NuTone
RADIO
INTERCOM SYSTEM
MODEL IM-3303 SERIES

MASTER   SCAN

PM 1:00

VOLUME

PROGRAM OFF   MEMORY 1

AM   MEMORY 2

FM   MEMORY 3

CD/TAPE   MEMORY 4

AUX   MEMORY 5

TIMER   MEMORY 6

INSIDE/PATIO   DOOR TALK   END CALL

NuTone

HOMEOWNER'S
OPERATING
INSTRUCTIONS

FCC INFORMATION

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

— Reorient or relocate the receiving antenna.
— Increase the separation between the equipment and receiver.
— Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
— Consult the dealer or an experienced radio/TV technician for help.

FCC Warning – This equipment may generate or use radio frequency energy. Changes or modification to this equipment may cause harmful interference unless the modifications are expressly approved in the instruction manual. The user could lose the authority to operate this equipment if an unauthorized change or modification is made.

FCC Warning – Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

The serial number of this product may be found on the back of the Master Station. No others have the same serial number as yours. You should record the number and other vital information here and retain this book as a permanent record of your purchase to aid identification in case of theft.
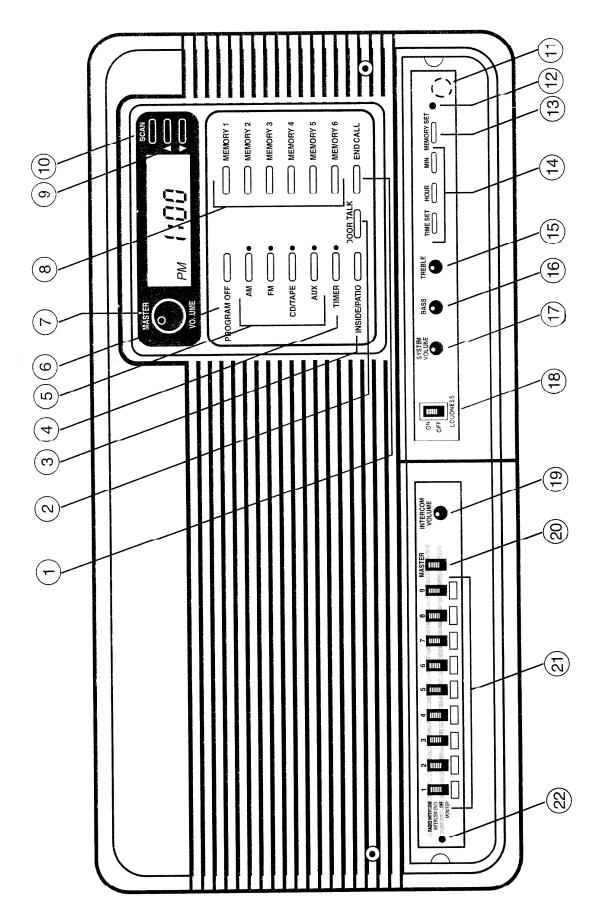
Date of Purchase	
Dealer Purchases from	
Dealer Address	
Dealer Phone No.	
Model No.	IM-3303
Serial No.	

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IMPORTANT

This product has many functions and controls. Please read entire operating instructions before using this product.

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MEMORY 6

END CALL

DOOR TALK

PM

MASTER

VOLUME

PROGRAM OFF

AM
FM
CD/TAPE
AUX
TIMER

INSIDE/PATIO

MEMORY SET

MIN

HOUR

TIME SET

TREBLE

BASS

SYSTEM VOLUME

ON
OFF

LOUDNESS

INTERCOM VOLUME

MASTER

9

8

7

6

5

4

3

2

1

RADIO/INTERCOM
INTERCOM ONLY
OFF
MONITOR

Master Station Controls

(1) END CALL: Ends intercom communication and returns system to audio source. (pg. 10)

(2) DOOR TALK: Initiates intercom communication to the door speakers. (pg. 10)

(3) INSIDE/PATIO: Initiates intercom communication to remote stations. (pg. 10)

(4) TIMER: Enables or disables the radio timer. The indicator light will illuminate next to the timer button when the Radio timer is enabled. (pg. 6)

(5) PROGRAM AUDIO SOURCE: Selects the program audio source: AM, FM, CD/TAPE and AUX. The indicator light will illuminate next to the selected program audio source. (pg. 7-8)

(6) PROGRAM OFF: Turns off the selected program audio source. **NOTE:** The Program Off key does not affect the intercom operation. (pg. 7)

(7) MASTER VOLUME: Adjusts the volume at the master station. (pg. 8-9)

(8) MEMORY 1-6 KEYS: Provides direct access to stored radio frequencies. (pg. 7)

(9) ▲▼ UP/DOWN TUNING: Provides manual tuning of the AM/FM radio. (pg. 7)

(10) SCAN: Activates scan tuning during AM/FM operation. (pg. 7)

(11) DOOR RELEASE KNOCKOUT: Mounting hole for optional door release push button. (pg. 11)

(12) MICROPROCESSOR RESET: Initiates a reset of the microprocessor. **NOTE:** A reset of the microprocessor will erase the system's memory.
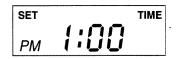
(13) MEMORY SET: Stores desired radio frequency into a selected memory location. (pg. 7)

(14) TIME SET/HOUR/MIN: Used when setting the timer and clock. (pg. 6)

(15) TREBLE: Adjusts the high frequency audio content of the source audio. (pg. 8)

(16) BASS: Adjusts the low frequency audio content of the source audio. (pg. 8)

(17) SYSTEM VOLUME: Adjusts the program audio level throughout the system. (pg. 8-9)

(18) LOUDNESS: Compensates for the loss of bass and treble response the human ear has when listening to audio at low volume levels. (pg. 8)

(19) INTERCOM VOLUME: Adjusts intercom audio level throughout the system. (pg. 10-11)

(20) MASTER STATION STATUS SWITCH: Sets the master station in one of the following modes: RADIO INTERCOM, INTERCOM ONLY, OFF or MONITOR. (pg. 9-10)

(21) REMOTE STATION STATUS SWITCHES: Sets the remote stations in one of the following modes: RADIO INTERCOM, INTERCOM ONLY, OFF or MONITOR. (pg. 9-10)

(22) ELECTRONIC CHIME TUNE SELECTION: Selects the tune of the optional IA-29 Electronic chime. (pg. 11)

Digital Clock

SETTING THE TIME

1. Press the **TIME SET** key one time.
   The display will begin flashing, and
   the words **SET TIME** will be displayed.
2. Within 5 seconds, press the **HOUR** key
   to advance the hours. Use the **HOUR** key
   to select AM/PM by advancing past 12:00 on the display.
3. Within 5 seconds, press the **MIN** key to advance the minutes.
4. After entering the correct time, release the key. The display will stop flashing after
   5 seconds, and the time will be set.

```
| SET              TIME |
| PM    1:00            |
```

RADIO TIMER

A timer has been incorporated to turn the radio on or off at preset times.
NOTE: If the master has been selected to the **CD/TAPE** or **AUX** program
position, the radio timer will not function.

SETTING THE RADIO ON TIME

1. Press the **TIME SET** key twice.
   The display will begin flashing
   and the words "SET RADIO
   ON TIME" will be displayed.
2. Press the **HOUR** key to advance the hours.
   Use the **HOUR** key to select AM/PM by advancing past 12:00 on the display.
3. Press the **MIN** key to advance the minutes.
4. After setting the correct RADIO ON TIME, release the key. The display will stop
   flashing after 5 seconds, and the RADIO ON TIME will be stored into memory.
5. The last program radio mode and frequency used will be the frequency played
   when the timer turns on the radio.

```
| SET  RADIO  ON     TIME |
| PM    1:00              |
```

SETTING THE RADIO OFF TIME

1. Press the **TIME SET** key 3 times.
   The display will begin flashing,
   and the words "SET RADIO
   OFF TIME" will display.
2. Press the **HOUR** key to advance the hours.
   Use the **HOUR** key to select AM/PM by advancing past 12:00 on the display.
3. Press the **MIN** key to advance the minutes.
4. After setting the correct RADIO OFF TIME, release the key. The display will stop
   flashing after 5 seconds, and the RADIO OFF TIME will be stored into memory.

```
| SET  RADIO    OFF TIME |
| PM    1:00             |
```

ENABLING/DISABLING THE RADIO TIMER

1. Press the **TIMER** key. The light next to the key will illuminate, and the TIMER
   is enabled.
2. To disable the TIMER press the **TIMER** key again.

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Audio Source Selection

NOTE: Initial operation of the system requires:
- All Station Status Switches set to RADIO/INTERCOM mode.
- System Volume set to approximately ⅓ level.
- Master Volume set to approximately ⅔ level.
- Remote Station Volumes set to approximately ⅔ level.

Select any of the 4 audio sources by pressing: AM, FM, CD/TAPE or AUX. The corresponding LED will illuminate. To turn off the selected program audio source, press the **PROGRAM OFF** key.

RADIO OPERATION

1. Select **AM** or **FM** by pressing the appropriate key.
2. Tune the radio to the desired frequency using one of the following methods:
   - **RAPID TUNE:** Depress and hold either the ▲ or ▼ tuning keys until you reach the frequency you desire. Release the tuning key.
   - **STEP TUNE:** Momentarily touch either the ▲ or ▼ tuning keys and the radio will tune to the next radio frequency.
   - **SCAN:** Momentarily touch the **SCAN** key. The radio tunes up in frequency to the next strong signal. It remains on this signal for five (5) seconds, then moves to the next strong signal. When the desired station is found, press the SCAN key to stop the scan operation.

RADIO MEMORY

6 AM and 6 FM radio frequencies may be stored in the system's memory for instant recall by using the following procedure.

STORING FREQUENCIES INTO MEMORY

1. Set the radio into the **FM** program mode and tune to the desired frequency using the ▲ ▼ or scan keys.
2. Within 5 seconds, press the **MEMORY SET** key (behind right panel door) and a **MEMORY** channel (1-6) where the frequency will be stored.
3. Repeat this procedure for all six FM memory channels.
4. Set the radio into the **AM** program mode, and repeat the programming procedure for six AM memory channels.
   NOTE: It is recommended that the lowest frequency be programmed into Memory 1 and the next higher frequency into Memory 2, etc.

RECALLING FREQUENCIES

1. Select AM or FM mode.
2. Press one of the Memory 1-6 keys. The radio station that has been stored in the selected memory location will be heard.

Audio Source Selection (continued)

CONTROLLING THE RADIO FROM REMOTE STATIONS

The Remote Stations can be used to turn the RADIO ON, OFF, and SELECT RADIO MEMORY CHANNELS.

NOTE: Remote Control of the radio will not function during intercom communication.
NOTE: Remote Control of the radio will not function if the Master has been selected to **CD/TAPE** or **AUX** program position.

TURNING THE RADIO ON AND OFF

1. The radio may be turned on or off from a Remote Station, by pressing and holding the **END CALL** key for two (2) seconds.
2. During the time the **END CALL** key is pressed an '**IC**' will be displayed in the Master LCD display. This indicates a control function is being performed.

SELECTING MEMORY CHANNELS

The Radio Memory Channels may be selected from a Remote Station by momentarily pressing the **END CALL** key.

1. The **MEMORY** channel will advance to the next stored channel.
2. Continue pressing the **END CALL** key to advance to the next highest stored memory channel.
3. After reaching the highest stored memory channel in the current program mode (AM or FM), momentarily pressing the **END CALL** key will cause the current program mode (AM or FM) to switch to the opposite mode and select the lowest stored memory channel.
4. Continuing to momentarily press the **END CALL** key will repeat the operation.

CD/TAPE AND AUXILIARY SELECTION

Optional audio sources may be selected by using the following procedure:

1. Press **AUX**. If an auxiliary external audio source has been connected to the AUX input, this unit will be heard as the audio source. The auxiliary audio may be turned off by pressing the PROGRAM OFF key.
2. Press **CD/TAPE**. If an optional CD player or tape player has been connected to your unit, this unit will be heard as the audio source. The CD player or tape player audio may be turned off by pressing the PROGRAM OFF keys.

Program Audio Controls

The following controls allow the user to adjust the level and tone of the program audio.
1. **MASTER VOLUME** - This control adjusts the audio level at the master station.
2. **REMOTE VOLUME** - This control adjusts the audio level at the remote station.
3. **SYSTEM VOLUME** - Sets the program audio level throughout the system.
4. **LOUDNESS** - Compensates for the loss of bass and treble response the human ear has when listening to audio at low volume levels by increasing bass and treble response.
5. **TREBLE:** Adjusts the high frequency audio content of the source audio.
6 **BASS:** Adjusts the low frequency audio content of the source audio.

Setting Program Audio Controls

The volume levels required at each Station may vary with the locations 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 procedures 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 the REMOTE and MASTER SPEAKER STATUS switches to the **RADIO INTERCOM** position.
3. Turn the **MASTER VOLUME** control to maximum volume.
4. Turn the **SYSTEM VOLUME** control on the master station to approximately one-third volume.
5. Select an AM or FM radio station with a strong, clear signal.
6. Adjust the master station's **SYSTEM VOLUME** control until you have enough volume at the remote station that requires the highest volume (i.e. a large living room, family room, basement, etc.).

   NOTE: The Master Station and all Remote Stations (except the door speakers) are equipped with their own volume controls. Although the Master Station SYSTEM VOLUME sets the System's Volume level, you may adjust an individual speaker's volume level as desired.
7. Adjust the **MASTER VOLUME** control and all remote stations' **VOLUME** controls to the volume level you desire. Do not set the remote stations' volume controls below ½ volume.

Station Status Switches

The **STATION STATUS SWITCHES** set the operating mode of each station in the system.

Each station may be set at one of the four following modes: RADIO INTERCOM, INTERCOM ONLY, OFF, or MONITOR.

1. **RADIO INTERCOM:** Stations set to this mode will receive all program audio, intercom audio, and monitor audio (provided that the station's volume control is properly set). Program audio includes: AM/FM radio, cassette, CD or any optional audio sources connected to the system. An optional electronic door chime will also be heard over stations set to this operating mode.
2. **INTERCOM ONLY:** A station set to this mode will only receive intercom audio and chime audio.
3. **OFF:** Stations set to this mode will not receive program audio, intercom audio and chime audio. **NOTE:** Intercom calls made from stations selected to the OFF mode will be heard, but a response cannot be heard at these locations.
4. **MONITOR:** When a station is selected to this mode, most sounds originating at the station's location will be transmitted to stations in the **RADIO INTERCOM** mode.

DETERMINING STATION LOCATIONS

1. Set all the **REMOTE STATION STATUS** switches to **OFF**.
2. Set the **MASTER STATION STATUS** switch to **RADIO INTERCOM**.
3. Tune in a radio station and adjust the **SYSTEM VOLUME** control to ½ level.
4. Turn the **MASTER SPEAKER VOLUME** control to minimum volume.
5. Set the **VOLUME** controls at all Remote Station's to maximum.
6. Set a **REMOTE STATION STATUS** switch to **RADIO INTERCOM** mode, and locate the speaker by sound.
7. Label the station's status switch using the pre-printed room labels (supplied). The label should be positioned below the switch that controls that station.
8. Repeat steps 6 & 7 until you locate every station in your system.

Intercom Operation

NOTE: Initial operation of the intercom requires:
• Intercom Volume control set to approximately ¾ level.
• Master Volume set to approximately ⅔ level.
• Remote Station Volumes set to approximately ⅔ level.

MAKING A CALL

1. Press and hold the **INSIDE/PATIO** key while you speak. Your voice will be heard at all speakers, except the door speaker.
2. Release the **INSIDE/PATIO** key to hear the reply.
3. Continue pressing the key to speak and releasing it to listen. The conversation will be heard at all stations in RADIO INTERCOM and INTERCOM ONLY modes.

RECEIVING A CALL

NOTE: If a call is initiated at the **MASTER STATION**, the person answering at a remote station is not required to use a control. The entire intercom conversation can be controlled from the master station. If the call is initiated at the **MASTER STATION**, just listen. When the caller stops speaking and releases the **INSIDE/PATIO** key, you can reply to the master without using a control. If a call is not initiated at the Master, follow these steps:

1. When the caller has finished speaking, press and hold the **INSIDE/PATIO** key while you speak.
2. Release the **INSIDE/PATIO** key to hear a response.
3. Continue pressing the key to speak and releasing to listen.

ANSWERING YOUR DOOR

1. Press the **DOOR TALK** key while you speak.
2. Release the **DOOR TALK** key to hear the reply.
3. The call and the reply will be heard at all stations in the RADIO INTERCOM and INTERCOM ONLY modes.

ENDING AN INTERCOM CALL

An intercom call can be ended by pressing the **END CALL** or allowing the system to automatically timeout 30 seconds after releasing the **INSIDE/PATIO** or **DOOR TALK** keys.

USING THE MONITOR FUNCTION

The **MONITOR** function allows you listen to sounds from selected station locations. It is most frequently used to monitor an invalid's or a child's room. When a station is set to MONITOR, most sounds in that room will be transmitted to all stations in the RADIO/INTERCOM mode.
1. Determine the station that is to be placed into the **MONITOR** mode.
2. Set that station's status switch to **MONITOR**.
3. Turn the station's **VOLUME** control to maximum.
4. Set listening stations to **RADIO INTERCOM**.
5. Reset the **STATION STATUS** switch when monitoring is no longer necessary.
NOTE: If program audio source is present during monitor, the program audio and the sounds heard in monitor are heard at the same time on all stations in Radio Intercom mode.

INTERCOM VOLUME CONTROL

The **INTERCOM VOLUME** control at the Master Station controls the intercom Volume throughout the system.

Optional Accessories

ELECTRONIC DOOR CHIME: When a NuTone Electronic Door Chime is connected to your IM-3303 Radio Intercom Master Station, the chime is heard at all stations in RADIO/INTERCOM and INTERCOM ONLY.

DOOR RELEASE: If an optional NuTone door release push button has been installed at the IM-3303 Master Station, use the button to open the door.

LIV RM	FAM RM	KITCHEN	DINING	DEN
LIV RM	FAM RM	KITCHEN	DINING	DEN
STUDY	REC RM	GUEST	BATH 1	BATH 2
STUDY	REC RM	GUEST	BATH 1	BATH 2
BATH 3	MSUITE	BEDRM 1	BEDRM 2	BEDRM 3
BATH 3	MSUITE	BEDRM 1	BEDRM 2	BEDRM 3
BEDRM 4	BEDRM 5	GARAGE	UTILITY	BASEMNT
BEDRM 4	BEDRM 5	GARAGE	UTILITY	BASEMNT

LIV RM	FAM RM	KITCHEN	DINING	DEN
LIV RM	FAM RM	KITCHEN	DINING	DEN
STUDY	REC RM	GUEST	BATH 1	BATH 2
STUDY	REC RM	GUEST	BATH 1	BATH 2
BATH 3	MSUITE	BEDRM 1	BEDRM 2	BEDRM 3
BATH 3	MSUITE	BEDRM 1	BEDRM 2	BEDRM 3
BEDRM 4	BEDRM 5	GARAGE	UTILITY	BASEMNT
BEDRM 4	BEDRM 5	GARAGE	UTILITY	BASEMNT