



IL610
Section B
Rev. 7 - 11/1999

**Tek-SOUND® EK714AW
AM-FM DIGITAL RADIO INTERCOM**

**INSTALLATION AND OPERATING
INSTRUCTIONS**

World Wide Web Site:
www.alpha-comm.com

E-Mail:
info@alpha-comm.com

For Technical Assistance:
1-800-666-4800

Alpha Communications®

42 Central Drive
Farmingdale NY 11735-1202
Phone: 631-777-5500
Fax: 631-777-5599

INTRODUCTION

The TekTone® EK714AW Radio Intercom Master Station provides for intercom, radio distribution, remote station monitoring and door answering capabilities. Various speaker remote options are available to meet user requirements. The EK714AW has built-in doorbell functions, including single and two-note chimes to differentiate between front and back door. Communication from door speaker stations is entirely hands-free.

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 remote 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.

INSTALLATION

Housing:

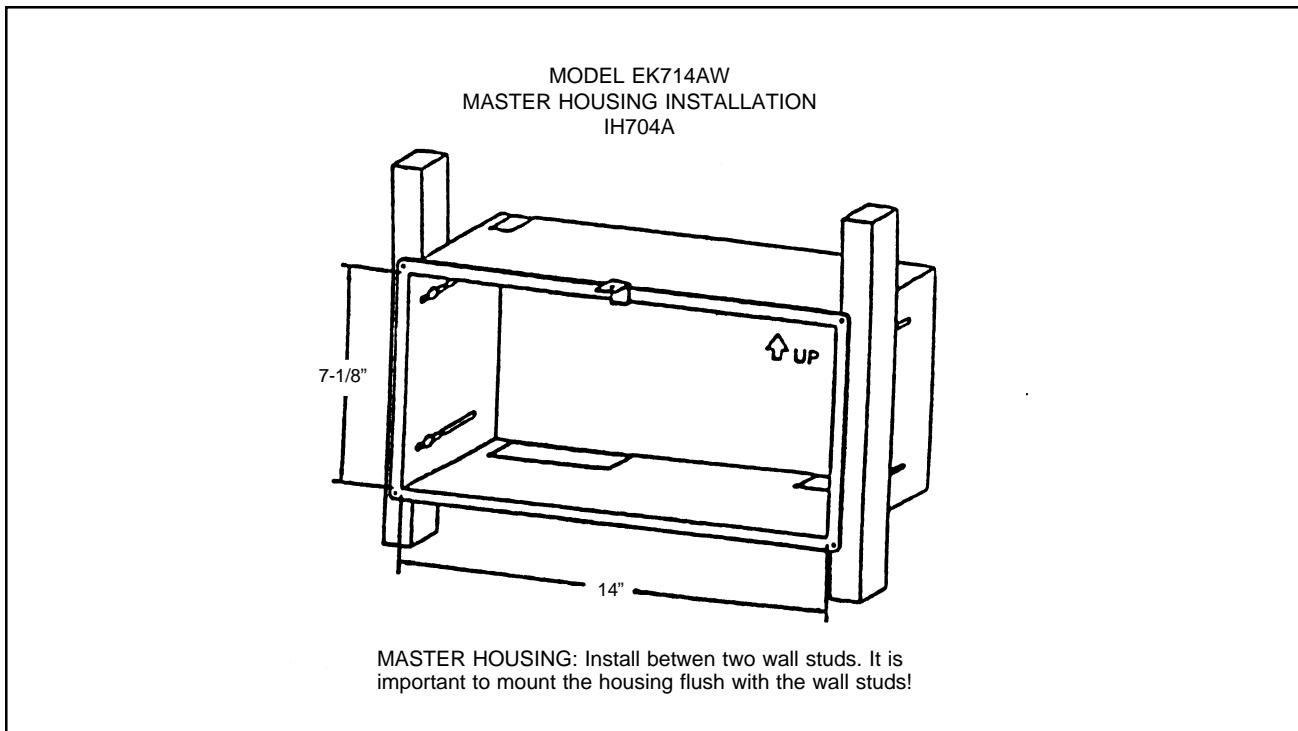
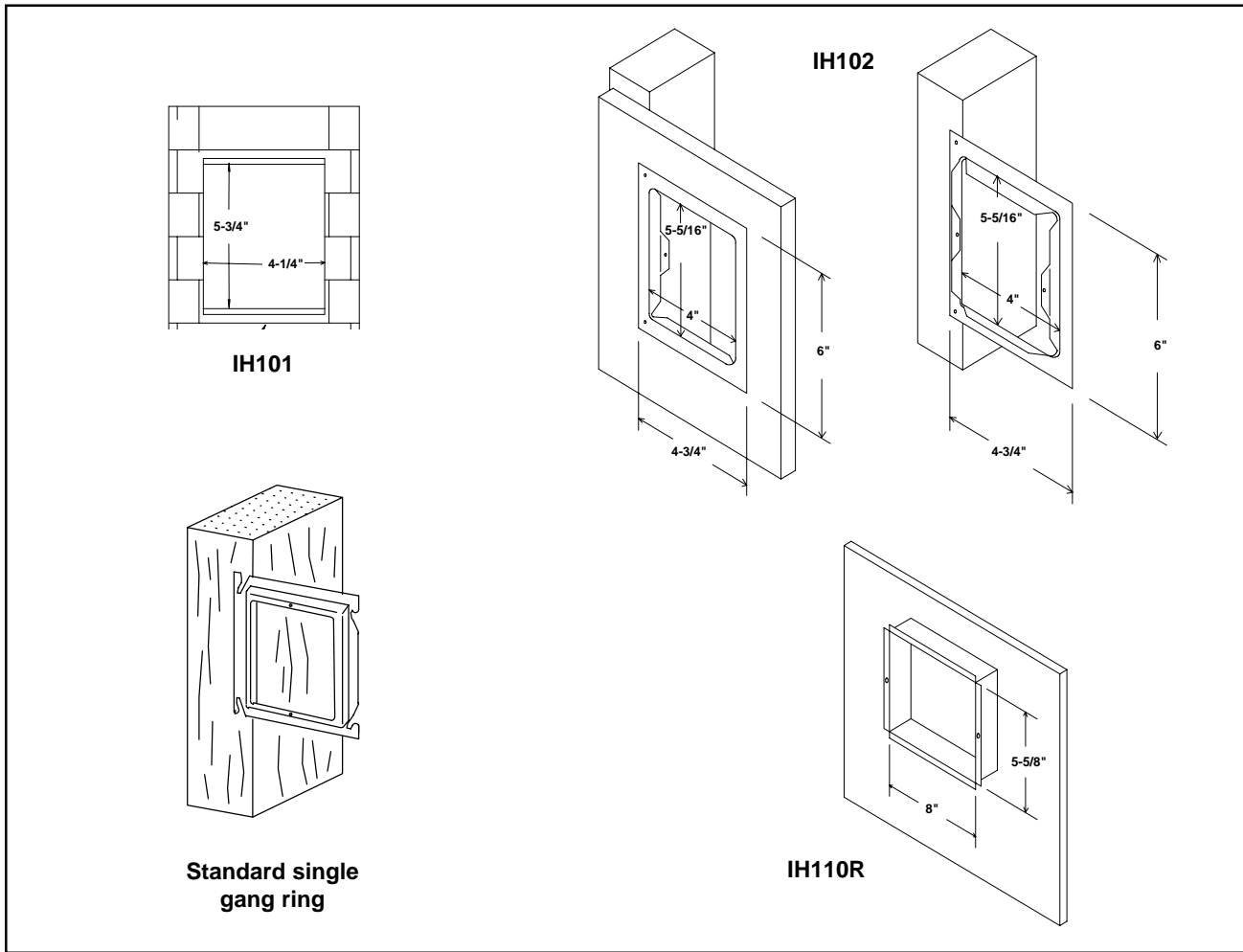
The master station should be located in the kitchen or other convenient area, leaving sufficient wall clearance to permit easy use of master controls. Do not locate in extreme cold or heat.

Inside stations may be used where communication or door answering is needed - such as bedrooms, garage, or family room. Stations should be located on inside walls, free from obstructions and where convenient for operation. (Suggested height from the floor is 4-1/2 ft.) 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.

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

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. (See diagrams on following page.)

HOUSING DIAGRAMS



SYSTEM COMPONENTS EQUIPMENT

Model No.	Description
EK714AW	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"
IR704BVC	Inside Remote Station w/Rotary Volume Control H:6-7/8"; W:5"; D:2-3/8"
IR804A	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/Push Button H:5-1/4"; W:4"; D:1-1/4"
OR604AW**	Outside Remote w/Lighted Push Button 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

Model No.	Description
IH101	Housing (backbox for IR704B/IR704BD when used w/conduit or flush to 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 IR804A) H:5-7/8"; W:8-1/4"; D:1-3/4"
IH704A	Housing (Master Station) H:7-7/16"; W:14-1/4"; D:3-1/2"
IH400A	Desk Cabinet or Surface box (IR704B/IR704BD) H:1-7/8"; W:5"; D:6-7/8"

WIRING

Wire the remote stations to the Master station as shown on the general wiring diagram on the following page and as explained in the following notes.

1. EK714AW Series Wiring

- (a) Use 2 Twisted Pair #22 AWG for all remote station wiring.
- (b) The maximum number of remote stations is 10, including the Master.
- (c) MAXIMUM CABLE LENGTH CHART:

Stations Per Cable	Maximum Length
1	600 ft. (180 cm)
2	300 ft. (90 cm)
3	150 ft. (50 m)
4	80 ft. (27 m)

2. Run cables into the back of the Master housing and leave approximately 10" (25 cm) of cable for connections to the Master Station. Cable must be installed away from the power wiring, transformers, fluorescent lights and other electrical fixtures. Cables must be protected from damage by nails, staples, plaster, etc.

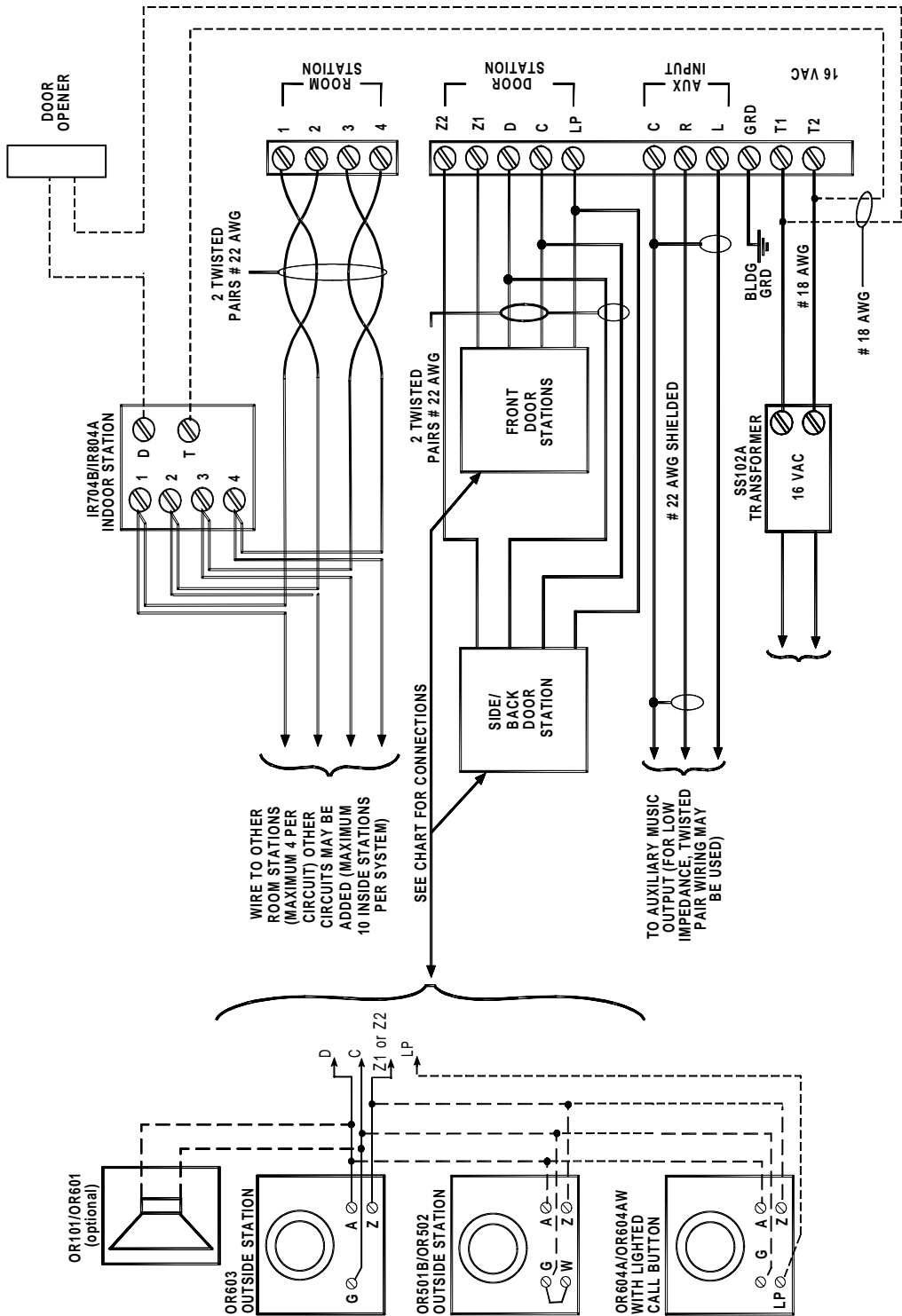
3. The transformer must be located near a source of 120 VAC; the house fuse box is a good location. Use 3 conductor #18 wires from the transformer to the Master Station. Use #16 wire if the transformer is found more than 50 ft. (15 meters) from the Master Station. Do not install the transformer closer than 3 ft. (1 meter) from the Master Station. Install a ground wire from the house fuse box to terminal G of the EK714AW Master Station's terminal board. Observe local electrical codes when installing the transformer.


4. The Master Station includes a built-in antenna for AM reception. To improve AM and/or FM reception, either A) run two separate wires (#22 gauge insulated) from the Master Station location to the attic or other suitable antenna location, or B) connect the Master Station to the cable TV system using the terminals provided at the back of the Master Station.

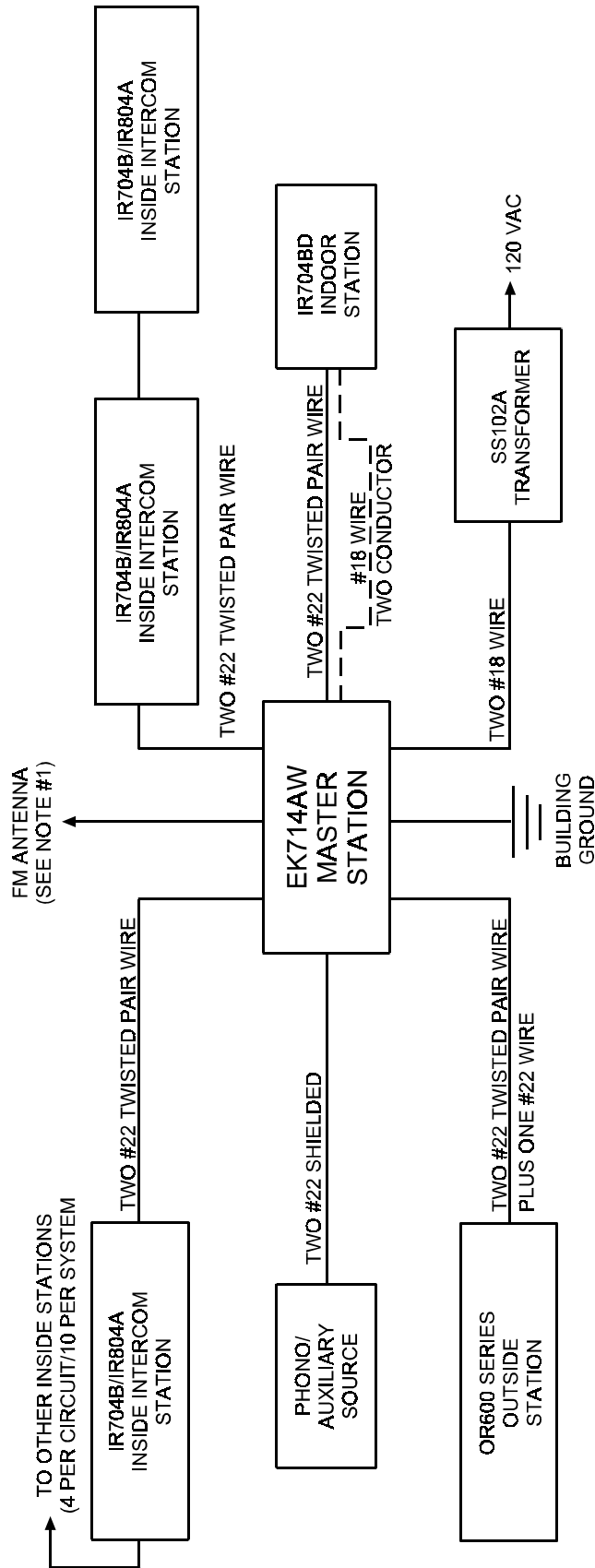
5. Phono/Auxiliary Input - run two wires (#22 gauge shielded) from the music source to the Master Station. If the music source has a low impedance output, a #22 gauge twisted pair cable may be used.

IMPORTANT:

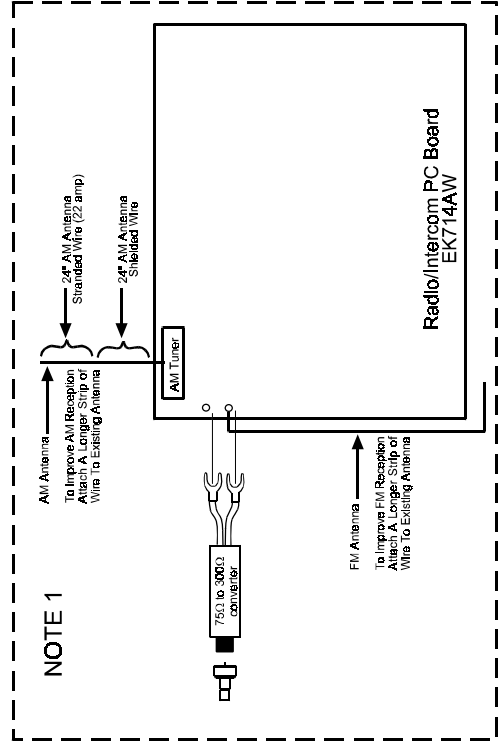
- 1. To improve AM reception and eliminate electrical noise, run the building ground wire to terminal "G" on the EK714AW. Make sure the wire is grounded to the building.**
- 2. TekTone® cannot guarantee the proper operation of its EK714AW intercom functions if anything other than 2 twisted pair wires are used. Non-twisted pair wire may cause excessive squealing and feedback.**



	TITLE: EK714AW Wiring Diagram APP: EK714AW AM-FM Digital Radio Intercom	DRAWN BY: BP REV: 4	DATE: 05/20/99 PAGE: 5
---	--	------------------------	---------------------------



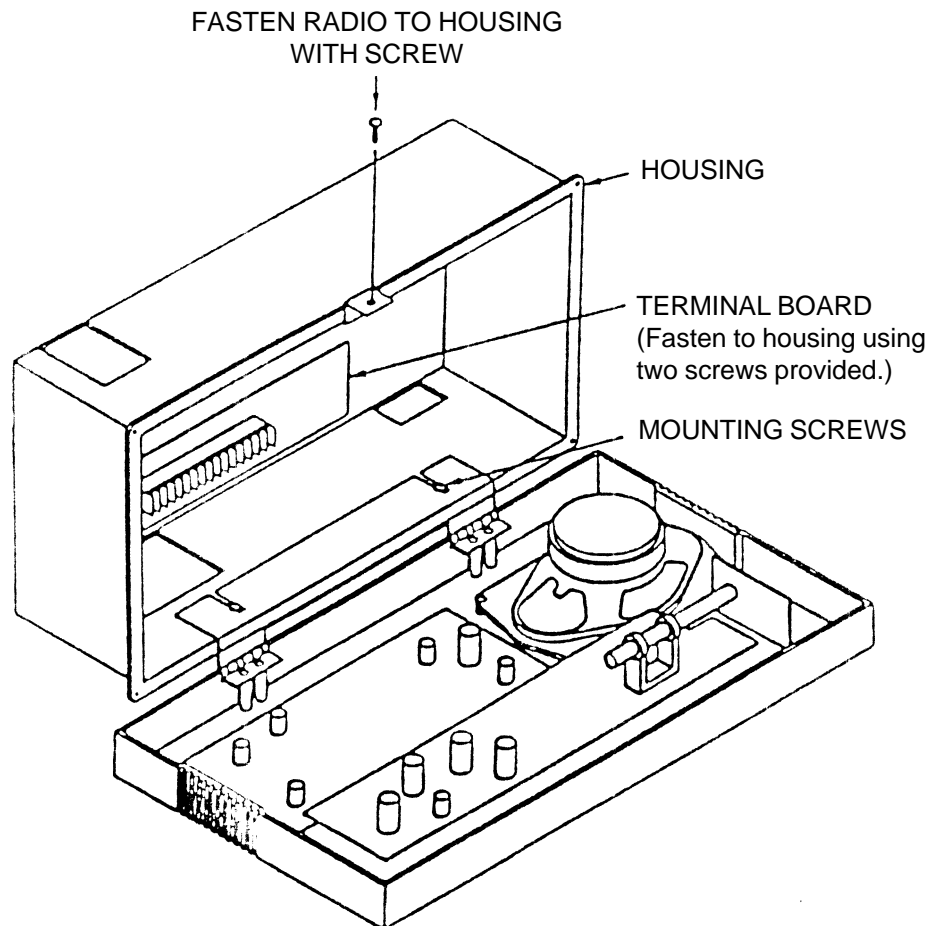
EK714AW SYSTEM WIRING



SYSTEM HOOK-UP

Mount the terminal board to the bottom left-hand corner of the backbox housing using the 2 #8 self-tapping screws provided.

Connect the wires to the terminal block as shown in the wiring diagram on the previous page. Before powering up, ensure that all lines are free of shorts. If phono/auxiliary inputs are used, connect the music input wires to terminal L, R and C of the terminal board. Terminal C is the common terminal. Fasten the Master Station support hinge to the housing as shown in the diagram below. If an external antenna wire is to be used, connect it with the wire which is attached to the FM antenna terminal on the radio module. Once all field wiring is completed, plug the connectors from the Master Station into P1 and P2 on the terminal board.



OPERATING INSTRUCTIONS FOR EK714AW RADIO INTERCOM

MASTER STATION EK714AW

Adjust STATION VOLUME fully clockwise.

To Call An Inside Station: Press the “INSIDE” button and talk into the master speaker at a normal voice level. The call will be heard at all inside stations that are turned on and not being monitored.

To Answer From A Remote Station: Press the “INSIDE” button and speak at a normal voice level. The reply will be heard at all remote stations and the master if they are turned on. To answer the door station, hold down the “OUTSIDE” button and speak at a normal voice level.

Note: The intercom level can be increased or decreased by adjusting SVR02 on the amplifier board.

To Answer The Door Station: Hold down the “OUTSIDE” button and speak into the master station at a normal voice level. Release the “OUTSIDE” button to hear the reply. The reply is automatic and does not require the operation of any controls. When answering the door, the radio is automatically silenced, but will resume its operation approximately 10 seconds after releasing the “OUTSIDE” button.

To Monitor A Room: Push the “MONitor” button on the room station where listening is desired. Sounds from that room will be heard at any inside station that is turned on. A maximum of three stations may be monitored at one time.

INSIDE REMOTE STATIONS IR704B/IR704BD

To Call: Press and hold the “INSIDE” talk button and speak in a normal voice. The call will be heard at all inside stations that are turned on and not switched to “MONitor”. Release the button to listen for the reply.

To Reply: Push the “INSIDE” talk button and speak in a normal voice. Release the button after speaking.

To Answer The Door Station: Push and hold the “OUTSIDE” talk button and speak in a normal voice. Release the button to hear the reply. The reply is automatic and does not require the operation of any controls.

To Control Volume: Adjust the three-position “VOLUME” slide switch.

To Activate Electronic Door Release: (IR704BD only) Press the red “DOOR” button. The door release will buzz while operating, indicating permission to enter.

To Monitor A Room: Push the “MONitor” button on the room station where listening is desired. Sounds from that room will be heard at any inside station that is turned on. A maximum of three stations may be monitored at one time.

Privacy: Release the “MONitor” button to the off position by partially pressing the “INSIDE” button, and it will be impossible to listen to that station from other locations. Turn the “VOLUME” control off for complete privacy.

INSIDE REMOTE STATION IR804A

To Call: Press and hold the “INSIDE” talk button and speak in a normal voice. The call will be heard at all inside stations that are turned on and not switched to “MONitor”. Release the button to listen for the reply.

To Reply: Push the “INSIDE” button and speak in a normal voice. Release the button after speaking.

To Answer The Door Station: Push and hold the “OUTSIDE” talk button and speak in a normal voice. Release the button to hear the reply. The reply is automatic and does not require the operation of any controls.

To Adjust Volume: Use the rotary “VOLUME” control .

To Monitor A Room: Push the “MONitor” button on the room station where listening is desired. Sounds from that room will be heard at any inside station that is turned on. A maximum of three stations may be monitored at one time.

Privacy: Release the “MONitor” button to the off position by partially pressing the “INSIDE” button, and it will be impossible to listen to that station from other locations. Turn the “VOLUME” control off for complete privacy.

OUTSIDE STATIONS

To Call: Push the button on the outside station to sound a call tone. The call tone will be heard on all inside stations that are turned on.

MASTER STATION RADIO CONTROLS

Radio On/Off and Volume:

To turn radio on, turn “RADIO VOLUME” knob clockwise until you hear a click. Tune in desired radio station and turn “STATION VOLUME” control fully on (clockwise). Then adjust “RADIO VOLUME” control to a suitable listening volume. If desired, you may adjust the master station’s “STATION VOLUME” control and the inside remote stations’ “VOLUME” controls to a background music level.

If the master station’s “STATION VOLUME” control is turned completely off (counter-clockwise), radio programming and intercom calls will not be audible from the master station.

If a remote station’s “VOLUME” control is turned completely off (counter-clockwise), radio programming and intercom calls will not be audible from that station.

Select Music Source:

Press “AUX” to listen to the auxiliary music source (if one has been installed). “CD” will appear on the display. Pressing “AUX” again will switch the music source back to the radio.

Radio Station Selection:

First, press the “AM/FM” button to select AM or FM. Then, use either the “TUNE,” “SEEK,” or “SCAN” button to select a radio station.

The “TUNE” buttons may be used to tune in a specific radio station frequency.

Depressing the “SEEK” button will automatically tune in the next available strong radio station. (During the seek operation, the display will show “MW1” or “MW2”.)

Depressing the “SCAN” button will sequentially tune in each strong radio station, playing each for 5 seconds. Depressing the “SCAN” button a second time will stop the scan at the radio station currently playing.

Set Radio Station Preset Buttons:

Up to 30 stations may be preset—12 AM stations and 18 FM stations.

Press the “AM/FM” button to sequentially select one of the preset categories. (Choose AM1 or AM2 for AM stations. Choose FM1, FM2 or FM3 for FM stations.) Each category may be programmed for up to 6 radio stations.

Tune in the desired radio station using the “SEEK,” “SCAN,” or “TUNE” buttons.

Press one of the numbered buttons (1, 2, 3, 4, 5 or 6) and hold it down for approximately 4 seconds. (The radio volume will decrease, and then increase again.) That category and button will now be set for that radio station.

To use the preset buttons, first press the AM/FM button to select the desired preset category (AM1, AM2, FM1, FM2 or FM3). Then press, but do not hold down, the numbered button (1, 2, 3, 4, 5 or 6) that was previously set to the desired radio station.

Set Time:

To set the time, hold down the “FREQ./TIME” button so that the time is displayed. Press and hold the “H” button to advance the hour. When the correct hour is displayed, release the “H” button. Press and hold the “M” button to advance the minutes, releasing the “M” button when the correct minutes are displayed. Release the “FREQ./TIME” button; the time will remain displayed. To view radio station frequency, press the “FREQ./TIME” button again.

Remote Stations:

Adjust volume as desired. The volume should be turned fully on (clockwise) when using the intercom, but may be set to a lower level for music listening.

When using the intercom, the music will be automatically silenced. Therefore, if the radio or auxiliary music source will not function, look for a remote station that has its “MONitor” button depressed.

TROUBLESHOOTING THE SYSTEM

1. Entire System Dead:

- Check: (a) 16 VAC at transformer
(b) Connections at master station - terminals "T1" and "T2"
(c) Wiring from transformer to master
(d) 116 VAC at transformer primary

2. No Sound From Master:

- Check: (a) "STATION VOLUME" control turned off
(b) "MONitor" button depressed

3. No Sound From Remote Station:

- Check: (a) "VOLUME" control turned off
(b) Station "MONitor" button depressed
(c) Wiring to remote station terminals "3" and "4"
(d) Wiring to master terminals "3" and "4"

4. Intercom Volume Too Low:

- Check: (a) "VOLUME" control on remote station is set too low
(b) Master Intercom Level Control (found on the circuit board of the master) is set too low

5. Squealing Or Howling On Intercom:

- Check: (a) Master Intercom Level Control (found on the circuit board of the master) is set too high
(b) Stations installed too close together or on a common wall
(c) Twisted pair wiring not used

6. Remote Station Unable To Talk:

- Check: (a) "VOLUME" control turned off
(b) Wiring to remote station terminals "1" and "2"
(c) Wiring to master station terminals "1" and "2"

7. Unable To Talk To Door Station:

- Check: (a) Connections to door station terminals
(b) Wiring to master station terminals
(c) Remote station "VOLUME" controls are set too low

8. Unable To Listen to Door Station:

- Check: (a) Wiring to terminals "1" and "2" shorted to terminal "4" or ground
(b) Call tone wiring shorted to terminal "4" or ground
(c) Remote station "VOLUME" controls or master "STATION VOLUME" control is set too low

9. Unable To Monitor Remote Station:

- Check: (a) Remote station "VOLUME" control is set too low

10. No Chime At Any Speaker:

- Check: (a) Connections at "DOOR" station button
(b) Wiring to master terminals "C" and "Z1"

11. FM Radio Not Working:

- Check: (a) "RADIO VOLUME" control is set too low
(b) FM antenna wire connections
(c) Remote station or master with "MONitor" button depressed
(d) Wiring to terminals "1" and "2"

12. AM Radio Not Working

- Check: (a) "RADIO VOLUME" control is set too low
(b) Wiring to terminals "1" and "2"

13. Distorted Sound At All Stations:

- Check: (a) "RADIO VOLUME" control is set too high
(b) Too many remote stations connected and turned on at the same time

14. Hum Or Buzz

- Check: (a) Station wiring is installed too close to power wiring or electrical devices.

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

LIMITED WARRANTY

TekTone® warrants its products to be free from defects of material and workmanship under normal use and service for a period of one year from date of delivery (except for cameras, which have a 90-day warranty); and will repair or replace (at our option), free of charge, any unit that is found to be defective and returned to us under warranty. Buyer's exclusive remedy and seller's limit of liability for any and all losses resulting from nonconforming goods or tender, or from any other cause, shall be for the contract price of the particular goods with respect to which the losses or damages occurred. This warranty shall not apply to any water, fire, lightning, paint, or to use in violation of instructions furnished, nor be extended to units which have been repaired or altered outside of the factory. This warranty does not cover batteries, bulbs, picture tubes (CRT), or fuses, or damage caused by batteries used in connection with the product. TekTone® reserves the right to make the final decision whether there is a defect in materials or workmanship and whether or not the product returned is within the warranty. This warranty covers bench repairs only. All claims under this warranty are based on delivery of equipment to an authorized warranty station or offices of the company; transportation charges prepaid. TekTone® will not be responsible for any costs incurred involving on-site service calls. Repair or replacement by others, fire, transportation and labor charges, indemnity, etc., are not covered by this warranty and no responsibility for same will be assumed by us. There are no obligations or liabilities on the part of TekTone® for consequential damages arising out of or in connection with the use or performance of the product, or other indirect damages with respect to property damage, or loss of revenue, profit, inconvenience, life or health.

All TekTone® communication equipment is fully tested and inspected before leaving our warehouse. After this inspection, a warranty label is affixed to the product showing a serial number. This label is used to determine the date a piece of equipment is manufactured. Any altering, tampering or removing of this label voids all warranties express or implied.