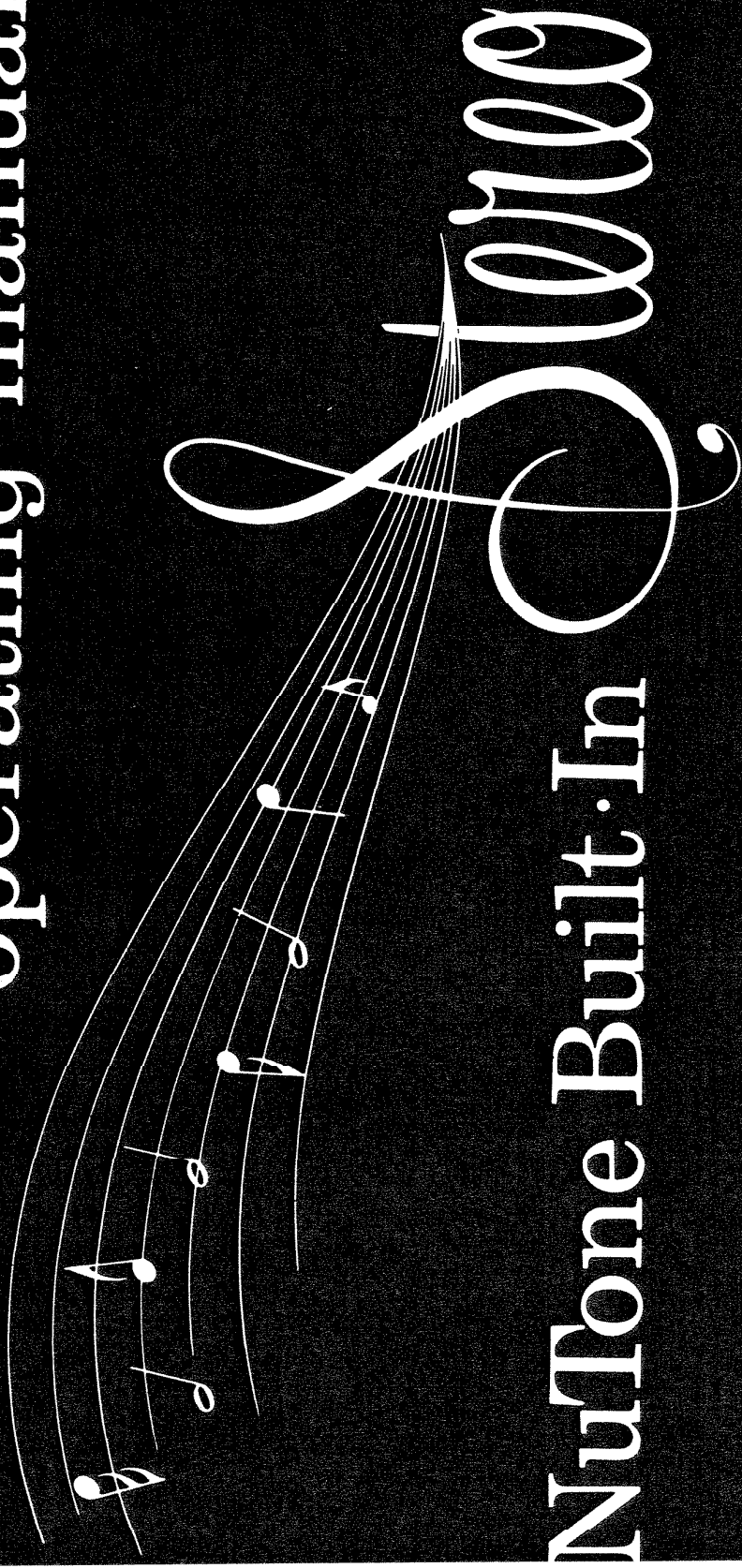


operating manual



NuTone Built-In

intercom • am-fm radio • fm stereo • high fidelity music systems

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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.

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.

Autona

LOUDNESS

2 3 1 0 1 2 3 OFF ON

TREBLE

5 10 15 10 5

BASS

5 10 15 10 5

POWER

A

B

TO OPERATE THE AMPLIFIER

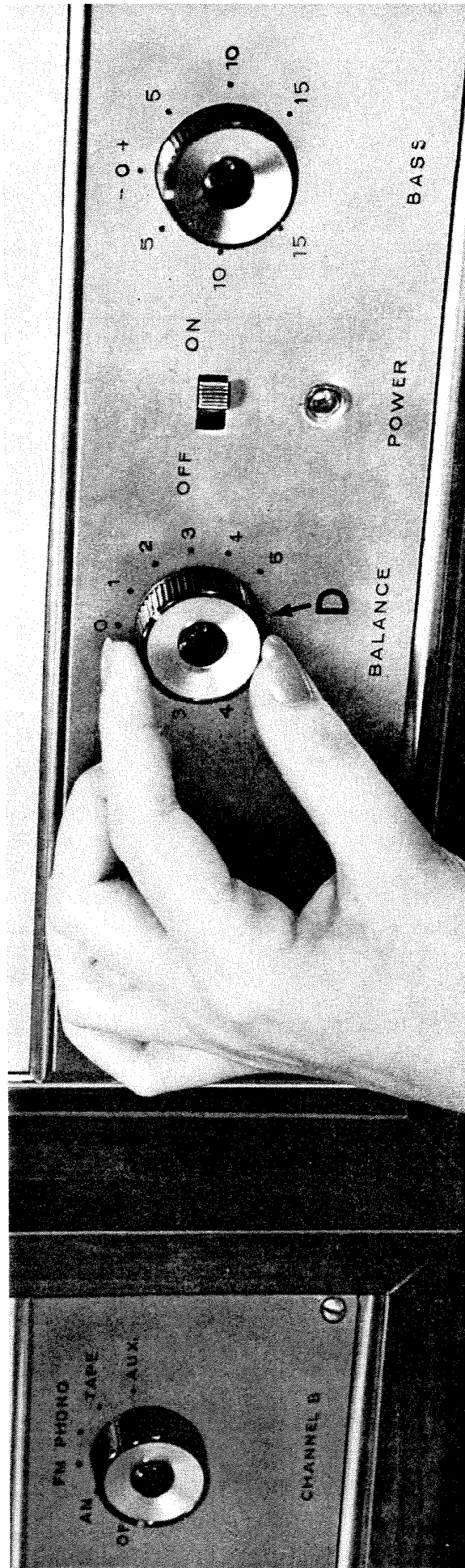
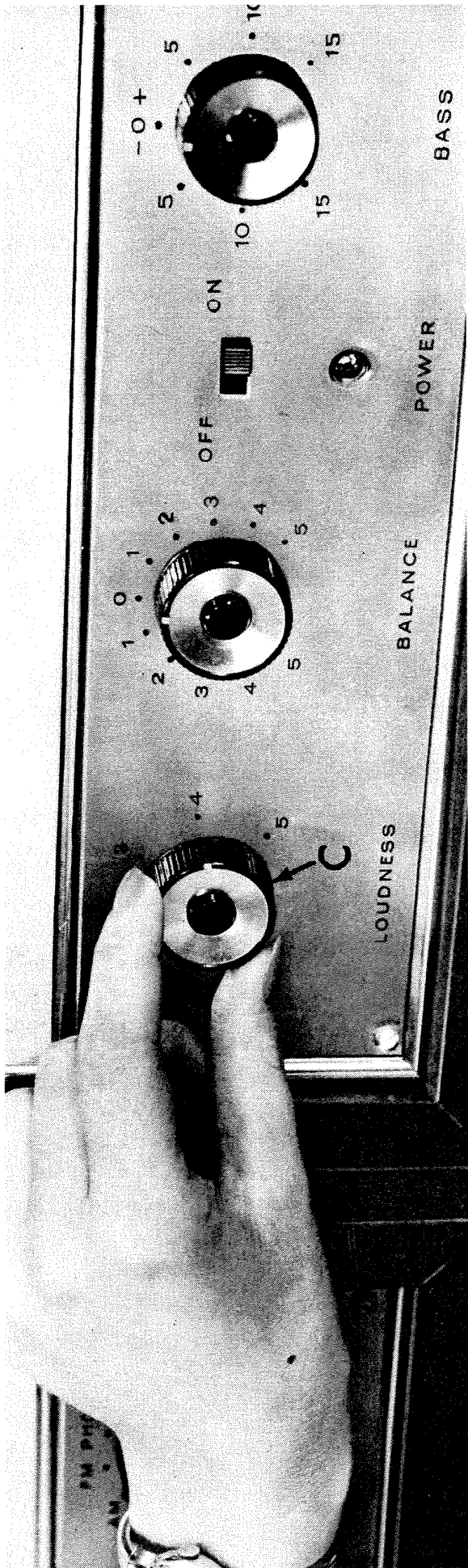
(Dots on Knobs are Position Indicators)

A. Power Control Switch

1. Before operating any part of the system, move this switch to the right, from the "OFF" position to the "ON" position. This means that power is on.
2. In the "OFF" position it shuts off the entire system.

B. Pilot Light

Tells when the Power Control Switch is on. If it is not on, the entire system is shut off. If Intercom ONLY is wanted, it must be on.



TO OPERATE THE AMPLIFIER

← C. Loudness Control

Turn this knob clockwise to whatever volume you want.

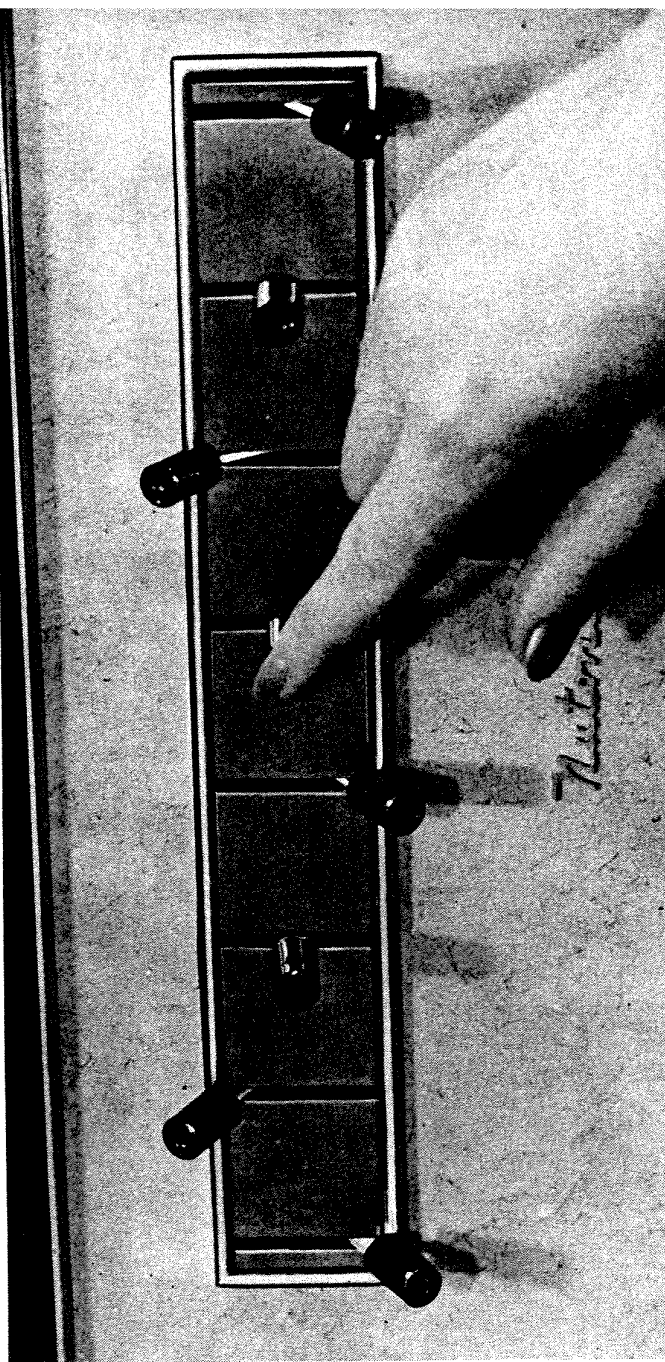
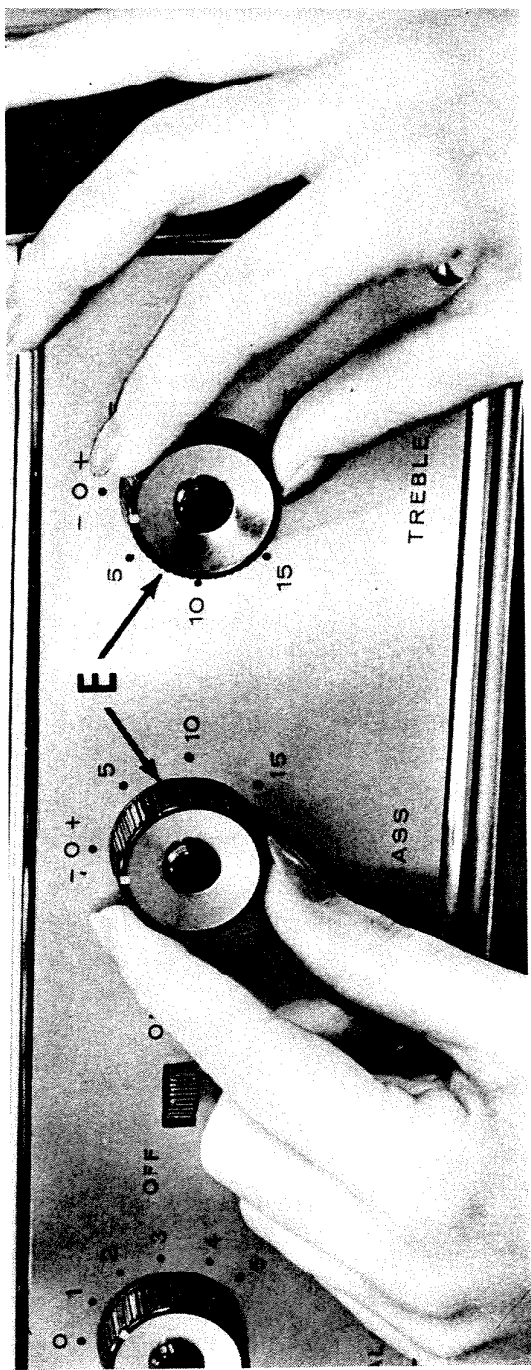
The loudness you select here may be reduced at any remote speaker-with-controls. Each room may have its own desired volume.

← D. Balance Control

This balances amplification in the entire system. If sound from Channel A speakers seems stronger than sound from Channel B speakers, change it with the Balance-Control knob to suit your listening pleasure.

1. Turn it clockwise to make Channel B predominate throughout the house
2. Turn it counter-clockwise to make Channel A predominate throughout the house.

**TO
OPERATE
THE
AMPLIFIER**



E. Bass and Treble Controls

Adjust these controls to obtain the tonal effects you like best.

1. For deep bass or high treble tones, turn the proper knob clockwise.
2. For less deep bass or less high treble tones, turn the proper knob counter-clockwise.

NOTE: Control of bass and treble are independent of each other. Each affects both speaker-channels equally. You can strengthen or weaken bass or treble tones independently: strengthen one, and weaken the other; weaken both, or strengthen both for maximum enjoyment of the music.

F. Remote Speaker Selection Switches.

1. In the CENTER position, they shut the speakers off.
2. In the DOWN position they turn the speakers on.
3. In the UP position they turn on the "Listen-In" feature of Intercom.
See page 15.

LOCATION AND FUNCTIONS OF CONTROLS ON

Intercome Level Control—turning this control to the right turns the tuner on. Additional rotation to the right increases the intercom level of the entire system.

Selector Knobs—small knobs selects type of program sent to channel "A" speakers; large knob selects type of program sent to channel "B" speakers.

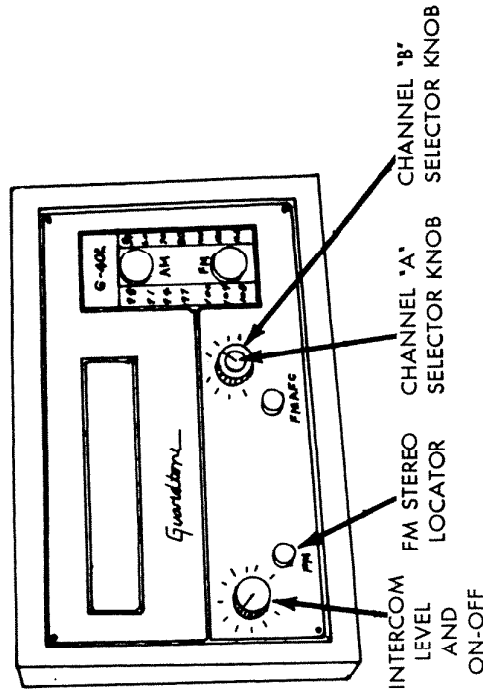
Dots around knobs indicate source of entertainment: T. V., (or other monaural auxiliary source) Tape, Phono, FM Stereo, FM radio, and AM radio.

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.

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.



TO OPERATE THE REMOTE SPEAKERS-WITH-CONTROLS

Rooms equipped for Stereo have two speakers: One is for Channel A. The other is for Channel B. Controls for both speakers are contained on the Channel A Speaker for convenience and ease of operation.

NOTE: If remote Control panels are used in your system their Controls are identical with those found on Speakers-with-controls. These same instructions apply to Remote Control Panels.

A. Channel A Volume Control

(Dots on Volume Control Knobs are Position Indicators)

1. Turn this knob clockwise to increase volume.
2. Turn it counter-clockwise to decrease volume.
3. Turn counter-clockwise all the way to turn speaker off.



B. These same steps apply to the Channel B Volume Control, for controlling the Channel B Speakers.

NOTE: Some rooms may require different balance and volume levels for the best Stereo listening. Volume controls enable you:

- To have both speakers on (necessary for Stereo listening).
- To achieve proper balance (for Stereo listening).
- To move the Stereo listening area to the best location in each room.
- To have either speaker on for monaural (single channel) listening.

NOTE: If there is not enough volume when the Volume Control is turned as far clockwise as it will go, the “Loudness” control on the Amplifier may be turned farther clockwise. But if by so doing, volume is increased too much in some rooms, turn the Volume Controls on the Speakers in those rooms counter-clockwise to decrease it.

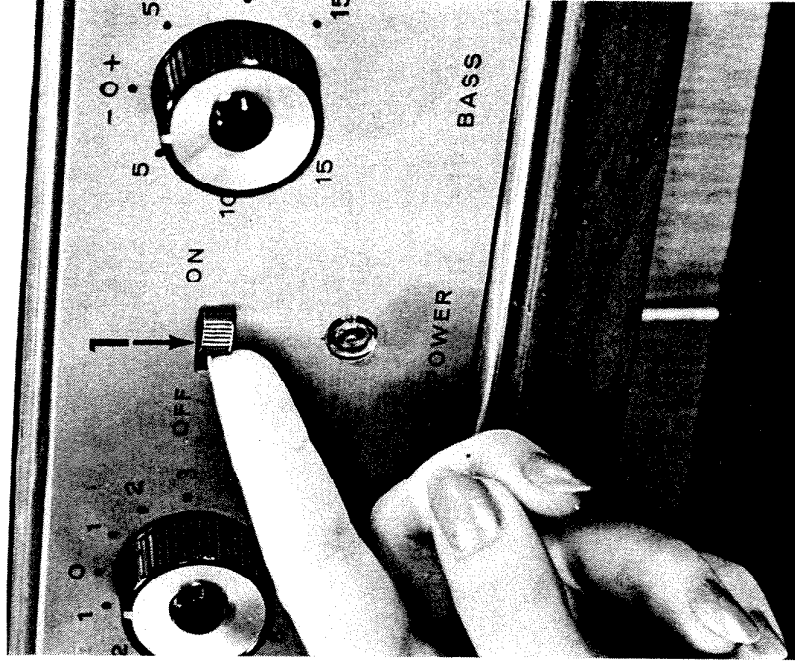
If only one speaker (Channel A) is installed in a room, Stereo listening is not possible there. The Channel B Volume Control is not operative then.

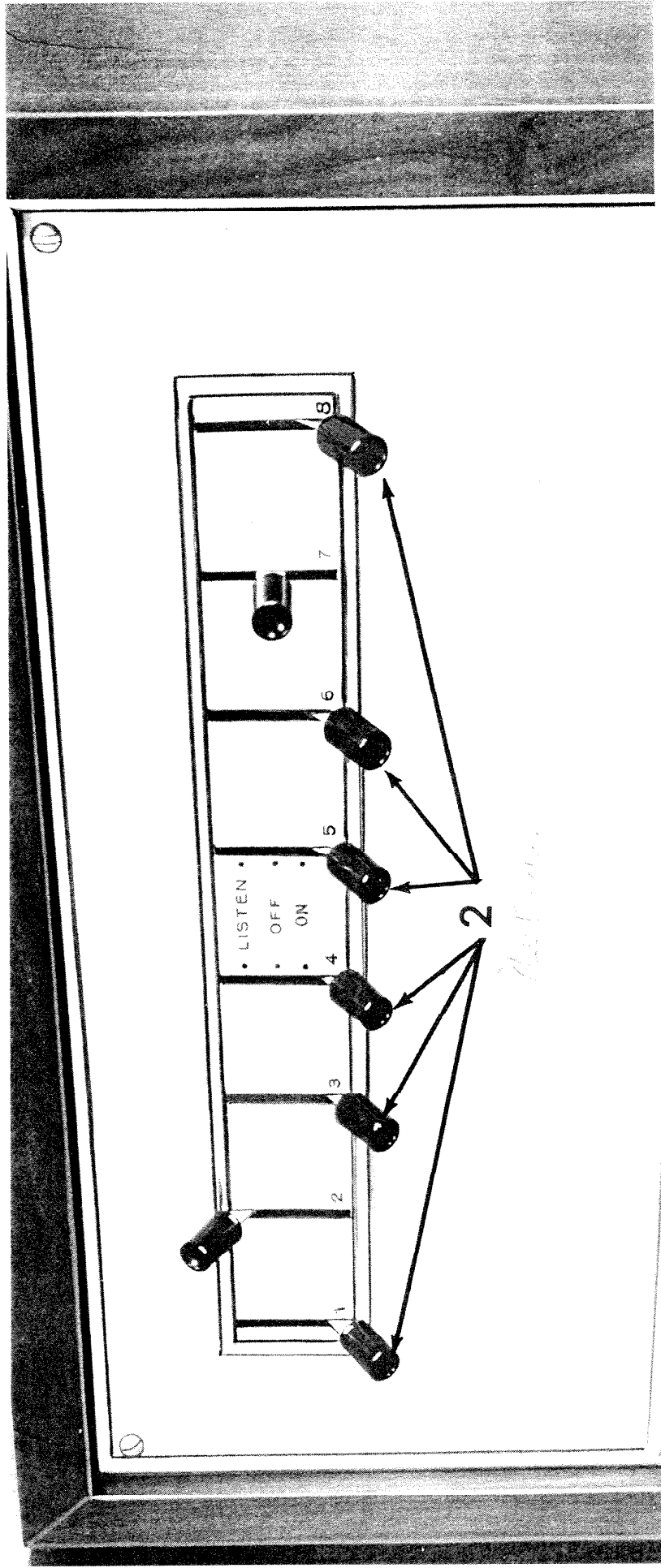
C. These switches are for Intercom. See instructions for operating Intercom.

TO USE THE INTERCOM PORTION OF YOUR NUTONE MUSIC SYSTEM

NOTE: It is not necessary to shut off music when using Intercom. When calls are made, the music will automatically shut off, and resume again when calls are concluded; or sounds can come in over the music (See "Listen-In").

1. Be sure the Amplifier Power Switch is in the "ON" position, and the light is glowing. Allow time for amplifier to warm up.

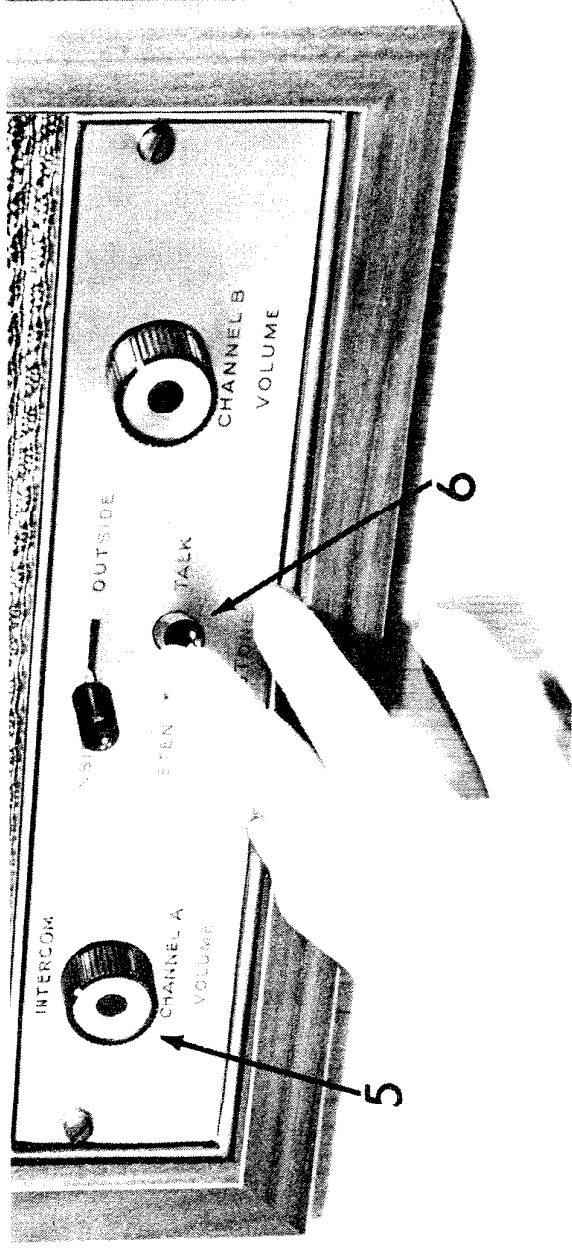




2. Place Remote Speaker Selector Switches, at the Amplifier, in the "DOWN" position for all rooms in which you want Intercom.

NOTE: When one of these switches is in the center position, no Intercom calls, or music, can be heard in the room it designates. However, Intercom calls originating from that room can be heard in other rooms.

3. Turn the "Loudness" control to the desired volume level.



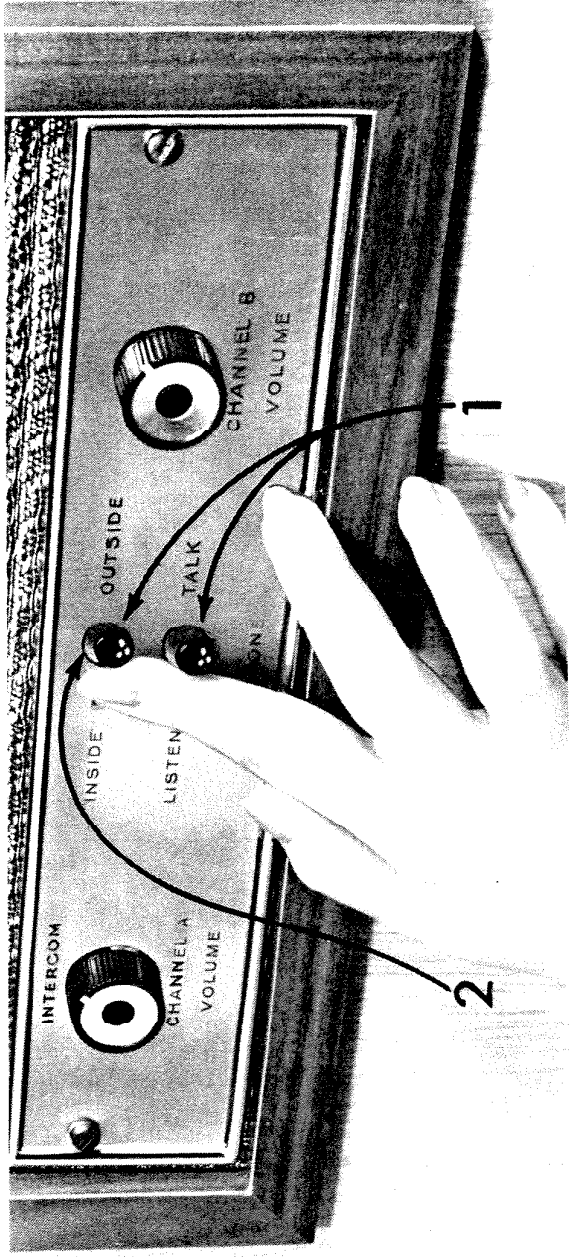
The Amplifier is now ready for Intercom use.

4. Go to any speaker-with-controls, (or to a Remote Control Panel, if used in your system).
5. Be sure the Channel A volume control on the speaker is turned clockwise to desired volume level.
6. Move the "Talk-Listen" Switch right, to the "Talk" position. Hold in this position while talking; release to the "Listen" position to hear replies.

NOTE: Calls will not be transmitted to door-speakers with this procedure.



TO ANSWER THE DOOR-CHIME AND TALK WITH OUTSIDE CALLERS

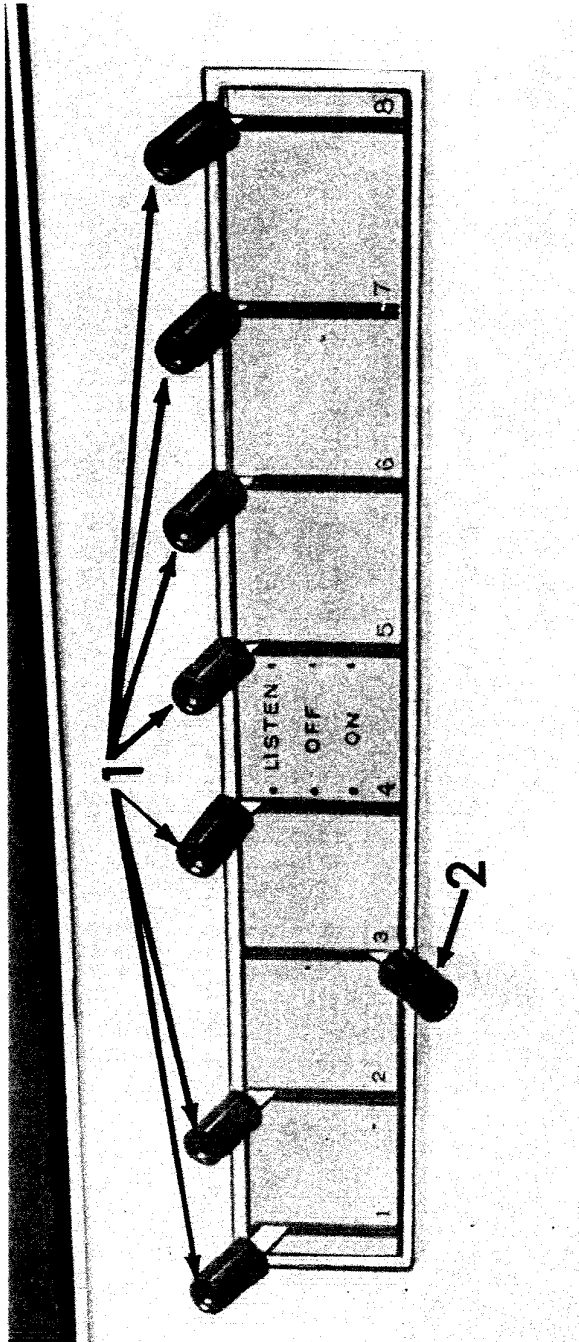


Follow steps 1 - 5. Then:

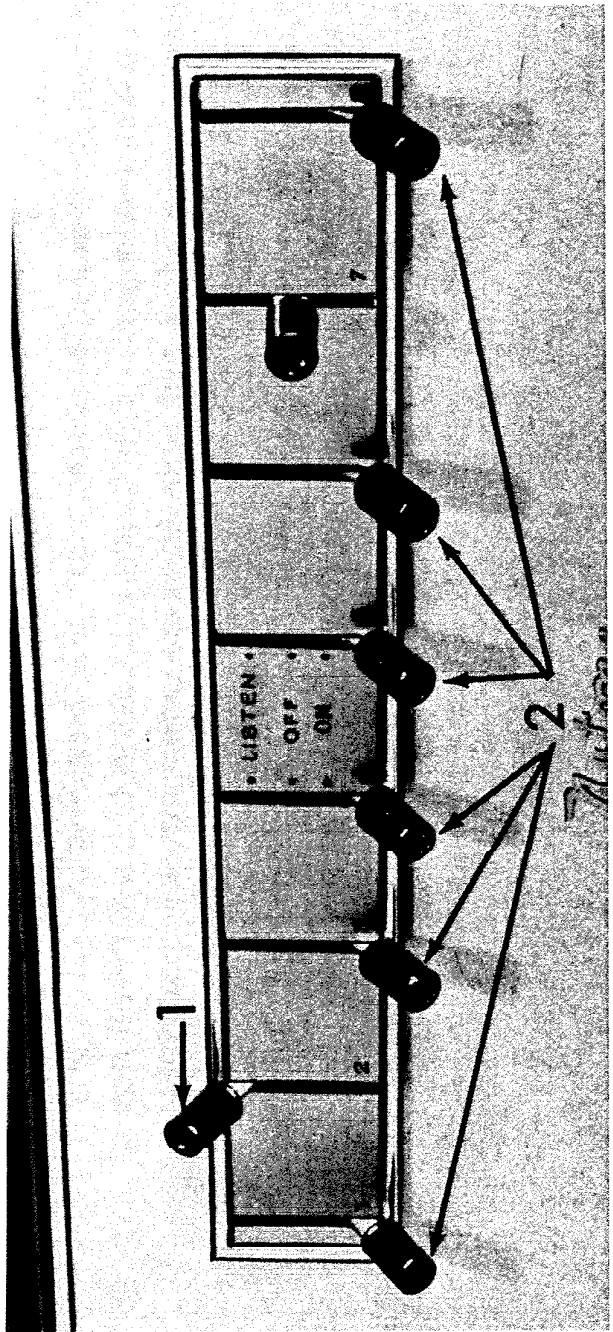
1. Move both the "Talk-Listen" Switch and the "Inside-Outside" Switch to the right. Hold both switches in this position to talk.
2. To listen, release only the "Talk-Listen" switch to the left ("Listen" position), holding the "Inside-Outside" switch to the right.
3. To conclude a conversation, release both switches to the left. This turns off the door-speaker.

TO USE THE
 "NIGHT-WATCHMAN"
 FEATURE

for extra night-time security



TO "LISTEN-IN"
 TO NURSERY
 OR SICK-ROOM



- ←
1. Place all Remote Speaker Selector Switches (at the amplifier) in the UP position, with the exception of the one for your room.
 2. Place the selector switch for your room in the "DOWN" position (at the amplifier). Inside and outside speakers (excepting Door-Speakers) and the Speaker in your room) will then act as microphones. The speaker in your room only will act as a receiving station for sounds in and near the house.

You can "Listen In" to any one or more rooms even while you are listening to music.

- ←
1. Move the Remote Speaker Selector switch (at the amplifier) UP for any children's rooms or sick-room you want to hear ("Listen-In"). You will not disturb the children's sleep. You are able to hear every sound from their rooms but they cannot hear anything.
 2. To "Listen in" from any remote speaker (your own bedroom, or living room, etc.) leave the selector switch for your room DOWN at the amplifier.

REMEMBER: Child's room switch is UP; your listening room switch is DOWN.

Electronic Chime

If your system includes an electronic chime, it will be heard over all the speakers whose SELECTOR SWITCH, on the amplifier, 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.

HELPFUL HINTS FOR OPERATING

1. This is a high fidelity set with lots of power. Distortion is possible at full volume level, particularly with extreme bass control setting. This is normal and means that controls should not be used in a combination of extreme positions.
2. Be sure the record turntable is floating freely on the spring supports. If these catch or bind, the needle will bounce.
3. If FM reception is not satisfactory, an external FM antenna may help. We recommend that a JFD antenna, #P-800 (NuTone Model #2420), 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 stereo FM.

4. If a squealing develops when intercom is used, you are getting feedback. Generally, it means you are using too much volume for the distance between speakers acting as microphones, and those acting as speakers. This can usually be overcome by reducing the channel A volume controls for these speakers — or by reducing the loudness control at the amplifier.
5. Do not touch the tone arm of the Record Player while it is in motion.
6. An internal adjustment in the amplifier can regulate intercom volume in relation to music volume. If an intercom is too loud, or not loud enough, in relation to music it may be fixed by moving this adjustment.
7. If you do not want music, but do want intercom available, turn the amplifier on, all other sources off.
8. The loudness control on the amplifier sets the volume level for the entire system. This should be left at a fairly high level, since it can be reduced in any room with the volume control on the speaker, but it cannot be increased excepting at the amplifier.
9. If privacy is desired the channel A volume control on the speaker should be turned completely counterclockwise. This, however, will prevent intercom calls from being heard in that room.
10. If it should be necessary to send the amplifier to a service station, it can be removed without disturbing the intercom wiring (see instructions on face of amplifier chassis).

3-66 Part No. 45157

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