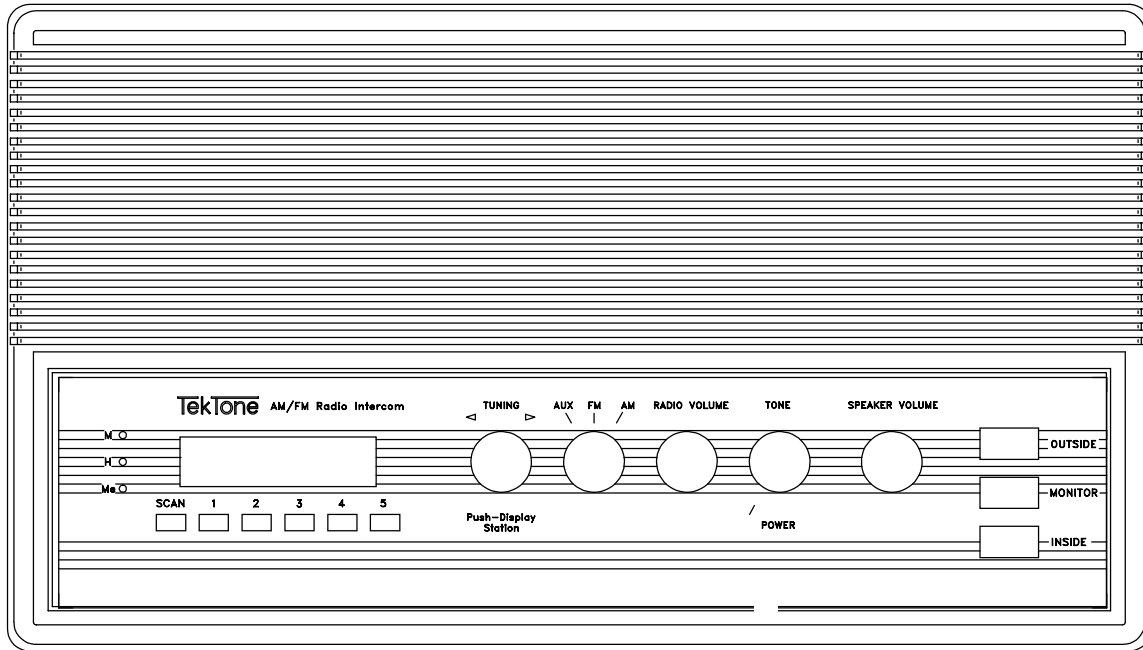




Installation Instructions



EK714 MASTER RADIO INTERCOM STATION

APPLICATION & PLANNING

This system features:

1. Master-to-remote communication is hands-free at remote when communication is initiated by the master.
2. Room-to-room communications.
3. Communication with visitors at the entrance from master, inside, or patio stations with automatic reply. Chime signal indicates a caller is present.
4. Inside and patio stations can be monitored at any other station.
5. Stations may be turned off for full privacy.
6. Music is available at all patio, inside, and master stations from the built-in AM/FM tuner or from an auxiliary music source.
7. Music is automatically silenced during all intercom calls.

The master station should be located in the kitchen or other convenient areas, leaving sufficient wall clearance to permit easy use of master controls.

Inside stations may be used where communication or door answering is needed - such as bedrooms, garage, or den. Stations should be located on inside walls, free from obstructions and where convenient for operation. (Suggested height from the floor is 4-1/2 feet.) To avoid feedback, stations should not be installed back-to-back on a common wall or too close to each other or the master.

Door remotes are usually installed on the exterior wall near the entrance, but may be installed on an overhang or ceiling.

Read and follow all instructions and use the recommended wire and cable.

SYSTEM COMPONENTS EQUIPMENT

Model No.	Description
EK714	Master Radio Intercom Station H:9"; W:16"; D:1-3/4"
IR704B	Inside Remote Station H:6-7/8"; W:5"; D:2-3/8"
IR704BD*	Inside Remote Station w/Door Button H:6-7/8"; W:5"; D:2-3/8"
IR804	Inside Remote w/4" x 6" Speaker H:7-1/8"; W:9-1/4"; D:2-1/4"
OR601**	Outside Remote Station H:5-1/4"; W:4"; D:1-1/4"
OR603**	Outside Remote w/Pushbutton H:5-1/4"; W:4"; D:1-1/4"
OR604**	Outside Remote w/Lighted Pushbutton H:5-1/4"; W:4"; D:1-1/4"
SS102A	Low Voltage Transformer 16V, 10 VA
SS105B	Plug-in Transformer, 16V, 10 VA

*IR704BD requires additional pair #22 for door button.

**Do not use IH Series housing. Use single gang electrical box or ring.

HOUSINGS & CABLE

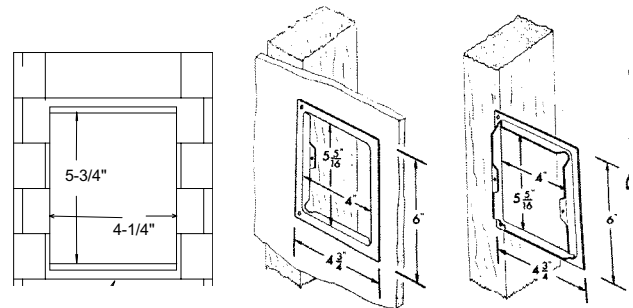
Model No.	Description
IH101	Housing (backbox for IR704B/IR704BD when used w/conduit or flush to a brick wall) H:5-1/2"; W:4"; D:1-3/4"
IH102	Housing (plaster ring for IR704B/IR704BD) H:6"; W:4-3/4"; D:1/2"
IH110R	Housing (plaster ring for IR804) H:5-7/8"; W:8-1/4"; D:1-3/4"
IH704	Housing (Master Station) H:8-1/8"; W:15-1/4"; D:1-3/4"
IH400A	Desk Cabinet or Surface box (IR704B/IR704BD) H:1-7/8"; W:5"; D:6-7/8"

INSTALLATION PROCEDURE

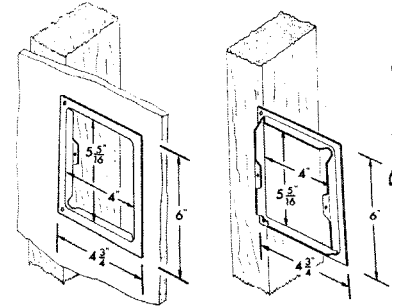
1. Read installation instructions for each unit completely to determine component location before proceeding.
2. Install housings as shown in diagrams. Run wire/cable to component locations.
3. Install indoor/outdoor remote stations and master station.
4. Check for shorts or grounds and connect transformer.

HOUSING INSTALLATION

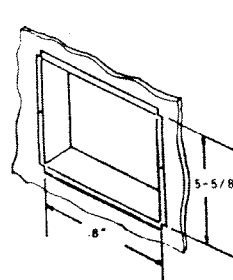
1. Locate master where convenient.
2. Master must be kept away from extreme cold or direct heat.
3. Remote stations must not be located on a common wall between rooms or too close to each other or the master.
4. Install housings as shown in Housing Diagrams. Leave at least 2" of wall space (4" for the master) on all sides of the housing. Use standard single gang ring for mounting OR600 Series outside stations.



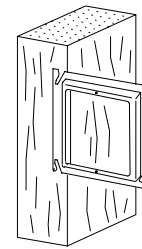
IH-101



IH-102

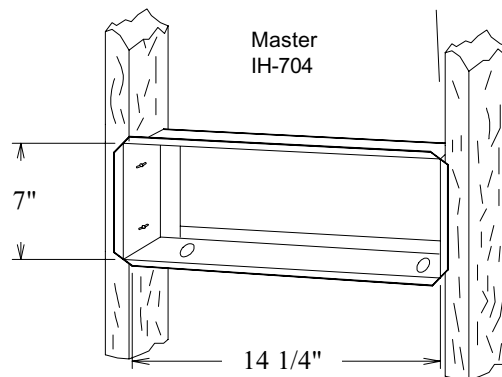


IH-110R



Standard single gang ring

Front of housing must be flush with the finished wall



*Wall cut-out sizes indicated for IH101, IH102, IH110R

NOTE: TekTone® warranty is void if this system is installed or used in any manner other than described in this installation instruction sheet. Consult the price list for complete warranty information.

WIRING INSTALLATION

Station Wiring: Run wire as shown on the system wiring layout (Fig. 1), with the following restrictions:

1. Maximum number of stations per cable is five.
2. Maximum cable length is 50'. (Cable length may be extended to 300', if only two stations are connected to the cable.)
3. Maximum number of door stations per system is two.
4. Route cable away from inside station cable, AC wiring, transformers, fluorescent lights, light dimmers, and all other electrical devices. All cable must be protected from damage.
5. Cable requirements: 2 twisted pairs or 2 twisted shielded pairs with drain wire, if AC interference may be a problem. If using shielded wire, connect drain wire to terminal "G" on EK714.

Music Input: Run single conductor shielded #22 wire from the auxiliary music source to the master. If music source has low impedance output, 2-conductor twisted pair wiring may be used.

Antenna: Master includes built-in antennas for AM/FM reception. In some locations, an additional antenna may be needed for proper AM/FM reception. Run 6' of 300 ohm antenna wire from master to attic or crawl space.

Transformer: Run 2-conductor #18 wire, from the master to

transformer location. If the distance is greater than 50', use #16 wire. Route away from station wiring. (NOTE: The SS105B is a plug-in device, and if used, must be provided with an electrical outlet at an accessible location. If the SS102A is used, it may be installed on the fuse box or other accessible source of 117 VAC. Observe local electrical codes.)

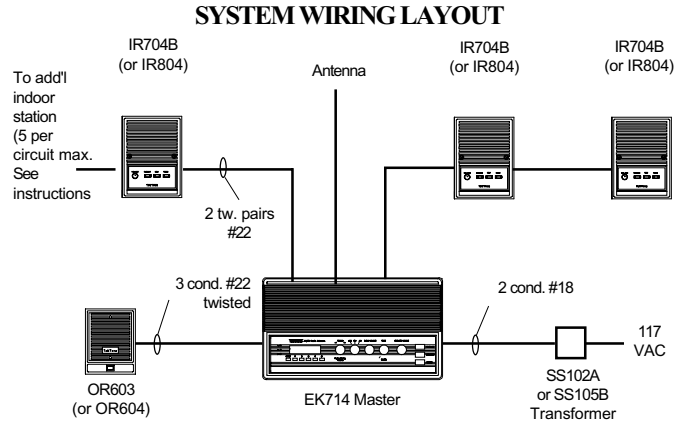
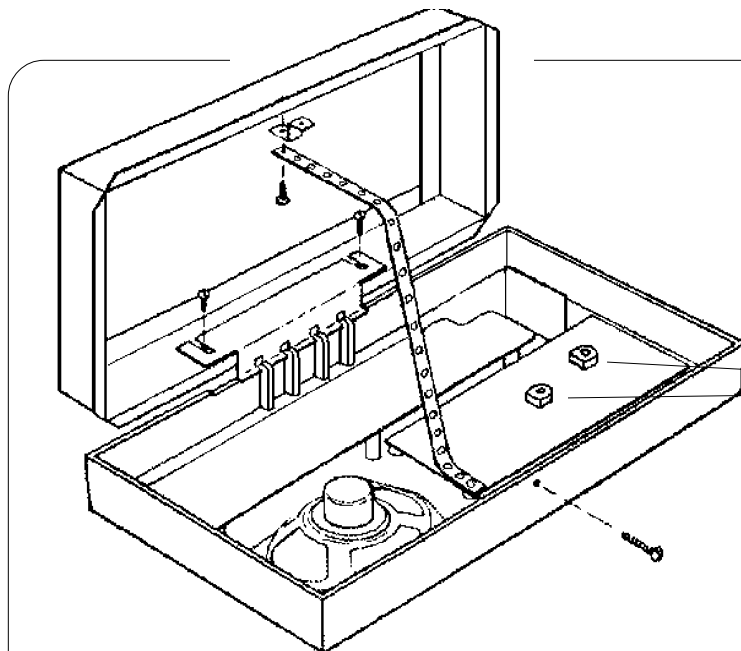


Fig. 1 Note: Twisted pair wiring must be used for all station wiring



Fasten strap with screw holding P.C. board as shown

Fig. 2

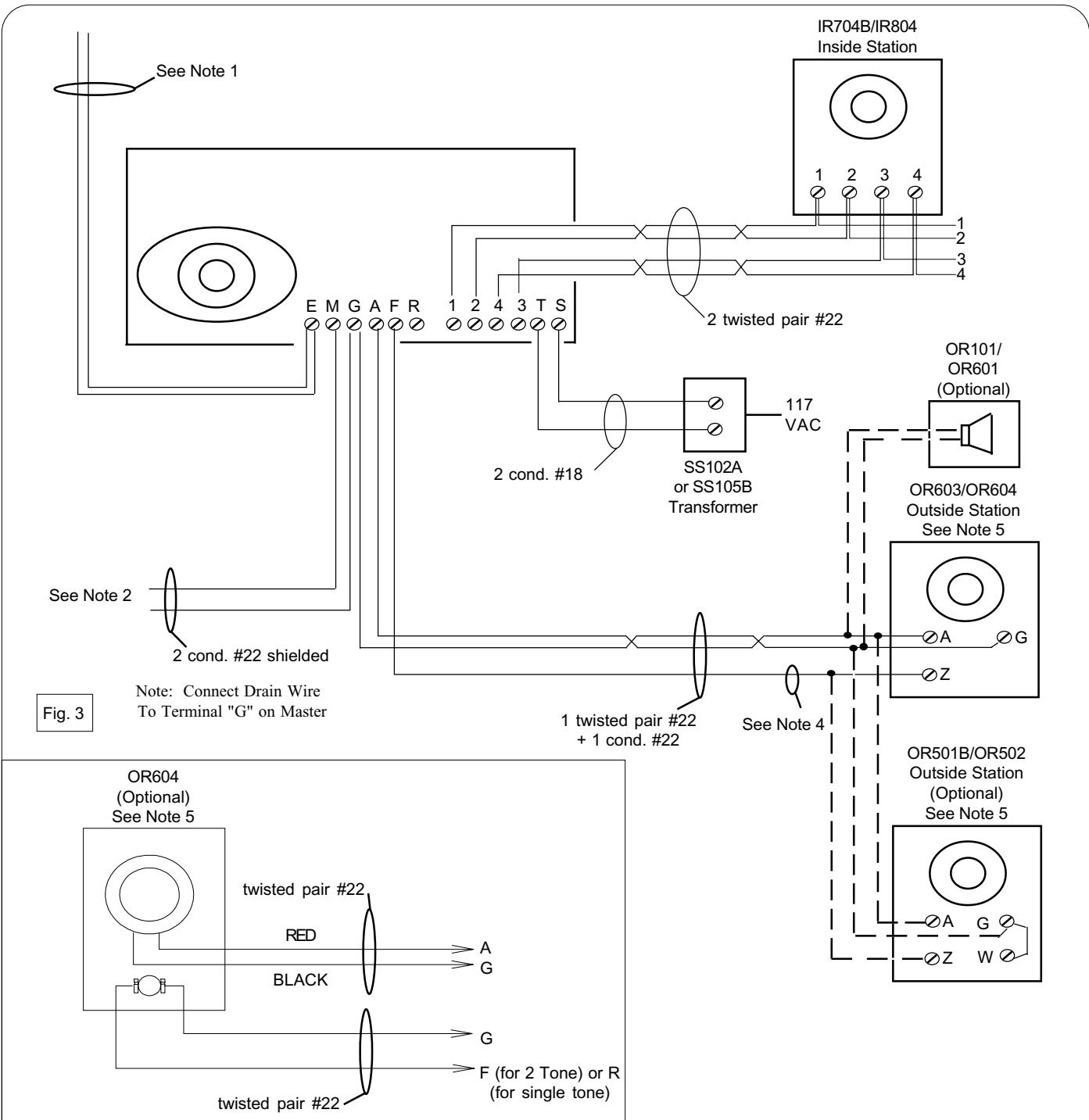
Master: Fasten the master station's hinge bracket to the housing as shown in Fig. 2. Connect the wires to master as shown on the Connecting Diagram (Fig. 3). Use twisted pairs as indicated. Do not reverse polarity. Before connecting, make certain all wires are free from shorts or grounds.

Secure top of master to housing using a screw through the hole provided in the top of the frame (Fig. 2). The mounting brackets may have to be adjusted to make the master fit tight to the wall.

FINISH INSTALLATION

Transformer: For SS105B transformer (plug-in type), connect cable from the master to the terminals and plug the transformer into a suitable outlet. If SS102A is used, install on the fuse panel and connect cable from master to transformer screw terminals. (NOTE: Do not use these transformers for chimes or other devices in addition to the EK714 intercom.)

Remote Stations: Connect wires as shown on the connecting Diagram (Fig. 3). Use twisted pairs as indicated. Do not reverse polarity. Fasten to housing with screws. Do not overtighten.



EK714 MASTER

Notes:

1. Antenna: Use 6' length of 300 ohm antenna wire. Route to attic, if better AM/FM reception is desired.
2. For AUX music input wire as shown. If AUX device is low impedance, twisted pair wiring may be used. Maximum audio signal for input is .5 volt.
3. Wire to other inside stations up to a maximum of five stations per circuit. Other circuits may be added up to a maximum of 20 stations per system. (Note: See "Remote to Remote Communication" under Operating Instructions.)
4. For back door or patio station, terminal Z should be connected to terminal R. For connection to front door station, terminal Z connects to terminal F.
5. For installation of OR604 station, connect red wire to terminal A and black wire to terminal G on EK714 master. These connections provide for speaker operation. For internal chime, make connections as stated above and wire one OR604 pushbutton terminal to F or R (see Note 4) and one pushbutton terminal to G on EK714 master. If desired, pushbutton may be wired to external chime instead of internal.

OPERATING INSTRUCTIONS

Master: To turn the system on, turn the tone control clockwise until a click is heard. Select AUX, AM, or FM as desired and tune in the radio station. Adjust the SPEAKER VOLUME control to the maximum, then adjust the RADIO VOLUME to the desired listening level and adjust the TONE control. The SPEAKER VOLUME may now be readjusted to the background music level as desired.

Master-to-Remote Communication (Hands Free Reply, Master Only): To call an inside station, press and hold the INSIDE button and talk into the master station in a normal voice. The call will be heard at all inside stations that are turned on and are not being monitored. Release the INSIDE button to hear the reply.

Remote-to-Remote Communication To call or reply from the INSIDE stations, press the INSIDE button and talk in a normal voice. The reply will be heard at all remote stations that are turned on and at the master, if its speaker control is turned on. (Note: If more than 10 inside stations are installed, no more than 10 should be on at one time.)

To answer the door station(s), press the OUTSIDE button and speak into the master in a normal voice. Release the OUTSIDE button to hear the reply. (The reply from the OUTSIDE stations are automatic and do not require operation of any controls.) When answering the door the radio is automatically silenced, but will resume operation approximately 30 seconds after releasing the OUTSIDE button.

Set Time: To set the clock, depress the hour pushbutton labeled H located on the left hand side of the hour / station display until the desired hour is displayed. To set the minutes, depress the M pushbutton and release when the desired minutes are displayed. The time remains displayed; to view the radio station depress the TUNING dial. The time display will return in 4 seconds.

Pre-Selected Stations: To pre-select up to 10 radio stations (5 for AM and 5 for FM), tune to the desired station, depress the memory pushbutton ME, then depress one of the push buttons numbered 1 to 5. Repeat this procedure for each of the four other pre-selected station pushbuttons.

Scan: Depressing the SCAN pushbutton will sequentially display all the radio stations one at a time (every 5 seconds), depressing the SCAN pushbutton a second time will leave the radio at the last station displayed.

Door Chime: To sound the chime, push the button on the door station (if connected). Call tone will be heard at all stations that are turned on.

The system may be left on at all times, if desired, as electrical consumption is low. If left off, no door signal can be heard.

Monitoring: To monitor a room, press the monitor button on the remote station (or the master) that is in the desired listening area. (Sounds from that room will be heard at any remote station that is turned on, or at the master, if its speaker control is turned on.) To release the monitor button, push the inside TALK button momentarily. A maximum of three stations may be monitored at one time.

RADIO OPERATION

Master: Set the volume and tone on the master as needed and choose AM, FM, or auxiliary station, as desired.

(Note: The speaker control should be turned on fully when using the intercom, but may be returned to a lower level for music listening, when the conversation is completed.)

Remote Stations: Adjust volume as desired. The volume should be turned on fully when using the intercom, but may be returned to a lower level when the conversation has been completed.

The radio program will be automatically silenced whenever the intercom is being used. The automatic reply will also silence the radio, but the radio program will return after approximately 30 seconds.

Privacy: If the volume control on a remote station or the speaker control on the master is turned off, that station will be private and will not hear the intercom or radio programming, and it will not be possible to monitor that station.

CHECK OUT

Check each unit in the system for operation in accordance with operating instructions. If there are more than ten stations in the same system, only ten may be turned on at one time. If feedback occurs between stations, then reduce the volume. The intercom gain is pre-set at the factory, but may be readjusted, if necessary.

TROUBLESHOOTING

1. Entire system dead - Check:
 - a) 16 VAC at transformer
 - b) Connections at master terminals T and S
 - c) Wiring from transformer to master
 - d) 117 VAC at transformer primary
2. No sound from master - Check:
 - a) Speaker control turned off
 - b) Monitor button pushed in
3. No sound from remote station - Check:
 - a) Station volume control turned off
 - b) Station monitor button pressed
 - c) Wiring to terminals 3 and 4
 - d) Wiring to master terminals 3 and 4
4. Intercom volume too low - Check:
 - a) Volume control on remote station set too low (Volume should be on fully for intercom use.)
 - b) Master gain control (preset) set too low
5. Squealing or howling on intercom - Check:
 - a) Master gain control (on circuit board in master) set too high
 - b) Stations installed too close together or on a common wall.
 - c) Twisted pair wiring not used or pairs interchanged
6. Remote stations unable to talk - Check:
 - a) Station volume control turned off
 - b) Wiring to terminals 1 and 2
 - c) Wiring to master terminals 1 and 2
7. Unable to talk to door - Check:
 - a) Connections to door remote station
 - b) Wiring to master terminals A and G
 - c) Remote station volume controls or master station control set too low
8. Unable to listen to door - Check:
 - a) Wiring to terminals 1 and 2 shorted to terminal 4 or ground
 - b) Remote station volume controls or master station control set too low
9. Unable to monitor remote stations - Check:
 - a) Remote station volume control set too low
10. No call tone at any station - Check:
 - a) Connections at door remote station pushbutton
 - b) Wiring to master terminals G and Z
11. Radio interference on intercom - Check:
 - a) Consult factory for more information.
12. AM/FM radio not working - Check:
 - a) Master volume control too low
 - b) AM/FM antenna wire connections (In some areas an additional AM/FM antenna may have to be installed.)
 - c) Remote station or master with monitor button pushed in
 - d) Wiring to terminals 1 and 2
 - e) AM/FM selector switch
14. Distortion in all stations - Check:
 - a) Radio volume set too high
 - b) Too many remote stations connected and turned on at the same time
15. Hum or buzz - Check:
 - a) Speaker wiring installed too close to power wiring or electrical boxes

If these checkpoints fail to indicate the problem, there may be an equipment fault. Check with the factory or with a qualified service company.