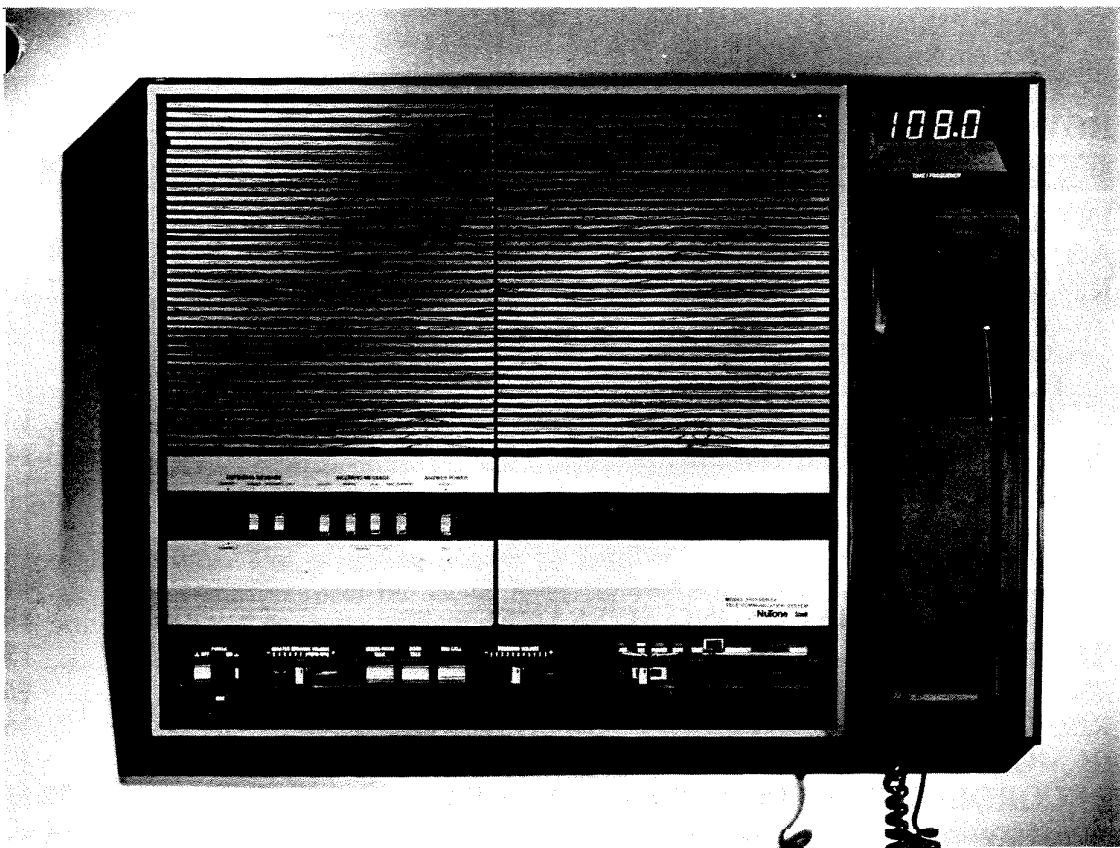


NuTone RADIO INTERCOM SYSTEM

MODEL IM-3103-SERIES



**HOMEOWNER'S
OPERATING
INSTRUCTIONS**

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Radio Intercom Operation

System Operating Controls

Radio and Program Controls

RADIO ON/OFF PUSHBUTTON—Press the **RADIO** button to the **ON** (⊥) position to supply power to the system and turn on the program source (radio, phono, tape). The red **POWER INDICATOR LIGHT** will illuminate. Press and release the button to the **OFF** (⊥) position to turn off the program source. The **RADIO** button must be in the **ON** (⊥) position to operate the intercom system and to play a program source.

PROGRAM SELECT SWITCH—Use this switch to select the program source: **AM, FM, PHONO, TAPE**. The red indicator light will illuminate above the selected program source.

TIME/FREQUENCY SWITCH—Use this switch to set the function of the digital display. When tuning the radio, set the switch to the **FREQUENCY** position and the digital display will show you the radio frequencies as you tune the radio.

TUNING WHEEL—Turn the **TUNING WHEEL** to tune the radio.

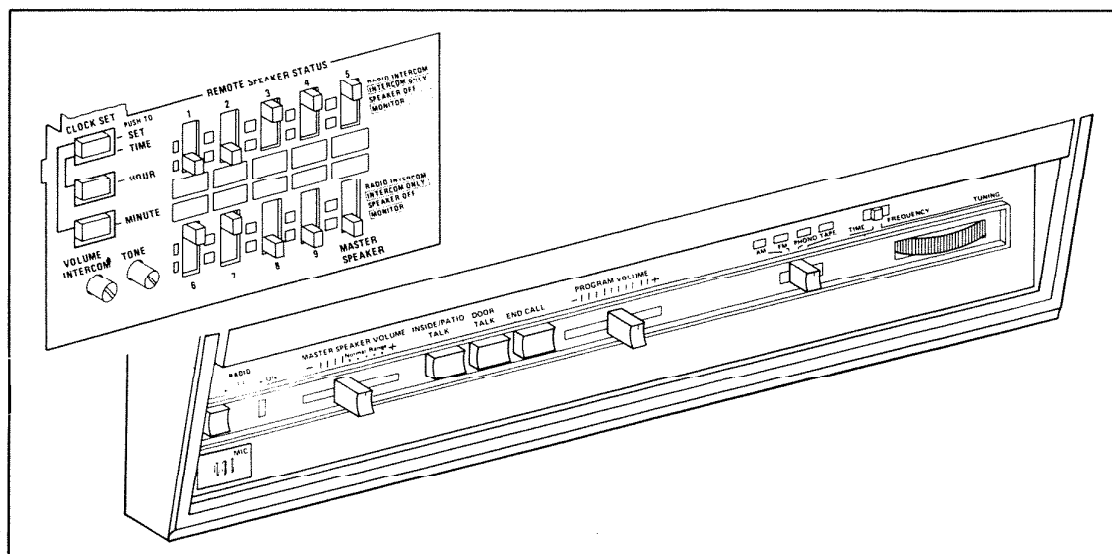
DIGITAL AM/FM FREQUENCY DISPLAY—When the **TIME/FREQUENCY** switch is in the **FREQUENCY** position, the digital display shows you the **AM** or **FM** frequencies to which you have tuned the radio.

MASTER SPEAKER VOLUME CONTROL—Use this slide control to adjust the **MASTER SPEAKER VOLUME**. Slide the control from left to right to increase volume at the Master Station.

PROGRAM VOLUME—Use this slide control to set the **PROGRAM VOLUME** for all speakers in the system. Slide the control from left to right to increase volume level. **This control governs the volume level for the entire system.**

STONE CONTROL—Turn the control clockwise to increase treble (high range); counterclockwise to decrease treble.

REMOTE SPEAKER STATUS—These switches set the function of individual remote stations. For a remote station to receive program material, the switch that controls that station must be set to **RADIO INTERCOM**. See “Remote Speaker Status Switches,” page 4.



Intercom Controls

MASTER SPEAKER VOLUME—Slide this control from left to right to increase intercom volume at the master station.

INSIDE/PATIO TALK—Press this button to make a call to other stations—except the door speakers. Release the button to hear the reply.

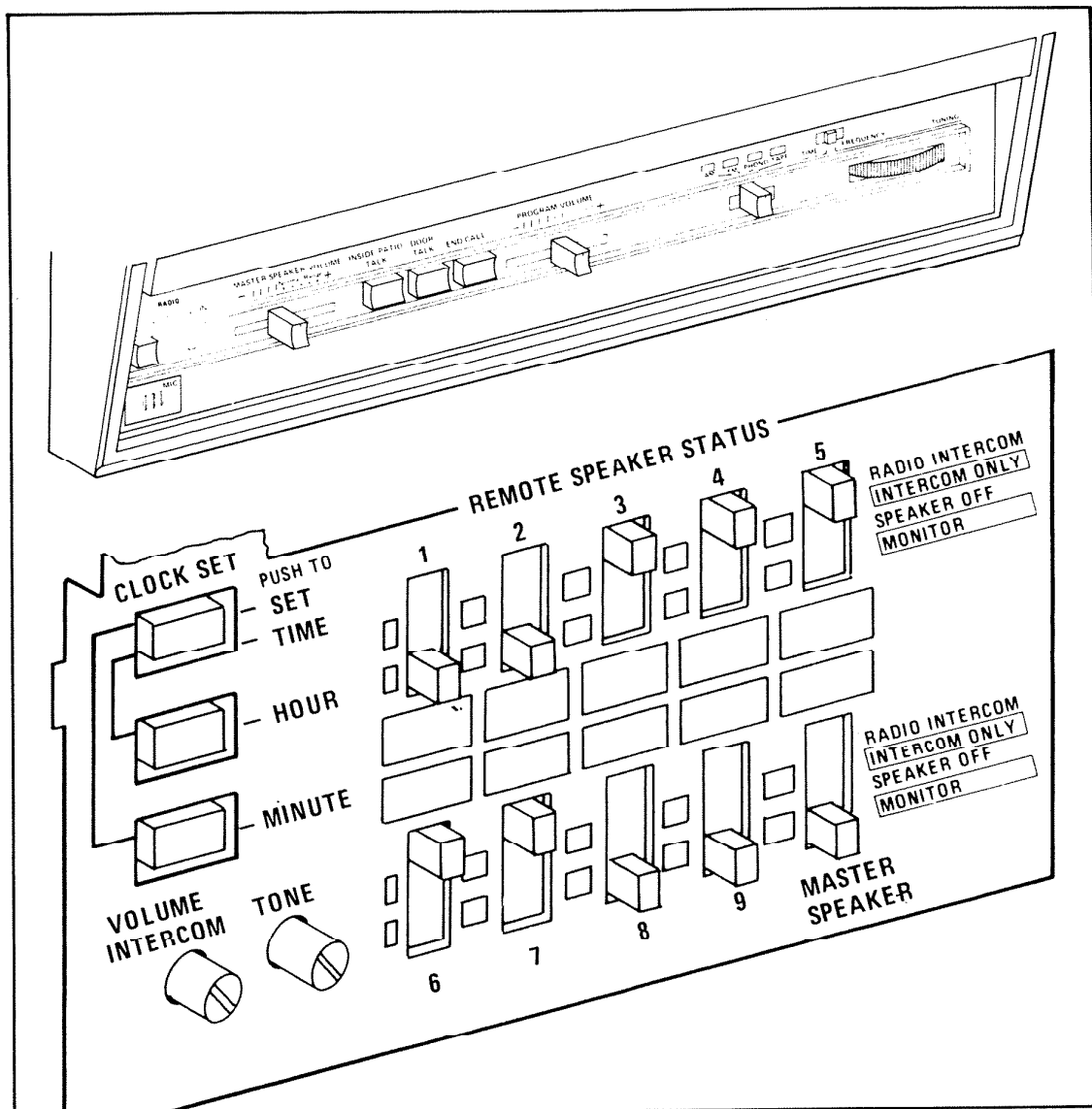
DOOR TALK—Press this button to make a call to the door speaker. To hear a reply, release the button. The call and reply will be heard at all stations.

END CALL—Press this button to end an intercom call. When you press **END CALL** the system will automatically return to playing the program source.

END CALL TIMEOUT—You can end a call and return the system to the program source in two ways:

- (1) Push the **END CALL** button.
- (2) Allow the **END CALL TIMEOUT** function to return the system to playing the program source. This timeout period—factory set at approximately 30 seconds—begins each time you release a **TALK** button.

VOLUME INTERCOM—Turn this control clockwise to increase intercom volume. Set **VOLUME INTERCOM** control at $\frac{3}{4}$ to maximum for normal intercom use.



Speaker Status Switches

The **REMOTE SPEAKER STATUS** switches set the operating mode of each speaker in the intercom system. The master station's operating mode is also controlled by a status switch. Locate these switches behind the master station's panel door.

SETTING THE STATUS SWITCHES—Each speaker may be set for one of the four following functions: **RADIO INTERCOM**, **INTERCOM ONLY**, **SPEAKER OFF**, **MONITOR**. For each remote speaker in the system, set the switch for the desired function. Also set the switch marked **MASTER SPEAKER**. See "Setting Speaker Status Switches," page 7, for a detailed explanation of each operating mode.

DETERMINING SPEAKER LOCATIONS—Each **SPEAKER STATUS SWITCH** is numbered and labeled. You will want to determine the location of each speaker in your home and write each location on the blank label above or below the switch that controls that speaker. To determine the speaker locations, set all the **REMOTE SPEAKER STATUS** switches to **SPEAKER OFF**. Set the **MASTER SPEAKER** switch to **RADIO INTERCOM**, tune in a radio station, and slide the **PROGRAM VOLUME** control to maximum (+). Slide the **MASTER SPEAKER VOLUME** control to minimum volume (-). Make sure each remote speaker's **PROGRAM VOLUME** control is turned completely clockwise for maximum volume.

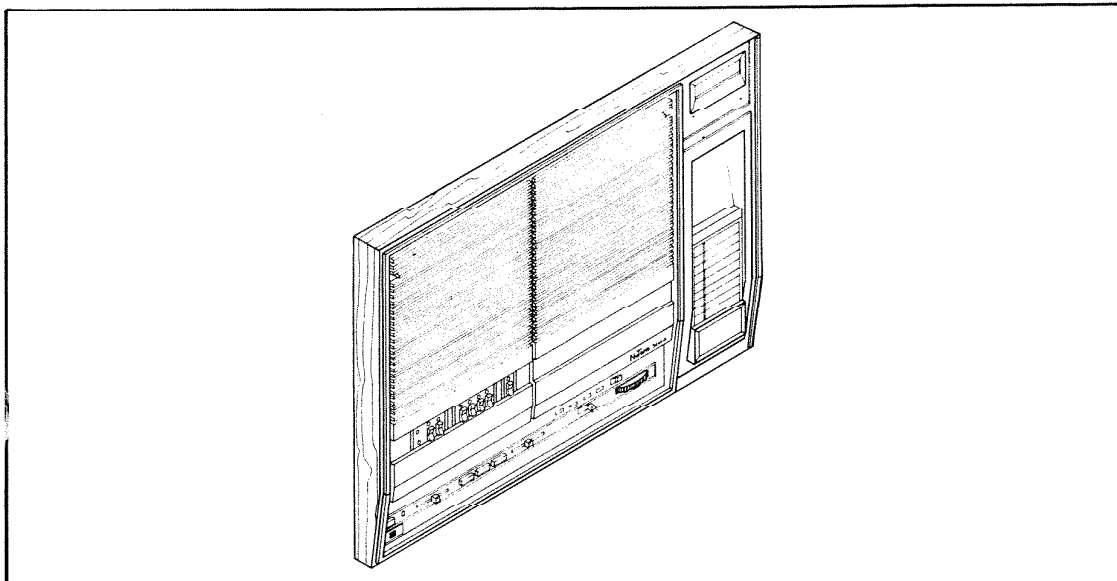
Now, one at a time, set a **REMOTE SPEAKER STATUS** switch to **RADIO INTERCOM** and locate the speaker by sound. Write the speaker's location on its label. Repeat the procedure until you locate and label every speaker in your system.

Digital Clock Controls

TIME/FREQUENCY SWITCH—Use this switch to set the function of the digital display. Set the switch to the **TIME** position for using the display as a clock.

SETTING THE DIGITAL CLOCK

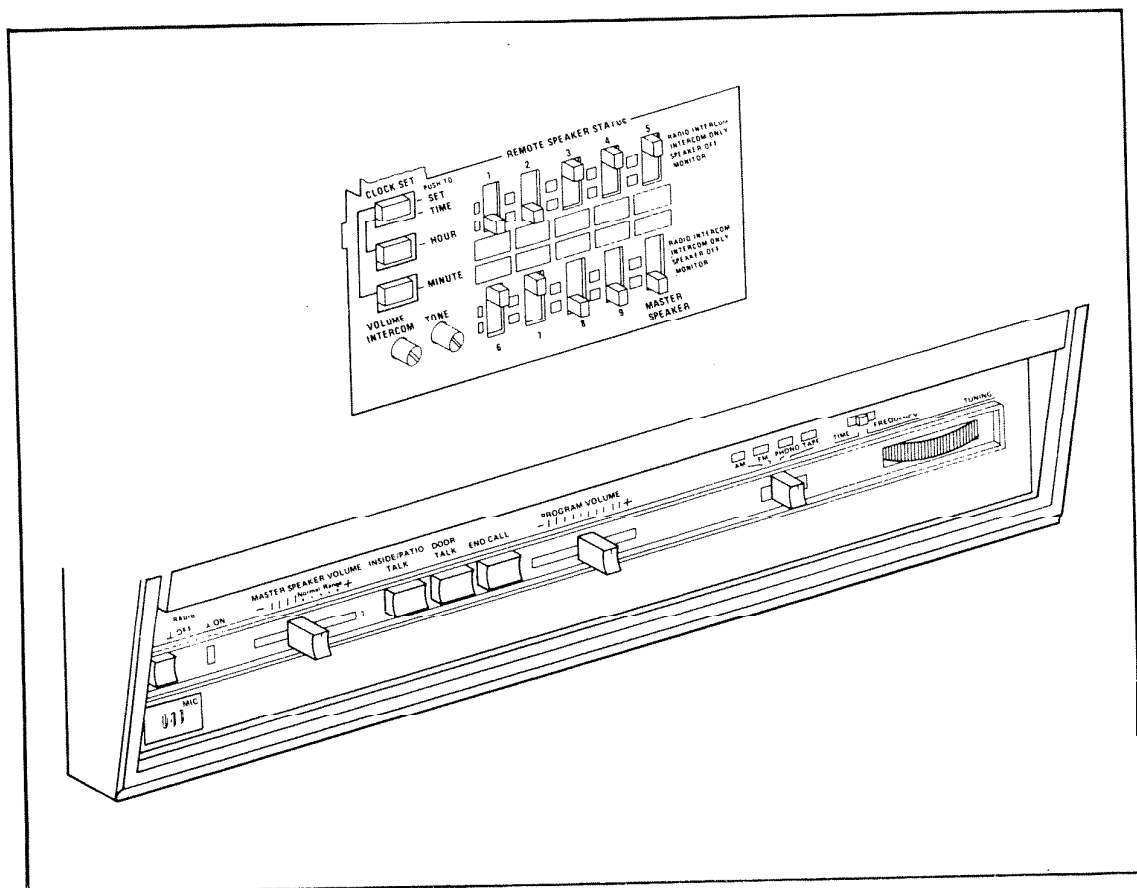
1. Place the **TIME/FREQUENCY** switch in the **TIME** position.
2. Simultaneously depress and hold the **SET TIME** and **HOUR** pushbuttons. After a two-second delay, the display will begin to step through the hours. Release both pushbuttons at the correct hour setting.
3. Simultaneously depress and hold the **SET TIME** and **MINUTE** pushbuttons. After a two-second delay, the display will begin to step through the minutes. Release both pushbuttons at correct minute setting.



Setting System Volume Controls

The volume levels required at each station may vary with the location of the speaker and the size of the room where the speaker is located. Spend some time experimenting with volume levels and adjust each speaker so that you can clearly hear the radio and intercom. Use the following procedure to set your system's volume levels.

1. At each remote station, turn the **VOLUME** control completely clockwise to maximum volume.
2. At the master station, set all **REMOTE SPEAKER STATUS** switches to the **RADIO INTERCOM** position. Set **MASTER STATION** switch to **RADIO INTERCOM**.
3. Latch the master station's **RADIO** switch to **ON (+)** position.
4. Slide the **MASTER SPEAKER VOLUME** control to maximum (+) volume.
5. Slide the **PROGRAM VOLUME** control on the master station to approximately $\frac{1}{3}$ volume.
6. Set the master station's **PROGRAM SELECT** switch to **AM** or **FM**. Tune in a radio station with a strong, clear signal.
7. Adjust the master station's **PROGRAM VOLUME** control until you have enough volume at the remote station that requires the highest volume (i.e., a large living room or family room, a basement, etc.).
8. Adjust each remote station's **PROGRAM VOLUME** control to the volume level you desire. Do not set the remote station's volume controls below the **NORMAL RANGE** setting.



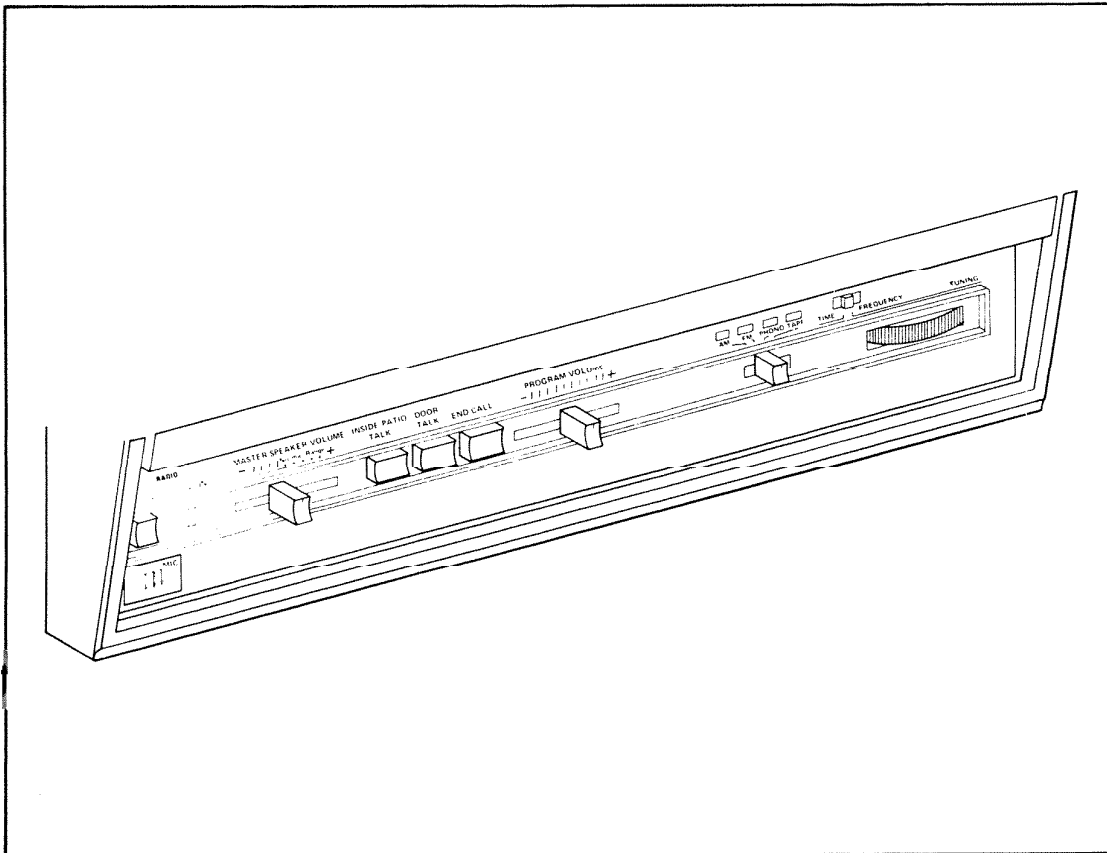
Individual Station Volume Control

The master station's speaker and all remote stations (except the door speakers) are equipped with their own volume controls. Although the master station's **PROGRAM VOLUME** control sets the system's volume level, you may adjust an individual speaker's volume level within the set range.

1. **MASTER STATION**—Slide the control marked **MASTER SPEAKER VOLUME** from left to right to increase master speaker's volume. For everyday use, set this control to **NORMAL RANGE**. For privacy at the master station, slide this control fully to the left.
2. **REMOTE STATIONS**—Turn the **PROGRAM VOLUME** control knob clockwise to increase volume; turn knob counterclockwise to decrease volume. For privacy at a particular remote station, turn the **PROGRAM VOLUME** control knob completely counterclockwise.

Important Reminders

1. The Master station's **PROGRAM VOLUME** control governs the volume level for the entire system. If this control is set to minimum volume (—), remote speakers will receive no program audio and lowered intercom audio. Make sure the **PROGRAM VOLUME** control on the master station is set to a reasonably high level.
2. If the remote stations' **PROGRAM VOLUME** controls are set too low and the master station's **PROGRAM VOLUME** control is set too high, distortion may result. Keep remote stations' volume levels turned to **NORMAL RANGE**.
3. If the voice level during intercom conversations is too low, use the **VOLUME INTERCOM** control to increase intercom volume throughout the system.
4. A remote station will only perform as its **REMOTE SPEAKER STATUS** switch is set at the master station.



Setting Speaker Status Switches

The **SPEAKER STATUS** switches set the operating mode for each speaker (including the master speaker) in the radio intercom system. The four available operating modes are defined below.

RADIO INTERCOM—Speakers set to this mode will receive all program material and intercom audio (provided that the speaker's **PROGRAM VOLUME** control is properly set). Program material includes: radio and any optional program sources wired to the system, such as music played on the NuTone Model RC-91-1 Record Changer or Model CP-82 Stereo Cassette Player/Recorder. An optional electronic door chime or security alarm will also be heard over a speaker set to this operating mode.

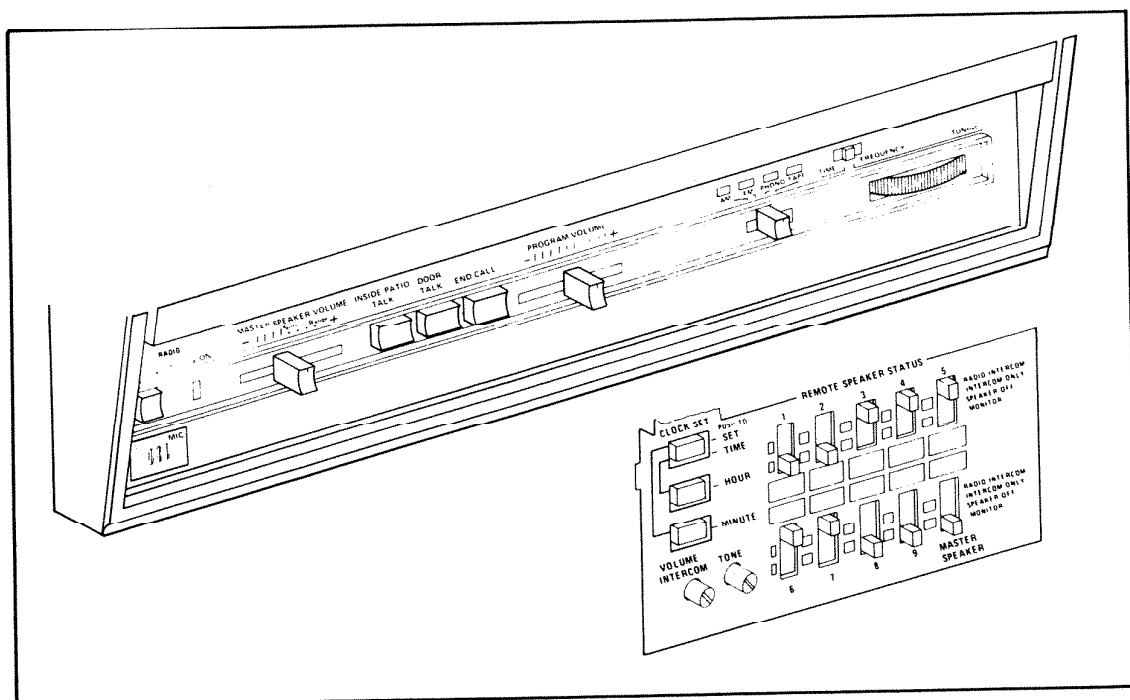
INTERCOM ONLY—A speaker set to this mode will only receive intercom audio.

SPEAKER OFF—All program and intercom audio are shut off to speakers set to this mode. However, intercom calls may be made from a remote station which is set to **SPEAKER OFF**.

MONITOR—When a speaker is set to this mode, most sounds that originate at the speaker's location will be transmitted over the system's other speakers.

Radio Operation

1. Depress the master station's **RADIO** switch.
2. Slide the **PROGRAM VOLUME** control to approximately $\frac{1}{3}$ - $\frac{1}{2}$ volume.
3. Set the **PROGRAM SELECT SWITCH** to **AM** or **FM**.
4. Set the **TIME/FREQUENCY** switch to **FREQUENCY**.
5. Use the **TUNING WHEEL** to select the radio station. The digital display will show the radio frequencies.
6. Adjust volume levels as desired.
7. Adjust the **TONE** control as required.



Intercom Operation

Before you proceed to each intercom operation, make the following adjustments. Then, after operating your system, adjust the specific controls to suit your taste and needs.

1. Depress the **RADIO** switch.
2. Press the master station's **END CALL** button.
3. Adjust the master station's **PROGRAM VOLUME** to about $\frac{1}{3}$ volume.
4. Set each remote station's **PROGRAM VOLUME** control and the **MASTER SPEAKER VOLUME** to the **NORMAL RANGE** setting.
5. Make sure all **SPEAKER STATUS** switches are set to **RADIO INTERCOM**.

How To Make A Call

1. Depress the **INSIDE/PATIO TALK** button and hold the button down while you speak. (The radio will be muted.) Your voice will be heard at all speakers (except the door speaker).
2. Release the **INSIDE/PATIO TALK** button to hear the reply.
3. Continue depressing the button to speak and releasing it to listen.
4. Press **END CALL** to end the intercom conversation and return the system to playing the program source. If you do not press **END CALL**, the system will automatically return to playing the program source approximately 30 seconds after you've last released the **INSIDE/PATIO TALK** button.

How To Receive A Call And Make A Reply

1. When the caller has finished speaking, depress the **INSIDE/PATIO TALK** button and hold it down while you speak.
2. Release the **INSIDE/PATIO TALK** button to hear a response.
3. Continue depressing the button to speak and releasing it to listen.

"HANDS FREE" OPERATION—If the call is initiated from the master station, the person answering from a remote station does not have to use any controls. The entire intercom conversation can be controlled from the master station. If you are sure the call is coming from someone at the master station, just listen: when the caller stops speaking and releases the **INSIDE/PATIO TALK** button, you can reply to the master without using any control.

How To Answer Your Door

1. Depress the **DOOR TALK** button and hold it down while you speak.
2. Release the **DOOR TALK** button to hear the door caller's reply.
3. Both your call to the door and the door caller's reply will be heard at all intercom stations.
4. Press **END CALL** to end the call.

How To End An Intercom Call

1. When a **TALK** button is pressed, the intercom becomes active and mutes the program source.
2. After you have completed an intercom call, you can immediately return the system to playing the program source by pressing the **END CALL** button.

How to Use the Monitor Function

The monitor function lets you use the intercom to listen to the sounds from a certain location. It is most frequently used to monitor a "sickroom" or a child's room. When a station is set to **MONITOR**, all sounds in that room will be transmitted to all other stations.

1. Turn the remote station's **PROGRAM VOLUME** control fully clockwise to maximum volume.
2. Set the remote station's **REMOTE SPEAKER STATUS** switch to **MONITOR**.
3. Set listening stations to **RADIO INTERCOM**.
4. Reset the **SPEAKER STATUS** switch when you no longer want to monitor that station.
5. If you want to monitor the master station from a remote location, slide the **MASTER SPEAKER VOLUME** control to maximum (+) volume and set the **MASTER STATION STATUS** switch to **MONITOR**.

You may use the monitor function as a security device during the night. To monitor your house from your bedroom: set the master's **PROGRAM SELECT** switch to **PHONO** or **TAPE**: Set all stations to **MONITOR** (except your bedroom.) The radio intercom's **RADIO** button must be in the **ON** position for the monitoring function.

Answering Machine Operation

Introduction

The IM-3103 Radio Intercom also includes a telephone and a telephone answering machine. Both the telephone and the answering machine are powered independently and can function without the radio intercom's radio switch being turned on. However, some of the features require the use of both the answering machine and the radio intercom.

To fully enjoy and utilize all the combined features of this radio intercom, you must learn to properly operate the entire system. Take a few minutes now to become familiar with all the answering machine controls and how they work with the radio intercom.

Answering Machine Operating Controls

ANSWER POWER ON/OFF—Press this button to supply power to the answering machine. (The answering machine is powered independently of the radio-intercom. Unless you want to monitor a conversation or play a tape, the answering machine will operate without the radio-intercom being turned on.)

RINGER CONTROL—Adjust this control to set the number of phone ring signals that will activate the answering machine. The setting range is as follows. **MIN**—approximately 2 rings; **MAX**—approximately 9 rings.

INPUT SWITCH—Use the switch to select the input source for recording: **MIC** (microphone), **LINE** (AM, FM, Phono, Tape), and **TEL** (Telephone). When the answering machine is in the answer mode, the input switch may be in any of the three positions.

RECORD TIME SWITCH—Use this switch to set the record time for the incoming message tape: **60 SECONDS**, **30 SECONDS**, **VOX** (voice-activated).

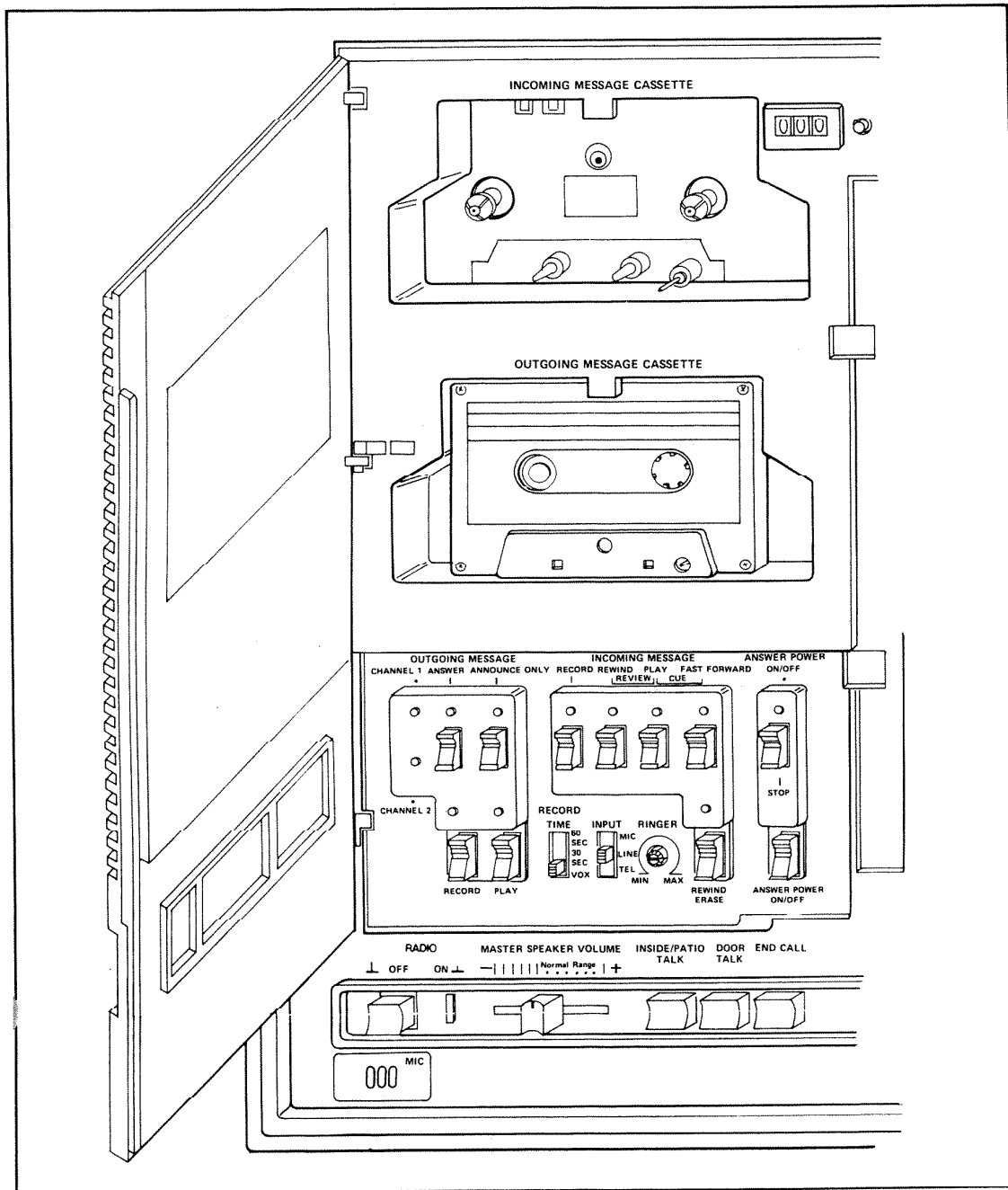
Outgoing Message Controls

RECORD—Press this button to record a message on the outgoing message tape. Both the **RECORD** and **PLAY** indicator lights will illuminate.

PLAY—Press this button to play the outgoing message tape. The **PLAY** indicator light will illuminate.

ANSWER—Press this button to set the answering machine in the **ANSWER** mode, preparing the machine to answer the telephone with your recorded message. (The **ANSWER** message must be recorded on Channel 1.) The **ANSWER** indicator light will illuminate.

ANNOUNCE ONLY—Press this button to set the answering machine to play the **ANNOUNCE ONLY** (“tape full”) message. (The **ANNOUNCE ONLY** message must be recorded on Channel 2.) The **ANNOUNCE ONLY** indicator light will illuminate.



Incoming Message Controls

STOP—You must press this button to stop both the incoming and outgoing tape drives between all operations—i.e., Rewind—Stop—Play or Answer—Stop—Announce Only.

RECORD—Press this button to record onto the incoming message tape or onto any other cassette. Both the **RECORD** and **PLAY** indicator lights will illuminate.

REWIND—Press this button to rewind the incoming message tape drive at high speed. The **REWIND** indicator light will illuminate.

PLAY—Press this button to play the incoming message tape drive. (To hear the tape over the intercom, the master panel's program select switch must be set to **TAPE**.) The **PLAY** indicator light will illuminate.

FAST FORWARD—Pressing this button advances the incoming message tape drive at high speed. The **FAST FORWARD** indicator light will illuminate.

REWIND ERASE—Use this button to erase the incoming message tape while it rewinds at high speed. The following indicator lights will illuminate: **REWIND ERASE, REWIND, PLAY**.

REVIEW—Press the **REWIND** and **PLAY** buttons at the same time. The **REVIEW** function rewinds and plays the incoming message tape at high speed, allowing you to search for the beginnings and endings of messages on the tape.

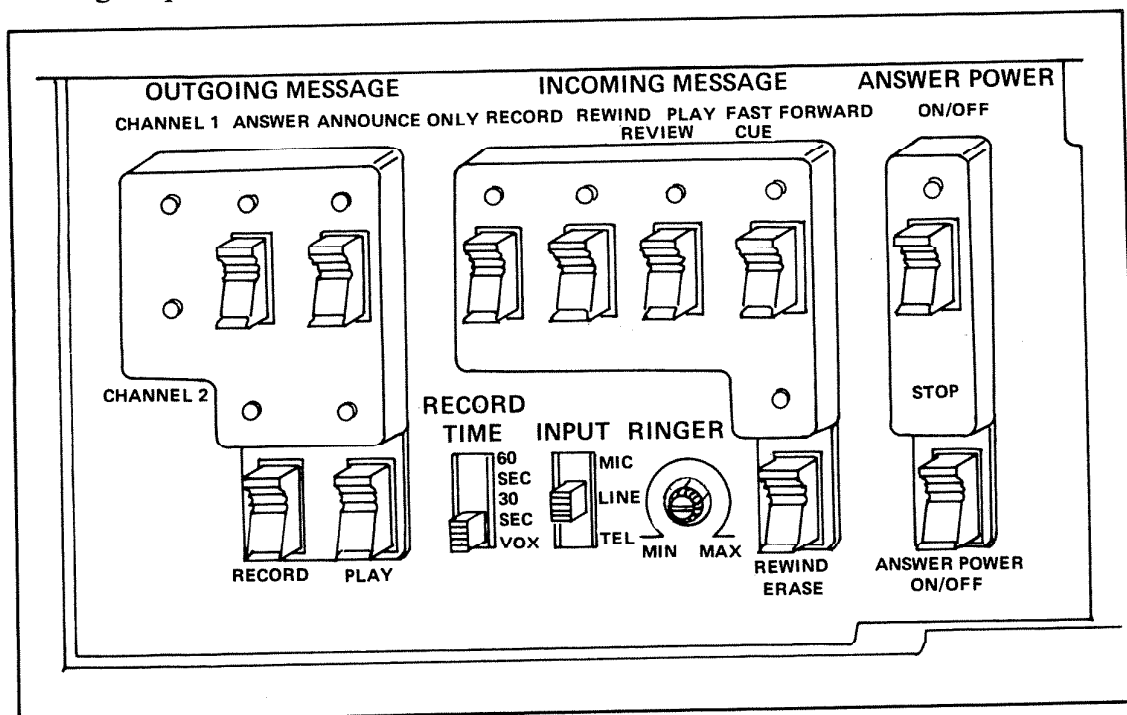
CUE—Press the **PLAY** and **FAST FORWARD** buttons at the same time. The **CUE** function advances and plays the incoming message tape at high speed, allowing you to locate the end of the last recorded message.

Tape Drives and Tape Counter

OUTGOING MESSAGE—The bottom tape compartment is used for the endless loop Outgoing Message Cassette.

INCOMING MESSAGE—The top compartment is used for the Incoming Message Cassette.

TAPE COUNTER—Use the tape counter to keep track of the Incoming Message tape.



Recording Outgoing Messages

Answer Message

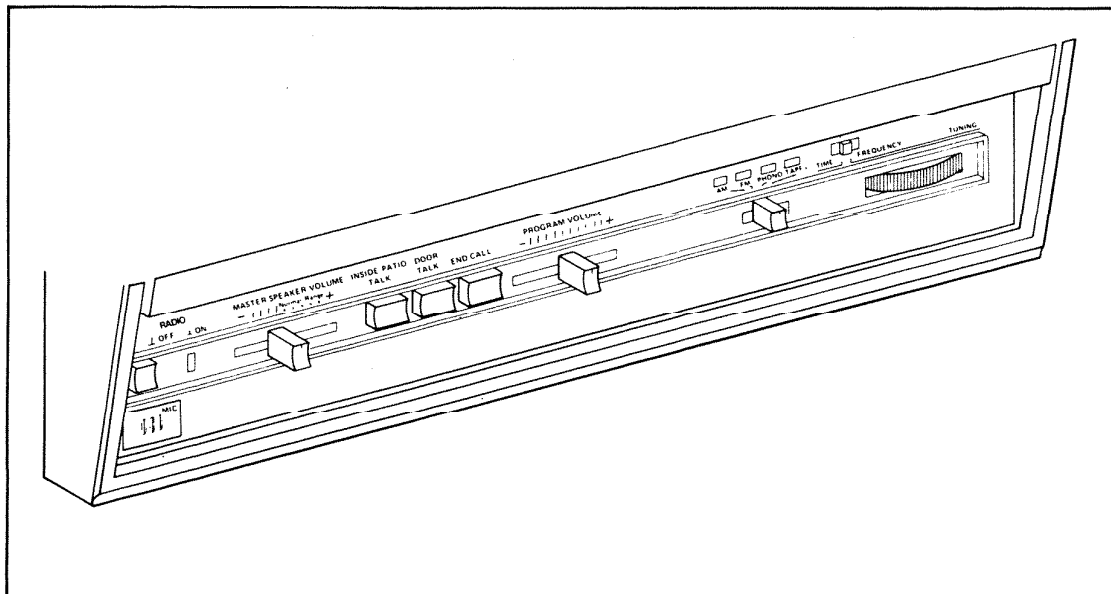
IMPORTANT: Avoid saying you are not at home; rather, say you are unable to come to the phone.

1. Place the outgoing message cassette into the bottom tape compartment.
2. Depress the **ANSWER/POWER ON/OFF** button. The answer power indicator light will illuminate. The answer message must be recorded on channel 1.
3. Set the **INPUT** switch to **MIC**.
4. Stand an arm's length from the microphone for clear recording.
5. Press the outgoing message **RECORD** button. The channel 1, play and record indicator lights will illuminate.
6. Wait a second or two, and then record your message. The outgoing message tape loop is 20 seconds long; accordingly, a brief message will leave several seconds between the end of your message and the beep tone.

When channel 1 plays completely through, the outgoing message tape drive automatically switches to channel 2. Channel 2 is used for the **ANNOUNCE ONLY** ("tape full") message. Always allow the outgoing message tape to complete its 20 second loop—do not stop the outgoing message tape in mid-cycle.

Announce Only Message

1. The announce only ("tape full") message must be recorded on channel 2. If the outgoing message tape drive is set to channel 1, press the outgoing message **PLAY** button, immediately press **STOP**, and then proceed to record the announce only message. The channel 2 indicated light should be illuminated.
2. Set the **INPUT** switch to **MIC**.
3. Press the outgoing message **RECORD** button, wait a few seconds, and record your "tape full" message. A typical announce only message might be: "I'm sorry but my message tape is full and no more messages can be recorded. Please call back at another time."



Playing Back Outgoing Messages

Once the outgoing messages are recorded, you should play both messages and check the recording quality.

1. The **ANSWER/POWER ON/OFF** switch must be in the **ON** position.
2. Set the radio-intercom's program select switch to **TAPE**.
3. Adjust the radio-intercom's program volume control as required.
4. Press the outgoing message **PLAY** button. Allow the answer loop channel 1 to play completely through. Repeat procedure to play the announce only loop (channel 2).

CHANGING CHANNELS. To change either of the messages, you must know how to change the outgoing message tape drive from one channel to another.

Suppose, for instance, you are satisfied with your answer message (channel 1) but you would like to re-word and re-record your announce only message (channel 2). Because the outgoing message tape drive is now set to channel 1, you need to switch to channel 2 to re-record the announce only message.

To change the outgoing message tape from one channel to another follow these steps:

1. Press the outgoing message **PLAY** button.
2. Immediately press the **STOP** button.
3. Now, you may re-record your announce only message by pressing the outgoing message **RECORD** button.

Recording Hints

1. The outgoing message tape has a sensing foil which switches the tape player from the top (channel 1) to the bottom (channel 2) of the tape. After pushing the outgoing message **RECORD** button, wait a few seconds before speaking. This will insure that your entire message will be recorded.
2. Stand at arm's length from the microphone while recording messages.
3. Experiment with recording your outgoing messages. Use a relaxed and friendly tone of voice, and you will receive a better response from your callers.

Preparing the Answer Mode

Ringer Control

The **RINGER** control is used to set the number of telephone ring signals that will activate the answering machine. At the **MINIMUM** setting, the answer machine begins the outgoing message at approximately two rings. Set to **MAXIMUM**, the machine will begin the answer cycle at approximately ten rings.

The length and frequency of telephone ring signals may vary according to geographical area. Your ringer control settings may vary accordingly.

Input Switch

The **INPUT** switch is used to select the input source for recording. When you want to record from the microphone (i.e., outgoing messages, local messages) set the switch to **MIC**. To record a telephone conversation, set the switch to **TEL**. For recording from the radio, an optional phonograph, or an optional, external tape player, set the switch to **LINE**.

NOTE: When you prepare the machine for telephone answering, the **INPUT** switch may be in any position.

Record Time Switch

The record time for incoming message tape may be set for three different lengths of time: 60 seconds, 30 seconds, or voice-activated (**VOX**).

60 SECONDS—The incoming message tape will record for 60 seconds before the telephone line is disconnected.

30 SECONDS—The incoming message tape records for 30 seconds before the telephone line is disconnected.

VOX (Voice-Activated)—The incoming message tape will record as long as the caller is speaking. Approximately 6 to 10 seconds after the caller stops speaking, the telephone line is disconnected.

Set the record time to your preferred setting and adjust it as your experience with the answering machine suggests. Thirty seconds should be long enough for most callers. Some callers may even be more brief, and you may save tape by using the voice-activated setting.

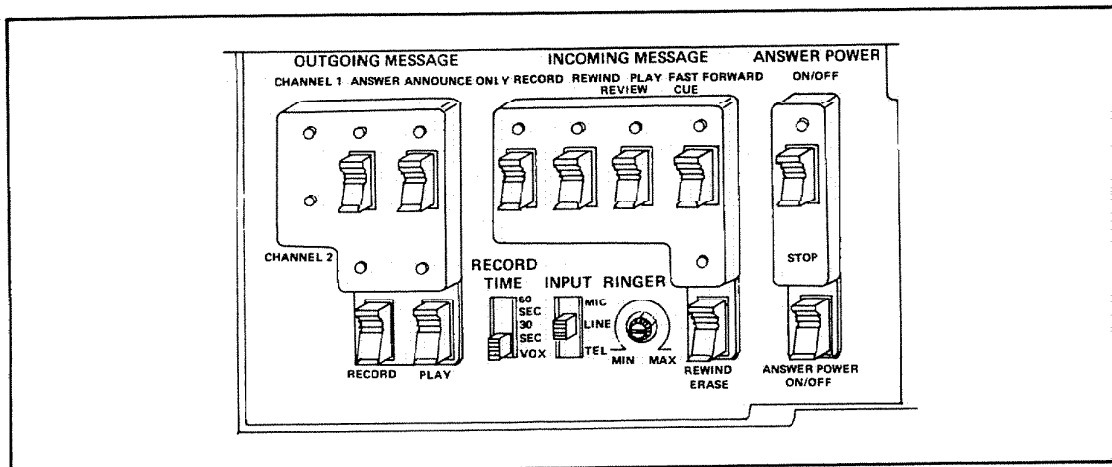
Answer Mode

Once you have recorded your outgoing messages and have set the **RECORD TIME** and **RINGER** controls, you can prepare the machine to answer a phone call.

1. Depress the **ANSWER POWER** button. This switch supplies power to the answering machine. The answer power and the outgoing message channel 1 indicator lights will illuminate. (The answer machine should always start up in the channel 1 position, but you should check to make sure that the channel 1 answer message is on track.)
2. Insert the **INCOMING MESSAGE** cassette into the upper tape compartment and set the tape counter to 000. Press the incoming message **FAST FORWARD** or **PLAY** buttons to advance the tape past the tape lead—this will insure complete recording of your first message. Press the **STOP** button to stop the tape.
3. Press the **ANSWER** button. The answer indicator light will illuminate and the channel 1 indicator light will extinguish.

The answering machine is now prepared to answer a phone call. The incoming message tape will record up to 30 minutes of messages. If the tape becomes full, the machine will then automatically switch the outgoing message to your announce only ("tape full") on channel 2.

If you do not want to receive messages, you may set the machine to play your announce only ("tape full") message. Instead of pressing the answer button, simply press the **ANNOUNCE ONLY** button. All phone callers will hear your announce only message, and then the phone will be disconnected.



Playing Back Incoming Messages

When the **ANSWER** indicator light is blinking, you have received incoming messages since the machine was last set in the **ANSWER** mode. To play back and listen to your incoming messages, follow these steps:

1. The radio-intercom's **RADIO** button must be in the **ON** position.
2. Set the radio-intercom's **PROGRAM SELECT** control to **TAPE**.
3. Press the answering machine's **STOP** button to take the answer machine out of the answer mode.
4. Press the incoming message **REWIND** button. The rewind indicator light will illuminate.
5. Press the incoming message **PLAY** button. The play indicator light will illuminate.
6. Adjust the **MASTER SPEAKER VOLUME** and **PROGRAM VOLUME** controls as required.

NOTE: When you play back messages the audio will be heard over every intercom station that is set to **RADIO-INTERCOM**. If you do not want other stations to hear the phone messages, temporarily set the system's remote speakers to **INTERCOM ONLY**.

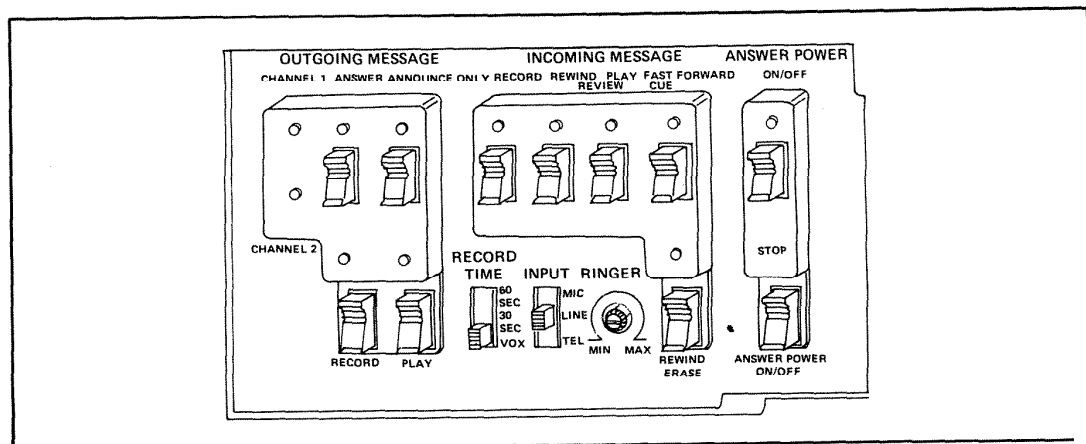
Recording a Local Message

The answering machine may also be used for a local message center. Through the master station's microphone, spoken messages may be recorded onto the incoming message tape.

1. Depress the **ANSWER POWER** button.
2. Set the answering machine **INPUT** switch to **MIC**.
3. Press the incoming message **RECORD** button.
4. When you have completed recording the local message, press the **STOP** button.

If the answering machine is in the answer mode, press the **STOP** button, set input to **MIC**, press the incoming message **RECORD** button, record your message, press **STOP**, and then reset the answer machine.

NOTE: Unlike the two-track outgoing message tape, the incoming message tape is a single track tape. Therefore, your local messages will be recorded among your phone messages.



Monitoring Phone Calls

Using both the answering machine and the radio intercom master unit, you may monitor your phone calls while the answering machine is in the answer mode. This function allows you to listen to your incoming messages as they are being recorded.

1. Set the radio intercom's **RADIO** switch to the **ON** position and the **PROGRAM SELECT** control to **TAPE**.
2. Press the **ANSWER POWER** button to the **ON** position.
3. Press the **ANSWER** button.
4. Adjust the radio intercom's **MASTER SPEAKER VOLUME** control as required.

NOTE: The incoming phone messages will be heard over every remote speaker that is set to **RADIO INTERCOM**. If you want to privately monitor from the master unit, set the system's other **SPEAKER STATUS** switches to **INTERCOM ONLY**.

You may also interrupt an incoming message by picking up the telephone handset and answering the call yourself. Say, for example, that you do not want to be disturbed, but that you are expecting one important phone call. When you hear this caller leaving a message, pick up the telephone handset and press the answering machine's **STOP** button. The recorder will shut off and you will be on line with the caller.

Recording Two-Way Conversations

You may also use your answering machine to record two-way conversations. You may want to begin recording at some point during a conversation—whether you received the call or initiated the call yourself. Or, you may be monitoring your calls and wish to answer the call and record it. Depending on the circumstances, follow the procedures described below.

Recording a Conversation In-Progress. In this situation it is not necessary to have the radio intercom on. Set the **INPUT** switch to **TEL**. During your conversation, press the **ANSWER/POWER** button, and then press the **INCOMING MESSAGE RECORD** button. When you want to stop recording, push the **STOP** button. A beep tone will be heard every 15 seconds to inform the caller that the conversation is being recorded.

If you do not want the conversation heard at remote speakers, set the radio intercom's **PROGRAM SELECT** switch to **PHONO, AM,** or **FM** or set the remote **SPEAKER STATUS SWITCHES** to **INTERCOM ONLY**.

Remote Control Operation

The provided remote control allows you to rewind the incoming message tape and listen to your messages from an outside telephone.

1. Install three AAA batteries into remote control. Insert a small coin into slot in the bottom of the remote control. Turn coin to pry halves apart. Install batteries and put halves back together.
2. The answering machine must be in the answer mode to use the remote control.
3. Call your phone number and wait for your outgoing message to begin playing.
4. Put the remote control's speaker up to mouthpiece of the telephone and depress the **REMOTE CONTROL SIGNAL BUTTON** until you hear a "beep" tone.

When the answering machine receives this signal, the machine will automatically begin to rewind the incoming message tape. You will hear "beep" tones as the tape rewinds. When the incoming message tape completes re-winding, the tape drive stops and the beep tones discontinue.

Now, the incoming message tape begins to play your messages. After messages are complete, you will hear a long silence. Press the remote control's signal button for several seconds to stop the tape and reset the machine in the answer mode.

CAUTIONS:

- To rewind message tape, you must press the remote control's button while the outgoing message is playing.
- To reset the machine in the answer mode, you must press the remote control's button after the last recorded message plays.
- After listening to the last message, do not hang up the telephone before you press the remote control's button.

Recording from Program Sources

You may use the incoming message tape drive to record from various program sources: AM and FM radio, optional phonograph, and optional external cassette player recorder.

Recording from the Radio

1. Depress the radio intercom's **RADIO ON/OFF** button and the answering machine's **ANSWER POWER** button.
2. Set the radio intercom's **PROGRAM SELECT** control to **AM** or **FM**.
3. Set the answering machine's **INPUT** switch to **LINE**.
4. The recording volume level will be automatically set by an internal volume level control.
5. Use a 30 or 60 minute cassette tape.
6. Press the incoming message **PLAY** button to advance tape past its lead. Use the **STOP** button to stop tape.
7. Start program source.
8. Press the **INCOMING MESSAGE RECORD** button.

MUSIC PLAYBACK—Use your incoming message **PLAY** button to play back recorded music. If you want to play music to someone over the telephone set the answering machine's **INPUT** switch to **TEL** while the telephone is in use and press the **PLAY** button. The caller can then hear the music being played.

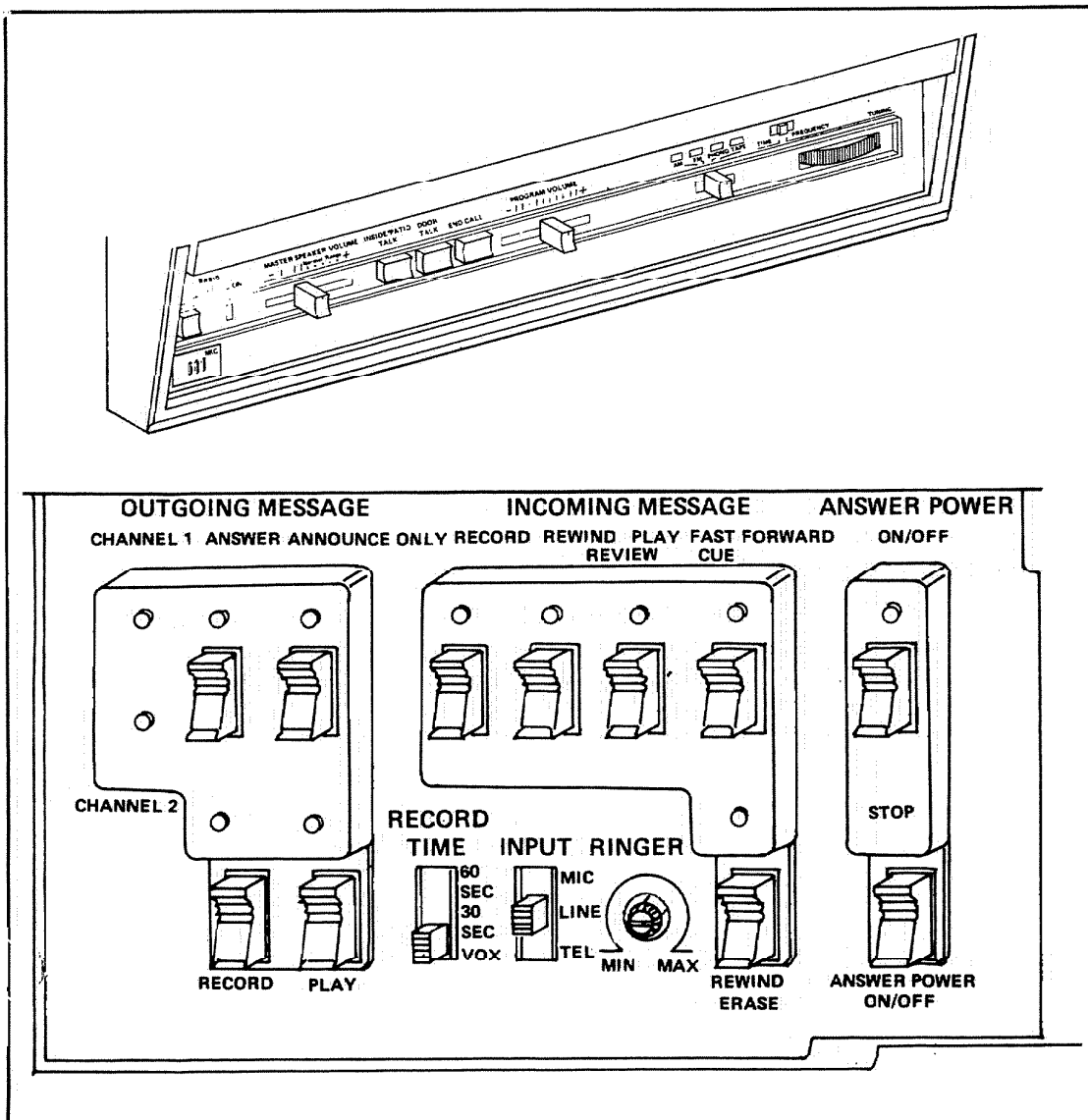
Recording from Optional Phonograph

1. Depress the radio intercom's **RADIO** button and the answering machine's **ANSWER POWER** button.
2. Set the radio intercom's **PROGRAM SELECT** switch to **PHONO**.
3. Set the answering machine's **INPUT** switch to **LINE**.
4. Use only 30 or 60 minute tapes.
5. Recording volume is automatically controlled.
6. Advance tape past its lead by pressing the incoming message **PLAY** button. Use **STOP** button to stop tape.
7. Start program source and press **INCOMING MESSAGE RECORD** button.

Recording from External Tape Player

Follow the same procedure outlined for radio or phono—only set the radio intercom's **PROGRAM SELECT** control to **TAPE**.

NOTE: The optional phonograph and external tape player require "Y" adapters (not supplied by NuTone) for connection to the master unit. See installation instructions supplied with each product for complete details.



Playing Pre-Recorded Tapes

1. Insert cassette into incoming message (top) tape compartment.
2. Press **ANSWER/POWER ON/OFF** button to **ON** position.
3. Set **INPUT** switch to **LINE** position.
4. Set intercom program select switch to **TAPE**.
5. Press incoming message **PLAY** button.

Maintenance and Cleaning

- Always use 30 or 60 minute cassettes. Do not use 90 minute tapes.
- NuTone recommends that you do not use chrome oxide (CRO₂) tapes with this answering machine.
- For every 25 hours of playing time, use a cleaning cassette to clean tape head, capstan and pinch roller. NuTone recommends the Radio Shack 3-Way Cleaning Cassette (No. 44-1163) or an equivalent cleaning cassette.

Telephone Registration

Information

Your IM-3103 has been registered with the Federal Communications Commission. It meets the requirements of the FCC and can be connected directly to the telephone network.

Before connecting your IM-3103 to the telephone network, you are required to notify the local telephone business office and inform them that you are connecting a registered instrument. The business office will need to know:

1. The model number of the radio intercom—IM-3103.
2. The FCC registration numbers of the IM-3103.
3. The ringer equivalence numbers of the IM-3103.

This information appears on the registration label affixed to the bottom of the radio intercom's master panel.

NOTICE: This equipment employs, and can radiate, radio frequency energy which may interfere with residential radio and television reception if not properly installed and used in accordance with instructions contained in this manual. Reasonable protection against such interference is ensured, although there is no guarantee this won't occur in a given installation. If interference is suspected and verified by switching this equipment on and off, the user should employ the following steps: Reorient the radio/television receiver's antenna, relocate the equipment with respect to the receiver, plug equipment and receiver into separate circuit outlets. The user may also wish to consult a qualified radio/television technician for additional suggestions. This equipment has been fully tested and complies with all limits for Class B computing devices pursuant to Part 15, Sub-part J, of the FCC rules.

Your telephone company may make changes in the telephone network. Should these changes affect your radio-intercom's telephone and answering machine, your telephone company must provide you with a notice in writing to allow you to maintain uninterrupted service. If you receive such a notice, contact your nearest authorized NuTone service center immediately. See warranty.

Miscellaneous

Optional Accessories

PHONOGRAPH—A NuTone Model RC-91-1 Record Changer may be connected to your IM-3003 Series Master Station. Set the **PROGRAM SELECT** switch to **PHONO** and the phonograph will be played over the intercom system.

CASSETTE PLAYER/RECORDER—A NuTone Model CP-82 Stereo Cassette Player/Recorder may be connected to your IM-3003 Series Master Station. You may use the cassette player as an auxiliary program source and play cassettes over your intercom system. This accessory also allows you to record radio programming from the master station's radio.

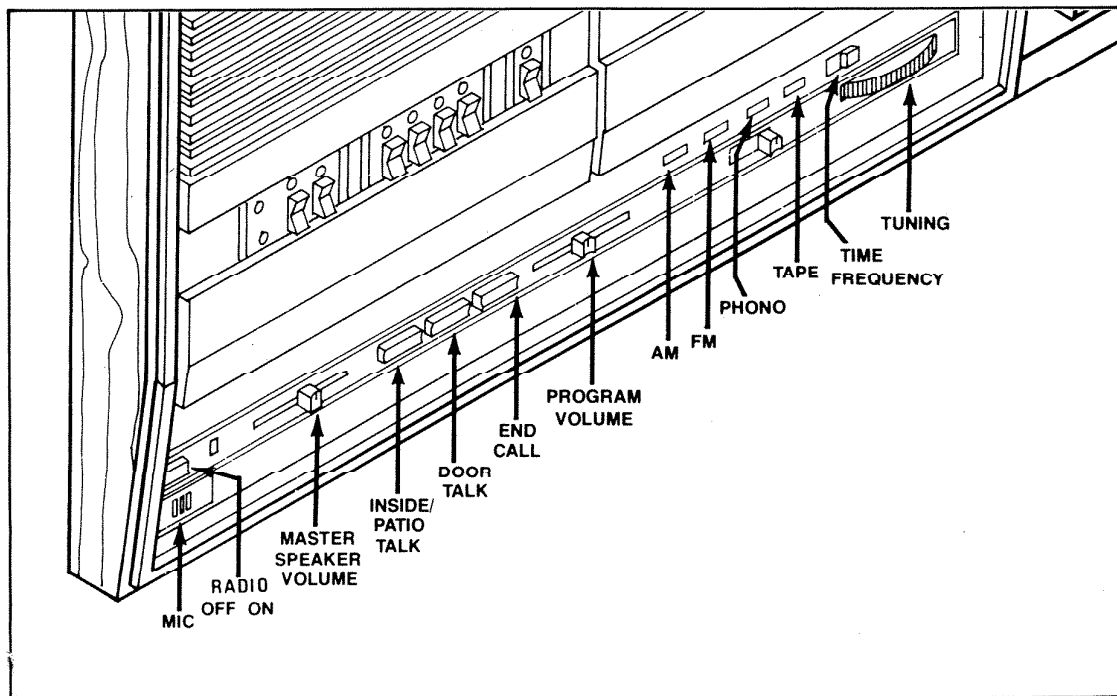
ELECTRONIC DOOR CHIME—When a NuTone Electronic Door Chime is connected to your IM-3003 Series Master Station, the chime is played throughout the intercom system.

SECURITY—If you connect a NuTone Security system to your IM-3003 Series Master Station, the security alarm (fire or intruder) will sound over the intercom system.

SPEAKER/CLOCK TIMER—The NuTone speaker/clock timer is a combination intercom speaker and alarm clock.

TELEPHONE AND CRADLE—The phone and cradle mount next to the master station or remote speakers.

See the installation instructions supplied with each unit for detailed accessory wiring connections.



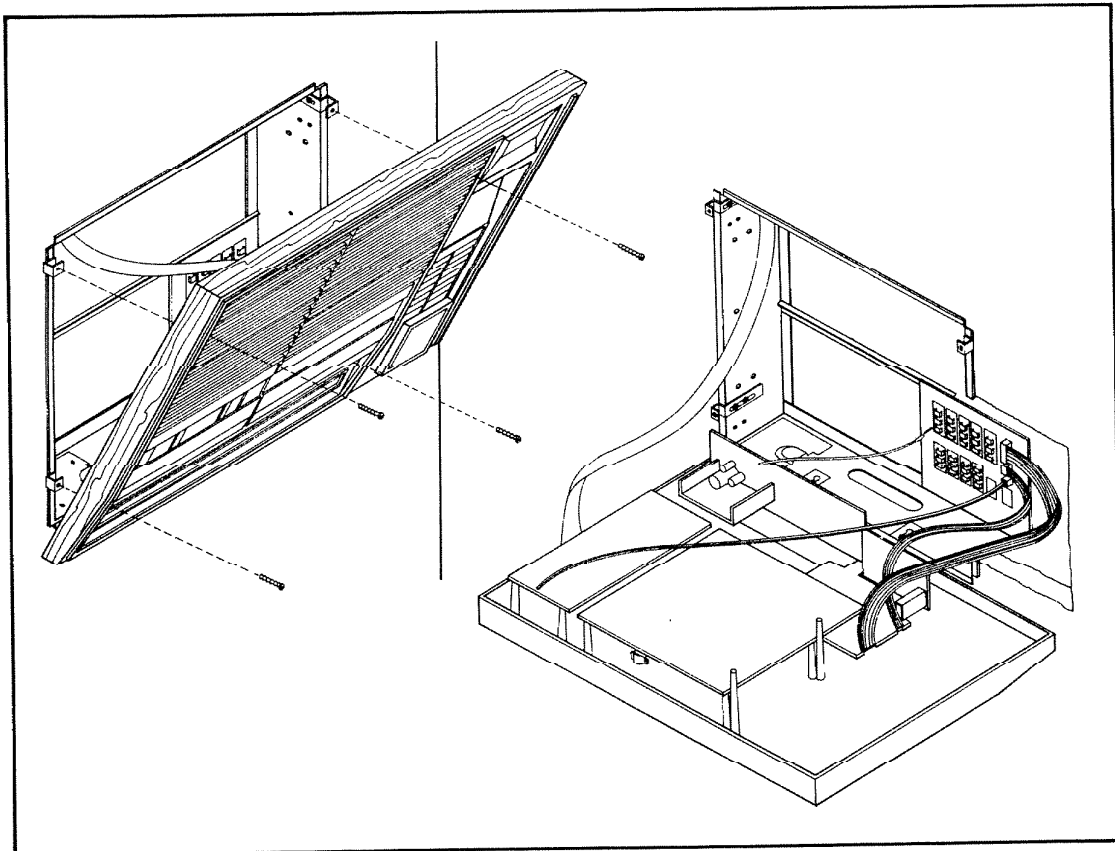
Record Changer or Cassette Player Recorder Connection

Refer to installation instructions supplied with the accessory for information about the adaptor required for each unit.

1. To connect an optional NuTone Record Changer (Model RC-91-1) or Stereo Cassette Player/Recorder, locate the **PHONO INPUT**, **TAPE INPUT**, and **RECORD OUTPUT** jacks on the master panel.
2. To play the phonograph over the intercom system, insert the accessory's output plug into the master panel's **PHONO INPUT** jack.
3. To play the cassette player over the intercom system, insert the accessory's output plug into the master panel's **TAPE INPUT** jack.
4. To use the radio as a program source for recording on the cassette player, insert the tape player's input plug into the master panel's **RECORD OUTPUT** jack.

Placing the Master Station in Service Position

1. Remove the four screws which secure the master station to the rough-in frame.
2. The master station can now be opened on its hinges. Make sure the support strap is secure so that it holds the master panel at approximately a 90° angle to the wall.



Using the Telephone Handset

The NuTone Intercom Telephone is designed as a convenient accessory to your Radio-Intercom system. This is a select-dial telephone—it will work on both pulse and tone systems. When used on a tone system, setting the phone to TONE will allow the user to perform electronic banking or tone-operated long-distance services.

Telephone Operation

DIAL SELECT SWITCH. Set the switch to **TONE** or **PULSE**—according to the kind of phone service you have.

RINGER SWITCH. You may slide the switch to **OFF** position to silence the ringer. When this switch is in the **OFF** position, you will not be disturbed by the ring signal, but you may still make and receive calls.

MAKING A CALL. Pick up the phone and wait for the dial tone before dialing.

ENDING A CALL. To hang-up (disconnect) after a call, you may either:

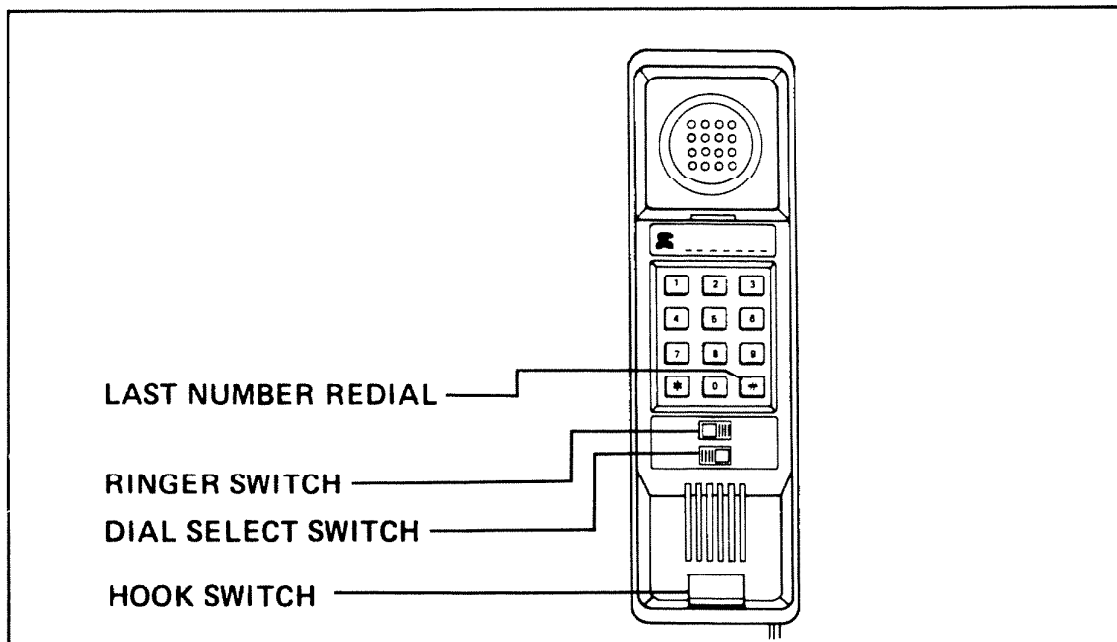
1. Depress the **HOOK SWITCH**.
2. Lay the phone face down on a flat surface. (To avoid accidental disconnections, lay the phone on its back.)
3. Insert the phone into the cradle so that the **HOOK SWITCH** is depressed.

LAST NUMBER REDIAL. The telephone is equipped with a memory which automatically stores the last number dialed. If you get a busy signal, hang up the phone. To dial the same number, simply press the **REDIAL (#) BUTTON**.

ELECTRONIC BANKING. The (*) and (#) keys are used in electronic banking data entry. Contact your banking service for details.

Maintenance and Cleaning

To clean your phone use only a mild soap and water solution and a soft, damp cloth. Do not use polish, solvents, or harsh, abrasive cleaners.



Product specifications subject to change without notice.

NuTone

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