) on the bottom of the voice terminal, as shown in **Figure 3**.

WARNING: Do *not* insert the handset cord into the "ADJUNCT" jack. It will cause equipment damage.

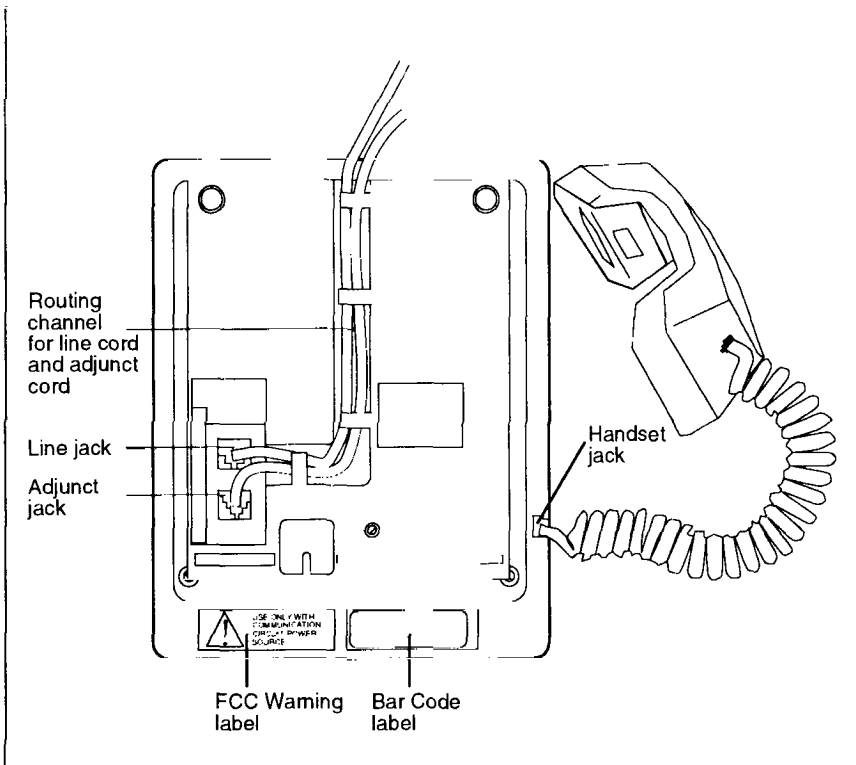


FIGURE 3 Line, Adjunct, and Handset Cord Routing for Desktop Installation on the ISDN-10 Voice Terminal

- 5 Turn the voice terminal right side up, with the front facing you.
- 6 Snap the free end of the handset cord into the handset and place the handset in the cradle.
- 7 Snap the free end of the line cord into the modular jack. Lift the handset and listen for the dial tone.

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 the 507A adapter), or other adjunct that may be offered, follow these steps to connect the adjunct equipment to your voice terminal.

- 1 Place the voice terminal face down on a flat surface.
- 2 Snap the adjunct cord into the “ADJUNCT” jack until you hear a click. See **Figure 3** for the location of the “ADJUNCT” jack.
- 3 Route the adjunct cord through the channel. Refer to the “Desktop Installation” section for instructions.
- 4 Connect the free end of the adjunct cord to your speakerphone or headset adapter.

NOTE: Refer to the adjunct’s installation documentation for its power requirements.

Technical Description

Physical Dimension and Weight

The ISDN-10 voice terminal is convertible for either desktop or wall mounting.

The desktop-mounted voice terminal measures

- 7.8 inches (19.8 cm) wide
- 9.5 inches (24.1 cm) long
- 5.3 inches (13.4 cm) high (with handset)
- 3.07 lbs (1,39 kg)

Power Requirements

The ISDN-10 voice terminal requires phantom power or auxiliary power; either is selected by setting a pair of jumpers. If phantom power is used, less than 1 watt of power is drawn from the switch to support a normal operating mode. If adjunct equipment is connected to the voice terminal, auxiliary power must be used.

WARNING: If auxiliary power is selected, use only a nominal 40 or 48 Vdc, UL-Listed Communications Circuit Power source.

Environmental Requirements

The ISDN-10 can operate in temperatures ranging from 40 to 120 degrees F (4 to 48 degrees C) and relative humidity ranging from 5 to 95 percent.



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