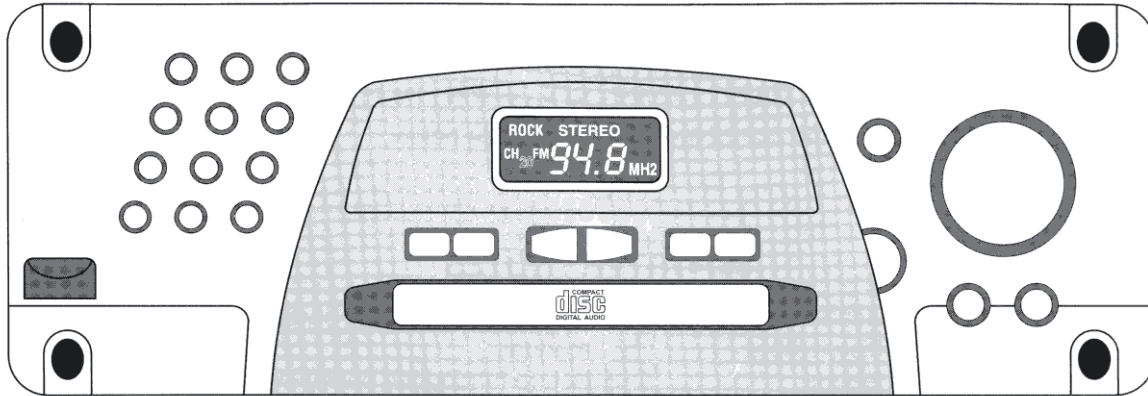


# OWNER'S MANUAL

## IW-SYS3

In-Wall AM/FM Receiver/Compact Disc  
*with*  
"Pre-Amp Outputs"



**OEM SYSTEMS COMPANY**

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## CAUTION

RISK OF ELECTRIC SHOCK  
DO NOT OPEN



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK).  
NO USER SERVICEABLE PARTS INSIDE REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



The lightening flash and arrowhead within the triangle is a warning sign alerting you of "dangerous voltage" inside the product.



The exclamation point within the triangle is a warning sign alerting you of important instructions accompanying the product.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE, DO NOT REMOVE COVER, PILOT LAMPS SOLDERED IN PLACE.

Please record the serial number located on the rear of the unit in the space below.

Serial Number \_\_\_\_\_

## IMPORTANT NOTES

- Avoid installing the unit in locations described below:
  - Places exposed to direct sunlight or close to heat radiating appliances such as electric heaters.
  - On top of other stereo equipment that radiate too much heat.
  - Places lacking ventilation or dusty places.
  - Humid or moist places.
- Operate controls and switches as described in the manual.
- Before turning the power switch on for the first time, make sure all necessary connecting cords are properly installed.

# IMPORTANT SAFEGUARDS

## SAFETY POINTS YOU SHOULD KNOW ABOUT YOUR AUDIO EQUIPMENT.

(FOR U.S.A.)

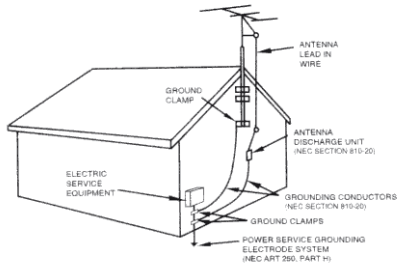
### CAUTION:

- **Read all of these instructions.**
  - **Save these instructions for later use.**
  - **Follow all warnings and instructions marked on the audio equipment.**
1. **Read Instructions** - All the safety and operating instructions should be read before the appliance is operated.
  2. **Retain Instructions** - The safety and operating instructions should be retained for future reference.
  3. **Heed warnings** - All warnings on the appliance and in the operating instructions should be adhered to.
  4. **Follow Instructions** - All operating and use instructions should be followed.
  5. **Water and Moisture** - The appliance should not be used near water, for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement or near a swimming pool and the like.

6. **Wall or Ceiling Mounting** - The appliance should be mounted to a wall or ceiling in accordance with the mounting dimensions.
7. **Ventilation** - The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug or similar surface that may block the ventilation openings; or, placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation.
8. **Heat** - The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.
9. **Power Sources** - The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.
10. **Grounding** - The precautions should be taken so that the grounding means of the AC connecting power cord is not defeated.

11. **Power-Cord Protection** - Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.
12. **Cleaning** - The appliance should be cleaned with a slight dampened cloth. Do not use harsh chemicals, cleaning solvents, strong detergents, etc.
13. **Power Lines** - An outdoor antenna should be located away from power lines.
14. **For Speaker Connections** - Eighteen (18) American Wire Gauge (AWG), Standard Wire, or Larger, must be used. The wire of preference is 18/2 AWG Stranded. Failure to use 18 AWG stranded Wire, or larger, will void the product warranty.
15. **Outdoor Antenna Grounding** - If an outside antenna is connected to the receiver, be sure the antenna system is grounded so as to provide some protection against voltage surges and built up static charges. Section 810 of the National Electrical Code. ANSI/NFPA No.70-1984, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes and requirements for the grounding electrode. See Figure below.

**EXAMPLE OF ANTENNA GROUNDING ACCORDING TO NATIONAL ELECTRICAL CODE**



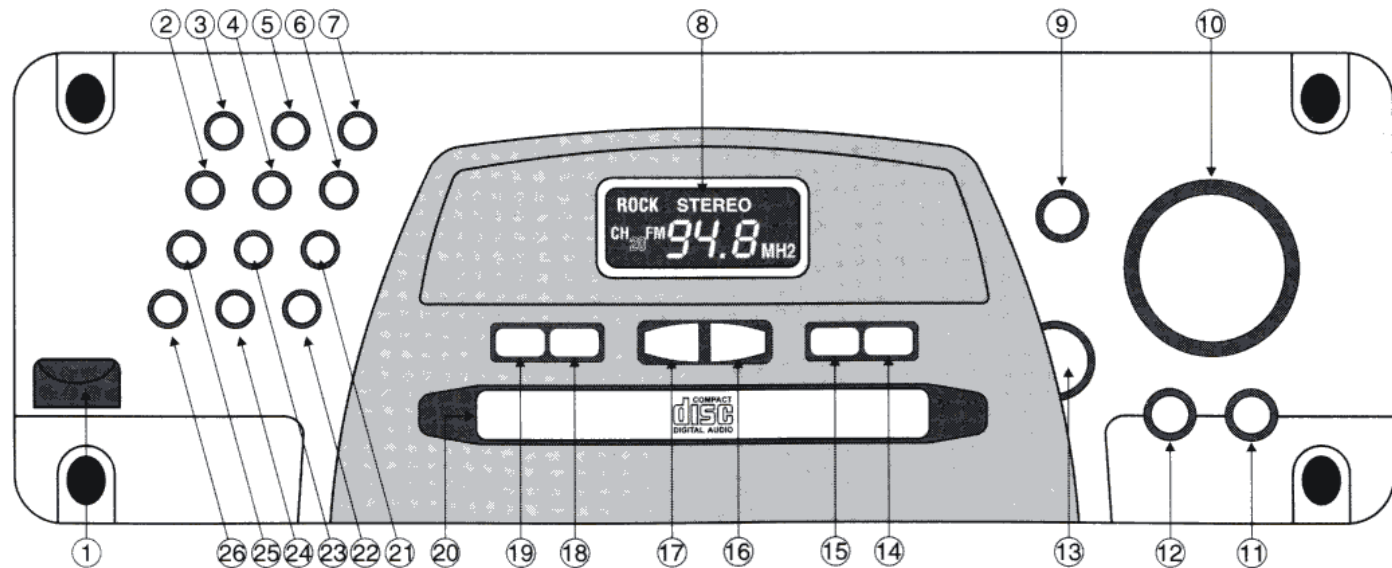
**Notes:**

- a. Use No. 10 AWG copper or No. 8 AWG aluminium or No. 17 AWG copperplate steel or bronze wire, or larger as ground wires for both mast and lead-in.
  - b. Secure lead-in wire from antenna to antenna discharge unit and mast ground wire to house with stand-off insulators, spaced from 4 feet (1.22 meters) to 6 feet (1.83 meters) apart.
  - c. Mount antenna discharge unit close as possible to where lead-in enters house.  
An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.
16. **Nonuse Periods** - The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.
  17. **Object and Liquid Entry** - Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
  18. **Damage Requiring Service** - The appliance should be serviced by qualified service personnel when:
    - A. The power-supply cord or the plug has been damaged;
    - B. Objects have fallen, or liquid has been spilled into the appliance; or
    - C. The appliance has been exposed to rain; or
    - E. The appliance has been dropped, or the enclosure damaged.
  19. **Servicing** - The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.
  20. **"CAUTION** - Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure"

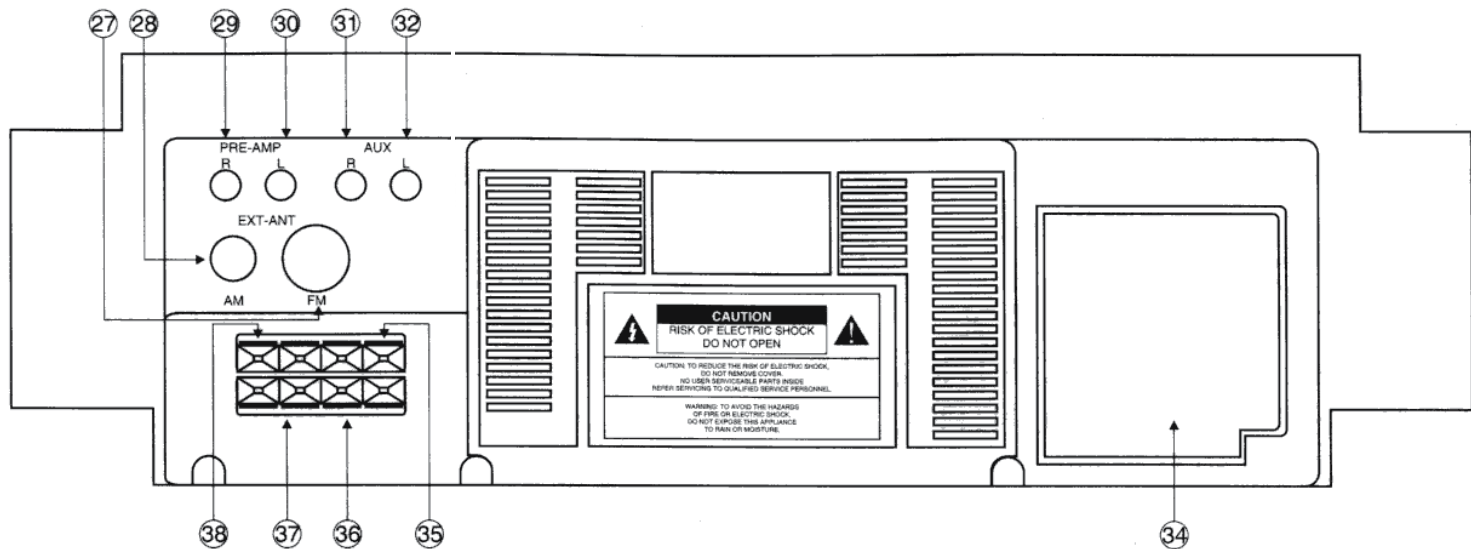
# CONTENT

	PAGE
IMPORTANT SAFEGUARDS .....	2-3
CONTENTS .....	4
FRONT VIEW .....	5
BACK VIEW .....	6
CONTROLS .....	7
INTRODUCTION .....	8
SPEAKER INSTALLATION .....	9
EXTERNAL ANTENNA INSTALLATION .....	9
PRE-AMP OUTPUT/AUX INPUT .....	10
AC POWER CONNECTION .....	11-12
CD OPERATION .....	13
PLAYING A COMPACT DISC .....	13
SKIP DURING PLAY MODE .....	13
SEARCH DURING PLAYING MODE .....	13
REPEAT .....	14
PAUSE MODE .....	14
INTRO OPERATION .....	14
RANDOM OPERATION .....	14
PROGRAMMING .....	14
RADIO OPERATION .....	15
CLOCK SET/TIMER ON/TIMER OFF/SLEEP OPERATION.....	16
MUTE OPERATION .....	16
PAGER OPERATION .....	16
PRESET EQ OPERATION.....	16
MOUNTING DIMENSIONS .....	18
SPECIFICATIONS .....	21

# FRONT VIEW:



# BACK VIEW:



## CONTROLS:

1. POWER SWITCH
2. TIMER BUTTON
3. AUX. PLAYING MODE
4. SLEEP BUTTON
5. CD PLAYING MODE
6. RADIO BAND SELECT
7. TUNER MODE
8. MULTI-FUNCTION DISPLAY
9. BALANCE CONTROL
10. MASTER VOLUME CONTROL
11. SPEAKER B VOLUME CONTROL
12. SPEAKER A VOLUME CONTROL
13. OPEN/CLOSE BUTTON
14. STOP BUTTON
15. PLAY/PAUSE BUTTON
16. UP/F-SKIP BUTTON
17. DOWN/R-SKIP BUTTON.
18. RANDOM BUTTON
19. M-UP/REPEAT BUTTON
20. CD COMPARTMENT
21. MUTE BUTTON
22. MEMORY BUTTON
23. MODE/REMAIN BUTTON
24. PRESET EQ BUTTON
25. INTRO BUTTON
26. PAGER BUTTON
27. FM ANTENNA JACKS
28. AM ANTENNA JACKS
29. PRE-AMPLIFIER RIGHT-CH OUTPUT
30. PRE-AMPLIFIER LEFT-CH OUTPUT
31. AUX. RIGHT-CH INPUT
32. AUX. LEFT-CH INPUT
34. TRANSFORMER
35. LEFT CHANNEL BASE SPEAKER A
36. LEFT CHANNEL AUXILIARY SPEAKER B
37. RIGHT CHANNEL AUXILIARY SPEAKER B
38. RIGHT CHANNEL BASE SPEAKER A

## INSTRUCTION

The **IW-SYS3** is a compact stereo system containing an AM and FM tuner, A laser compact disc player with skip or search during play mode, programming to store the track in memory, preset EQ, auxiliary input, two output system preamp outputs, muting, pager, timer, sleeping, etc. Through the use of modern technology our engineers have been able to design a powerful unit with multi mode functions ideal for permanent installation in homes, custom mobile homes, van conversions recreational vehicles and any other installation where space limitations become a factor.

Its features include:

- AM/FM tuner
- Auto scan the radio station
- Laser compact disc playing
- Multi-function display
- Timer/Sleeping function
- Mode/Remain function
- Intro function
- Mute function
- Pager function
- Preset EQ function
- Programming to store the track in memory
- Auxiliary input
- Pre-amplify output
- Base Speaker A and Auxiliary Speaker B output system
- Master volume and balance control
- Base speaker A and Auxiliary speaker B control
- DC output jack
- Mini slim cabinet construction fits 3 3/4" wall depth

Notes:

1. Connect the required speakers before operating the unit.
2. Use external antenna for optimum radio reception when necessary.

## SPEAKER INSTALLATION

The **IW-SYS3** is designed with outputs for two-pairs of speakers, **Main Speaker A** 35, 38 & **Auxiliary Speaker B** 36, 37, **Main Speaker A** output system is the master speaker output and is for speaker-pair installed close to the unit. **Auxiliary Speaker B** output system provides you an additional speaker output pair for use in an other location.

To install a speaker-pair to the **Main Speaker A** output system 35, 38.

1. Select two to four 8-ohm speakers.
2. Route the two conductor wires of one of the speakers separately onto the two SPEAKER TERMINALS marks "+" and "-" 35.
3. Repeat steps 2 for the **RIGHT CHANNEL SPEAKER** 38.

If you also want to install speakers to the **Auxiliary SPEAKER B** 36, 37, just repeat steps 1 through 3.

**Caution:** Each speaker output channel is marked with "+" and "-", do not electrically connect them together.

**Note** : If you use 16-ohm speakers instead of 8-ohm speakers, every two 16-ohm speakers should be connected in parallel to each channel of the speaker output system.

## EXTERNAL ANTENNA INSTALLATION

**EXT. AM ANTENNA JACK** - For external AM connection.

**EXT. FM ANTENNA JACK** - 75-ohm; for external FM antenna connection.

**EXT. FM CAR ANTENNA** - Female MOTOROLA type; also for external FM antenna connection.

**Notes:**

1. When installing an external antenna, pay attention to the antenna safety instructions in "**IMPORTANT SAFEGUARDS**".
2. To connect your external antenna to the antenna jack on the unit, first have the external antenna's connecting wire equipped with a suitable connector that fits antenna jack, then plug the connector into the jack.
3. **AM ANTENNA JACK, FM ANTENNA JACK**, circuit is connected internally, So you can receive AM and FM signals by connecting the external antenna to any one of the ANTENNA terminals.

**PRE-AMP OUTPUT**

1. **PRE-AMPLIFIER RIGHT-CH OUTPUT (29)** - For external connection to the RIGHT INPUT of your own amplifier.
2. **PRE-AMPLIFIER LEFT-CH OUTPUT (30)** - For external connection to the LEFT INPUT of your own amplifier  
It accommodates RCA plug.

**AUX INPUT**

1. **AUX RIGHT-CH INPUT (31)** - For external connection to the RIGHT OUTPUT of your own music source.
2. **AUX LEFT-CH INPUT (32)** - For external connection to the LEFT OUTPUT of your own music source.

**Notes:**

1. When connected **PRE-AMP OUTPUT, AUX INPUT** jacks, remember to switch off both the IW-SYS3 and your amplifier.
2. Each channel is mark with "R" and "L", do not electrically connect them converse.
3. PRE-AMP OUTPUT level controlled by **MASTER VOLUME** control (10).

## AC POWER CONNECTION

**Warning :** This installation should be made by a qualified service person only and conform to all local codes.

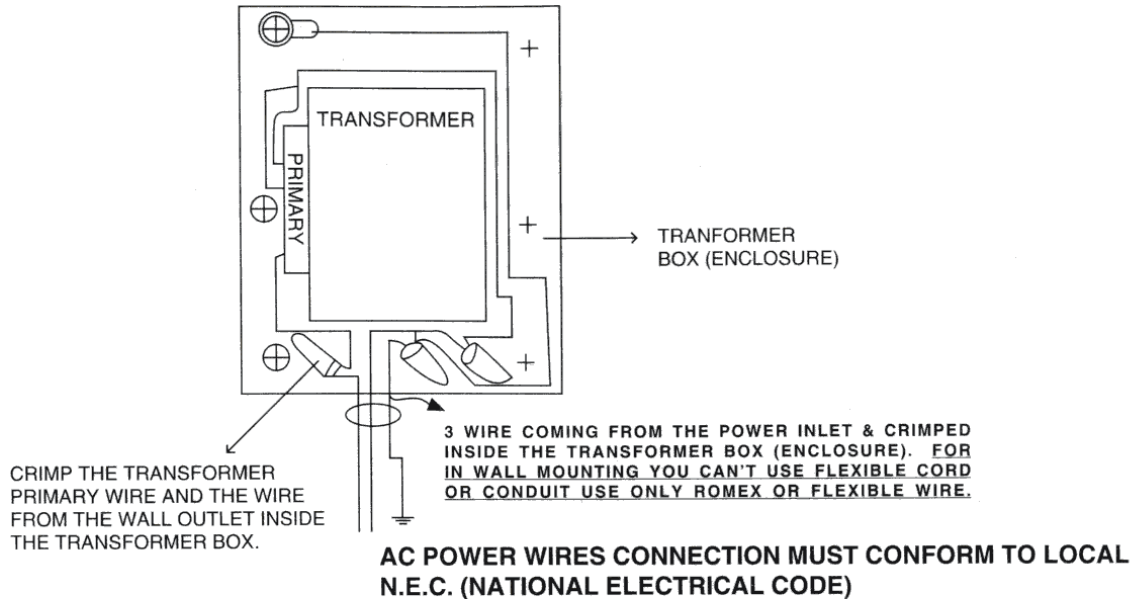
Remove the rear panel inspection plate to access the field wiring compartment. Using a Philips head screwdriver remove the two screw which retain this access panel in place.

Using a blunt object, remove the perforated knockout from the bottom of the radio chassis.

Using flexible (Romex) cable, secure Romex fitting to radio chassis, insert Romex cable into radio through the Romex fitting and secure tightly. Connect the ground wire from the supply to the green pigtail ground lead inside the field wiring compartment by using an Underwriters Laboratories Listed wire nut which is suitable for the AWG of wire and the number of conductors to be secured.

Connect the "LIVE" and "NEUTRAL" conductors to the two pigtail leads, which connect to the transformer primary, by using Underwriters Laboratories Listed wire nuts suitable for the AWG of wire and the number of conductors to be secured.

Connect the "LIVE" and "NEUTRAL" conductors to the two pigtail leads, which connect to the transformer primary, by using Underwriters Laboratories Listed wire nuts suitable for the AWG of wire and the number of conductors to be secured.



This installation should be made by a qualified service person and conform to all local codes.  
To installer: Romex wire must go through wire clamp before going into the box.

## CD OPERATION:

### PLAYING A COMPACT DISC

1. Set the **POWER** switch (1) at ON position.
2. Set the **BALANCE** control(9) at center position, rotate **MASTER VOLUME** control (10) to mid-range position.
3. Rotate the **A VOLUME** control (12) and **B VOLUME** control A (11) to mid-range position.
4. Press **CD** button (5) to set the unit in CD playing mode.
5. Press the door **OPEN/CLOSE** button (13) to open the CD cover door.
6. Place the CD disc with the printed side facing up. Press the door **OPEN/CLOSE** button (13) again to close the disc tray.
7. Disc information will appear on LCD display. (Disc information includes the total track numbers and playing time.)
8. Press the **PLAY/PAUSE** button (15), the disc will always be play from the first track forward.
9. To stop playing, press the **STOP** button (14).

### SKIP DURING PLAY MODE

1. Press the **UP/F-SKIP** button (16) less than 0.5 sec. to skip the beginnings to the next track.
2. Press the **DOWN/R-SKIP** button (17) less than 0.5 sec. to skip to the beginning from the current track.

### SEARCH DURING PLAY MODE

1. Press and hold **UP/F-SKIP** button (16) or **DOWN/R-SKIP** button (17) more than 0.5 sec. to quickly advance or reverse through the music at high speed.
2. Release the **UP/F-SKIP** button (16) or **DOWN/R-SKIP** button (17) to return to normal play mode.

## **REPEAT**

1. Press the **M-UP/REPEAT** button (19) and LCD display "**REPEAT**" to enter the all tracks repeat playing mode.
2. Press the **M-UP/REPEAT** button (19) again and LCD flash "**REPEAT**" to enter the one track repeat playing mode.
3. Press the **M-UP/REPEAT** button (19) again to cancel the repeat operation.

## **PAUSE MODE**

1. While playing a CD, press the **PLAY/PAUSE** button (15) to pause the play mode temporarily.
2. Press the **PLAY/PAUSE** button (15) again to continue playing.

## **INTRO OPERATION**

1. In CD mode, press **INTRO** button (25) to the intro scan mode.
2. Press **INTRO** button (25) again to release the intro scan mode.

## **RANDOM OPERATION**

1. In CD mode, press **RANDOM** button to set the random playing mode.
2. Press **RANDOM** button (18) again to release the random playing mode.

## **PROGRAMMING**

1. Press the **MEMORY** button (22) to begin program entry.
2. Press the **UP/F-SKIP** button (16) or **DOWN/R-SKIP** button (17) to choose the desired track.
3. Press the **MEMORY** button (22) again to store the track in memory, the track will be stored in memory.
4. Repeat the above steps 2-3 to enter more tracks in memory.
5. When programming is completed, press **PLAY/PAUSE** button (15) to play the disc in the programmed order.
6. Press the **STOP** button (14) to stop playing.
7. To cancel the programmed tracks, press the **STOP** button (14) and open the CD door.

**Notes:** Programming should be processed in **STOP** mode.

## RADIO OPERATION

1. Set the POWER switch (1) at ON position.
2. Set the BALANCE control (9) at center position, rotate MASTER VOLUME control (10) to mid-range position.
3. Rotate the A VOLUME control (12) and B VOLUME control (11) to mid-range position.
4. Press TUNER button (7) to set the unit in RADIO mode.
5. Press the BAND button (6) to changing the band cyclically. Every pushing of this button. The LCD display will cycle cyclically FM or AM.
6. Frequency step up or down by press UP/F-SKIP button (16) or DOWN/R-SKIP button (17) less than 0.5 sec.
7. If press UP/F-SKIP button (16) or DOWN/R-SKIP button (17) more than 0.5 sec., the seek tuning is started.
8. If you want to set of memory, select the desired radio station, press MEMORY button (22) for setting of memory writing enable state.
9. Press M-UP/REPEAT button (19) for choose the memory location (M1-M20).
10. Press MEMORY button (22) again to write of memory.
11. Repeat the process step 8-9 for each station (M1-M20) you wish to store.
12. Simply press M-UP/REPEAT button (19) for press memory (M1-M20) is called in order.

## CLOCK SET/TIMER ON/TIMER OFF/SLEEP OPERATION

1. Press the MODE/REMAIN button (23) display as shown below:  
In the radio mode: Frequency display -> Clock display -> Timer On -> Timer OFF  
In the CD playing mode:  
(During play) Playing time display -> Remaining time display->  
Clock display -> Timer ON -> Timer OFF  
(During stop) All time display -> Clock display -> Timer ON -> Timer OFF  
In AUX mode: Clock display -> Timer ON -> Timer OFF
2. Press REMAIN button (23) to choose clock display, or timer on or timer off.
3. Press MEMORY button (22) for setting clock, or timer on or timer on or timer off adjustment.  
Time display -> Hour digit adjustment -> Minute display
4. Press MEMORY button (22) again to finish operation.
5. If the TIMER ON or TIMER OFF have been set, simply press TIMER button (2) to set timer on or off.
6. Press and hold SLEEP button (4), you can set up to 90 minute countdown timer,  
then automatically turns off the unit after setting the countdown timer.

## MUTE OPERATION

1. Simply press MUTE button (21) to mute output.
2. Press MUTE (21) button again to release this operation.

## PAGER OPERATION

To page someone near the broadcast range of AUXILIARY SPEAKER B

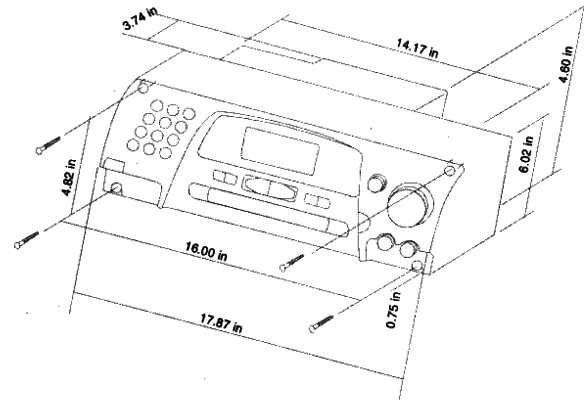
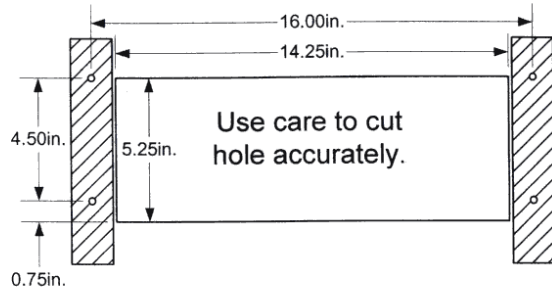
1. Press down PAGER button (26).
2. Speak towards the internal microphone, and your voice will be heard through the Auxiliary Speaker B.
3. After paging, release the PAGER (26) back to normal.

## PRESET EQ OPERATION

1. Press the PRESET EQ (24) to change the preset equalizer mode.
2. Every pushing of PRESET EQ button (24) will cycle cyclically as below  
-> FLAT -> CLASSIC -> ROCK -> POP ->

\_\_\_\_\_

## MOUNTING DIMENSIONS



**Philips pan head screw 3.5mm x 40mm x 4pcs**

**Opening dimensions in wall is 14 1/4" (Width) x 5 1/4" (Height) x 3 3/4" (Depth)**

**Note: Four (4) Screw Covers are supplied in packing.**

## **SPECIFICATIONS**

Power Supply	: AC 120 V AC 60 Hz
Main Speakers A	: 8-ohm speaker, Max. 2
	: 16-ohm speaker, Max. 4
Auxiliary Speaker B	: 8-ohm speaker, Max. 2
	: 16-ohm speaker, Max. 4
Audio Output Power	
Main Speakers A	: 5 W + 5 W (Max)
Auxiliary Speakers B	: 5 W + 5 W (Max)
Dimensions	: 454 mm (L) X 153 mm (H) X 220 mm (D)
	: 17 7/8 in (L) X 6 in (H) X 8 5/8 in (D)

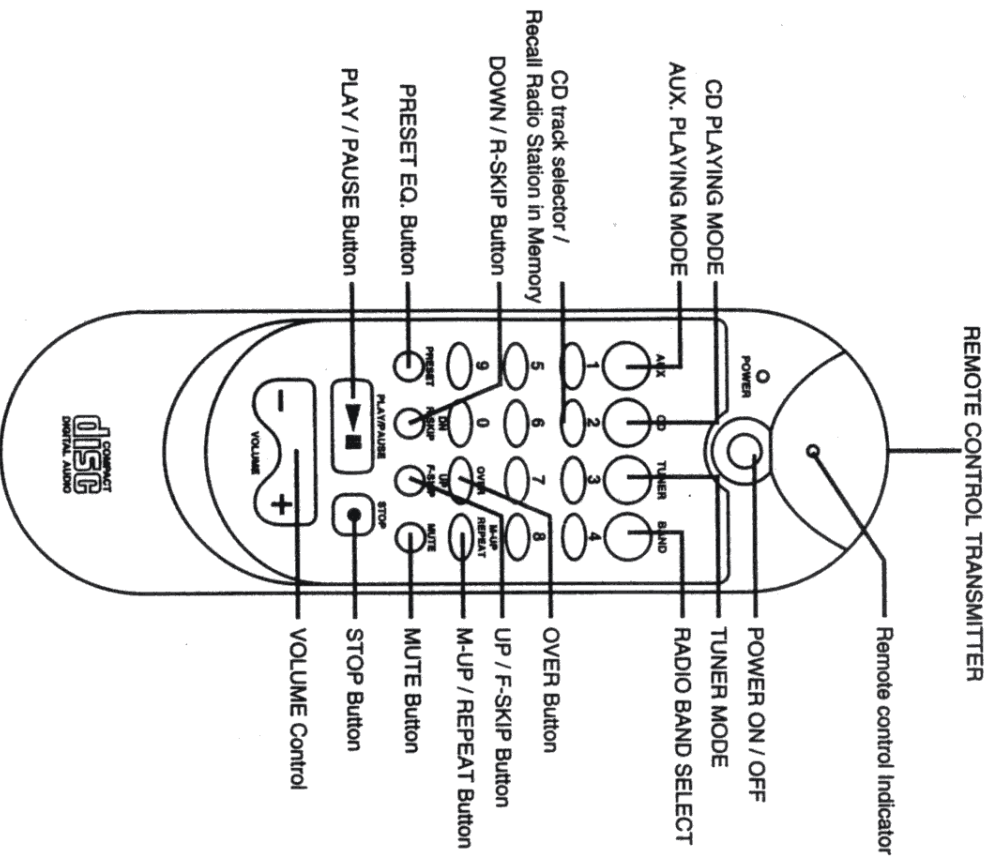
## **RADIO SECTION**

Frequency Range	: AM 530 - 1710 KHz
	FM 87.5 - 108 MHz

## **CD SECTION**

CD Type	: Front Loading
Frequency Response	: 20 Hz- 20 KHz
S/N Ratio (A filter)	: 90 dB at 1 KHz 0 dB

## REMOTE CONTROL:



## Installing the Batteries:

1. Remove the battery compartment cover of Remote Control Unit.
2. Insert two new "AAA" alkaline batteries (not included) into the battery compartment.
3. Ensure that the polarities as shown on Battery Compartment.
4. Replace the battery compartment cover.

**⚠ CAUTION:** When replacing batteries, all batteries should be replaced at the same time. Mixing fresh and discharged batteries could increase internal cell pressure and rupture the discharged battery (ies).

Rev. A

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