



**CA-814  
CENTRAL AMPLIFIER**

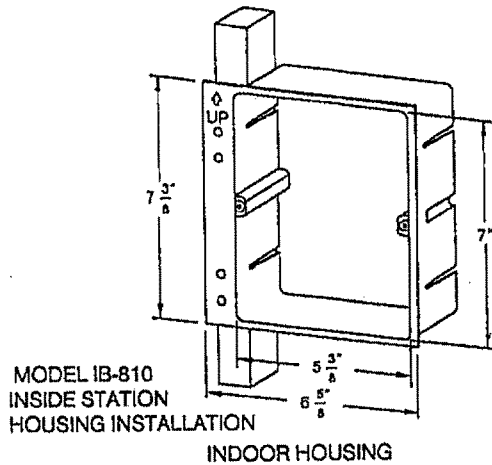
**INSTALLATION  
AND  
OPERATING  
INSTRUCTIONS**

## Introduction

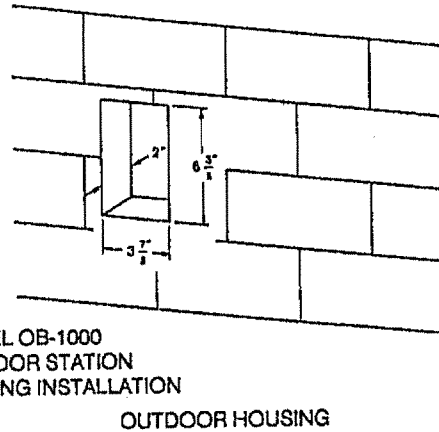
The CA-814 Central Amplifier provides voice communication at every station. A monitoring capability permits listening in to any location. Room stations may be turned off for full privacy. The door station allows hands-free communication.

## Installation

1. Install station housings as shown.



Install on wall stud with lip facing out. Fasten with nails to the wood partition. Allow 1" wall space around housing.



Mount flush with outside wall. Nail, screw, or brick into place. Keep panel mounting holes vertical and on the outside.

2. Determine station locations, observing the following restrictions:

- (a) The maximum number of room stations is 10.
- (b) The maximum number of room stations per cable is 3.
- (c) Refer to maximum cable length chart for cable length restrictions.
- (d) Do not locate room stations too close to each other or back to back on a common wall.

### MAXIMUM CABLE LENGTH CHART

(Based on 22 AWG wiring)

Stations Per Cable	Maximum Length (Metre)	Maximum Length (Feet)
1	180	600
2	90	300
3	50	150

3. The CA-814 Amplifier is surface mounted and must be located away from any source of direct heat or extreme cold, in an accessible location. Keep amplifier at least 1 meter (3 feet) away from the transformer and any electrical devices or wiring.
4. Mount the transformer at the fuse panel or any other convenient location. Do not locate closer than 1 meter (3 feet) to the CA-814 Amplifier or any room station.
5. Install wiring between all locations. Keep the transformer wires separate from the station wires. Keep the station wires away from power wiring, transformers and electrical and lighting fixtures. Protect wires from damage by nails.

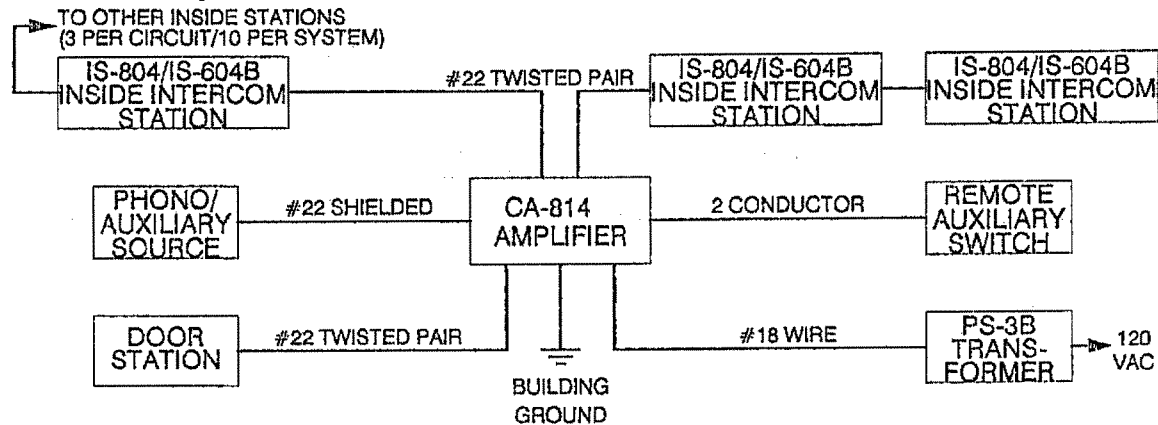
## Wiring

Wire the remote stations to the CA-814 Amplifier as shown on the general wiring layout shown below and explained in the following notes:

(a) Use 4WJ (2 twisted pairs #22) wire for all station wiring.

(b) Use 3 conductor #18 wire from the transformer to the CA-814 Amplifier.

Caution: Use only the 16 VAC terminals. Connect the stations as shown, do not reverse polarity.



## OPERATING INSTRUCTIONS

### Room Station

To TALK, depress the inside talk button and speak in a normal voice. The call will be heard at all room stations that are turned on and not switched to monitor. Release inside button to hear reply. To REPLY to a call, depress inside talk button and speak in a normal voice, release button after talking. To ANSWER the door station, depress the outside talk button and speak in a normal voice, release the button to hear reply.

### Door Station

A CALL is placed by depressing the call button of the door station. A chime is heard at all room stations that are turned on and not switched to monitor.

### Monitoring

To MONITOR a room, depress the monitor button of the room station to be listened to. Sounds from that room will be heard at all room stations that are turned on. To release the monitor button, depress and release the inside talk button.

### Privacy

Releasing the monitor button prevents listening-in to that station. Turning the volume control fully counterclockwise renders the station fully private, no intercom, music or call tone will be heard.

### Music

If background music is used, it is advisable to turn volume controls at all stations to a low setting to allow the choice of full volume or background music listening. Turn volume control fully up when using the intercom. The music is automatically silenced during intercom use and when any one station is switched to monitor.

### Level Adjustments

System levels (intercom, chime, and aux) can be adjusted at the amplifier. Using a small screwdriver, turn in the direction of the arrow to increase the setting for the appropriate level control. Turn in the other direction to decrease the level.

## **TROUBLESHOOTING**

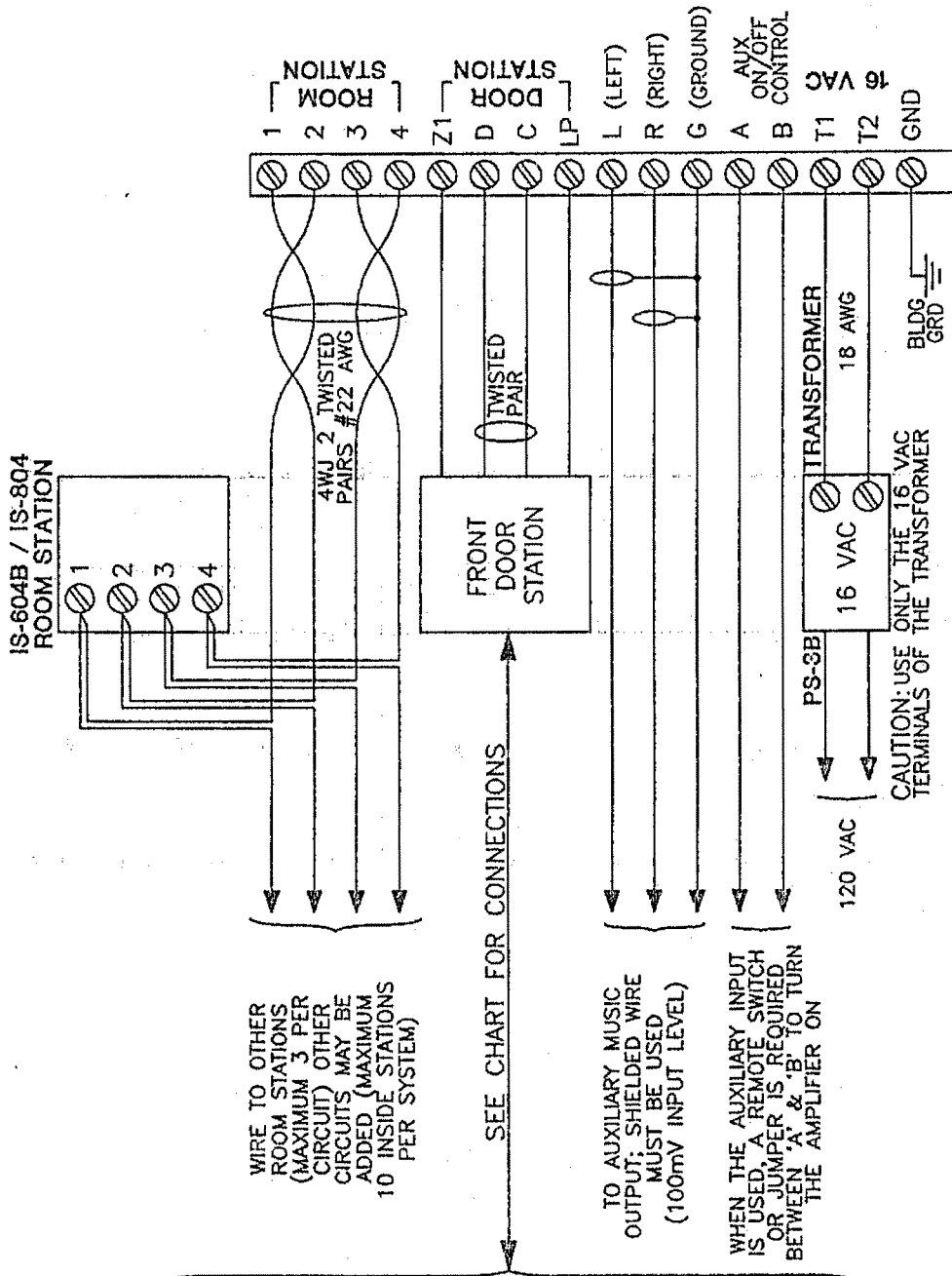
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If the equipment fails to operate as indicated in the operating instructions, check the following items:

- 1. Entire system dead *Check:***
  - (a) 16 VAC at transformer secondary
  - (b) 16 VAC at amplifier terminals T1 and T2
  - (c) 120 VAC at transformer primary
- 2. No sound from room station *Check:***
  - (a) Volume control turned down
  - (b) Monitor button is depressed
  - (c) Wiring to terminals 3 and 4
  - (d) Connections to amplifier 3 and 4
- 3. Intercom volume too low *Check:***
  - (a) Station volume set turned down
  - (b) Amplifier volume control setting too low
- 4. Squealing or howling *Check:***
  - (a) Amplifier volume set too high
  - (b) Stations located too close to each other
  - (c) Twisted pair wiring not used or pairs interchanged
- 5. Station unable to talk *Check:***
  - (a) Volume control turned down
  - (b) Wiring to terminals 1 and 2
- 6. Unable to talk to door *Check:***
  - (a) Connections to door station
  - (b) Wiring to amplifier terminals C and D
  - (c) Room station volume turned down
- 7. Unable to listen to door *Check:***
  - (a) Wiring to terminals 1 and 2
  - (b) Station volume set too low
- 8. No chime *Check:***
  - (a) Connections at door station call button
  - (b) Wiring to amplifier terminals C and Z1
- 9. Hum or buzz *Check:***
  - (a) Station wiring installed too close to power fixtures.

DOOR STATION CONNECTIONS		
DOOR STATION MODEL #	RADIO MODEL #	
OS-803 BLUE WHITE RED	EP-814A	D C Z1
OS-806 D C Z LP		D C Z1 LP
OS-1000 BLUE YELLOW RED WHITE		D N/C Z1 C
OS-1001 1 2 3 4		D N/C Z1 C

N/C = NO CONNECTION



# WARRANTY

**MIRCOM Technologies Ltd.**, manufactured equipment is guaranteed to be free of defects in material and workmanship for a period of one (1) year from the date of original shipment. MIRCOM will repair or replace, at its option, any equipment which it determines to contain defective material or workmanship. Said equipment must be shipped to MIRCOM prepaid. Return freight will be prepaid by MIRCOM. We shall not be responsible to repair or replace equipment which has been repaired by others, abused, improperly installed, altered or otherwise misused or damaged in any way. Unless previously contracted by MIRCOM, MIRCOM will assume no responsibility for determining the defective or operative status at the point of installation, and will accept no liability beyond the repair or replacement of the product at our factory authorized service depot.

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