



**EP-815
AM-FM DIGITAL RADIO INTERCOM
INSTALLATION
AND
OPERATING
INSTRUCTIONS**

EP-815 AM-FM RADIO INTERCOM

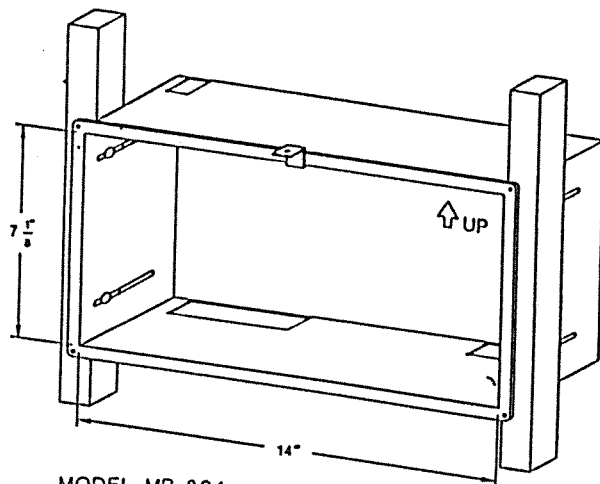
Installation and Operating Instructions

Introduction:

The Mircom EP-815 residential radio intercom provides voice communication plus radio reception at every station. A monitoring capability permits listening-in to any location. Room stations may be turned off for full privacy. A built-in electronic chime permits door call to be heard in every room. The door station allows hands-free communication.

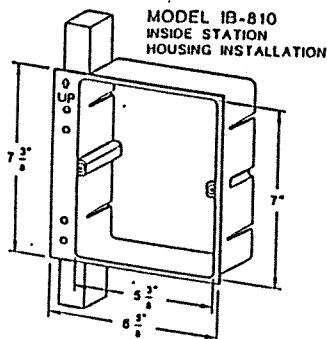
Housing:

Locate master and remote intercom housing at convenient locations. Do not locate the Master station in an area of extreme cold or direct heat. Do not locate two stations back to back in the same partition as this will result in squealing from feedback. Stations should be separated by at least three studs, 1.1 meters (45 inches) and if possible located in separate partitions. The Master station required 8.75 cm (3.5 inches) depth behind the wall surface and protrudes 4.5 cm (1.75 inches) in the front. Leave at least 10 cm (4 inches) wall space at the top of the Master housing.

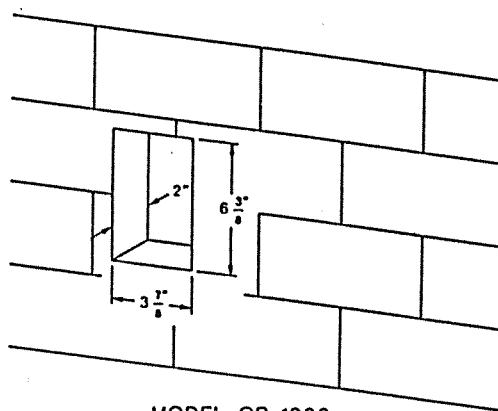


MODEL MB-804
MASTER HOUSING INSTALLATION

MASTER HOUSING: Install between two wall studs.
It is important to mount the housing flush with the wall studs.



INDOOR HOUSING: Install on wall stud with lip facing out.
Fasten with nails to the wood partition.



MODEL OB-1000
OUTDOOR STATION
HOUSING INSTALLATION

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

Wiring:

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

1. Use 4WJ (2 twisted pairs #22) wire for all remote station wiring. Maximum cable length to the furthest remote station is 15 meters (50 Ft.) when five stations are used and 60 meters (200 Ft.) when one or two stations are on one or two stations are on one cable. Maximum number of stations per system (including Master station) is 20. The maximum number of stations per cable is 5. The maximum number of door stations per system is 2.
2. Run cables into the back of the Master housing and leave approximately 25 cm (10 inches) of cable for connections to the Master station. Cables must be installed away from 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 wire from the transformer to the Master station. Use #16 wire if the transformer is located more than 15 meters (50 Ft.) from the Master station. Do not install the transformer closer than 1 meter (3 Ft.) to the Master station. Install a ground wire from the house fuse box to terminal G of the EP-815 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. For FM reception, run 2 meters (6 Ft.) of #22 insulated wire from the Master station location to the attic or other suitable antenna location.
5. Phono/Auxiliary Input - run two conductor #22 shielded wires from the music source to the Master station. If the music source has a low impedance output, a #22 twisted pair cable may be used.

IMPORTANT

TO IMPROVE A.M. RECEPTION AND ELIMINATE ELECTRICAL NOISE.
RUN THE BUILDING GROUND WIRE (MAKE SURE THE WIRE IS
GROUNDED TO THE BUILDING) TO TERMINAL G

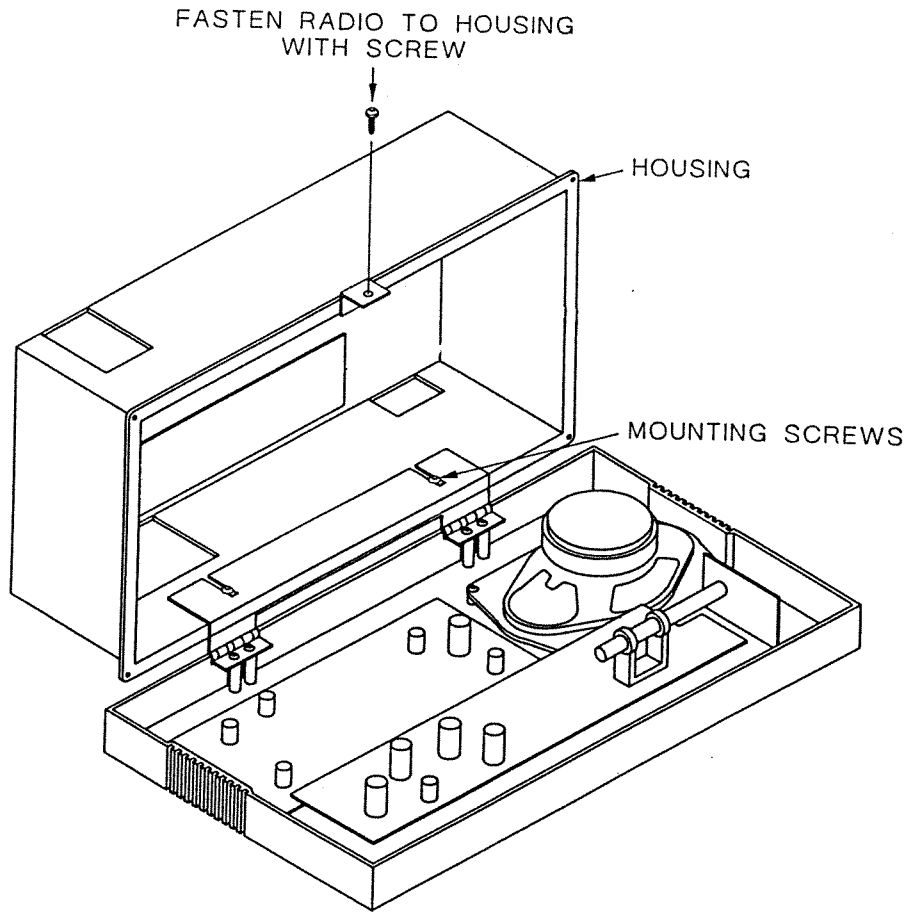
System Hook-Up:

Fasten the Master Station support hinge to the housing as shown.

Connect the wires to the terminal block as shown in the wiring diagram above. Before powering up, ensure that all wires 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.

If an external antenna wire is to be used, connect it with the wire which is attached to the "F.M. ANT" terminal on the radio module.



O P E R A T I N G I N S T R U C T I O N S

INTERCOM OPERATION

Master Station

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 which one turned on and not being monitored.

- NOTES:
1. If more than 20 inside stations are installed, no more than 10 should be fully on at one time.
 2. The intercom level can be increased or decreased by adjusting R49 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 operation approximately 10 seconds after releasing the OUTSIDE button.

Remote Stations

Turn VOLUME control fully clockwise.

To CALL, press the INSIDE button and talk into the speaker at a normal voice level. The call will be heard at all remote stations and the Master if they are turned on.

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.

Monitoring

To LISTEN, press the MONITOR button on the remote station or Master. Sounds originating from the room in which the station is located will be heard at all remote stations that are turned on, or at the Master if the STATION VOLUME is turned on. To release the MONITOR button, push the INSIDE button momentarily.

Door Station

To CALL, push button on door station. Chime will be heard at all stations that are turned on. Caller replies after hearing the chime.

RADIO OPERATION

Master

To turn radio on, turn TONE control clockwise until a click is heard. Select AM, FM or AUX as desired, tune in desired radio station, adjust STATION VOLUME control fully on, adjust RADIO VOLUME control for a suitable listening volume, adjust TONE control as desired. The STATION VOLUME control may now be adjusted to a low background music level if desired.

Set Time

To set the time depress the hour push button labelled "H" to display the hour. Each time the "H" push button is depressed (or held down) the hour will be advanced, once the desired hour is displayed release the "H" push button. To set the minutes depress the minute push button "M" and release the push button once the correct minutes are displayed. The time remains displayed; to view the radio station, push the "Tuning" button. 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 push button "Me", then depress one of the push buttons numbered 1 to 5. Repeat this procedure for each of the four other pre-selected station push buttons.

Scan

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

Remote Stations

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

The radio program will be automatically silenced whenever the intercom is being used. Therefore if the radio will not function, look for a remote station that may have its MONITOR button depressed. The automatic door reply will also silence the radio, but the radio program will return after approximately 10 seconds.

Privacy

If the VOLUME control on a remote station or the STATION VOLUME control on the Master is turned off, that station will not hear intercom calls or radio programming.

TROUBLESHOOTING

1. Entire System Dead
Check: a) 16 VAC at Transformer
b) Connections at Master terminals T1 and T2
c) Wiring from transformer to Master
d) 117 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 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 Stations Unable to Talk
Check: a) 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 Station
Check: a) Connections to door stations
b) Wiring to Master 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 check points fail to indicate the problem, there may be an equipment fault. Check with your dealer or with a qualified service company.

Warranty

MIRCOM 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 repair or replacement of the product at our factory or authorized service depot.

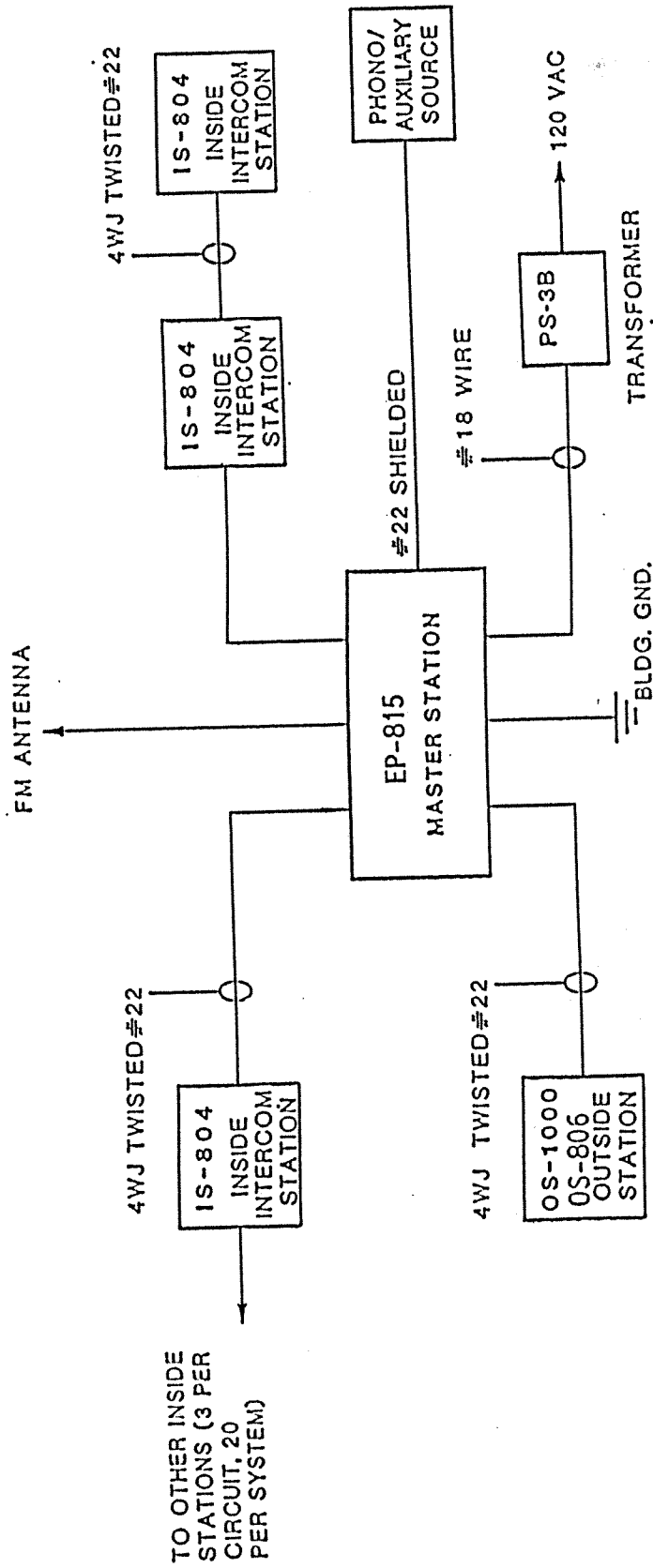
MIRCOM TECHNOLOGIES LTD.
MIRCOM COMMUNICATIONS & SECURITY INC.
8111 Jane Street
Concord, Ontario
L4K 4L7

Tel: (416) 660-4655
Fax: (416) 660-4113

MIRCOM COMMUNICATIONS & SECURITY INC.
U.S.A. WAREHOUSE
1570 Corporate Drive
Unit "G"
COSTA MESA, California
92626

Fax: (714) 436-1304

11.21.91



TO OTHER INSIDE STATIONS (3 PER CIRCUIT, 20 PER SYSTEM)

4WJ TWISTED #22

IS-804
INSIDE
INTERCOM
STATION

FM ANTENNA

EP-815
MASTER STATION

PHONO/
AUXILIARY
SOURCE

PS-3B

TRANSFORMER

120 VAC

#22 SHIELDED

#18 WIRE

BLDG. GND.

IS-804
INSIDE
INTERCOM
STATION

4WJ TWISTED #22

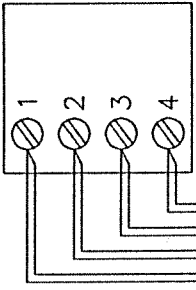
IS-804
INSIDE
INTERCOM
STATION

4WJ TWISTED #22

OS-1000
OS-806
OUTSIDE
STATION

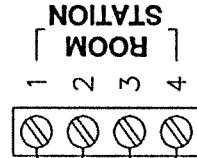
DOOR STATION CONNECTIONS		RADIO MODEL #	
DOOR STATION MODEL #		EP-804/EP-804A	EP-814/EP-815
OS-803 BLUE WHITE RED	D	D	D
	C	C	C
	Z	Z	Z1 or Z2
OS-806 D C Z LP	D	D	D
	C	C	C
	Z	Z	Z1 or Z2
	LP	LP	LP
OS-1000 BLUE YELLOW RED WHITE	D	D	D
	N/C	N/C	N/C
	Z	Z	Z1 or Z2
	C	C	C
OS-1001 1 2 3 4	D	D	D
	N/C	N/C	N/C
	Z	Z	Z1 or Z2
	C	C	C

IS-604B / IS-804 ROOM STATION

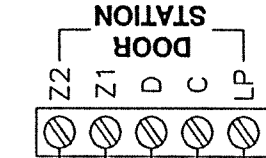


4WJ 2 TWISTED PAIRS #22 AWG

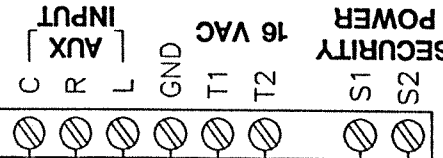
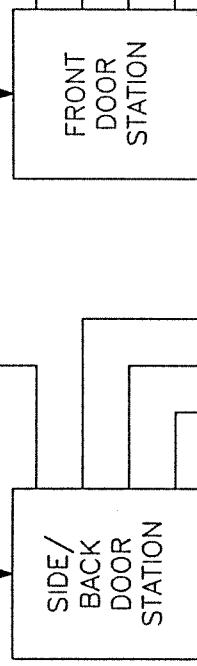
WIRE TO OTHER ROOM STATIONS (MAXIMUM 3 PER CIRCUIT) OTHER CIRCUITS MAY BE ADDED (MAXIMUM 10 INSIDE STATIONS PER SYSTEM)



4WJ 2 TWISTED PAIRS #22 AWG

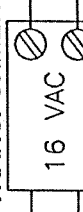


SEE CHART FOR CONNECTIONS



TO AUXILIARY MUSIC OUTPUT (FOR LOW IMPEDANCE, TWISTED PAIR WIRING MAY BE USED)

PS-3B TRANSFORMER



120 VAC

16 VAC

18 AWG TWISTED PAIR

BLDG GND

CAUTION: USE ONLY THE 16 VAC TERMINALS OF THE TRANSFORMER

SEE SECURITY SECTION FOR WIRING