

Rough-In Frame

MODEL IR-103

Model IR-103 Rough-In Frame is to be used with NuTone Models IM-2003, IM-3204 or IMA-4006 Series Radio-Intercom Master Units.

This literature also includes information regarding the accessory rough-ins for these Master Units.

OVERVIEW OF INSTALLATION PROCEDURE

1. Determine the exact location of all components. See "Planning Guide" below. Contact the architect, builder or homeowner for the system plans. Check plans against the "Installation Don'ts" section of these instructions.
2. Mount the rough-in frames for the master unit, remote speakers and/or controls, and optional accessories. Note that all components may not require rough-in frames.
3. Run appropriate wiring to all component locations, including 120vAC power wiring to the master unit rough-in frame's transformer. See "Master Unit Rough-In Frame", page 9.
4. At this point, the rough-in installation is complete. See the installation instructions packaged with the master units and other units for instructions to complete the final installation of the system.

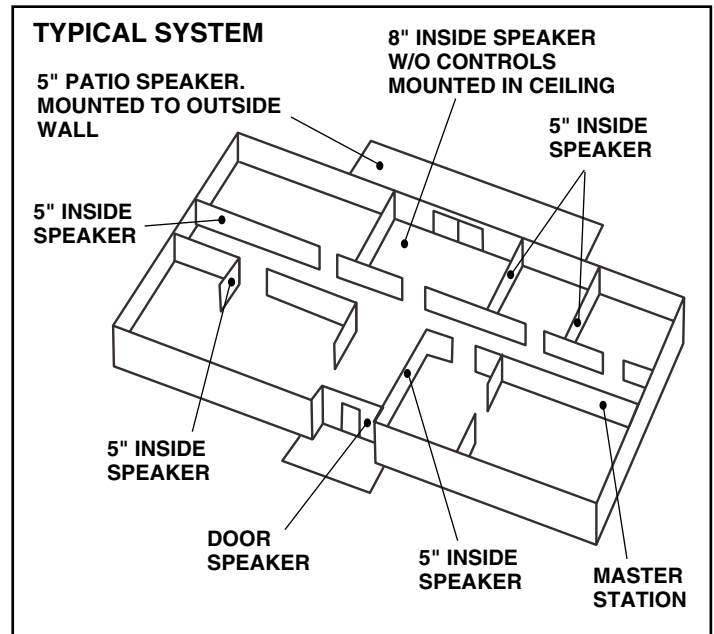
PLANNING GUIDE

To determine all the components required in the installation, layout the system plans on the building plans or on a sketch of the building.

Familiarize yourself with the available components by studying the "Typical System" and NuTone catalog.

COMPONENTS

Where will the **master station** be located? How many **inside speakers** are required? What size inside speakers will be used? Where will the inside speakers be located? How many **outside speakers** are required? What size speakers will be used? Where will the outside speakers be located? Will **speakers without controls** be used? Where will these speakers be located? Where will their **remote controls** be located? Will the system require the use of **door speakers**? At what doors will these speakers be located? Will **portable speakers** be used? Where will wall receptacles for portable speakers be located? Will an **optional electronic chime** be used?



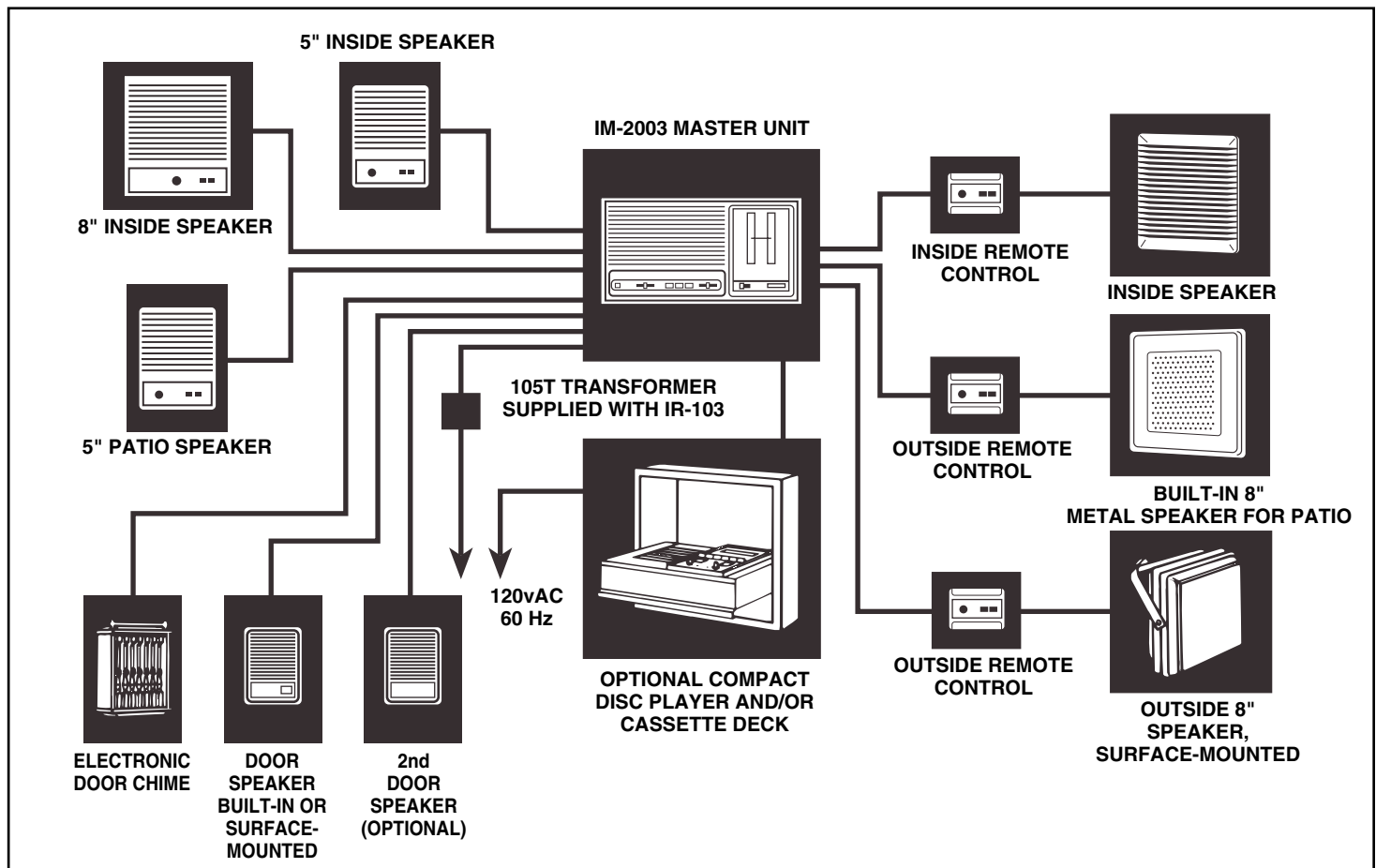
INSTALLATION DON'TS

1. **INSIDE SPEAKERS** –
 - (A) Don't locate inside speaker stations on exterior walls.
 - (B) Don't place more than one speaker station in a room.
 - (C) Don't locate two speaker stations in a common wall between rooms.
 - (D) Don't place a speaker station so it is facing another station, even if the other speaker station is across a hallway in another room.
 - (E) Don't locate speaker stations where doors or furniture will interfere with the operation of the speaker.
2. **MASTER STATION** – The master station has a built-in speaker with separate controls; therefore, observe the precautions in the previous paragraph when determining a location for the master station.
3. **DOOR SPEAKERS** – Don't mount door speakers with built-in pushbuttons out of normal reach; locate near door and not more than 60" above floor. Door speakers without pushbuttons can be mounted as desired near door (adjacent wall, porch ceiling, or overhang can be used but audio to system will be reduced).
4. **CABLE LENGTHS** – Observe cable limitations.

IM-2003 SERIES SYSTEM WIRING

REPRESENTATIVE SYSTEM DIAGRAM

This diagram provides a general idea of components used in a system. Refer to "IM-2003 Series System Wiring Diagram" (page 3) for wiring used.



WIRING INSTALLATION GUIDELINES

WIRING SPECIFICATIONS

NuTone IW-2: 22 GA. Twisted Pair.

NuTone IWA-3: Flat Ribbon Type 3-wire (22 GA.) Cable.

NuTone S-143: 18 GA. 2-Conductor Insulated.

No. 14/2: 120v, 60 Hz, Power Cable. Class 1, UL Listed (not supplied by NuTone).

14 GA.: Ground Wire (not supplied by NuTone).

SPEAKER WIRING

An individual 3-wire cable IWA-3 must be connected from each remote speaker station to the terminal board in the master unit. Maximum 300 feet. Maximum total of IWA-3 per system is 600 feet.

MAXIMUM NUMBER OF SPEAKERS – Nine remotes and two door speakers.

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

aid to help reduce this interference, all remote speaker wires and cables must be placed at least 12 inches from any A.C. power wiring.

CAUTIONS

1. Observe local code requirements.
2. Route all system wiring as far as practical (at least 12") from household power wiring, lamp dimmers, furnace controls, etc.
3. Avoid stapling cables.
4. Be sure the rough-in is properly grounded to an earth ground source.
5. Use only NuTone Model IWA-3 (Flat Ribbon Type 3-wire, 22 gauge cable) for connection to door speakers. Use IW-2 for connection to electronic chime.

The IM-2003 Series Radio-Intercom System is designed to be used only with NuTone specified wire. No other wire should be used. The use of wire other than NuTone wire may result in faulty installation and improper operation.

OPTIONAL AUDIO CABLE

Do not exceed 25 foot length (maximum). Remember, the shorter the audio cable, lesser the possibility of introducing noise into the system.

OPTIONAL AUXILIARY DEVICES

SPECIFICATIONS

CHIME

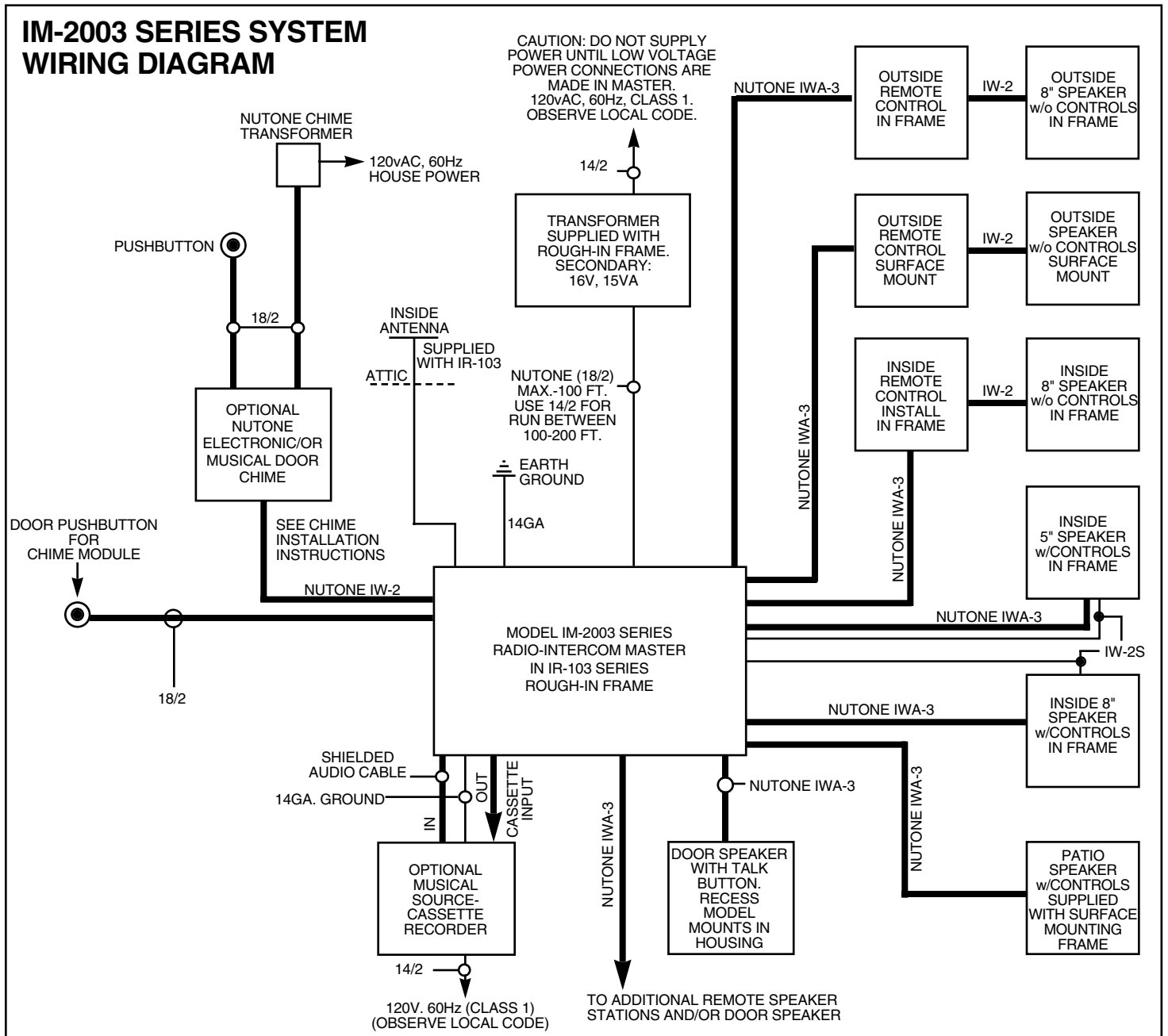
Minimum Input: 85uV RMS
 Maximum Input: 7.5V RMS
 Input Impedance: 25 ohms

AUXILIARY MUSIC SOURCE

Minimum Input: 120mV RMS
 Maximum Input: 7.5V RMS
 Input Impedance: 825K ohms

TAPE OUTPUT

Maximum Output: 1V RMS
 Output Impedance: 8K ohms



IM-3204 SERIES SYSTEM WIRING

WIRING INSTALLATION GUIDELINES

WIRING SPECIFICATIONS

The following wire must be used to connect the IM-3204 and accessories.

NuTone IW-4UL, 22 ga. 4 wire flat ribbon cable. UL Listed.

NuTone IW-2UL, 22 ga. twisted pair cable. UL Listed.

NuTone S-143, 18 ga. twisted pair cable. UL Listed.

14/2 with ground. 60Hz power cable Class 1 UL Listed (not supplied by NuTone).

Shielded audio cable (not supplied by NuTone).

The IM-3204 Series Radio Intercom System is designed to be used only with NuTone specified wire. No other wires should be used. The use of wire other than NuTone wire may result in faulty installation and improper operation and will void all NuTone warranties.

IMPORTANT: NuTone cannot be responsible for improper Radio-Intercom operation that results from interference generated by light dimmers, fluorescent lighting fixtures, and similar electrical products. Such interference must be corrected at the source. As an aid to help reduce this interference, all remote station/control/speaker wires, all door speaker wires and cables must be placed at least 12 inches from any A.C. power wiring.

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

- Master to remote controls
 - Master to remote stations
 - Maximum Number of speakers - Six remote station/remote controls.
 - Maximum IW-4UL cable length for total system - 600 feet.
 - Maximum IW-4UL cable length per remote station/control - 150 feet.
1. An individual 4-wire (IW-4UL) cable must be connected from each remote station or remote control location to the master station location. Leave approximately 24" of extra cable at the remote station/control location and master station location for final connections. Always "Home Run" all IW-4UL cables, **Never** connect remote stations/controls to remote stations/controls or squealing, distortion and oscillation will occur.
 2. Never use 4-wire telephone cable or twisted cable. These cables will not give suitable isolation between wires in the cable to prevent squealing, distortion and oscillation.
 3. Never bundle or wrap cable(s) together. Never run cable(s) inside metal conduit. Cables that are bundled, wrapped together or ran inside metal conduit will reduce intercom/monitor volume and cause squealing, distortion and oscillation.

4. Never route cables parallel to 120/240 volt AC house wiring. Cable too close to AC house wiring will cause buzzing and humming noise during intercom and monitor operation. To aid in reducing these type of noises, keep all intercom wiring a minimum of 12" from AC house wiring. If crossing AC wiring is required, cross at a right angle to reduce exposure to noise.

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

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

MASTER TO DOOR SPEAKER

- Maximum Number of door speakers - Three door speakers.
 - Maximum IW-2UL cable length for all door speakers in system - 450 feet.
 - Maximum IW-2UL cable length per door speaker - 300 feet.
1. An individual twisted pair (IW-2UL) cable must be connected from each door speaker location to the master station location. Leave approximately 24" of extra cable at the door speaker location and master station location for final connections. Never connect door speaker to door speaker or intercom level will be reduced.
 2. Never bundle or wrap cable(s) together. Never run cable(s) inside metal conduit. Cables that are bundled, wrapped together or ran inside metal conduit will reduce intercom volume and cause squealing, distortion and oscillation.
 3. Never route cables parallel to 120/240 volt AC house wiring. Cable too close to AC house wiring will cause buzzing and humming noise during intercom operation. To aid in reducing these type of noises, keep all intercom wiring a minimum of 12" from AC house wiring. If crossing AC house wiring is required, cross at a right angle to reduce exposure to noise.

REMOTE CONTROLS TO SPEAKERS

- Maximum IW-2UL cable length from speaker to remote control - 25 feet.
1. An individual twisted pair (IW-2UL) cable must be connected from each speaker location to the remote control location. Leave approximately 24" of extra cable at the speaker location and master station location for final connections. Never connect more than one (1) 25 ohm NuTone speaker to a remote control or the remote control/master station will be damaged.

IM-3204 SERIES SYSTEM WIRING

2. Never bundle or wrap cable(s) together. Never run cable(s) inside metal conduit. Cables that are bundled, wrapped together or ran inside metal conduit will reduce intercom/monitor volume and cause squealing, distortion and oscillation.
3. Never route cables parallel to 120/240 volt AC house wiring. Cable too close to AC house wiring will cause buzzing and humming noise during intercom operation. To aid in reducing these type of noises, keep all intercom wiring a minimum of 12" from AC house wiring. If crossing AC house wiring is required, cross at a right angle to reduce exposure to noise.

MASTER TO SPEAKER VOLUME CONTROL (IC-901WH, IC-902)

- Maximum IW-2UL cable length from master to remote control - 150 feet.
1. An individual twisted pair (IW-2UL) cable must be connected from each speaker volume control location to the master station location. Leave approximately 24" of extra cable at the speaker volume control location and master station location for final connections. Never connect more than one (1) 25 ohm NuTone speaker to a speaker volume control, or the speaker volume control/master station will be damaged. Never position an intercom remote station/control in the same room or on a common wall with a speaker connected to a speaker volume control or squealing will occur during intercom and monitor operation.
 2. Never bundle or wrap cable(s) together. Never run cable(s) inside metal conduit. Cables that are bundled, wrapped together or ran inside metal conduit may cause squealing, distortion and oscillation.
 3. Never route cables parallel to 120/240 volt AC house wiring. Cables too close to AC house wiring will cause buzzing and humming noise. To aid in reducing these types of noises, keep all speaker wiring a minimum of 12" from AC house wiring. If crossing AC house wiring is required, cross at a right angle to reduce exposure to noise.

SPEAKER VOLUME CONTROL (IC-901WH, IC-902) TO SPEAKERS

- Maximum IW-2UL cable length from speaker to speaker volume control - 25 feet.
1. An individual twisted pair (IW-2UL) cable must be connected from each speaker location to the speaker volume control location. Leave approximately 24" of extra cable at the speaker location and speaker volume control location for final connections. Never connect more than one (1) 25 ohm NuTone speaker to a speaker volume control or the speaker volume control/master station will be damaged.
 2. Never bundle or wrap cable(s) together. Never run cable(s) inside metal conduit. Cables that are bundled, wrapped together or ran inside metal conduit may cause squealing, distortion and oscillation.
 3. Never route cables parallel to 120/240 volt AC house wiring. Cables too close to AC house wiring will cause

buzzing and humming noise. To aid in reducing these types of noises, keep all speaker wiring a minimum of 12" from AC house wiring. If crossing AC house wiring is required, cross at a right angle to reduce exposure to noise.

CHIME MODULE TO PUSHBUTTON

- Maximum IW-2UL cable length from pushbutton to chime module - 300 feet.
1. An individual twisted pair (IW-2UL) cable must be connected from each pushbutton location to the master station location. Leave approximately 24" of extra cable at the pushbutton location and master station location for final connections. Never connect more than one (1) pushbutton to each of the (3) chime module door screw terminals.

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

- Electro-mechanical or electronic chime to pushbutton.
1. An individual 18 ga twisted pair (S-143) cable must be connected from each pushbutton location to the chime location. Leave approximately 24" of extra cable at the pushbutton location and chime location for final connections. Never connect more than one (1) pushbutton to each of the chime door screw terminals. Connections to the electro-mechanical and electronic chime is totally independent of the master station. For additional instructions, refer to the instructions packed with your specific chime model.

Use No. 14/2 with ground, 60Hz power cable Class 1 UL Listed for connecting:

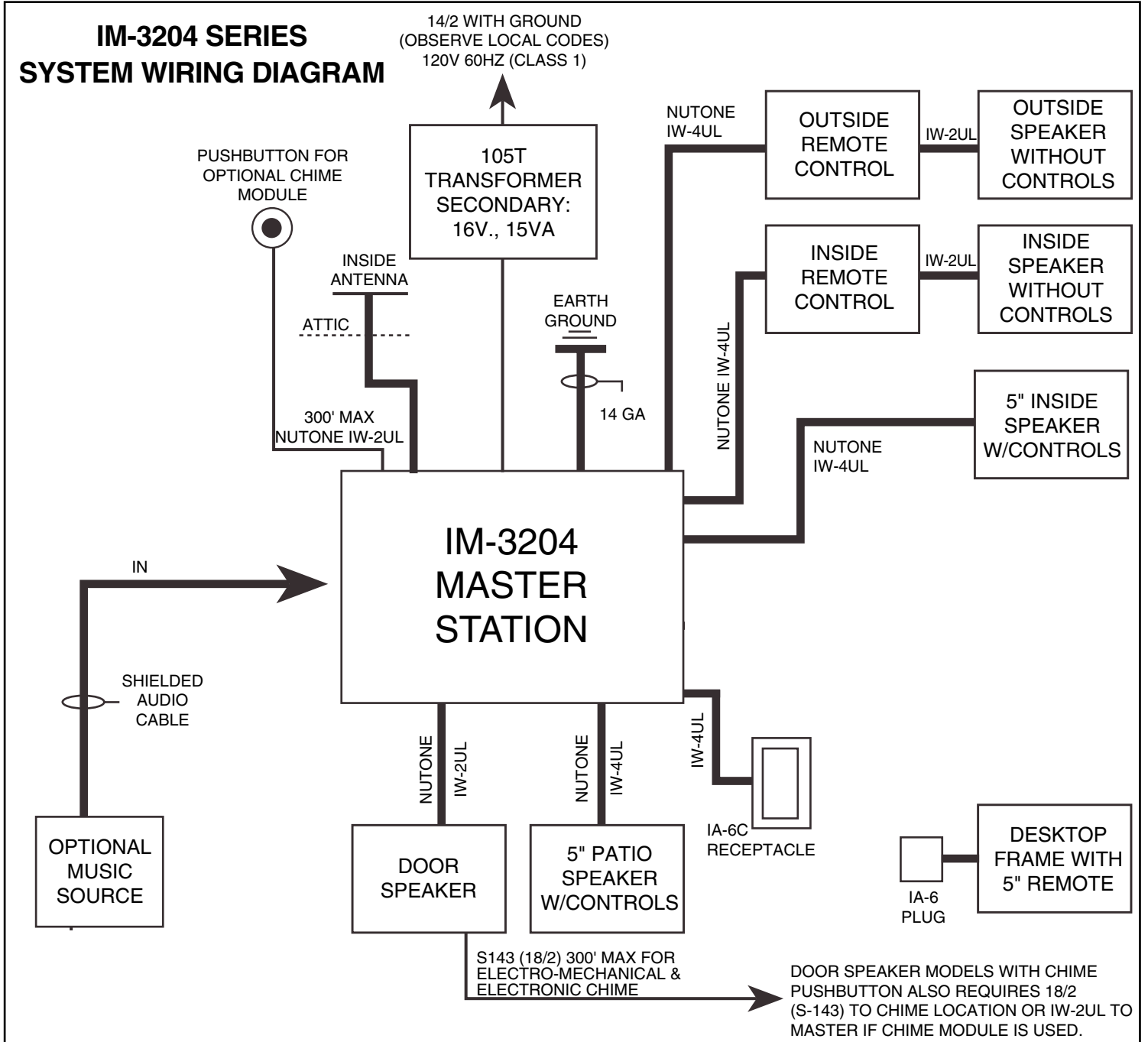
- 105T transformer in rough-in to 120 volts AC power source.
1. Always observe local electrical codes when connecting 120 volts AC house wiring to the 105T transformer.
 2. Be sure the rough-in is properly grounded to an earth source.

Use shielded audio cable for connecting:

- External audio source to master station.
1. A shielded audio cable (not supplied by NuTone) must be connected from the external audio source (CD player, Cassette player, etc.) location to the master station location. Leave approximately 24" of extra cable at the external audio source location and master station location for final connections.
 2. Keep shielded cable as short as possible to reduce buzzing and humming noise. Never exceed 25 feet.
 3. Never route cable parallel to 120/240 volt AC house wiring. A cable too close to AC house wiring will cause buzzing and humming noise. To aid in reducing these types of noises, keep the shielded audio cable a minimum of 12" from AC house wiring. If crossing AC house wiring is required, cross at a right angle to reduce exposure to noise.

IM-3204 SERIES SYSTEM WIRING

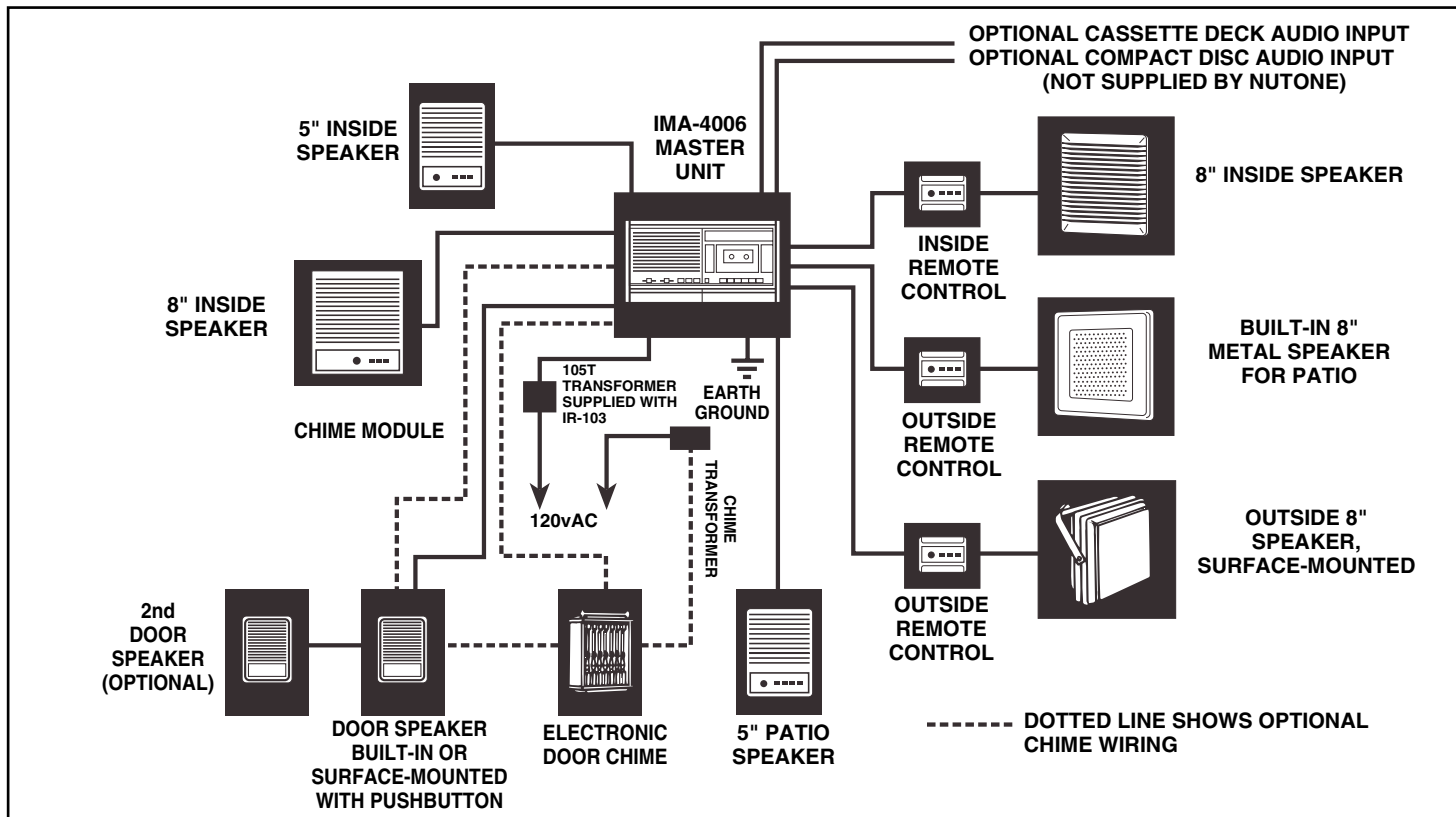
IM-3204 SERIES SYSTEM WIRING DIAGRAM



IMA-4006 SERIES SYSTEM WIRING

REPRESENTATIVE SYSTEM DIAGRAM

This diagram provides a general idea of components used in a system. Refer to "IMA-4006 Series System Wiring Diagram" (page 8) for wiring used.



WIRING INSTALLATION GUIDELINES

WIRING SPECIFICATIONS

NuTone IW-2: 22 GA. Twisted Pair.
NuTone IW-6: 3-twisted pair, (22 GA.) cable.
NuTone S-143: 18 GA. 2-Conductor Insulated.
No. 14/2: 120v, 60 Hz, Power Cable. Class 1, UL Listed (not supplied by NuTone).
14 GA.: Ground Wire (not supplied by NuTone).

SPEAKER WIRING

An individual 6-wire cable (IW-6R/22 ga. flat ribbon type) must be connected from each remote speaker or remote control to the master unit's terminal board.

MAXIMUM SPEAKER RUN – 750 feet.

MAXIMUM DOOR SPEAKER RUN – 300 feet.

MAXIMUM TOTAL OF IW-6 PER SYSTEM INCLUDING WIRE USED WITH IA-410 EXPANSION KIT – 4000 Feet.

MAXIMUM NUMBER OF SPEAKERS – The IMA-4006 Series Radio Intercom Master Station alone will accommodate up to 9 remote stations and 3 door speakers.

SYSTEM EXPANSION – Use of the Model IA-410 Master Station Expansion Kit will expand the master station's capacity to 19 remote stations and 3 door speakers total.

IMPORTANT: NuTone cannot be responsible for improper Radio-Intercom operation that results from interference generated by light dimmers, fluorescent lighting fixtures, and similar electrical products. Such interference must be corrected at the source. As an aid to help reduce this interference, all remote speaker wires and cables must be placed at least 12 inches from any A.C. power wiring.

CAUTIONS

1. Observe local code requirements.
2. Route all system wiring as far as practical (at least 12") from household power wiring, lamp dimmers, furnace controls, etc.
3. Avoid stapling cables.
4. Be sure the rough-in is properly grounded to an earth ground source.
5. Use only IW-2 (2-conductor twisted pair) for connection to door speaker and electronic chime (use additional 18/2 if chime pushbutton is used).

The IMA-4006 Series Radio-Intercom System is designed to be used only with NuTone specified wire. No other wire should be used. The use of wire other than NuTone wire may result in faulty installation and improper operation.

OPTIONAL AUDIO CABLE

Do not exceed 25 foot length (maximum). Remember, the shorter the audio cable, lesser the possibility of introducing noise into the system.

OPTIONAL AUXILIARY DEVICES

SPECIFICATIONS

TAPE

Minimum Input: 250mV RMS
 Maximum Input: 5V RMS
 Input Impedance: 600K ohms

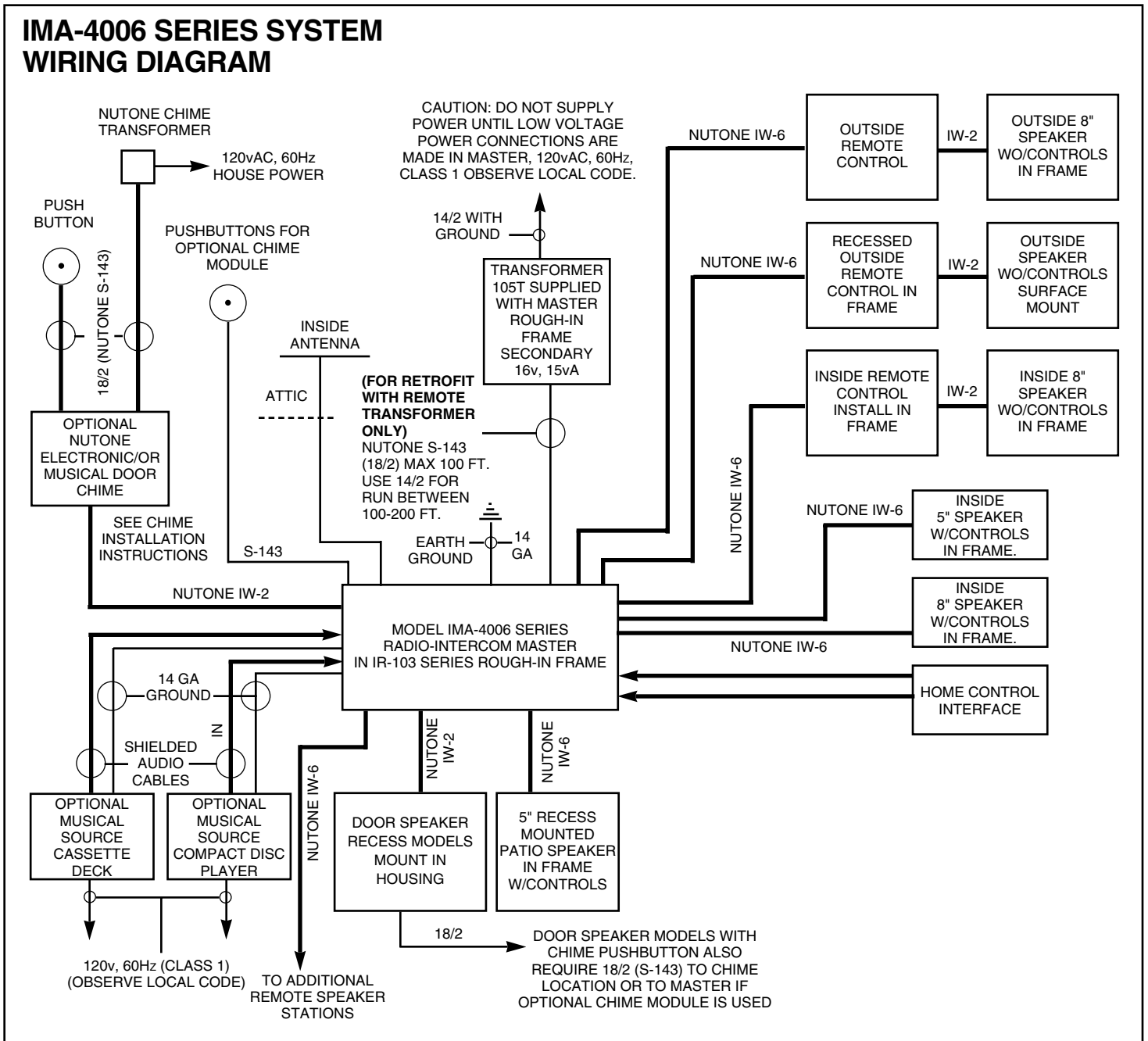
TAPE OUT

Maximum Output: .75V RMS
 Output Impedance: 5K ohms

CHIME

Minimum Input: 300uV RMS
 Maximum Input: 2mV RMS
 Input Impedance: 15 ohms

IMA-4006 SERIES SYSTEM WIRING DIAGRAM



MASTER UNIT ROUGH-IN FRAME

MODEL IR-103 FRAME (for IM-2003, IM-3204 and IMA-4006 Master Stations)

Note: Do not mount frame on outside wall.

1. **REQUIREMENTS** – Mounts between 16" center-to-center wall studs, with a minimum wall depth of 3½". Allow at least 4" from edge of frame to adjacent wall or cabinet.
2. Position frame only as shown. Install square and level at a convenient operation height (about 60" above floor to top of frame is normal for some installations).
3. Using screws or nail, mount frame between wall studs, securing through mounting slots in side of frame. Slots are provided so the frame may be adjusted to fit flush against the finished wall surface.

FOR EXISTING WALL CONSTRUCTION – Make wall cutout 14½" wide by 7" high between wall studs.

TRANSFORMER INSTALLATION

NOTE: IF IA-410 EXPANSION KIT IS TO BE USED WITH IMA-4006 SERIES RADIO-INTERCOM – DO NOT CONNECT 120vAC WIRING TO TRANSFORMER PACKED WITH IR-103. WHEN IA-410 EXPANSION KIT IS USED, THE TRANSFORMER SUPPLIED WITH THE KIT MUST BE THE TRANSFORMER WIRED TO THE 120vAC HOUSE WIRING. SEE INSTRUCTIONS PACKAGED WITH MODEL IA-410.

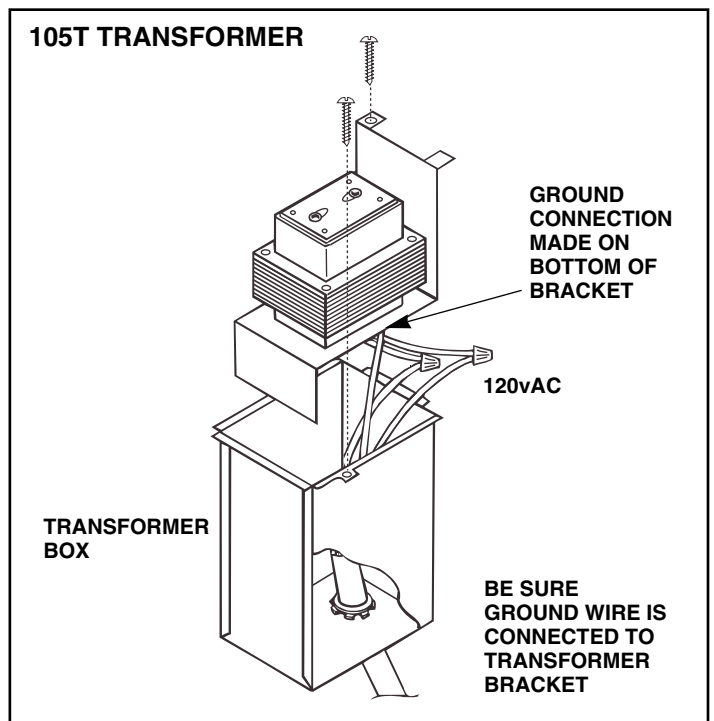
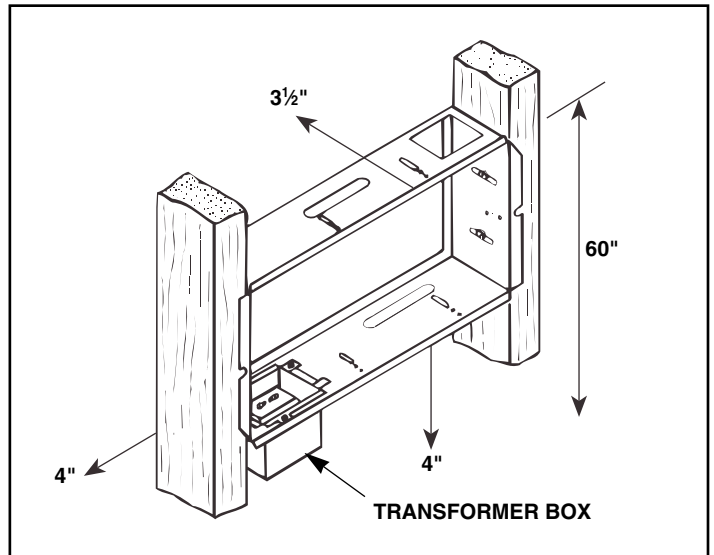
105T TRANSFORMER (packed with rough-in)

1. Place transformer box into IR-103 frame as shown in illustration.
2. Pull 120vAC house wiring through the hole in the bottom of transformer box and secure with box connector (not supplied).
3. Connect transformer primary leads to 120vAC house wiring as shown in illustration. **Be sure ground wire is connected to transformer bracket.**
4. Place transformer into the transformer box. See illustration.
5. As illustrated, secure transformer box with two screws.

AM/FM ANTENNA

Refer to page 12.

Install antenna as described in provided instructions. Leave 12" of antenna lead with pin connector for connection to master unit.



ACCESSORY ROUGH-IN FRAMES

NOTE: Refer to NuTone's catalog for model number information of the rough-in(s) that are required for mounting the components of the radio-intercom system.

Each rough-in has been illustrated in the following pages of this booklet; a brief description of the installation procedure is provided for each rough-in.

Refer to the installation instructions packaged with each rough-in for a more detailed installation procedure.

HOUSING (for recess-mounted door speakers)

NOTE: Surface-mounted door speaker models are available. For these models, no rough-in is required.

1. **REQUIREMENTS** – All 2" from all sides of housing and a minimum wall depth of 2".
2. **DOOR SPEAKERS** – Don't mount door speakers with built-in pushbuttons out of normal reach; located near door and not more than 60" above floor. Door speakers without pushbuttons can be mounted as desired near door (adjacent wall, porch ceiling, or overhang can be used but audio to system will be reduced).
3. **FOR FRAME CONSTRUCTION** – Mount to stud through side of housing.

FOR MASONRY CONSTRUCTION – Make opening 3 $\frac{1}{16}$ " wide by 5" high and grout housing in place.

8" SPEAKER FRAME (for 8" inside remote speakers)

1. **REQUIREMENTS** – To accommodate the speaker panel, allow a minimum clearance – on all sides of the rough-in frame – of two inches (2").
Wall depth required: 1 $\frac{5}{8}$ ".

The Speaker Frame must be mounted in vertical position.

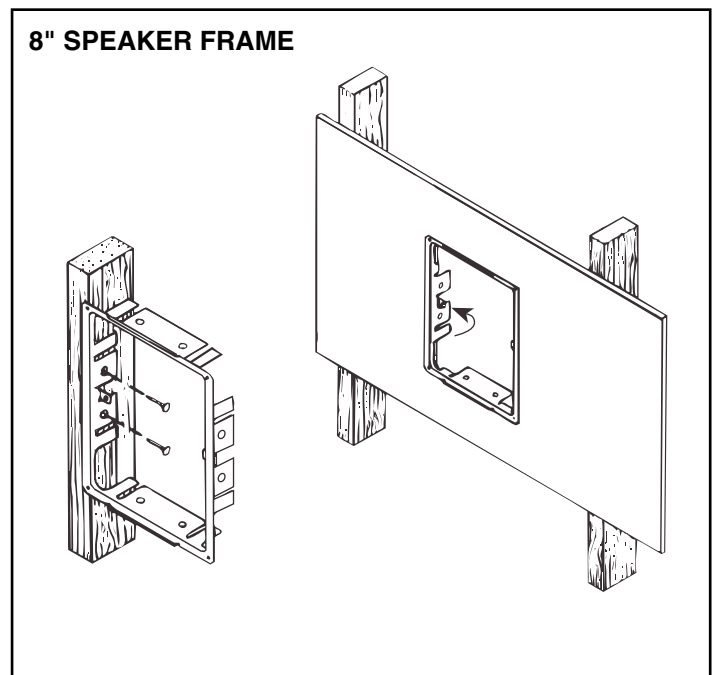
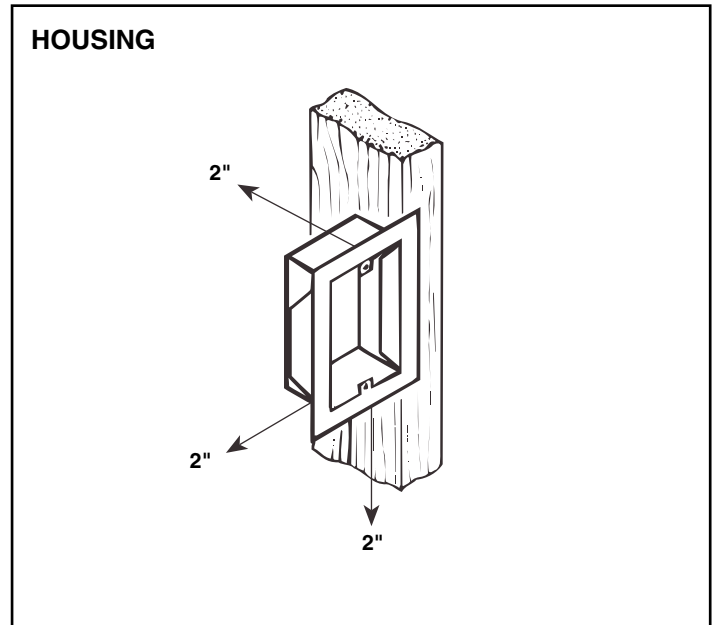
2. **NEW CONSTRUCTION** – Position frame against wall stud. Use nails or wood screws to secure frame to stud.
3. **EXISTING CONSTRUCTION** – Frame may be mounted next to a wall stud or between wall studs. Mounting tabs make mounting easy. Frame used as template for cutout. See instructions provided with frame.

WALL RECEPTACLE (for portable speaker)

1. **REQUIREMENTS** – Mount to single gang outlet box, located where necessary (generally at same height as standard electrical outlet – 19" - 20" above floor).
2. Mount single-gang outlet box to wall stud. If finished wall is in place use outlet box as template and make cutout beside wall stud.

REMOTE CONTROL (for inside & outside speakers)

1. **REQUIREMENTS** – Mount to single gang outlet box, located where necessary (generally at same height as standard electrical switch).
2. Mount single-gang outlet box to wall stud. If finished wall is in place use outlet box as template and make cutout beside wall stud.



8" SPEAKER FRAME (for 8" model outside speaker)

1. **REQUIREMENTS** – Make an opening in an outside wall 10 $\frac{1}{16}$ " wide by 11 $\frac{1}{16}$ " high. The frame requires a minimum wall depth of 2 $\frac{1}{2}$ ".
2. Locate frame where desired (generally, top of frame about 60" from ground). For wood construction, mount frame through slots on each side. For other construction, frame must be grouted in place.

5" SPEAKER FRAME (for 5" inside remote speakers)

1. **REQUIREMENTS** – To accommodate the speaker panel, allow a minimum clearance – on all sides of the rough-in frame – of two inches (2"). Wall depth required: 1 $\frac{5}{8}$ ".

The Speaker Frame must be mounted in vertical position.

2. **NEW CONSTRUCTION** – Position frame against wall stud. Use nails or wood screws to secure frame to stud.
3. **EXISTING CONSTRUCTION** – Frame may be mounted next to a wall stud or between wall studs. Mounting tabs make mounting easy. Frame used as template for cutout. See instructions provided with frame.

5" INSIDE SURFACE-MOUNT FRAME (for surface-mounted 5" remote speakers)

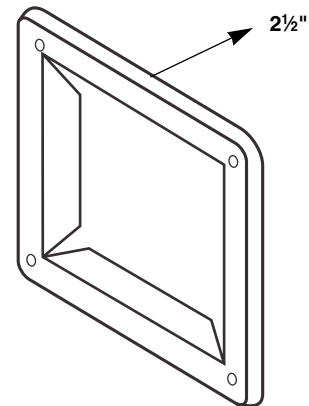
1. Allow a minimum clearance on all sides of frame of 2".
2. Mount approximately 60" above floor.
3. Secure to wall through two mounting holes.

FRAME (for remote controls)

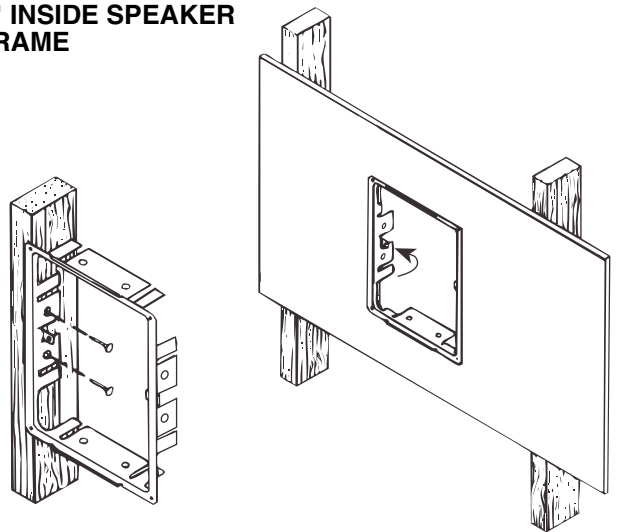
IMPORTANT: Speakers that do not have built-in controls require a separate remote control.

1. Remote control should be located near the speaker which it will control. Locate Remote Control where it can be easily operated – generally, 50" - 60" above floor is satisfactory.
2. When used with an inside speaker, mount Remote Control inside the house. When used with an outside speaker, mount Remote Control outside the house (mounting frame supplied with outside remote controls).
INSIDE HOUSE – For recessed mounting, use rough-in housing and mount to wall stud.
OUTSIDE HOUSE – Must surface mount to the outside of the house. Secure to wall through four mounting holes (frame supplied with outside remote controls).

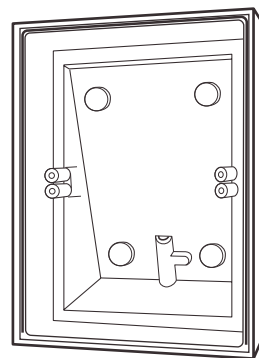
8" OUTSIDE SPEAKER FRAME



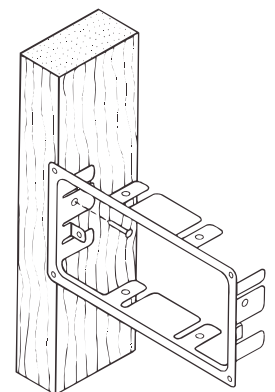
5" INSIDE SPEAKER FRAME



5" INSIDE SURFACE MOUNT FRAME



FRAME FOR REMOTE CONTROLS



INSTALLING THE AM/FM ANTENNA

The folded dipole antenna has a 20' lead which may be increased by attaching standard 300 ohm twin lead (T.V. antenna wire) and should be installed by one of the following methods.

INSTALLATION METHODS

DIMENSIONS

Antenna Span: 60 inches.
Lead Length: 20 feet.

STAPLING

Refer to Figure 1.

Use staples to attach twin lead wire to rafters or joists. Insert the staple lengthwise in the plastic between the wires. **Do not staple across the wires.**

NAILING

Refer to Figure 2.

Nails may also be used to attach the twin lead wire to rafters or joists. Place nails in the plastic between the two wires. **Do not nail over or through a wire. Do not wrap the twin-lead wire around a nail.**

Refer to Figure 3.

Nails may be used to attach the plastic center block and the two plastic end caps. Use nail holes provided in these pieces.

ATTIC RAFTER INSTALLATION

1. Refer to Figure 4. Staple antenna to attic rafters horizontally.
2. Refer to Figure 5. Nail a 5 foot piece of scrap board horizontally between rafters to provide a clear span of 60". Nail the center block to the center of the board. Staple antenna leads to board.

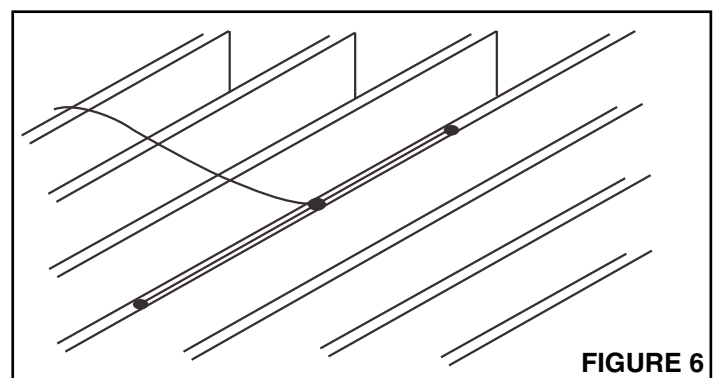
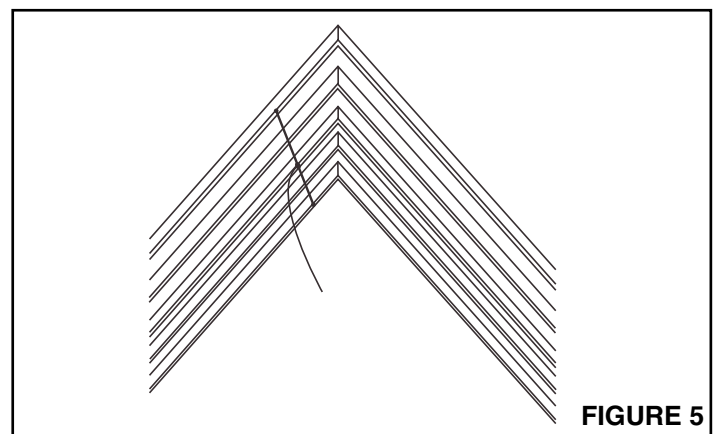
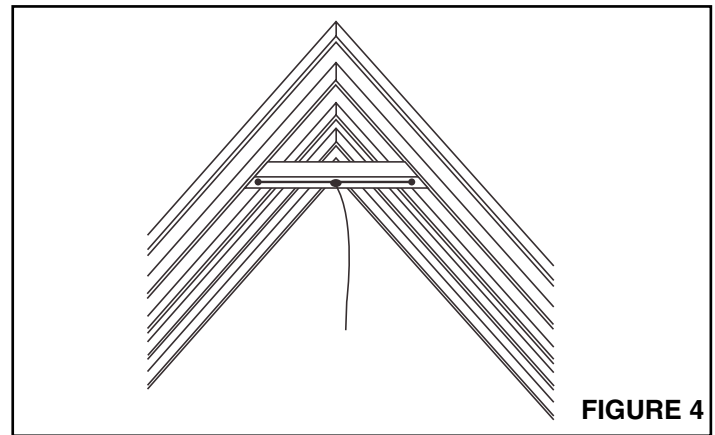
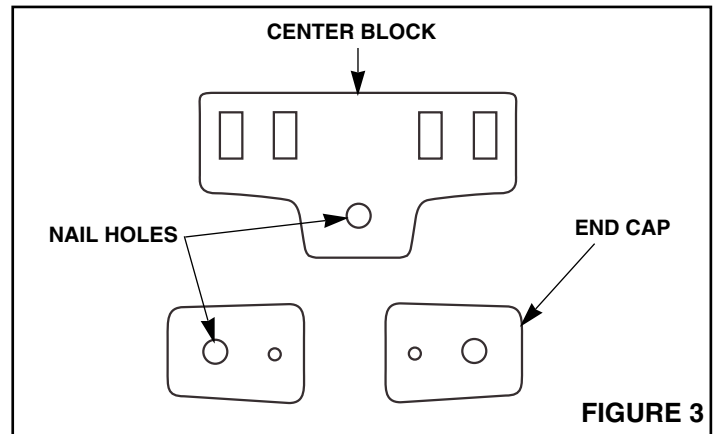
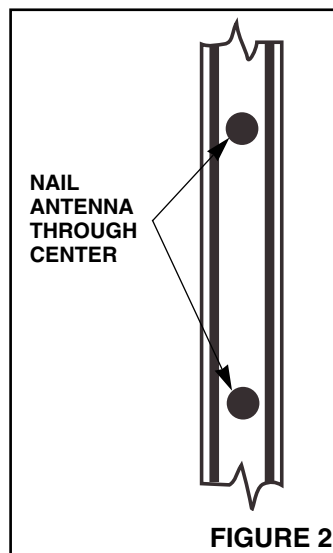
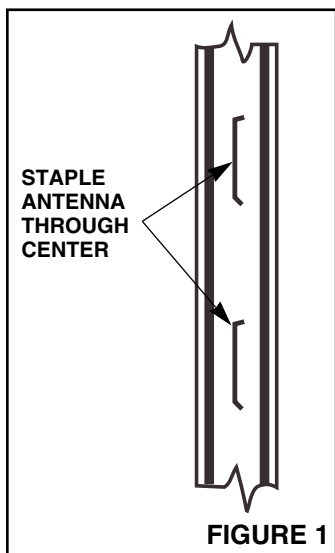
CEILING JOIST INSTALLATION

Refer to Figure 6.

When attic space is limited, staple antenna to ceiling joists.

TWIN-LEAD CONNECTION

1. Run the 20 foot twin lead to the master unit.
2. Plug the antenna's connector onto the two pins on the master unit's tuner board as specified in the master unit's installation instructions.



NuTone®

Two Year Limited Warranty

WARRANTY OWNER: NuTone warrants to the original consumer purchaser of its products that such products will be free from defects in materials or workmanship for a period of two (2) years from the date of original purchase. **THERE ARE NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.**

During this two year period, NuTone will, at its option, repair or replace, without charge, any product or part which is found to be defective under normal use and service. **THIS WARRANTY DOES NOT EXTEND TO FLUORESCENT LAMP STARTERS OR TUBES, FILTERS, DUCT, ROOF CAPS, WALL CAPS AND OTHER ACCESSORIES FOR DUCTING.** This warranty does not cover (a) normal maintenance and service or (b) any products or parts which have been subject to misuse, negligence, accident, improper maintenance or repair (other than by NuTone), faulty installation or installation contrary to recommended installation instructions.

The duration of any implied warranty is limited to the one year period as specified for the express warranty. Some states do not allow limitation on how long an implied warranty lasts, so the above limitation may not apply to you.

NUTONE'S OBLIGATION TO REPAIR OR REPLACE, AT NUTONE'S OPTION, SHALL BE THE PURCHASER'S SOLE AND EXCLUSIVE REMEDY UNDER THIS WARRANTY. NUTONE SHALL NOT BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES ARISING OUT OF OR IN CONNECTION WITH PRODUCT USE OR PERFORMANCE. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state. This warranty supersedes all prior warranties.

WARRANTY SERVICE: To qualify for warranty service, you must (a) notify NuTone at the address stated below or telephone 1/800-543-8687, (b) give the model number and part identification and (c) describe the nature of any defect in the product or part. At the time of requesting warranty service, you must present evidence of the original purchase date.

Date of Installation

Builder or Installer

Model No. and Product Description

IF YOU NEED ASSISTANCE OR SERVICE:

For the location of your nearest NuTone Independent Authorized Service Center:

Residents of the contiguous United States Dial Free 1-800-543-8687

Please be prepared to provide:

Product model number • Date and Proof of purchase • The nature of the difficulty

Residents of Alaska or Hawaii should write to: NuTone Inc. Attn: Department of National Field Service, 4820 Red Bank Road, Cincinnati Ohio 45227-1599.

Residents of Canada should write to: Broan-NuTone Canada, 1140 Tristar Drive, Mississauga, Ontario, Canada L5T 1H9.

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