

# NuTone<sup>®</sup>

## INSTALLATION INSTRUCTIONS

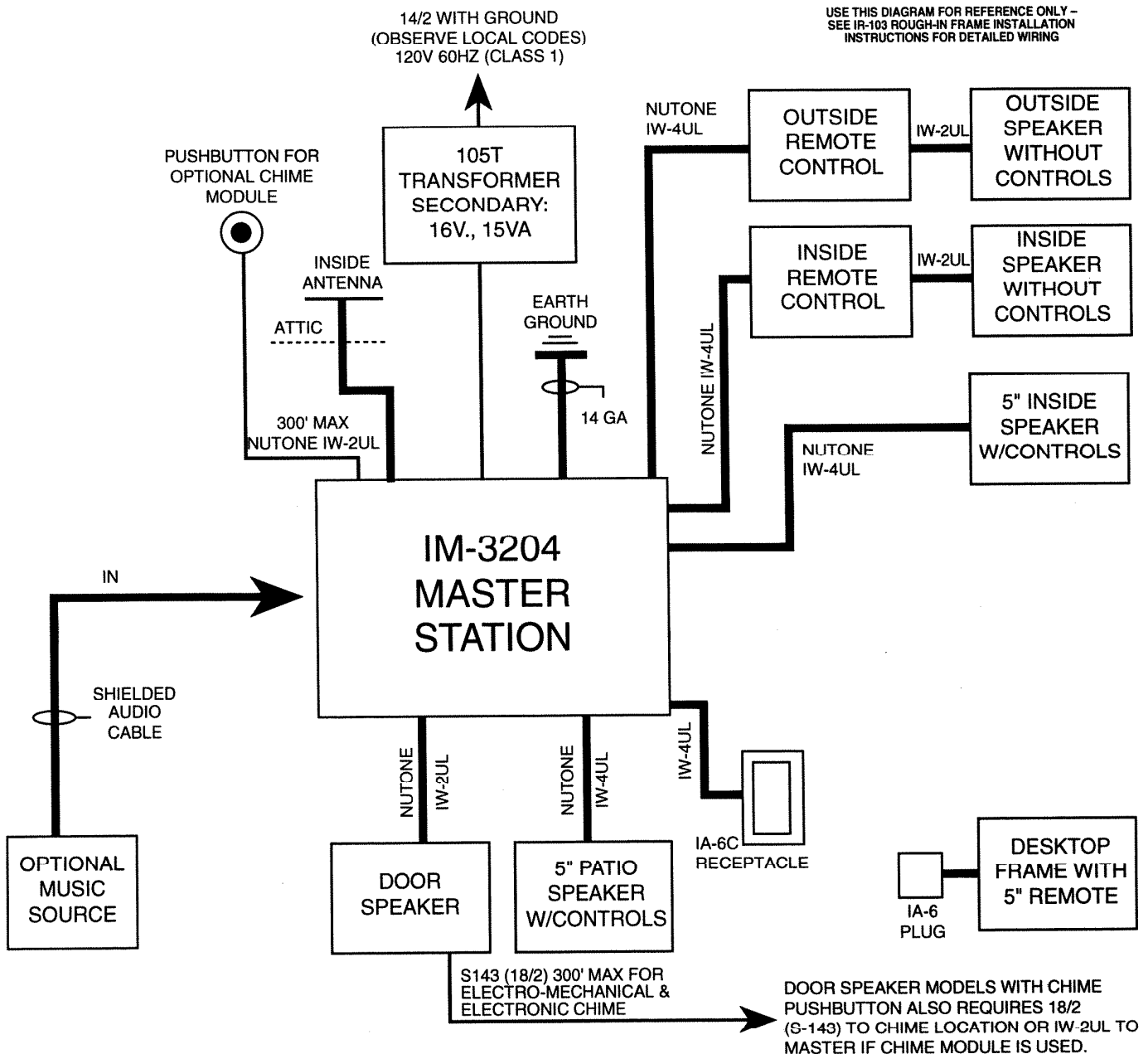
# RADIO-INTERCOM SYSTEM

### MODEL: IM-3204 Series Master Station

This booklet contains information for installing the Master Station. All system wiring and rough-in frames should be installed **before** mounting and wiring the master station. Refer to the installation instructions packaged with the rough-in frame for detailed wiring information.

For more detailed information on wiring and mounting other system components (i.e. speakers, remote controls, etc.), refer to the installation instructions packaged with each separate component.

## IM-3204 SERIES REPRESENTATIVE WIRING ILLUSTRATION



# TABLE OF CONTENTS / INSTALLATION

## TABLE OF CONTENTS

INSTALLATION	PAGE
Contents of Carton .....	2
Precautions and Guidelines .....	2
Wiring Specifications .....	2
Remote Station Wiring .....	3
Maximum Number of Remote Stations .....	3
Mounting the Optional Chime Module in the Master Station Panel .....	3
Mounting the Master Station .....	4
Connecting the Remote Wiring .....	5
Connecting Volume Control Wiring .....	5
Connecting Door Speaker Wiring .....	5
Connecting the Power Transformer .....	6
Connecting the Ground Wire .....	6
Connecting the Antenna .....	6
Connecting the Optional Chime Module .....	6
Connecting Optional Accessories .....	7
Securing the Master Station Panel .....	7
Powering Up the System .....	7
<b>SYSTEM OPERATING CONTROLS</b>	
Master Station Controls .....	8
Operational Checkout .....	9
Setting Program Audio Controls .....	9
Setting Intercom Volume .....	9
Diagnostic Tests .....	10
Resetting the Microprocessor .....	10
Troubleshooting Guide .....	10-12
<b>WARRANTY</b> .....	<b>12</b>

## Contents of Carton

Check (✓) for following IM-3204 carton contents:

- IM-3204 master station
- Hardware bag assembly containing:
  - (2) shoulder screws
  - (4) #6x3/8 screws
  - (2) White panel mounting screws
  - (2) "L" panel mounting bracket
- Homeowner's manual with room labels
- Installation Instructions
- Registration Card

**Note to installer: Do not discard these installation instructions. Please give all installation instructions, warranty registration and homeowner's manual to homeowner.**

## Precautions and Guidelines

The NuTone IM-3204 master station has been designed for ease of installation. Please read and follow ALL installation instructions, guidelines and precautions. Any deviation from these instructions or miswiring will cause the unit to fail and all NuTone warranties will be void.

**Warning: 120 Volt AC power to the transformer in the IR-103 rough-in must remain OFF until all system wiring at the master and remote stations is complete.**

- Observe all local regulations and codes in your area.
- All screw terminals at the master and remote stations must be secure.
- Observe all color codes of wires when connecting master to remote stations.
- The IM-3204 is designed to be used with NuTone specified wire; no other wire should be used. **The use of wire other than NuTone wire will void all NuTone warranties and may result in faulty installation and improper operation.**

## Wiring Specifications

See IR-103 rough-in frame installation instructions for detailed wiring information.

Use NuTone IW-4UL, 4 wire flat ribbon cable for connecting:

- Master to remote controls
- Master to remote stations

Use NuTone IW-2-UL, 22 ga. twisted pair for connecting:

- Master to door speakers
- Remote controls to speakers
- Master to speaker volume control (IC-901WH, IC-902)
- Speaker volume control (IC-901WH, IC-902) to speakers
- Chime module to pushbutton

Use NuTone S-143, 18 ga. twisted pair for connecting:

- Electro-mechanical chime or electronic chime to pushbutton.

Use No. 14/2 with ground, 60Hz power cable Class 1 UL listed (not supplied by NuTone). Observe local codes.

Use shielded audio cable for connecting external audio source to the master station.

# INSTALLATION

## Remote Station Wiring

An individual 4-wire cable (IW-4UL) must be connected from each remote station or remote control location to the master station's terminals.

- **Maximum station wire length:** 150 feet .
- **Maximum total of IW-4UL cable per system:** 600 feet.
- **Never bundle cables between master station and remote stations/door speakers together. Cables that are bundled together will reduce intercom/monitor volume and cause squealing/noise.**
- **Never use 4-wire telephone cable or other 4-wire cable. Use only NuTone IW-4UL flat ribbon cable. The use of telephone cable or other 4-wire cable will reduce intercom monitor/volume and cause squealing/noise.**

**IMPORTANT:** NuTone cannot be responsible for improper system operation that results from interference generated by light dimmers, fluorescent lighting fixtures, and similar electrical products. Such interference must be corrected at the source.

To help reduce this interference, all wiring connected to the master must be placed at least 12 inches from any A.C. power wiring.

## Maximum Number of Remote Stations

The master station will accommodate a maximum of (6) remote stations/remote controls/volume controls and 3 door speakers.

**IMPORTANT:** Never use standard 8 ohm stereo speakers or the master station will be damaged.

## Mounting the Optional Chime Module in the Master Station Panel

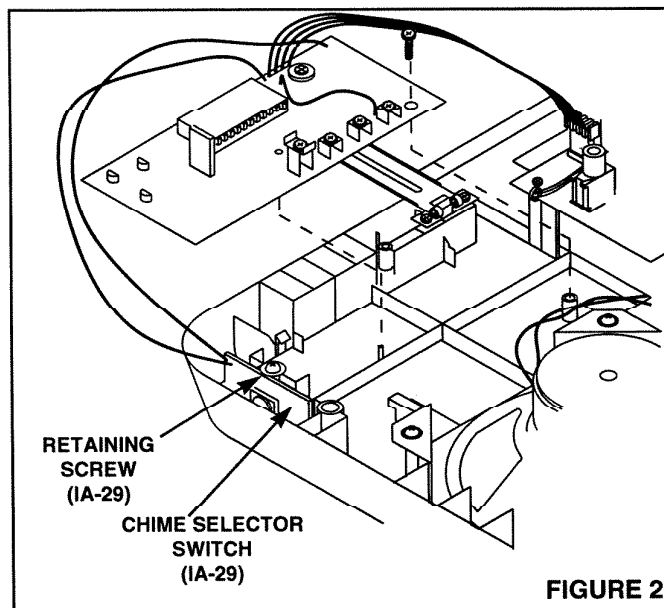
Refer to Figure 2

To install the chime module, first position the master face down on a soft cloth to prevent surface damage.

1. Align the optional IA-28 or IA-29 chime module with the mounting bracket located in the master station panel.
2. Apply firm, even pressure to each side of the chime module until the module snaps into place.
3. Fasten the chime module with the one (1) screw supplied with the module
4. Plug the 4 pin connector from the chime module into the connector on the master panel (be sure the connector is aligned correctly with the master station connector).
5. Connection from the chime pushbuttons will be made after the master station's panel has been mounted to the rough-in frame.

### MODEL IA-29 ONLY

1. Locate the chime selector switch mounting bracket in the master station's panel.
2. Remove and set aside the chime selector switch retaining screw.
3. Remove and discard the square foam pads on the chime selector switch PC board connected to the chime module.
4. Slide the PC board into the mounting bracket on the master station's panel.
5. Fasten the chime selector switch PC board with the retaining screw previously removed from the master station panel.



# INSTALLATION (Continued)

## Mounting the Master Station

### Refer to Figure 3

1. Use two (2) #6 x 3/8" screws to attach each of the two (2) mounting brackets to the rough-in frame. Before tightening the screws at each mounting bracket, slide the bracket so it is flush with the wall surface (flush with rough-in frame if the rough-in is installed after the wall board). Tighten all four (4) screws.

### Refer to Figure 4 & 5

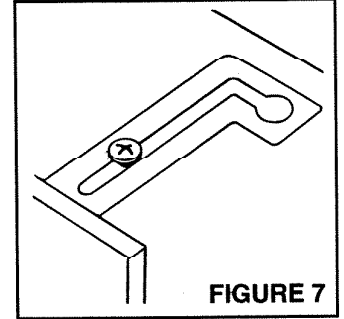
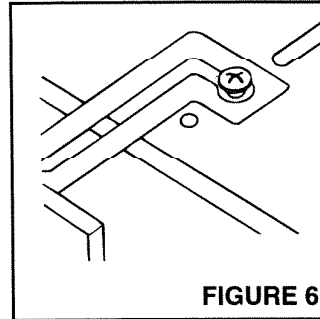
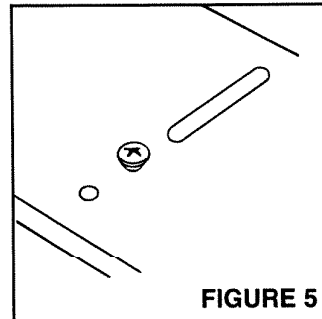
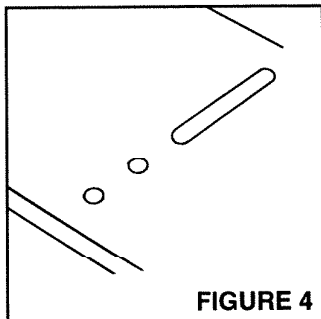
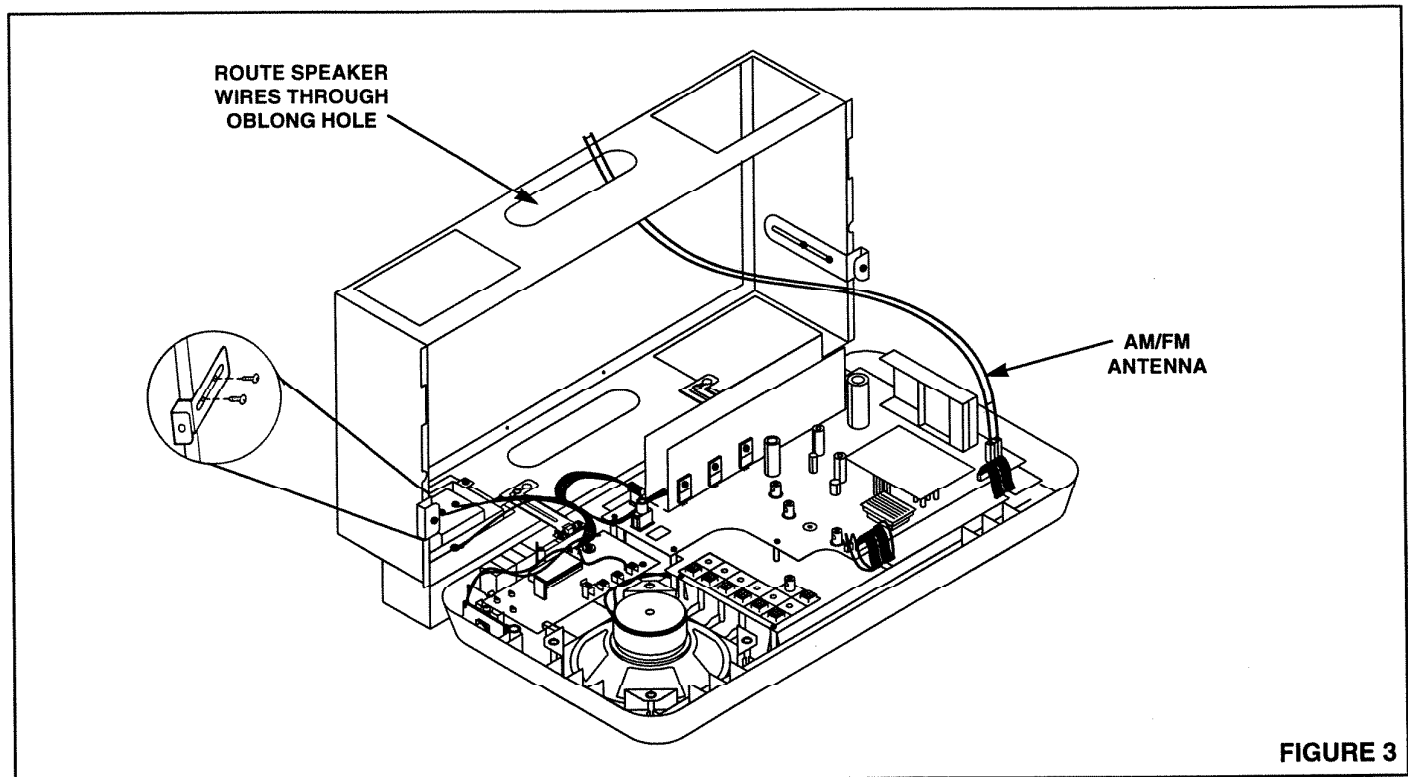
2. For rough-in frames which are recessed into the wall opening, insert two (2) shoulder screws (provided) into the front two holes in the rough-in frame. For rough-in frames which are mounted flush with the wall, insert two (2) shoulder screws (provided) into the back two holes in the rough-in frame.

### Refer to Figure 6

3. Attach the master station panel to rough-in frame by placing keyhole slots in both mounting hinges over screw heads of shoulder screw in rough-in frame.

### Refer to Figure 7

4. Slide the master station panel to the right, then forward until the panel is flush with the wall.
5. Leave the master station panel faced down to connect wiring.



# INSTALLATION (Continued)

## Connecting the Remote Wiring

**Note:** All remote stations, remote controls, speaker volume controls, and door speaker wiring must return directly to the master station. Do not connect wiring from speaker to speaker.

Refer to Figure 8

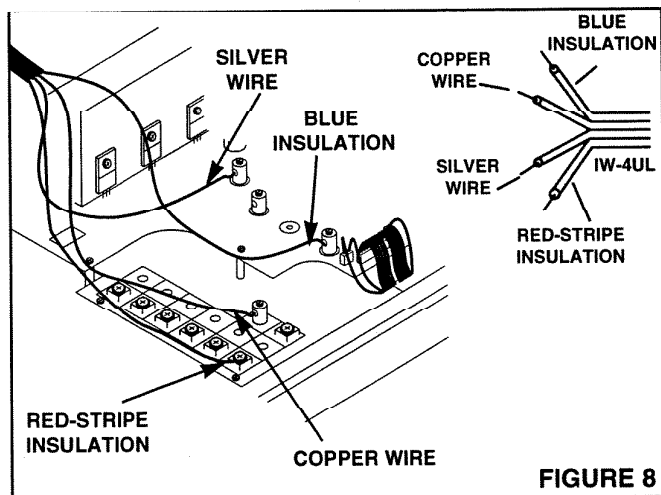
1. Dress all remote wiring through the center oblong wiring hole in the top of the rough-in frame.

**NOTE:** When tightening terminals on the master panel, support the front side of the panel with your hand. This will ensure the panel and panel mounting hinges will not be damaged due to excessive down force on the panel hinges.

2. Connect the IW-4UL cable for each remote to the appropriate set of terminal screws at the master station. Start by separating each of the four (4) wire cables back approximately 6" from the end. Next, strip approximately 5/8" of insulation off each wire. To aid in connection, twist three (3) common wires together as follows:
  - Twist all Blue insulation wires together.
  - Twist all Copper wires together.
  - Twist all Silver wires together.
- Connect all twisted IW-4UL BLUE insulation wires to MIC terminal on circuit board. Tighten screw.
- Connect all twisted IW-4UL COPPER wires to CONTROL terminal on circuit board. Tighten screw.
- Connect all twisted IW-4UL SILVER wires to SPKR/"R" GND terminal on circuit board. Tighten screw.
- Connect each individual RED STRIPED insulation wire to an individual SPEAKER OUTPUT 1-6 terminals on circuit board. Tighten screw.

When connecting the cable to the terminals, be sure to observe all color codes. After completing all connections, check for shorted wires.

3. Refer to installation instructions packaged with remote stations, and remote controls for wiring of these units.



## Connecting Volume Control Wiring

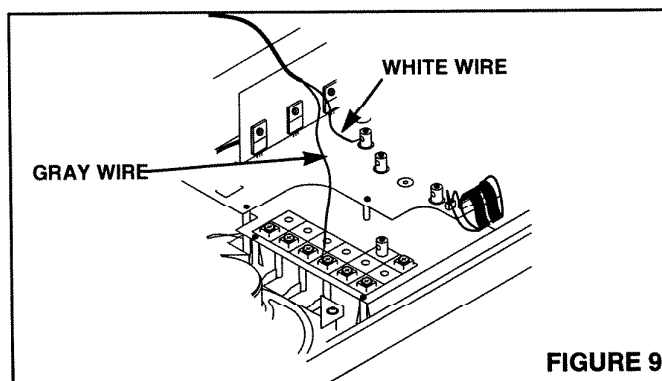
Refer to Figure 9

- Start by separating the white and gray wires of the IW-2UL cable approximately 6" back from the end. Next, strip approximately 5/8" of insulation off each wire.
- Connect the WHITE wire to the SPKR/"R" GND terminal on circuit board. If more than one volume control is used, twist all white wires together before connecting to terminal. Tighten screw.
- Connect each GRAY wire to an individual SPEAKER OUTPUT 1-6 terminal on circuit board. Tighten screw.

**Only one 25 ohm NuTone speaker may be connected to each volume control. Each volume control/speaker counts as a remote station (6 maximum). Never use 8 ohm stereo speakers with this system.**

When connecting the cable to the terminals, be sure to observe all color codes. After completing all connections, check for shorted wires.

Refer to the installation instructions packed with the speaker volume control for wiring of this unit.



## Connecting Door Speaker Wiring

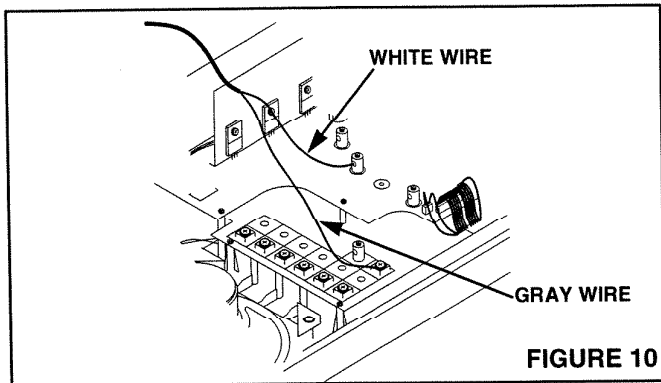
Refer to Figure 10

- Start by separating the white and gray wires of the IW-2UL cable approximately 6" from the end. Next, strip approximately 5/8" of insulation off each wire.
- If more than one door speaker has been installed, (maximum 3 door speakers) twist the WHITE wires together and connect to the DOOR GND terminal on circuit board. Tighten screw.
- If more than one door speaker has been installed, (maximum 3 door speakers) twist the GRAY wires together and connect to the DOOR terminal on circuit board. Tighten screw.

When connecting the cable to the terminals, be sure to observe all color codes. After completing all connections, check for shorted wires.

Refer to the installation instruction packed with the door speaker for wiring of this unit.

# INSTALLATION (Continued)



## Connecting the Power Transformer

Refer to Figure 11

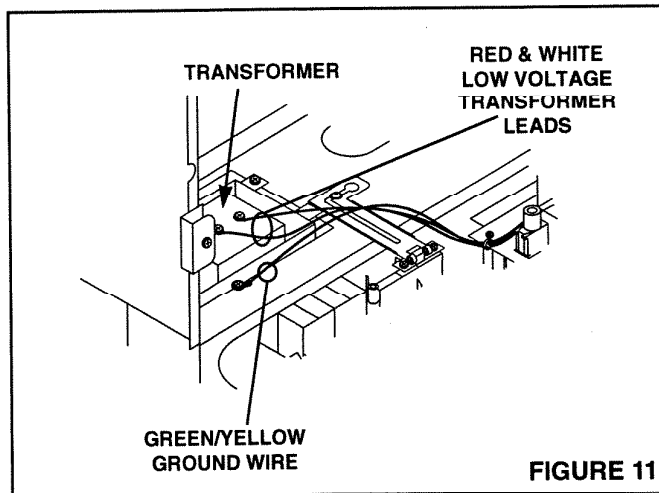
**NOTE:** Be sure AC power is off before connecting the power transformer. **DO NOT** turn AC power on to transformer until **ALL** wiring at the remote and master stations is complete.

1. The transformer's primary leads should already be connected to the 120 volt AC house supply wiring. Be sure the power is off before connecting the transformer to the master station.
2. The RED and WHITE low voltage transformer leads are located in the bottom left corner of the master station. Connect and tighten these low voltage leads to the transformer's low voltage secondary screw terminals located in the bottom left of the rough-in.

## Connecting the Ground Wire

Refer to Figure 11

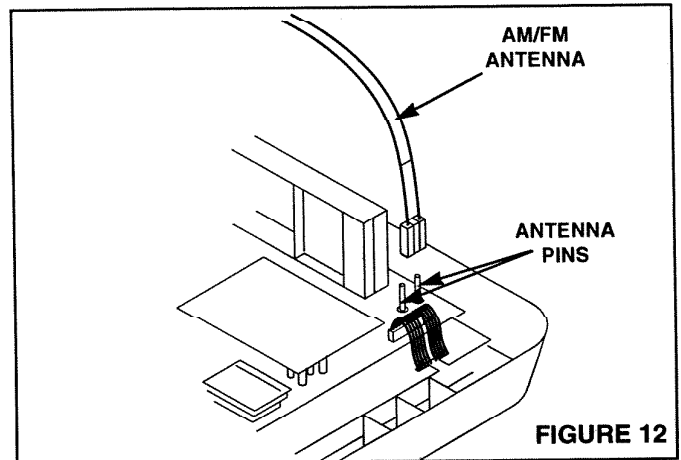
1. Remove the front #6 transformer box mounting screw from rough-in.
2. Insert screw into ring terminal of green/yellow ground wire.
3. Reinstall the screw with ring terminal into the same mounting hole that the screw was previously removed from.



## Connecting the Antenna

Refer to Figure 12

1. Plug the AM/FM antenna (supplied with the IR-103 rough-in frame) to the 2-pin connector located in the upper right corner of the main circuit board.

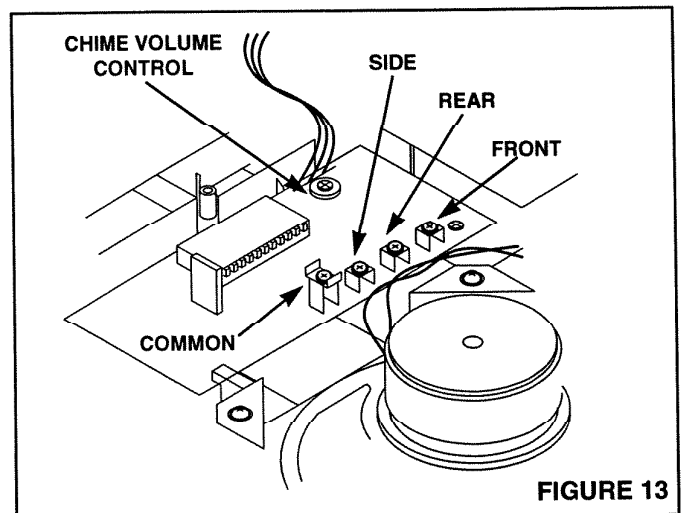


## Connecting the Optional Chime Module

Refer to Figure 13

Refer to the earlier section "Mounting the Optional Chime Module in the Master Station Panel".

1. Identify the front chime push button wires. Strip back each wire approximately 5/8".
2. Connect the front push button wires to the screw terminal marked **FRONT** and **COMMON** on the chime module.
3. Repeat steps 1 and 2 for the **REAR** and **SIDE** chime push buttons.
4. Refer to the instructions packed with the chime module for information on chime volume level and chime tune selection (IA-29 only).



# INSTALLATION (Continued)

## Connecting Optional Accessory

Refer to Figure 14

1. To connect an external audio source (cassette player, stereo system, VCR, TV, etc. with low level audio output) to the IM-3204 master station, locate the **CD/TAPE input** on the lower center of the master station's main circuit board.
2. Connect an RCA™ phono type plug to the shielded audio cable coming from the external audio source. Follow the phono plug manufacturer's instructions when connecting to cable.
3. Insert the phono plug into the **CD/TAPE** jack on the master station main circuit board.

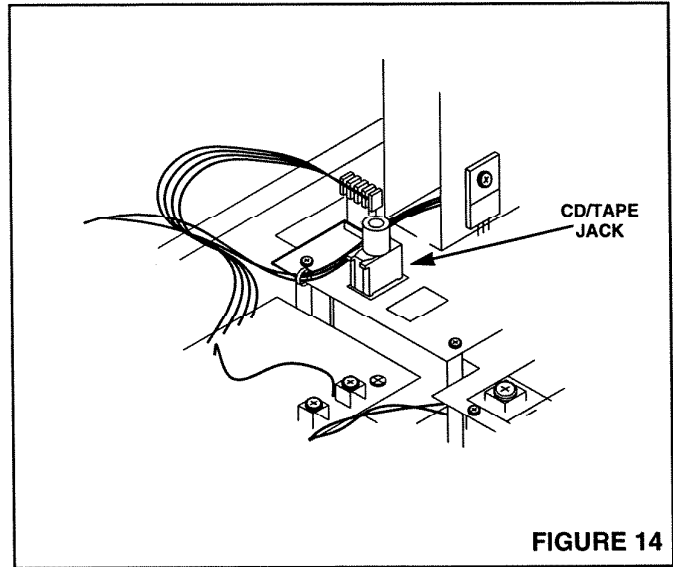


FIGURE 14

## Securing the Master Station Panel

Refer to Figure 15

1. Inspect all wiring connections at the master and remote stations.
2. Make sure the antenna connection plug is secure.
3. Dress all remote station wires flat against the back of the rough-in while the master panel is raised into final position.

**NOTE: WHEN RAISING THE MASTER PANEL TO ITS FINAL LOCATION, DO IT SLOWLY. BE CAREFUL NOT TO HIT OR DAMAGE ANY OF THE CIRCUIT BOARDS OR WIRING.**

4. Position the master station panel over the rough-in frame, and align screw holes in the master panel with mounting brackets.
5. Secure the master station panel to rough-in mounting brackets with the two (2) screws provided.

**NOTE:** The mounting screws will pierce the wall surface behind the mounting brackets. If the wall surface is hard, a clearance hole must be drilled behind the mounting brackets before securing the master station panel.

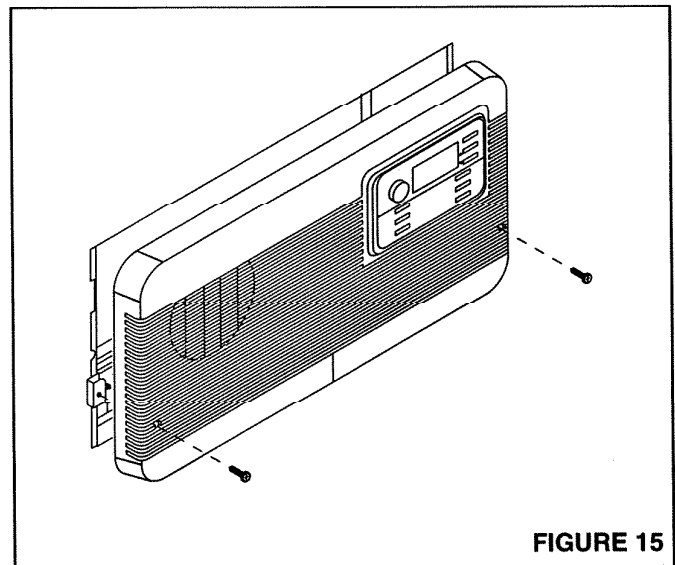


FIGURE 15

## Powering Up the System

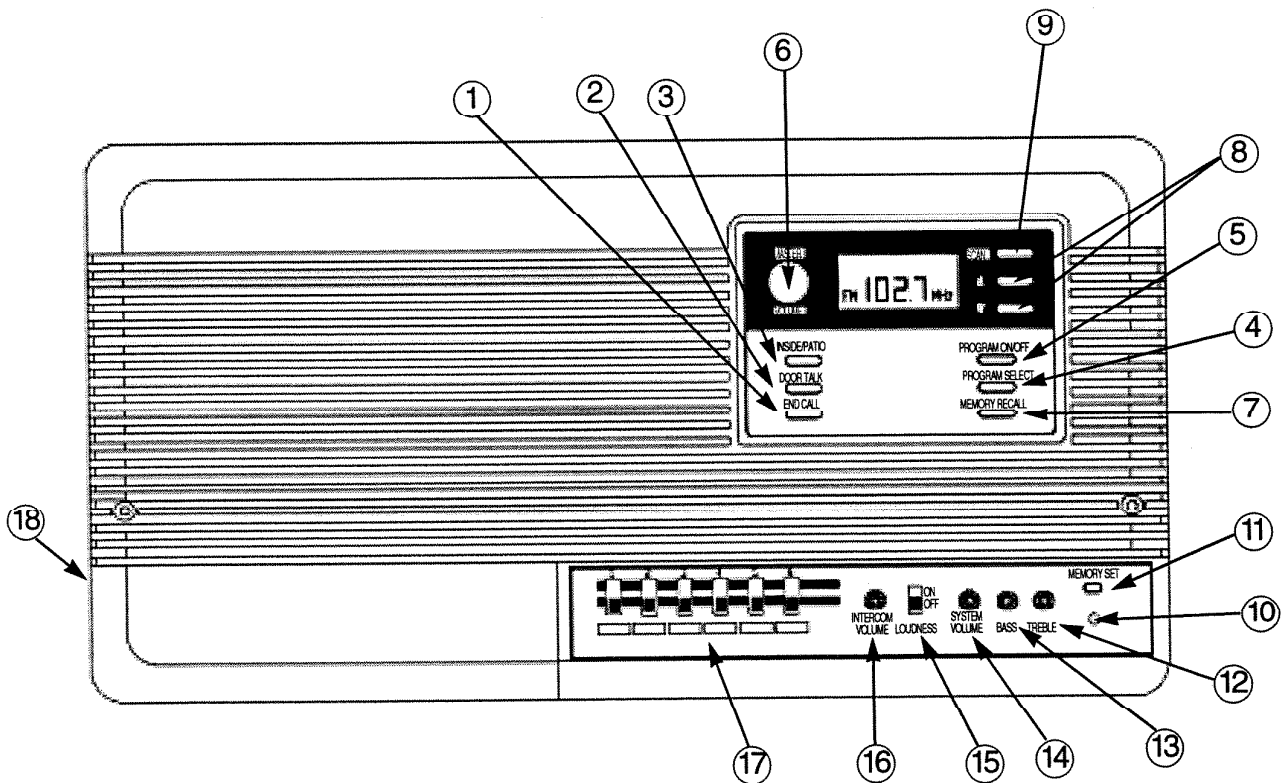
Once all connections throughout the system have been checked, power can be applied to the master station transformer.

1. Apply power to the master station by turning on the circuit breaker that supplies power to the power transformer in the IR-103 rough-in frame.
2. When the power is first applied, and the radio is turned on, the LCD display will flash until the radio is tuned. Please refer to the operational checkout section of this manual for additional information.

# SYSTEM OPERATING CONTROLS

## Master Station Controls

- 1. END CALL:** Ends intercom communication and returns system to audio source.
- 2. DOOR TALK:** Initiates intercom communication to the door speaker(s).
- 3. INSIDE/PATIO:** Initiates intercom communication to remote stations.
- 4. PROGRAM SELECT:** Selects the program audio source: AM, FM, CD/TAPE. The selected mode will be indicated in the LCD display.
- 5. PROGRAM ON/OFF:** Turns on/off the selected program audio source **NOTE:** The program on/off key does not affect the intercom or chime operation.
- 6. MASTER VOLUME:** Adjusts the volume at the master station.
- 7. MEMORY RECALL:** Provides access to recall and stored radio frequencies.
- 8. UP/DOWN TUNING:** Provides manual tuning of the AM/FM radio.
- 9. SCAN:** Activates scan tuning during AM/FM operation.
- 10. MICROPROCESSOR RESET:** Initiates a reset of the microprocessor. **NOTE:** A reset of the microprocessor will erase the system's memory.
- 11. MEMORY SET:** Stores desired radio frequencies into a selected memory location.
- 12. TREBLE:** Adjusts the high frequency audio content of the source audio.
- 13. BASS:** Adjusts the low frequency audio content of the source audio.
- 14. SYSTEM VOLUME:** Adjusts the program audio level throughout the system.
- 15. LOUDNESS:** Compensates for the loss of bass and treble response the human ear has when listening to audio at low volume levels.
- 16. INTERCOM VOLUME:** Adjusts intercom and monitor audio level throughout the system.
- 17. REMOTE STATION STATUS SWITCHES:** Sets the remote stations in one of the following modes: **RADIO/IP, OFF** or **MONITOR.**
- 18. ELECTRONIC CHIME TUNE SELECTION:** Selects the tune of the optional IA-29 chime module.





# SYSTEM OPERATING CONTROLS (Continued)

## Operational Checkout

If the system does not operate according to the following instructions, refer to the installer's Troubleshooting Guide.

1. Set **STATION STATUS SWITCHES** to **RADIO/IP** position.
2. Set the **MASTER VOLUME** control to maximum.
3. Set each individual remote station **VOLUME** control to maximum.
4. Set the **SYSTEM VOLUME** control to 1/3 position.
5. Set the **INTERCOM VOLUME** control to 3/4 position.
6. Set the **BASS** and **TREBLE** controls to 1/2 position.
7. Tune in a strong local FM radio station as follows:
  - A. Press the **PROGRAM ON/OFF** key.
  - B. Press the **PROGRAM SELECT** key until the FM radio is selected and displayed in the LCD display.
  - C. Use the **▼ ▲** keys to locate a strong local FM radio station.

Beginning with the master station, check each station in the system for proper operation using the following procedure:

1. Adjust all station's **VOLUME** controls (**MASTER VOLUME** on the master station) between maximum and minimum making sure the audio is completely muted in the minimum position.
2. Press the **INSIDE/PATIO** key. Radio audio will mute and audio from the initiating station will be heard at all stations in the system, except the door speaker(s).
3. Release the **INSIDE/PATIO** key and have an assistant press the **INSIDE/PATIO** key on another speaker to hear the reply.
4. Press the **END CALL** key. Intercom communication will end, and radio audio will return to all stations in the systems.
5. Press the **DOOR TALK** key. Radio audio will mute, and audio from the initiating station will be heard at the door speaker(s) and all the stations in the system.
6. Release the **DOOR TALK** key. Audio from the door speaker(s) will be heard at all stations in the system.
7. Press **END CALL** key. Door communication will end, and radio audio will return to all stations in the system.
8. Press and hold the **END CALL** key for 2 seconds at any remote station(not at the master station). The radio will turn off.
9. Press and hold the **END CALL** key for 2 seconds at any remote station(not at the master station). The radio will turn on. For additional information on remote radio control, refer to the homeowner's manual.
10. Repeat this procedure at all remote stations.

## Setting Program Audio 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 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 SPEAKER STATUS** switches to the **RADIO/IP** position.
3. Turn the **MASTER VOLUME** control to maximum volume.
4. Turn the **SYSTEM VOLUME** control on the master station to approximately 1/3 level.
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's 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.
8. In order to have proper intercom audio levels, it is recommended that the **MASTER VOLUME** and **REMOTE STATIONS' VOLUME** controls be set at 2/3 or above.

## Setting Intercom Volume

1. Initiate intercom call from the master station by pressing the **INSIDE/PATIO** key.
2. Speak with a normal voice about 2-3 feet from the master station's speaker.
3. Adjust the **INTERCOM VOLUME** control until the initiating station's audio is clearly heard at all stations in the system.

**NOTE: The volume control at all stations should be set between 2/3 and maximum volume for proper intercom operation.**

4. Repeat the above procedure at several remote station locations until an acceptable intercom audio level is achieved at all stations.

# SYSTEM OPERATING CONTROLS (Continued)

## Diagnostic Tests

The following diagnostic tests have been incorporated into the NuTone IM-3204 Radio Intercom to assist in troubleshooting.

1. Master station and remote station keyboard test.
2. Display test.

The following applies to both diagnostic tests:

1. To access any of the diagnostic tests, the system must be in the quiescent state (radio off and intercom in the standby mode).
2. Pressing the MEMORY SET key will end the current diagnostic test.
3. The current diagnostic test will end after one minute of inactivity.

### MASTER STATION AND REMOTE STATION KEYBOARD TEST-

Verifies that all keys at the master station and remote stations are functioning properly.

To Activate: Press and HOLD

1. ▼ key
2. END CALL key

In this mode the LCD will display the following as each key is pressed.

KEY	DISPLAY	KEY	DISPLAY
No key pressed	00d	MEMORY SET	007
MASTER INSIDE/PATIO	001	▲	008
MASTER DOOR TALK	002	▼	009
MASTER END CALL	003	SCAN	010
PROGRAM ON/OFF	004	REMOTE INSIDE PATIO	10d
PROGRAM SELECT	005	REMOTE DOOR TALK	20d
MEMORY RECALL	006	REMOTE END CALL	30d

**DISPLAY TEST-** Displays all of the segments in the display.

To Activate: Press and HOLD

1. ▲ key
2. END CALL key

## Resetting the Microprocessor

NOTE: Resetting the microprocessor will cause radio memory channels to be lost.

Should the system not operate properly, the internal microprocessor may require resetting. To reset the microprocessor, use the point of a pen to press the reset button through the access hole behind the right lower door under the **MEMORY SET** key.

# INSTALLER'S TROUBLESHOOTING GUIDE

TROUBLE	POSSIBLE CAUSE	POSSIBLE REMEDY
No radio, no intercom, no display.	No electrical power.	Be sure there is 120 VAC, 60Hz power to the transformer's primary. Next check for 16 VAC on the transformer's secondary.
	Defective transformer.	Replace transformer.
No radio, intercom working.	Faulty Master Station.	Isolate Master Station from installation by removing IW-4UL cables from Master Station. Wait one minute for timeout. With power on, radio should be playing at Master. If no radio, Master is probably faulty. If radio plays, reconnect IW-4UL cables one at a time from the remote stations.
	Installation problem.	Check screw terminals on Master Station for shorted wires or miswired cables. Remove one 4-wire cable at a time to locate faulty line. When radio comes on, check speaker connections and run continuity check of speaker wiring.
	Antenna problem.	Check for shorted antenna connection. Remove antenna connector from tuner board and touch each pin with metallic object. If radio plays, antenna is not functioning; be sure it is installed properly.

# INSTALLER'S TROUBLESHOOTING GUIDE

TROUBLE	POSSIBLE CAUSE	POSSIBLE REMEDY
IU is displayed continuously in the LCD display.	Shorted IW-4UL remote speaker wiring or improper wire connection at master or remote station.	Remove all Copper wires from the CONTROL screw terminal on Master Station. Reconnect each copper wire one at a time until IU is displayed in LCD display. Check defective IW-4UL cable for shorts between wires and at remote station screw terminals.
Low or distorted radio volume.	Incorrect volume setting.	Follow "Setting Program Audio Controls" instructions.
Low or no intercom volume from remote speaker in MONITOR mode.	Improper operation.	Be sure remote speaker set for MONITOR has its volume control set at maximum and receiving speakers have volume controls set between $\frac{2}{3}$ and maximum. Follow "Using the Monitor Function" instructions in the "Intercom Operation" section of the Homeowner's Manual.
System squeals when using intercom.	Shorted wire on Master or Remote screw terminals.	Check for short between terminals or loose wire.
	Two or more Remote Stations on same wire run to Master.	Make separate (IW-4UL) cable runs from each Remote Station to the Master.
	Speakers in adjacent rooms mounted on common wall or mounted back to back.	If speakers are mounted directly back to back, one speaker will have to be relocated. If speakers are in a common wall, try placing fiberglass insulation behind each speaker, or isolate the speakers from the wall by placing rubber washers or weather stripping between speaker and wall.
	Improper wire used in installation.	NuTone Model IW-4UL 4-wire flat-ribbon cable must be used. Telephone cable, twisted cable, etc. will not give suitable isolation between wires in cable for proper operation.
Hum in speakers.	Intercom wiring run too close to household AC power wiring.	Keep intercom wiring as far as practical from household AC power wiring. Do not run intercom wiring parallel to AC power wiring.
	Interference from household electrical fixtures.	A dimmer may cause interference. For dimmer and fluorescent lighting interference, use filters (G.E. 89G635 or equivalent; NuTone Part No.: 1559A-000).
Static.	Loose ground connection.	Check ground connection to Master and connection to earth ground source.
	Interference from household electrical fixtures.	A dimmer may cause interference. For dimmer and fluorescent lighting interference, use filters (G.E. 89G635 or equivalent; NuTone Part No.: 1559A-000).
	Interference from household electrical appliances.	Correct interference at the source ( fish tank, heater, hand tool, coffee pot, etc).
Remote Station not working.	Wire installation.	Check screw terminals at Master Station and Remote Stations for broken wire or loose connection. Check continuity of wire.
	Speaker.	Check continuity of speaker. Clean speaker and switch controls. Substitute with speaker known to be in working order.

# INSTALLER'S TROUBLESHOOTING GUIDE

TROUBLE	POSSIBLE CAUSE	POSSIBLE REMEDY
No door communication.	Wire installation.	Check continuity of wiring. Check screw terminal connections at speaker and Master.
	Speaker.	Check with a speaker known to be in working order.
Optional IA-28/IA-29 chime module does not operate or operates at a low volume.	Wire installation.	Be certain the chime is properly connected to the Master Station. Also, be certain the front, side and rear buttons are properly connected to the chime module. Check continuity of wire.
	Volume setting.	Adjust the volume of the chime module by turning the volume control located on the chime module. NOTE: Chime audio will NOT be heard at remote stations selected to OFF or MONITOR.
Cannot receive radio station which is received by another radio in home.	Faulty antenna connection.	Antenna should be located in attic and connected to tuner in Master. Check antenna connector to be sure it is connected to 2 pin connector on Master.