

EP-2000

**ALL MASTER
AM/FM RADIO
INTERCOM**

**OPERATING
INSTRUCTIONS**

LT-517
REV 0

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OPERATING INSTRUCTIONS FOR THE EP-2000 INTERCOM

MIRCOM's EP-2000 system is a unique "All-Master" intercom system which has been designed to fulfil all the intercommunication needs of a modern household.

UNIQUE FEATURES

****All-Master control***

From each station you can selectively call any other station in the system. Every intercom feature on the master station(EP-2000) is available on each other station.

****Remote Monitoring***

A station in the nursery can be placed in the monitor mode from another station without having to go to that particular station. You will be able to listen-in on the baby without accidentally awakening the baby by opening the door, or you can monitor the kids as they play unattended in the recreation room.

****Door Release***

Any room station can remotely open the front door or gate by pressing the door release button.

****Selectivity on ALL room stations***

Each station is capable of selecting either privacy, monitor, radio or intercom mode.

MASTER STATION -- EP-2000

RADIO CONTROLS









- | | | |
|----------|-----------------------------------|---|
| 1 | -SEEK BUTTON | This button "seeks" the next available radio station frequency |
| 2 | -SCAN BUTTON | This button "scans" sequentially all the radio stations, one at a time (every 5 seconds). Depressing the "scan" button a second time will leave the radio at the last station displayed. |
| 3 | -AM/FM BUTTON | Selector button for AM or FM radio stations |
| 4 | -TIME/FREQ
BUTTON | Pressing this button switches the display between radio station and clock time |
| 5 | -PRE-SELECTED
STATIONS | To pre-select up to 12 stations (6 for AM and 6 for FM) |
| 6 | -TUNE BUTTONS | ▲ Use this to select a radio frequency higher in the band
▼ Use this to select a radio frequency lower in the band |
| 7 | -CLOCK
ADJUSTMENT | Holding the MEMORY button down while pressing the HOUR button will advance the hour portion of the clock. Similarly holding the MINUTE button while holding the MEMORY button will advance the minute portion of the clock |
| 8 | -RADIO/AUX.
BUTTON | When an auxiliary music source is connected to the EP-2000 Master Station, (e.g. C.D. or Tape Deck) pressing this button will replace the radio. If the AM or FM light is not illuminated the auxiliary input is being used |

INTERCOM CONTROLS

- | | | |
|----------|------------------------|---|
| 9 | -VOLUME CONTROL | The volume control will enable you to adjust the level to your listening pleasure |
|----------|------------------------|---|

10 -TONE BUTTONS The TONE buttons will adjust the bass and treble levels of the EP-2000 master station only

11 -INTERCOM KEYPAD The keypad enables the user to make, cancel, answer or prevent any type of intercom call. The keypad can preform the following operations for the station

- | | |
|--|--|
| a) Privacy  prevents any incoming calls. | g) Call  used whenever you wish to call another station. |
| b) Monitor  allows listening into any other room station. | |
| c) All-call  you can make a paging announcement. | h) Control Access  after responding to a visitor's call you can remotely open the door if an electric door control option is connected. |
| d) Music  allows music to be heard at this station. | |
| e) Talk  used to talk to another station. | |
| f) Door  used to respond to a door call. | |

12 -MICROPHONE Highly sensitive microphone enables hands free operation.

INDICATORS

13 -AM/FM Shows whether Radio is in the FM or AM mode.

14 -PRIVACY No calls will be received at this station when this light is on.

15 -MONITOR The green light will illuminate when this station is being or is monitoring another station.

16 -INTERCOM If more than two independant converstations are taking place in the system, the yellow light will caution you the system is currently used at its full capacity.

17 -CLOCK/RADIO DISPLAY This display will either display the time in AM or PM or the current radio station being received.

18 -DIRECTORY Directory laabels can be applied in this area. The label will inform you which station you are calling

RADIO AND CLOCK

The EP-2000 Master Station has a built-in AM/FM radio tuner with 12 pre-selected settings (6 AM and 6 FM)

RADIO To listen to the radio press **[*]**, **[1]** on the station's keypad. Repeat to turn the radio off. Check to make sure either the AM or FM light is lit. If the AM or FM light is not lit press the RADIO/AUX button.

TUNING Using the tune buttons, select the desired radio station. Press the AM/FM button to select between AM or FM stations.

TONE Use the TONE buttons to increase or decrease the tone level.

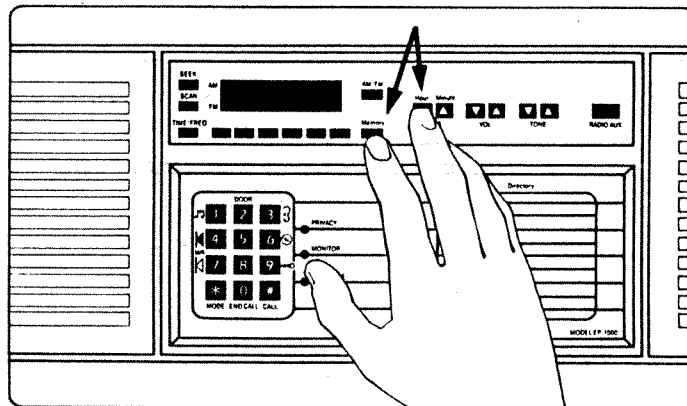
PRE-SELECT SETTINGS

To set a desired station, press the MEMORY button, then one of the buttons labelled 1 to 6. Repeat this procedure for each of the five other pre-selected station push buttons

CLOCK

To set the time on the clock, press the TIME/FREQ. button to show the clock. Holding the MEMORY button down while pressing the HOUR button will advance the hour portion of the clock. Similarly, holding the MINUTE button down while holding the memory button will advance the minute portion of the clock.

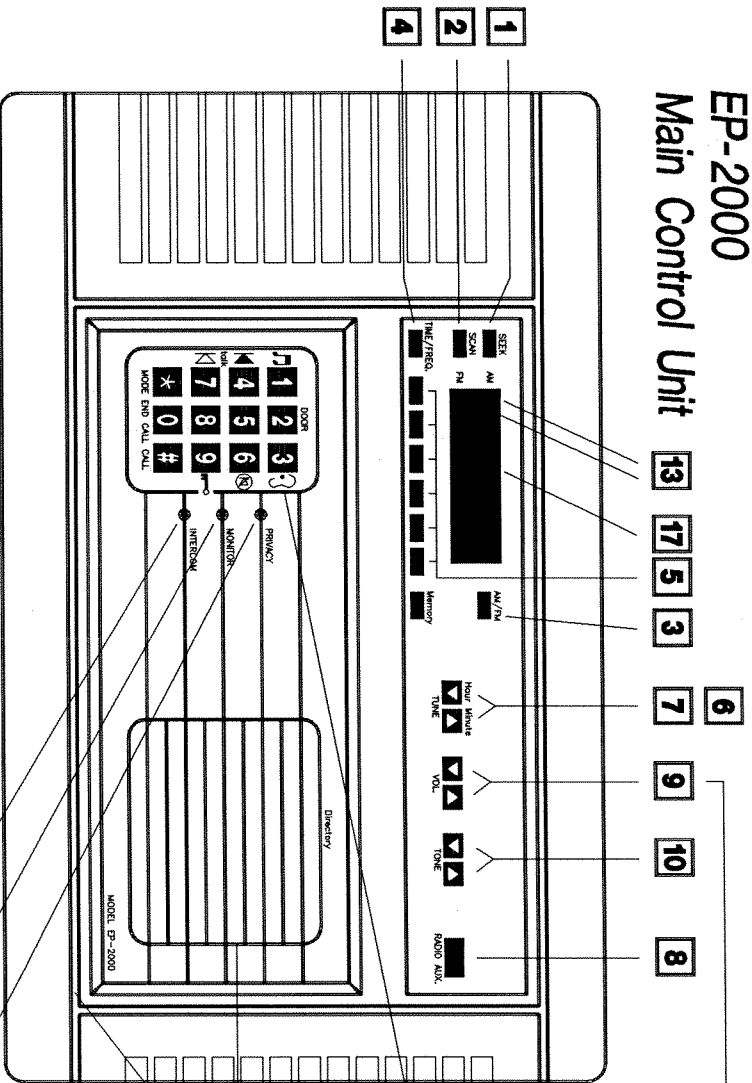
Figure-1. Clock Adjustment



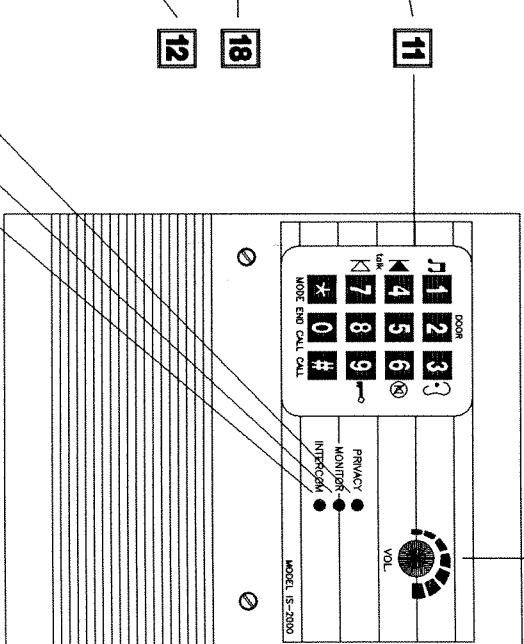
EP-2000 System Features

EP-2000

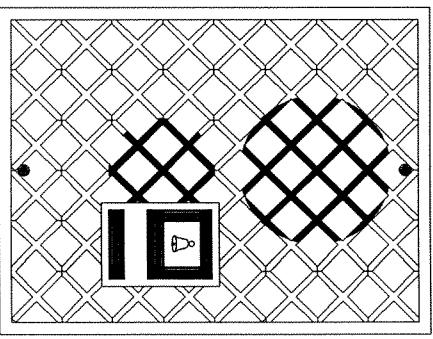
Main Control Unit



IS-2000 Room Station



OS-1004/1005/1006 Door Station



AUXILIARY MUSIC SOURCE

Alternate music source can be connected to the EP-2000 system. Example: Tape decks, Compact disc, etc.

RADIO/AUX. BUTTON Press this button to transfer the music source from the built-in radio to the alternate music source.
Connect the alternate music source to AUX terminals labelled R,L and GND.
The FM or AM light will not light up if this feature is being used.

INTERCOM FUNCTIONS

ONLY MIRCOS EP-2000 SYSTEM CAN PERFORM EACH OF THE FOLLOWING FUNCTIONS AT EVERY INDOOR STATION

TO MAKE A CALL TO A PARTICULAR STATION

Press **#** , then the two digit station number. The called station will receive a ringing tone. The person being called will be able to answer hands-free. The person calling will press the **◀ 4** button when they talk and release the button to listen. The station will automatically hang up if the person does not talk after a 15 second period. To hang up prior to the factory-set period of 15 seconds, press the *** 0** buttons.

EXAMPLE:

If the living room had a room station assigned to number 08, you would do the following

To CALL, Press **#** then **0 8**

To TALK, Press **◀ 4**, release to listen

If you receive a busy tone while calling and the red PRIVACY light flashes, the person you are calling has their station on PRIVACY mode and doesn't wish to be disturbed.

The yellow INTERCOM light will flash three times if the station you are calling is busy or when the system is being used at its fully capacity. The system can have two independent conversations taking place simultaneously. A person can talk to someone on the basement while another person can talk to someone in one of the bedrooms

RESPONDING TO A CALL

A ringing tone is heard at a station whenever someone is calling. Immediately after the ringing tone the person can respond hands-free without having to drop whatever they are doing.

PAGING AN ANNOUNCEMENT

To make an ALL CALL announcement press *****, then the **7** button. While holding down the **7** button, page your announcement to all room stations. The door stations will not transmit your announcement. Wait momentarily after pressing and holding the **7** button for the ringing tone to be sent to all the room stations.

ANY TYPE OF CALL WILL AUTOMATICALLY MUTE THE RADIO OR AUXILIARY MUSIC SOURCE.

RESPONDING TO A DOOR CALL

All door calls are heard at all indoor stations except stations set in the PRIVACY or MONITOR mode. Each door station has a distinguishable door chime. To Answer press ***** then **2** you will immediately hear the person at the door station. To respond, press **4** and release to listen. A pre-set intercom period will automatically reset the system after 15 seconds of conversation. To manually cut-off communication, press ***** then **0**. A door station can be also called the same way as an inside station.

Front Door	= Two note chime, repeats three times	= station 14
Back Door	= Two note chime, repeats two times	= station 15
Side Door	= Two note chime	= station 16

It is therefore possible by listening to the chime to distinguish which door the visitor is calling from.

MONITORING

The system can monitor up to three room stations simultaneously or conversely, three room stations can monitor one room.

Example:

Press *******3** **3** **#** then the station number ___

Repeat the procedure to monitor two other stations

To monitor a station from separate rooms, perform the above sequence at each station




*To cancel the monitoring press ***** , **0***

Room stations monitoring or being monitored will have their green MONITOR light illuminated.

PRIVACY

To prevent any incoming calls or door chimes, you can place your station into the Privacy mode.

Example:

Press ,  

To cancel the privacy mode, press ,  

When a station is in the Privacy mode the red light will illuminate. Another room station calling a station in the Privacy mode will receive a busy tone and a flashing privacy light. Radio/Aux. can be listened to if the station is in the privacy mode.

CONTROL ACCESS

Each room station is capable of opening a controlled access point (e.g. electric gate, front door with a electric door strike, etc..). After receiving a call from a door station the following procedure will trigger the controlled access point.

Example:

Press ,   after receiving a door call

If the optional door release feature is connected, the door strike will trigger for 5 seconds.

NOTE: *This function will only work after the door chime is triggered by an outside door station.*

SPECIAL FEATURES

MASTER ROOM STATION

A room station connected to terminals marked 2D and 2V on the EP-2000 will be the Master room station. A master room station gives parents the ability to monitor or call a child's room, no matter what status the child's room station is in. Remember, a regular room station will not be able to call another room station in the privacy or monitor mode. A Master room station cannot be monitored. Only one Master room station is available per system. A room station is pre-programmed during installation, to be a Master room station.

The Master room station has the provision to over-ride any remote room station. To activate this feature the following sequence must be performed:

Example:

Remote station is in the privacy mode

-Remote **#**, **3**, *****, **0**, **4** sequentially.

-Unit will flash the red privacy light momentarily to inform you the station being monitored is in the Privacy mode. Wait a couple of seconds and the unit will monitor the station being called

INTERCOM DURATION SETTING

Each intercom conversation is limited to 15 seconds after a person making the call has finished talking. The person replying has only 15 seconds to respond. Pressing the TALK button re-starts the intercom period. By cutting a yellow jumper on the back of the EP-2000 unit, you can increase the intercom period to 30 seconds

TROUBLESHOOTING

PROBLEM	PROBABLE CAUSE	SOLUTION
Nothing Works	No AC Power Fuse burnt out	Check 16 VAC input Check 3 Amp fuse behind the EP-2000 station
Radio works on the EP-2000 station but not the room station	Wiring harness not connected or loose	Check wiring harness between EP-2000 station and the terminal board
Poor AM radio	AM antenna	Re-position the AM antenna
Poor FM reception	FM antenna	Re-position the FM antenna

EP-2000 SYSTEM DIRECTORY

STATION NUMBER	STATION LOCATION
01	EP-2000 MASTER UNIT
02	MASTER ROOM STATION
03	
04	
05	
06	
07	
08	
09	
10	
11	
12	
13	
14	(3 NOTE CHIME)
15	(2 NOTE CHIME)
16	(1 NOTE CHIME)