

OPERATING INSTRUCTIONS

TRANSISTOR STEREO INTERCOM SYSTEM

MODEL
2071

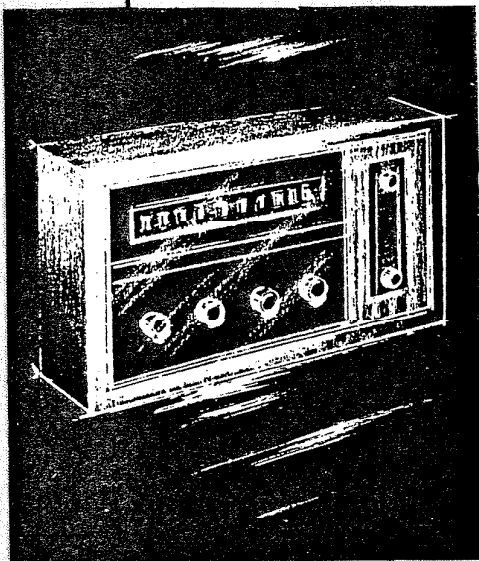


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GENERAL DESCRIPTION OF YOUR NUTONE STEREO INTERCOM SYSTEM

Your Built-In NuTone Stereo Music System is a complete "home broadcasting" network enabling you to play FM-Stereo radio programs or stereo records in rooms equipped with two speakers. In addition you can play AM or FM radio programs throughout your home or you can "pipe" either AM or FM radio programs to some rooms, and monaural records or tape recordings to others, simultaneously. The intercom portion of your system enables you to have room-to-room, and patio communication, plus a step saving door-answering feature.



The Master Unit in your NuTone home-entertainment system consists of a transistorized AM, FM, FM-Stereo tuner, and a transistorized dual-channel (stereo) amplifier. The ten selector switches on the master unit control as many as 10 stations in your "home broadcasting" network.

A "Fold-In-Wall" Stereo Record Changer may be incorporated in your system and will play six $16\frac{2}{3}$, $33\frac{1}{3}$, 45, or 78 rpm records automatically and shut off after playing the last record. Any assortment of 10-inch and 12-inch records can be intermixed providing they are of the same speed. The automatic record changer controls located on the record changer include all those necessary for easy automatic playing of records. Separate instructions are supplied with the record changer covering complete operation.

In systems incorporating the Nutone "Fold-In-Wall" Stereo Tape Recorder you can record and play back 4-track stereo and monaural recordings with highest fidelity.

Note: If your system includes the NuTone Tape Recorder, a separate instruction booklet is supplied covering the operation of the tape recorder.

LOCATION AND FUNCTIONS OF CONTROLS ON MASTER PANEL

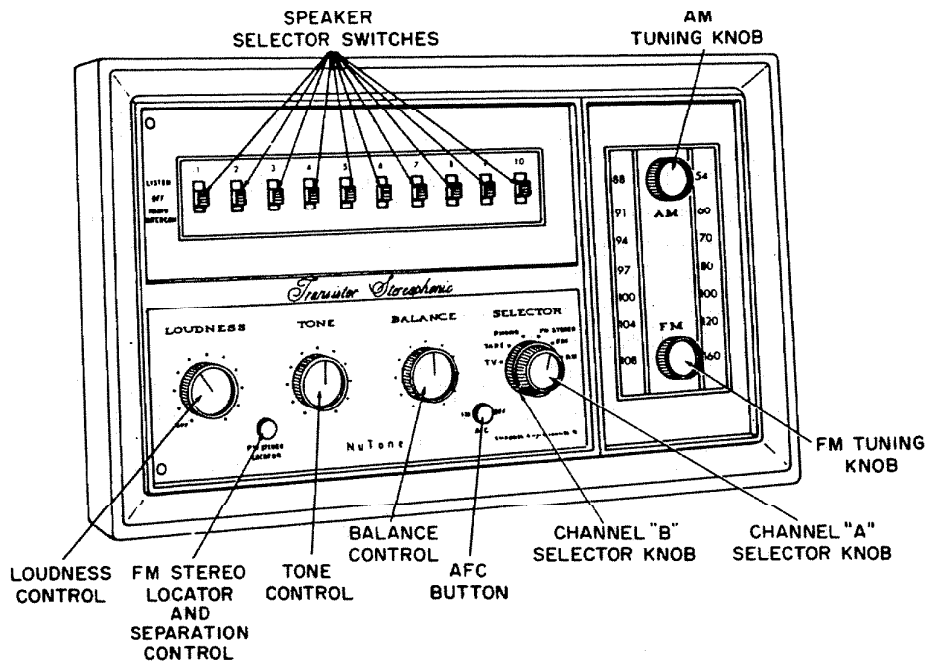
Loudness Control—turning this control to the right  turns the entire system on. Additional rotation to the right  increases the loudness of the entire system. (The Loudness control is superior to an ordinary volume control as it provides special compensation for good fidelity at low listening levels.)

Selector Knobs—small knob selects type of program sent to channel "A" speakers; large knob selects type of program sent to channel "B" speakers. Dots around knobs indicate source of entertainment: T. V., (or other monaural auxiliary source) Tape, Phono, FM Stereo, FM radio, and AM radio.

AM Radio Tuning Knob—for tuning AM radio programs.

FM Radio Tuning Knob—for tuning FM and FM Stereo radio programs.

AFC Button—provides "drift-free" FM listening when in the AFC (released) position.



Master Unit


FM Stereo Locator—provides a simple test of FM Stereo reception. When this button is held in a depressed position, any station received when tuning across the FM dial will be a FM Stereo program. Rotation of this control provides maximum stereo separation.

Balance Control—for adjusting the sound level of channel "A" speakers relative to the sound level of channel "B" speakers throughout the entire system.


Tone Control—for adjusting the tone from all speakers in the system simultaneously.

Remote Speaker Selector Switches—provide individual control for as many as ten remote stations.



PRELIMINARY PROCEDURES COMMON TO OPERATION OF ENTIRE SYSTEM

1. **To switch the entire system "on"**, turn the LOUDNESS knob to the right  until a "click" is heard. This is the master on-off control and it must be in the "on" position before the system will operate. The AM and FM dials are illuminated when power is on.

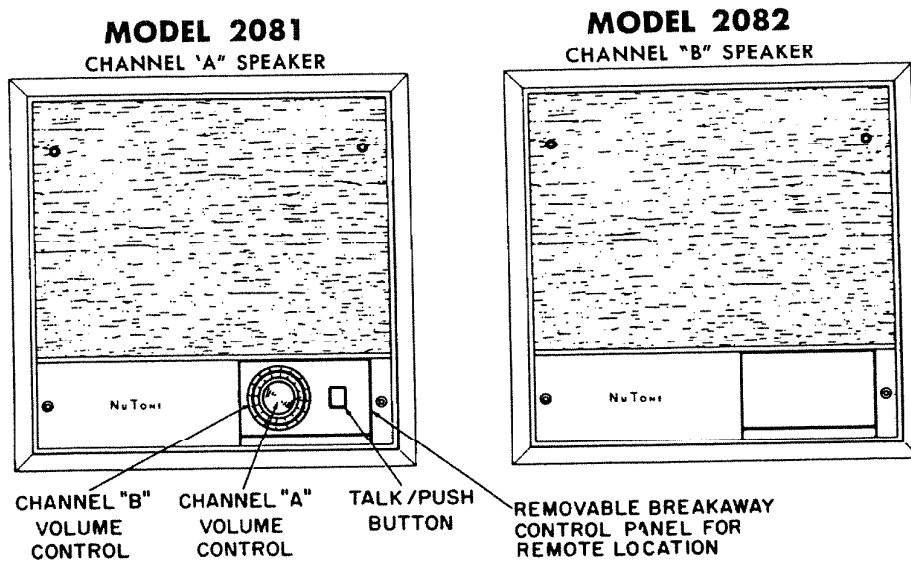
Since the amplifier and the AM/FM tuner in your master unit are fully transistorized, the amount of current consumed is about equivalent to that used by an electric clock. Also, transistors last much longer than tubes. Therefore, the master unit can be left on continuously without serious effect.

2. **Adjust the loudness** of the entire system with the master unit **LOUDNESS** knob. Turning this knob to the right  increases the loudness of all speakers in the system.

Note: The loudness selected at the Master Unit determines the maximum volume that can be obtained at any speaker. However, the volume level can be decreased at any speaker having its own individual volume control.

3. **Adjust the BALANCE CONTROL** to suit your listening pleasure. It is recommended that this control be adjusted so that sound seems to come from an area midway between stereo speakers.
4. **Adjust the TONE CONTROL** to obtain the tonal effects you like best. Turning this knob to the right  increases treble and bass emphasis; turning the knob to the left  decreases treble and bass emphasis.
5. **Position the Master Unit SPEAKER SELECTOR SWITCHES** as follows:
 - a. For rooms where you want Radio, Music or Intercom, place corresponding switches in the "Radio-Intercom" (down) position.
 - b. For rooms in which you do not wish to "pipe" programs, place corresponding switches in the "Off" (middle) position.
 - c. To "Listen" to one or more rooms, place corresponding switch or switches in the "Listen" (up) position. You will be able to hear every sound from these rooms, but the speakers in these rooms will be silent.

Rooms equipped for Stereo have two speakers: One is for Channel "A" and the other is for Channel "B." The Volume Controls for both speakers






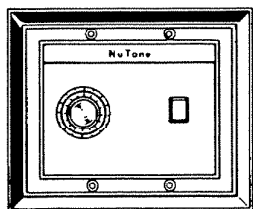
8" Inside Speakers

are located on the Channel "A" speaker or on a remote control panel. Regardless of where the speaker volume controls are located, their operation is the same.

Note: If only one speaker is installed in a room, stereo listening is not possible there.

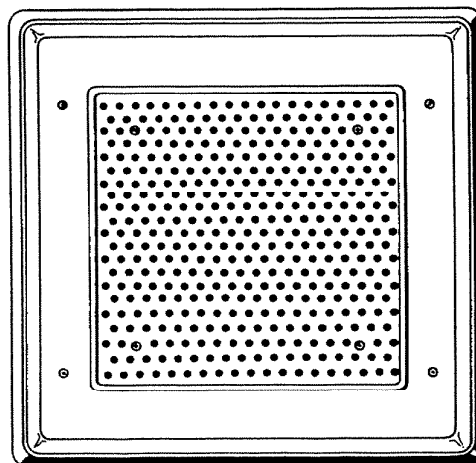
Adjust the Speaker Volume Control(s) as follows :

1. Turn speaker Volume Control(s) to the right  to increase volume.
2. Turn Volume Control(s) to the left  to decrease volume.
3. Turn Volume Control(s) all the way to the left  to turn speaker(s) off.



MODEL 2084

Remote Control Panel






MODEL 2084/2085

Hi-Fidelity Patio Speaker

Some rooms may require different balance and volume levels for the best stereo listening. Channel "A" and Channel "B" volume controls enable you:

- a. To have both speakers on (necessary for stereo listening).
- b. To achieve proper balance (for stereo listening).
- c. To have either speaker on for monaural (single channel) listening.

Note: If there is not enough volume when the remote speaker Volume Controls are turned to the right  as far as they will go, turn the Master Unit LOUDNESS CONTROL farther to the right . If by so doing, volume is increased too much in some rooms, turn the Volume Controls for the speakers in those rooms to the left  until the desired volume level is obtained.

1. Make sure the Master Unit LOUDNESS CONTROL is turned far enough to the right to provide a sufficient sound level.

Remember—the loudness selected at the Master Unit determines the maximum volume that can be obtained at any speaker.

2. **Position the SELECTOR KNOBS** for the type of reception desired:
 - a. **If AM is desired**, turn both SELECTOR KNOBS to the AM position and rotate the AM TUNING KNOB to move the AM pointer to the desired station.
 - b. **If FM is desired**, turn both SELECTOR KNOBS to the FM position and depress the AFC BUTTON. Rotate the FM TUNING KNOB to move the FM pointer to the desired station. After the desired station has been carefully tuned, momentarily press the press-to-release AFC BUTTON for "drift-free" FM listening. When listening to an extremely weak FM station, better reception may be obtained with the AFC BUTTON in the depressed (AFC "off") position.
 - c. **If FM STEREO is desired**, turn both SELECTOR KNOBS to the FM STEREO position. While holding the FM STEREO LOCATOR button in a depressed position with your left hand, slowly turn the FM TUNING KNOB to move the FM pointer to the desired FM Stereo Station.

Note: When the FM STEREO LOCATOR button is held in a depressed position, only stations transmitting FM Stereo programs can be tuned on the FM dial.
 - d. For best stereo separation, adjust FM STEREO LOCATOR button when FM station is transmitting voice announcements and only one channel is used. Adjust control for minimum response on unused channel.
3. **To Play monaural or stereo records**, place both SELECTOR KNOBS in the "Phono" position.

Note: Place stereo/mono switch in bottom of record changer compartment to "stereo."
4. **To listen to monaural records** in some rooms and radio in others, place one SELECTOR KNOB in "Phono"; the other in AM or FM.


Note: If stereo records are to be played, place the STEREO/MONO switch in bottom of record changer compartment in the MONO position.
5. **To play monaural or stereo tapes** (if a tape recorder is part of your system), place both SELECTOR KNOBS in the "Tape" position and proceed according to the Tape Deck Operators Manual.

Note: The Channel "A" SELECTOR KNOB must be used to select programs for rooms having only one speaker.

USING YOUR SYSTEM FOR INTERCOM

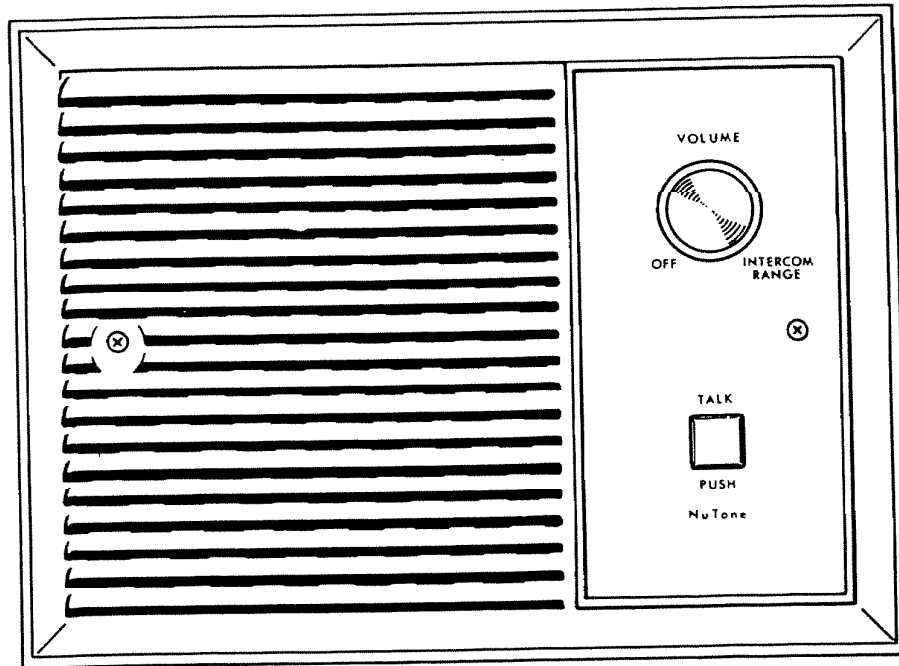
How to Carry On Conversation Between Speakers or To Door Speakers

- Note: It is not necessary to shut off music when using Intercom. When calls are made or received at any speaker in the system, they will be heard over the music level.
1. Make sure the Master Unit LOUDNESS CONTROL is turned to the right far enough to provide sufficient loudness throughout the system.
 2. Place the Master Unit SPEAKER SELECTOR SWITCHES in the "Radio-Intercom" (down) position for rooms in which you want Intercom.

Note: If any of the SPEAKER SELECTOR SWITCHES are in the "Off" (center) position, no Intercom calls, or music, can be heard in the rooms they designate. However, Intercom calls originating from those rooms can be heard in rooms whose respective SPEAKER SELECTOR SWITCHES are in the "Radio-Intercom" (down) position.
 3. To originate calls from rooms equipped with two speakers, turn the Channel "A" VOLUME CONTROL to the right  to near maximum

volume level. If some rooms in your system are equipped with only one speaker having a Volume Control labeled OFF-VOLUME-INTERCOM RANGE, turn the control to "INTERCOM RANGE" when originating calls from those rooms.

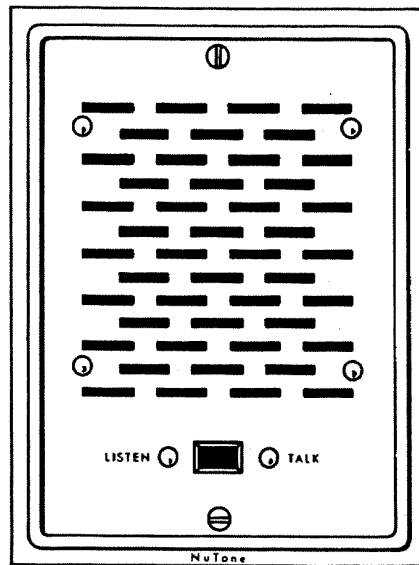
4. **To talk**—hold the TALK-PUSH button in its depressed position while speaking.
5. **To listen**—release the TALK-PUSH button so you can receive answer. The person answering your call must operate their TALK-PUSH button.



MODEL 2027
5" Monaural Speaker

How To "Listen In" To One Or More Rooms

1. Place the Master Unit SPEAKER SELECTOR SWITCH(S) in the LISTEN (up) position for any room or rooms you want to hear. You will be able to hear every sound from these rooms but they will not hear anything since their speakers act as microphones.
2. To "Listen In" from any other speaker in the system (bedroom, living room, etc.), place the SPEAKER SELECTOR SWITCH for that room in the "Radio/Intercom" (down) position.
3. If desired, you can "Listen In" to rooms even while listening to a radio program or music. If you do not want to listen to a radio program or music, place the Master Unit SELECTOR KNOBS to a source of entertainment not being used (Phono, Tape or T. V. position). In this manner, the Phono, Tape or T. V. position can be used for standby.



MODEL 2006
Door Speaker

How To Use The "Night Watchman" Listening Feature

The "Night Watchman" feature enables you to set the speaker in your room to receive disturbing sounds in and near the house.

1. Turn the **LOUDNESS CONTROL**, on the Master Unit, all the way to the right
2. Place both **SELECTOR KNOBS**, on the Master Unit, in one of the standby positions (Phono, Tape, or T. V.).
3. Place the **SPEAKER SELECTOR SWITCH** for your room in the Radio/ Intercom (down) position.
4. Place the remainder of the **SPEAKER SELECTOR SWITCHES** in the "Listen" (up) position.
5. Turn the Volume Controls at all speakers (including your room) all the way to the right

Note: If a squealing or howling sound occurs reduce setting of loudness control on master unit. (See Item #3 of Helpful Hints)


Electronic Chime

If your system includes an electronic chime, it will be heard over all the speakers whose **SELECTOR SWITCH**, on the master panel, is in the **RADIO/INTERCOM** (down) position.

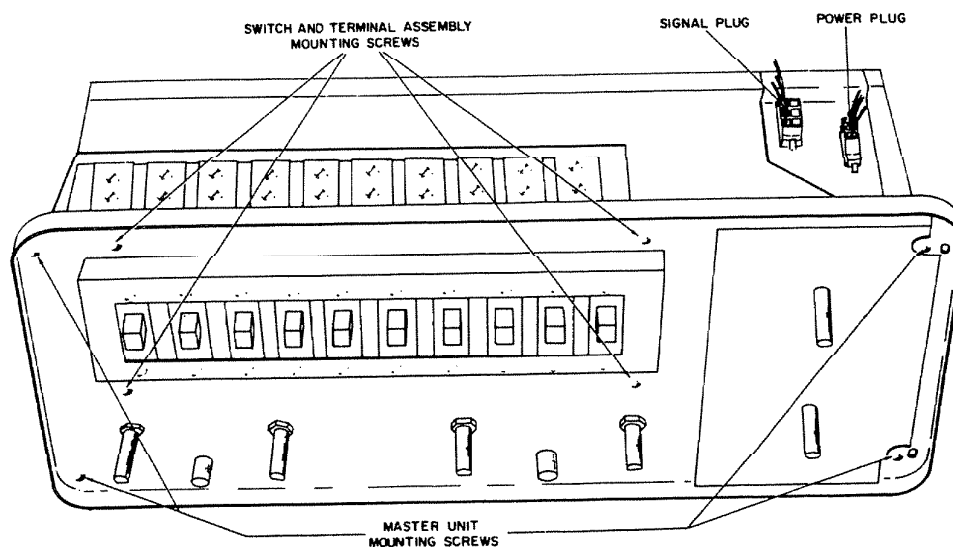
1. To check chime volume, place the Channel "A" **SELECTOR KNOB** in **AM** or **FM** position.
2. Select a station with clear reception and ring the chime. The chime tones should be heard clearly throughout the system while the radio is playing.
3. Adjust the volume control on the chime base plate for desired chime volume.

The NuTone Intercom-Stereo master has been designed for easy removal without disconnecting speaker wiring.

Should service be required use the following procedure.

1. Turn **LOUDNESS** knob fully to the left  to switch the entire system "off".
2. Pull off all rotary control knobs (**FM STEREO LOCATOR**, **AFC BUTTON** and **SPEAKER SELECTOR SWITCHES** do not require knob removal).
3. Remove (4) Front Panel mounting screws and lift off Front Panel.
4. Remove (4) screws securing master unit to support brackets.
5. Lift unit forward and engage bottom tabs on chassis sides in "V" slots of support brackets. The unit will now be self supporting for access to speaker wiring.
6. For complete removal of unit, unplug signal leads from jacks on bottom of chassis and disconnect power plug (small) and signal plug (large) from top right side of unit.
7. Remove (4) screws securing switch and terminal assembly. Lift assembly out top of chassis.
8. Lift unit from support brackets allowing switch and terminal assembly to remain in master housing.

TO REPLACE UNIT reverse foregoing procedure. The nylon power and signal plugs can only be engaged correctly since they are keyed. If they do not go in at first attempt, turn plug and try again.



USEFUL HINTS

1. If you do not want radio, but wish to leave the intercom system functioning, place both **SELECTOR KNOBS**, on the Master Unit, in the Phono, Tape or T. V. position.
2. Be sure to leave the **LOUDNESS CONTROL**, on the Master Unit, at a fairly high level. This determines the maximum volume that can be obtained from speakers in the system. If the volume level is too high in some rooms, it can be reduced with the speaker Volume Controls. However, to avoid distortion, maintain the speaker volume controls near maximum setting and reduce the Master Unit **LOUDNESS CONTROL** unless extreme low level is desired.
3. If squealing should develop when intercom is being used, this means that the Master Unit **LOUDNESS CONTROL** is set too high, or that the speakers in two or more rooms are too close together and are causing this squeal (feedback). To prevent this, reduce the Master Unit **LOUDNESS CONTROL** until the squeal stops, or reduce the Channel "A" Volume Control on one, or both, of the speakers that are affecting each other. You can determine which speakers are causing the squeal by placing all of the **SPEAKER SELECTOR SWITCHES**, on the Master Unit, in the "off" position and then on again—one at a time.
4. Be sure the record changer is floating freely on its mounting springs. If these catch or bind, the needle will bounce.
5. Do not touch the tone arm while the record changer is in a change cycle.
6. If FM reception is not satisfactory, an external FM antenna may help. We recommend that a NuTone Model #2420 FM antenna, or its equivalent, be installed on the roof or in the attic, pointed in the direction of FM stations. If FM stations are widely separated, an omnidirectional type antenna may be required. A good antenna is especially important for satisfactory stereo FM reception.

**BUILT-IN FOOD CENTER
BUILT-IN STEREO
RANGE HOOD FANS
ELECTRIC HEATERS
DOOR CHIMES**



NuTone
DIVISION



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