

**OPERATING INSTRUCTIONS** 

## **RX-773** AM/FM 4CHANNEL STEREO RECEIVER

## **INPORTANT SAFETY INSTRUCTIONS**

- 1. Read these instructions.
- 2. Keep these instructions.
- 3. Heed all warnings.
- 4. Follow all instructions.
- 5. Do not use this apparatus near water.
- 6. Clean only with dry cloth.
- 7. Do not block any ventilation openings.
- Install in accordance with the manufacturer's instructions.
- 8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other.

A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

 Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

- 11. Only use attachments accessories specified by the manufacturer.
- 12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus.

When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.



PORTABLE CART WARNING

- 13. Unplug this apparatus during lightning storms or when unused for long periods of time.
- 14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus have been exposed to rain or moisture, does not operate normally, or has been dropped.

## Introduction

#### **READ THIS BEFORE OPERATING YOUR UNIT**



This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

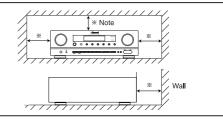
This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

#### WARNING : TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

#### **Caution regarding installation**

Note : For heat dispersal, do not install this unit in a confined space such as a bookcase or similar enclosure.

Do not block ventilation openings or stack other equipment on the top.



#### Note to CATV System Installer :

This reminder is provided to call the CATV system installer's attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

#### **FCC INFORMATION**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

• Reorient or relocate the receiving antenna.

- Increase the separation between the equipment and receiver.
- . Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.
- Caution : Any changes or modifications in construction of this device which are not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This Class B digital apparatus complies with Canadian ICES-003. Cet appareil numérique de la Classe B est conforme à la norme NMB-003 du Canada.

FOR YOU	R SAFETY	
U.S.A CANADA	120 V	<ul> <li>Units shipped to the U.S.A and Canada are designed for operation on 120 V AC only.</li> <li>Safety precaution with use of a polarized AC plug.</li> <li>However, some products may be supplied with a nonpolarized plug.</li> <li>CAUTION : To prevent electric shock, match wide blade of plug to wide slot, fully insert.</li> <li>ATTENTION : Pour éviter chocs électriques, introduire la lame la plus large de la fiche dans la borne correspondante de la prise et pousser jusqu' au fond.</li> </ul>

#### CAUTION

- · Leave a space around the unit for sufficient ventilation.
- Avoid installation in extremely hot or cold locations, or in an area that is exposed to direct sunlight or heating equipment.
- Keep the unit free from moisture, water, and dust.
- Do not let foreign objects in the unit.
- The ventilation should not be impeded by covering the ventilation openings with items, such as newspapers, table-cloths, curtains, etc.
- No naked flame sources, such as lighted candles, should be placed on the unit.
- Please be care the environmental aspects of battery disposal.
- The unit shall not be exposed to dripping or splashing for use.
- No objects filled with liquids, such as vases, shall be placed on the unit.
  Do not let insecticides, benzene, and thinner come in contact with the set.
- Do not let insecticides, benzene, and trinner come in contact with the se
- Never disassemble or modify the unit in any way.

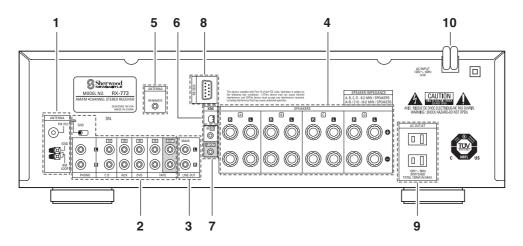
- Notes on the AC power cord and the wall outlet.
- The unit is not disconnected from the AC power source(mains) as long as it is connected to the wall outlet, even if the unit has been turned off.
- To completely disconnect this product from the mains,
- disconnect the plug from the wall socket outlet.
- When setting up this product, make sure that the AC outlet you are using is easily acceptable.
- Disconnect the plug from the wall outlet when not using the unit for long periods of time.

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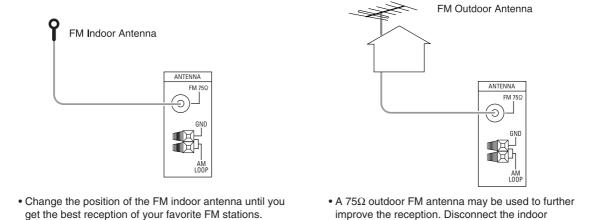
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## System Connections

- Please be certain that this unit is unplugged from the AC outlet before making any connections.
- Be sure to observe the color coding when connecting audio, video and speaker cords.
- Make connections firmly and correctly. If not, it can cause loss of sound, noise or damage to the receiver.

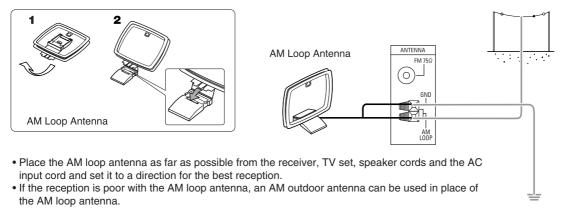


## **1** CONNECTING ANTENNAS



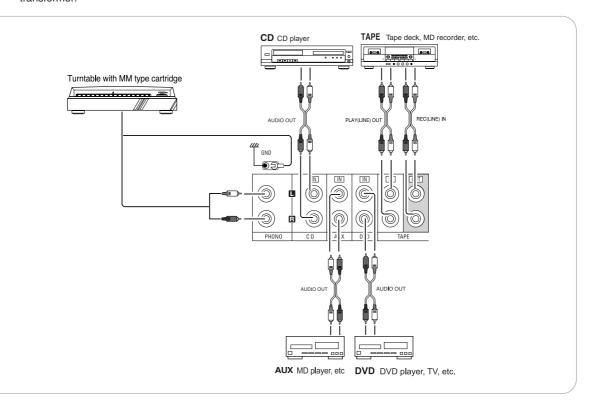
improve the reception. Disconnect the indoor antenna before replacing it with the outdoor one.

AM Outdoor Antenna



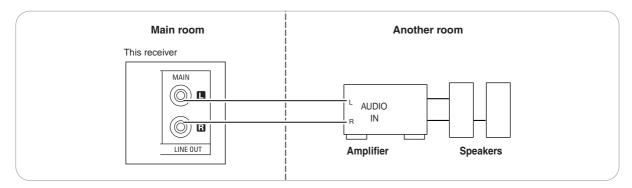
## 2. CONNECTING AUDIO COMPONENTS

- The AUX jacks may also be connected to an additional component.
- The DVD jacks may be connected to AUDIO OUT jacks of video components such as DVD player, TV, etc.
- The TAPE IN/OUT jacks can be connected to audio recording equipment such as a tape deck, an MD recorder, etc.
- Note : Do not connect the turntable with MC type cartridge directly. If so, use a separate head amplifier or step-up transformer.



## **3.** CONNECTING LINE OUTs

- The LINE OUT jacks can be connected to the amplifier in another room to allow you to play the same program source that is played in the main room
- Note : To minimize hum or noise, use high quality connection cord.

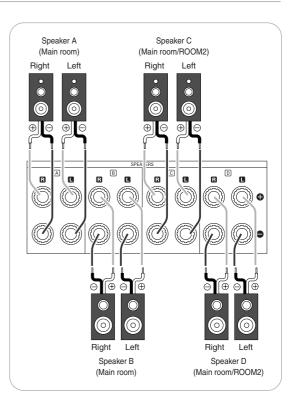


## **4**. CONNECTING SPEAKERS

- You can connect up to four pairs of speakers to this receiver and select the various combinations of speakers according to your tastes.
- The speakers C and D can be installed in the main room as the speakers A and B can or in the another room (ROOM2) for ROOM2 playback. (For details, refer to "ROOM2 PLAYBACK" on page 33.)
- Be sure to connect speakers firmly and correctly according to the channel (left and right) and the polarity (+ and -).
- If the connections are faulty, no sound will be heard from the speakers, and if the polarity of the speaker connection is incorrect, the sound will be unnatural and lack bass.

#### ■Notes:

- For safe amplifier operation, use the speakers with impedance of over  $8\Omega$  when you connect a pair terminals of SPEAKER A and B terminals or/and a pair terminals of SPEAKER C and D terminals and use the speakers with impedance of over  $16\Omega$  when you connect both SPEAKER A and B terminals or/and both SPEAKER C and D terminals.
- Do not let the bare speaker wires touch each other or any metal part of this receiver. This could damage this receiver and/or the speakers.

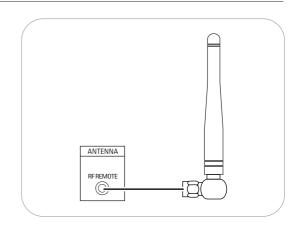


## **5** CONNECTING RF REMOTE ANTENNA

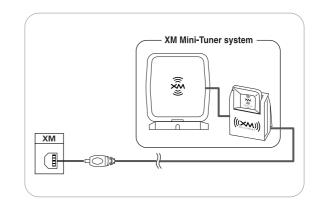
- Connect the supplied antenna to receive the RF (Radio Frequency) beams from the universal remote control.
- If the antenna is connected to this receiver, even though there are obstacles such as walls, furniture, etc. in the way, you can control this receiver with the universal remote control. Therefore, you can control this receiver from another room with the universal remote control without connecting the multiroom system kit. (For details, refer to "CONNECTING MULTI-ROOM SYSTEM KIT" on next page.)

#### ■Note:

 If the walls are too thick or the distance exceeds the operation range, you cannot control this receiver with the universal remote control. In such a case, connect the multiroom system kit to this receiver and set the transmission signal mode to "IR"(Infrared). (For details, refer to "Changing the transmission signal" on page 23.)



- Connect the XM terminal to the XM Mini-Tuner system (sold separately).
- Position the XM Mini-Tuner system near a south-facing window to receive the best signal.
- When making connections, also refer to the operating instructions of the XM Mini-Tuner system.
- For the best reception, check the signal strength of the XM radio signal with using signal strength display mode, then adjust the position of the XM Mini-Tuner system until "GOOD" is displayed. (For details, refer to "Displaying XM information" on page 31.)
- To listen to XM Satellite Radio, refer to "XM Satellite Radio (only for North America)" on page 29.

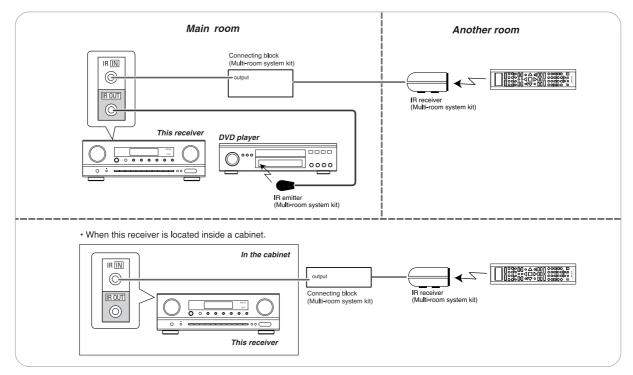


## **7**. CONNECTING MULTI-ROOM SYSTEM KIT

- The multi-room system kit(sold separately ) is essential for operation from a remote location .
- For information on the multi-room system kit, contact the Xantech corporation at 1-800-843-5465 or www.xantech.com. • IR IN jack allows you to control this receiver from another room with the remote control unit.
- To control this receiver from another room with the remote control unit, connect the IR IN jack to the output of the connecting block.
- If this receiver is located inside a cabinet or other enclosure where the signals from the remote control unit cannot enter, then
  operation with the remote control unit will not be possible. In such a case, connect the IR IN jack to the output of the
  connecting block.
- To control other compatible component from another room with the universal remote control unit, connect the IR OUT jack to the IR emitter.

#### ■Notes:

- Remote operation may become unreliable if the IR receiver is exposed to strong light such as direct sunlight or inverted fluorescent.
- When the transmission signal mode is set to "RF", the IR receiver cannot accept the RF beams from the universal remote control and remote operation will become unreliable. However, because the IR emitter can emit the IR beams into which the RF beams are converted, you can control other compatible component via it.



 This receiver incorporates RS-232C terminal that may be used in the future to update the operating software so that it will be able to support new digital audio formats, external control by using an external device and the like.

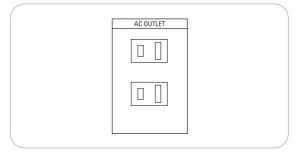
#### Notes:

- Programming for upgrades and external control requires specialized programming knowledge and for that reason we recommend that it only be done by qualified installers. For more information on future upgrades and external control, visit the Sherwood web site at www.sherwoodamerica.com or contact your dealer.
- Do not disconnect the connection cable while updating the operating software, etc.

Should this happen, it may be result in malfunction or cause damage to the unit.

## 9. SWITCHED AC OUTLETS

- These outlets are switched on (power-on mode) and off (standby mode) according to power control as follows (Maximum total capacity is 120 W (1A)).
- ☐ Standby mode Switched AC outlet off Power - on mode - Switched AC outlet on ☐



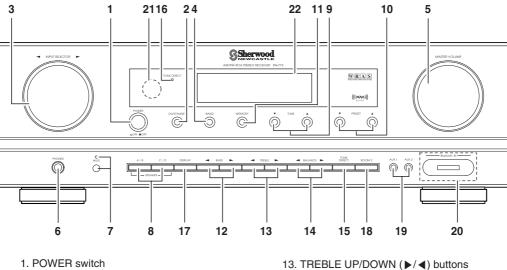
PC with RS-232C port

RS 2320

## **10.** AC INPUT CORD

• Plug the cord into an wall AC outlet.

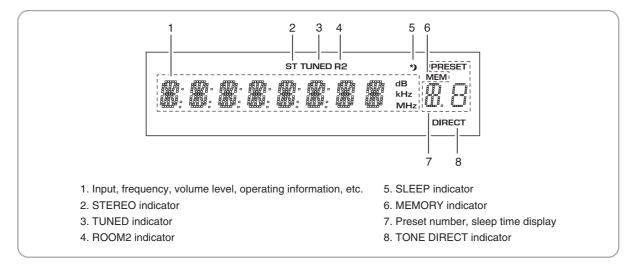
## Front Panel Controls



- 2. POWER ON/STANDBY button/indicator
- 3. INPUT SELECTOR knob
- 4. BAND button
- 5. MASTER VOLUME knob
- 6. HEADPHONE jack
- 7. MUTE button/indicator
- 8. SPEAKER A/B. C/D SELECTOR buttons
- 9. TUNING UP/DOWN(▲/▼) buttons
- 10. PRESET UP/DOWN(▲/▼) buttons
- 11. MEMORY button
- 12. BASS UP/DOWN (▶/◀) buttons

- 14. BALANCE UP/DOWN (▶/◀) buttons
- 15. TONE DIRECT button
- 16. TONE DIRECT indicator
- 17. DISPLAY button
- 18. ROOM 2 button
- 19. AUX 1, 2 IN jacks For details, see next page.
- 20. Bluetooth IN connector For details, see next page.
- 21. REMOTE SENSOR
- 22. FLUORESCENT display For details, see below.



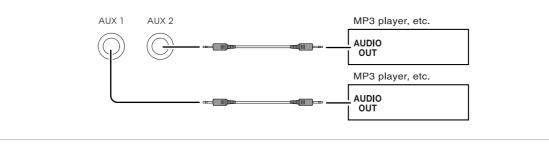


#### AUX 1, 2 IN JACKS

 The AUX 1, 2 IN jacks can be connected to additional audio components such as an MP3 player, etc.

#### Note :

• When connecting these jacks to an MP3 player, etc., you should use the stereo mini cord, not a mono mini cord.

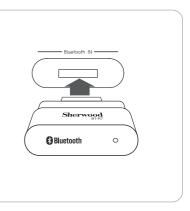


#### Bluetooth IN CONNECTOR

- If the Bluetooth IN connector is connected to Sherwood Audio Receiver BT-R7(sold separately) with *Bluetooth* wireless technology, you can enjoy music wirelessly with a music player featuring *Bluetooth* wireless technology such as MP3 player, mobile phone, etc..
   (For information on Sherwood Audio Receiver BT-R7, contact your dealer.)
- The *Bluetooth* word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by Sherwood is under license. Other trademarks and trade names are those of their respective owners.

#### Note :

• For safe operation, turn the power off before connecting or disconnecting the Audio Receiver BT-R7.



## **Universal Remote Controls**

This universal remote control can operate not only this receiver but also most popular brands of audio and video components such as CD players, tape decks, TVs, cable boxes, VCRs, DVD players, satellite receivers, etc.

- To operate 7 components other than this receiver , you should enter the setup code for each component.
- (For details, refer to "USING FUNCTIONS OF REMOTE CONTROL" on page 15.)
- The numbered buttons on the remote control have different functions in different device modes. For details, refer to

"FUNCTION TABLE of the NUMBERED BUTTONS" on the next page.

#### About the transmission signal

This remote control can emit not only the infrared beams which the conventional remote control uses but also the RF(Radio Frequency) beams which are stronger than those.

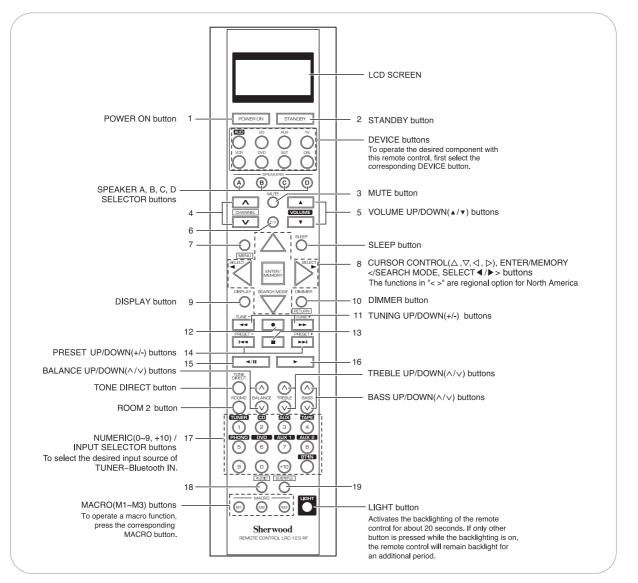
To operate this receiver and other components, this remote control should emit the infrared beams.

To operate this receiver only from longer distance even if there are obstacles such as walls, furniture, etc. in the way, this remote control should emit the RF beams.

Therefore, depending on how to use this remote control, you should set the transmission signal mode to "IR"(default value) or "RF". (For details, refer to "Changing the transmission signal" on page 23.)

#### Notes :

- To receive the RF beams, you should connect the RF remote antenna to this receiver. (For details, refer to "CONNECTING RF REMOTE ANTENNA" on page 7.)
- If the transmission signal mode is set to "RF", this remote control cannot control other audio and video components. However, If the IR emitter is connected to the IR OUT jack, you can control other component via it.(For details, refer to "CONNECTING MULTI-ROOM SYSTEM KIT" on page 8.)



■ FUNCTION TABLE of the NUMBERED BUTTONS.

Butto	Device to be controlled	(for CD player)	(for tape deck)	(for TV)	(for VCR)	(for DVD player)	(for satellite receiver)	(for cable box)
1	POWER ON	POWER ON	POWER ON	POWER ON	POWER ON	POWER ON	POWER ON	POWER ON
2	STANDBY	STANDBY (POWER OFF)	STANDBY (POWER OFF)	STANDBY (POWER OFF)	STANDBY (POWER OFF)	STANDBY (POWER OFF)	STANDBY (POWER OFF)	STANDBY (POWER OFF)
3	MUTE	—	—	MUTE	MUTE		MUTE	MUTE
4	CHANNEL V	_		CHANNEL UP/DOWN(∧/∨)	CHANNEL UP/DOWN(∧/∨)	_	CHANNEL UP/DOWN(∧/∨)	CHANNEL UP/DOWN(∧/∨)
5		_	_	VOLUME UP/DOWN(▲ / ▼ )	VOLUME UP/DOWN(▲ / ▼ )	_	VOLUME UP/DOWN(▲ / ▼ )	VOLUME UP/DOWN(▲ / ▼ )
6	T/V	_	_	INPUT SELECTOR	INPUT SELECTOR	_	INPUT SELECTOR	INPUT SELECTOR
7	MENU	_	_	_	_	MENU	_	_
8					_	CURSOR CONTROL ENTER		
9	DISPLAY					DISPLAY		
10			_	_		RETURN		
11	TUNE- TUNE+	REVERSE SEARCH(◄◄) / FORWARD SEARCH(►►)	REWIND(◄◄) / FAST FORWARD(►►)		REWIND(◄◄) / FAST FORWARD(►►)	REVERSE SEARCH(◄◄) / FORWARD SEARCH(►►)		
12			RECORD		RECORD		—	_
13		STOP	STOP	—	STOP	STOP	_	_
14	PRESET- PRESET+	REVERSE SKIP(IIIII) / FORWARD SKIP(IIIII)				REVERSE SKIP(I◄◄) / FORWARD SKIP(I◄◄)		
15		PAUSE	REVERSE PLAY		PAUSE	PAUSE	_	
16		PLAY	FORWARD PLAY	_	PLAY	PLAY		_
17	0~9,(10)	NUMERIC		NUMERIC	NUMERIC	NUMERIC	NUMERIC	NUMERIC
18		_	—	_	_	AUDIO	_	
19		_	_		_	SUBTITLE		_

#### ■Notes:

• Some functions for each component may not be available or may work differently.

• Depending on other kinds of components that are available for each DEVICE button, some functions may not be available or may work differently, too.

• For details about functions, refer to the operating instructions of each component.

#### **OPERATING COMPONENTS WITH REMOTE CONTROL**

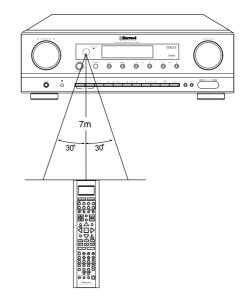
- **1.** Enter the setup code for each component other than this receiver. For details, refer to "Entering a setup code" on page 15.
- 2. Turn on the component you want to operate.
- **3.** Press the DEVICE button on the remote control corresponding to the component you wish to operate.
- **4.** Aim the remote control at the REMOTE SENSOR of the component you wish to control and press the button corresponding to the operation you want.

#### ■Note:

- When you cannot operate any component, check if the transmission signal mode is set to "RF". (For details, refer to "Changing the transmission signal" on page 23.)
- In this case, to operate the component, connect the IR emitter to the IR OUT jack and use the remote control toward this receiver. (For details, refer to "CONNECTING RF REMOTE ANTENNA" on page 7 and "CONNECTING MULTI-ROOM STSTEM KIT" on page 8.)

#### **REMOTE CONTROL OPERATION RANGE**

- In case that this remote control emits the infrared beams
- Use the remote control within a range of about 7 meters (23 feet) and angles of up to 30 degrees aiming at the remote sensor.

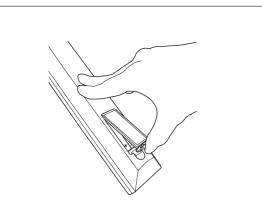


In case that this remote control emits the RF beams
Use the remote control within a distance of about 15 meters (50 feet) toward this receiver.

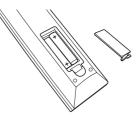
#### LOADING BATTERIES

- When the remote control does not operate, the old batteries should be replaced. In this case, load new batteries within several minutes after removing old batteries.
- If the batteries are removed or have been exhausted for a longer period of time, memorized contents will be cleared. Should this happen, you should memorize them again.

#### 1. Remove the cover.



**2.** Load four alkaline batteries ("AAA" size, 1.5V) matching the polarity.



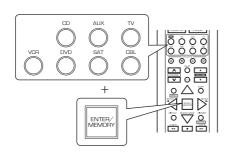
- Remove the batteries when they are not used for a long time.
- Do not use the rechargeable batteries (Ni-Cd type).
- Be sure to use alkaline batteries.

#### USING FUNCTIONS OF REMOTE CONTROL

- This remote control can control up to 8 different components.
- Before operating audio and video components other than this receiver with using this remote control, the setup code for each component should be entered.
- For system remote control operation, "000" was stored previously in the memory of the device button "CD" for Sherwood CD player, "DVD" for Sherwood DVD player, "AUX" for Sherwood tape deck and "TV" for Sherwood TV respectively as its factory setup code. So, you don't need to enter its code for each Sherwood component except in such a case that its code does not work.
   Note:
- If the transmission signal which this remote control emits is changed into "RF" (Radio Frequency), this remote control cannot control other audio and video components. (For details, refer to "Changing the transmission signal" on page 23.)

#### Entering a setup code

- Setup code entry is the easiest way to program this remote control for operating audio and video components.
- **1**. Turn on the component you want to operate.
- 2. Find the setup codes according to the type and the brand name of your component, referring to "Setup Code Table" on page 37.
- **3.** Press and hold down both the ENTER/MEMORY button and the desired one of the DEVICE buttons for more than 2 seconds.

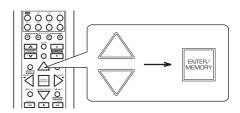


• Then "LEARN" is displayed on the LCD screen for several seconds.

#### ■Notes:

- The AUDIO button is unavailable for the audio components other than this receiver.
- During setting operation, to exit from the setting mode, press any of the DEVICE buttons.

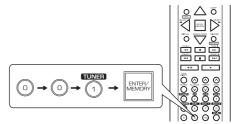
While "LEARN" is displayed, press the CURSOR UP
 (▲)/DOWN(▼) buttons to select the setup code mode
 ("CODE"), then press the ENTER/MEMORY button.



- Each time the CURSOR UP(▲)/DOWN(▼) buttons are pressed, the mode changes as follows :

   → LEARN ↔ RF-IR ↔ DELETE ↔ MACRO ← CODE ↔ PUNCH ← PUNCH ← CODE ↔ PUNCH ← CODE ↔ PUNCH ← PUN
- Then "PRESET" and 3 digit number are displayed.
- If "PRESET", etc. go off, start again from the above step 3.
- **5.** While "PRESET", etc. are displayed, enter a 3 digit code and press the ENTER/MEMORY button.

Example: When entering "001".

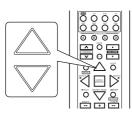


- Then "OK" is displayed on the LCD screen.
- To be sure that the setup code is correct, press the POWER ON (or STANDBY) button, aiming the remote sensor on the component.
- If the setup code is correct, your component will be turned off.
- When your component is not turned off, repeat the above steps 2 to 5, trying entering each code for your component until you find one that works.
- If "NG" is displayed, retry entering the correct setup code while "PRESET" and 3 digit number are displayed.

- **6.** Operate the component using the corresponding function buttons.
- If any of buttons fails to operate as they should, start from the step 1 again to enter the correct setup code.
- Note :
- Manufacturers may use different setup codes for the same product category. For that reason, it is important that you check to see if the code you have entered operates as many controls as possible. If only a few functions operate, check to see if another code will work with more buttons.

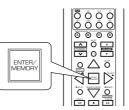
#### Searching a setup code

- In addition to enter a setup code using "Setup Code Table" on page 37, it is also possible to search through all the codes that are stored in the library of this remote control.
- **1**. Turn on the component you want to operate.
- Perform the steps 3 and 4 in "Entering a setup code" procedure on page 15 to select the setup code mode ("CODE").
- **3.** While "PRESET" is displayed, search a setup code, aiming the remote control at the remote sensor on the component.



- Each time the CURSOR UP(▲)/DOWN(▼) buttons are pressed, the setup code is selected one by one.
- If the selected code is correct, your component will be turned off.
- When your component is not turned off, repeat this step until you find one that works.

**4.** While "PRESET" is displayed, press the ENTER/MEMORY button to store the setup code.

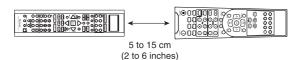


- Then "OK" is displayed on the LCD screen.
- **5.** Operate the component using the corresponding function buttons.
- If any of buttons fails to operate as they should, start from the step 1 again to find the correct setup code.
- **6.** Repeat the above steps 1 to 5 for each of your other components.

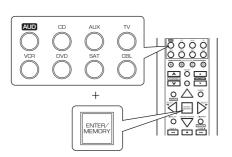
 Repeat the above steps 1 to 6 for each of your other components.

#### Programming the commands from other remote controls (LEARNING mode)

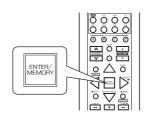
- If the setup codes are not available for your component or you want to program a missing or special function into one button of a device, the learning function enables this remote control to learn the commands from other remote controls.
- Place this remote control and other remote control facing each other at a distance of 5 to 15 cm (2 to 6 inches) apart.



 Press and hold down the ENTER/MEMORY button and the desired one of the DEVICE buttons for more than 2 seconds.



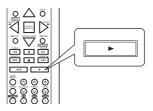
- Then "LEARN" is displayed on the LCD screen for several seconds
- Note : During setting operation, to exit from the setting mode, press any of the DEVICE buttons.
- While "LEARN" is displayed, press the ENTER/MEMORY button.



- Then "SEL" is flickering.
- If "SEL" goes off, start again from the above step 2.

**4.** While "SEL" is flickering, on this remote control, press the button corresponding to the function to be learned.

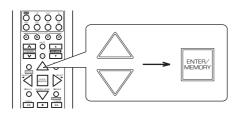
Example: If the function to be learned is playback, press the PLAY(▶) button.



- Then "READY" is displayed.
- Note : You cannot program a function into some buttons such as DEVICE, MACRO and LIGHT buttons.
- **5.** While "READY" is displayed, on the other remote control, press the button of the function to be learned.
- If the command has been learned successfully, "OK" is displayed and then "SEL" is flickering.
- If "ERROR" is displayed and then "SEL" is flickering, it means that for some reason the command was not learned. In this case, repeat the above steps 4 and 5.
- ■Notes:
- If an incorrect signal has been sent or, in some cases, the command from other remote control simply cannot be learned.
- In some "ERROR" cases, the remote controls just need to be moved closer together or farther apart.
- 6. While "SEL" is flickering, repeat the above steps 4 and 5 to program all the commands you want to the buttons on this remote control under the same device mode.
- To exit from the setting mode, press any of the DEVICE buttons.
- 7. Repeat the above steps 1 to 6 to program the commands from a different remote control.
- **8.** Operate the newly programmed buttons to make sure the learning function was performed properly.

#### Erasing the programmed command from one button

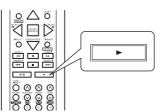
- Perform the steps 3 and 4 in "Entering a setup code" procedure on page 15 to select the deleting mode ("DELETE").
- Then "BTTN" is displayed on the LCD screen for several seconds.
- While "BTTN" is displayed, press the CURSOR UP
   (▲)/DOWN(▼) buttons to select the one command
   deleting mode (BTTN), then press the ENTER/
   MEMORY button.



- Each time the CURSOR UP(▲)/DOWN(▼) buttons are pressed, "BTTN" or "LEARN"(all command deleting mode) is selected.
- Then "SEL" is flickering.
- If "SEL" goes off, start again from the above step 1.

**3.** While "SEL" is flickering, press the button for the command you want to erase.

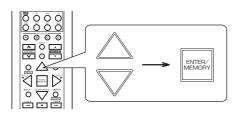
Example: When the button for the command to be erased is PLAY button.



- "OK" is displayed and then "SEL" is flickering.
- **4.** While "SEL" is flickering, repeat the above step 3 to erase other commands.

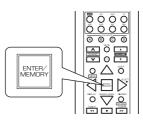
#### Erasing all the commands programmed under a device mode

- Perform the steps 3 and 4 in "Entering a setup code" procedure on page 15 to select the deleting mode ("DELETE").
- Then "BTTN" is displayed on the LCD screen for several seconds.
- While "BTTN" is displayed, press the CURSOR UP (▲)/DOWN(▼) buttons to select the all command deleting mode ("LEARN"), then press the ENTER/ MEMORY button.



- Then "SURE?" is displayed .
- If "SURE?" goes off, start again from the above step 1.

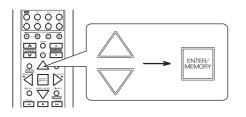
 While "SURE?" is displayed, press the ENTER/MEMORY button.



- Then all the commands programmed are erased.
- **4.** To erase all the commands programmed under other device mode, repeat the above steps 1 to 3.

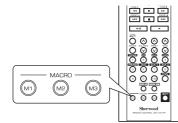
#### Programming a macro function

- The macro function enables you to program a series of button operations(up to 15) on this remote control into a single button.
- You can store up to three separate macro command sequences into "M1", "M2" and "M3" buttons.
- Perform the steps 3 and 4 in "Entering a setup code" procedure on page 15 to select the macro mode ("MACRO").
- Then "M1" is displayed on the LCD screen for several seconds.
- During macro setting operation, pressing any of the DEVICE buttons cannot exit from the macro mode.
- While "M1" is displayed, press the CURSOR UP(▲)/ DOWN(▼) buttons to select the MACRO button to be programmed into, then press the ENTER/MEMORY button.



- Each time the CURSOR UP(▲)/DOWN(▼) buttons are pressed, "M1", "M2" or "M3" is selected.
- Then "SEL" is flickering.
- If "SEL" goes off, start again from the above step 1.

#### **4.** Press any of the MACRO buttons (M1~M3) to complete the programming.



• Then "OK" is displayed.

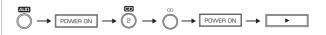
#### To erase a macro program

• When erasing a macro program, perform the above steps 1, 2 and 4, but ignore the step 3.

#### ■ To change a macro program

 When a new macro program is stored into a MACRO button with performing the above steps 1 to 4, the previous macro program is erased from the memory of the MACRO button.

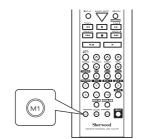
- **3.** While "SEL" is flickering, press the operation buttons you want to program in order.
- Example : When playing a CD on the CD player connected to CD jacks of this receiver.
- ①. Press "AUDIO" button to control this receiver.
- O . Press "POWER ON" button to turn this receiver on.
- Press "CD (2)" button to select the desired input source.
- ④. Press "CD" button to control the CD player.
- ⑤. Press "POWER ON" button to turn the CD player on.
- ⑥. Press "PLAY (▶)" button to start playback.



• Each time the operation buttons are pressed, the programmed order is displayed.

#### Operating a macro function

• Aim the remote control at the REMOTE SENSORs of the components to be controlled and press the MACRO button you want. Example : When pressing "M1" button.

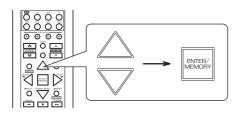


#### Notes:

- The codes programmed into a MACRO button will be transmitted at an interval of 0.5 seconds. However, some components may not be able to complete one operation in 0.5 seconds and may miss the next code. In this case, the macro function cannot control the corresponding components correctly.
- Be sure to use the remote control within the remote control operation range of the components.
- Depending on the operation status of the components, etc., the macro function cannot control the corresponding components correctly.

#### Programming a punch-through function

- The punch-through function allows the volume controls, channel controls or transport controls to link to a different device while a device is controlled with this remote control as a master device.
- For example, since this receiver will likely be used as the sound system while watching TV, you may want to use volume controls to operate this receiver although this remote control is set to control the TV.
- **1.** Perform the steps 3 and 4 in "Entering a setup code" procedure on page 15 to select a master device and the punch-through mode ("PUNCH").
- Then "VOL" is displayed on the LCD screen for several seconds.
- While "VOL" is displayed, press the CURSOR UP(▲)/DOWN(▼) buttons to select the desired punchthrough mode, then press the ENTER/MEMORY button.

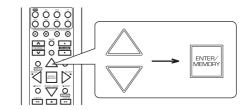


- Each time the CURSOR UP(▲)/DOWN(▼) buttons are pressed, the mode changes as follows:
  - → VOL : The volume punch -through mode allows the
     "VOLUME ▲/♥" and "MUTE" buttons to operate a different device.

```
DELETE : All punch-through deleting mode.
```

- PLAY : The transport punch-through mode allows the
- \* "▶" buttons to operate a different device.
   > CH : The channel punch-through mode allows the
- "CHANNEL ∧/∨" and "CH. LEVEL" buttons to operate a different device.
- Then the device to which you can link the selected punchthrough mode is displayed.

3. While the device is displayed, press the CURSOR UP(▲)/DOWN(▼) buttons to select the desired punchthrough device, then press the ENTER/MEMORY button.



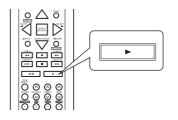
- Each time the CURSOR UP(▲)/DOWN(▼) buttons are pressed, depending on the selected punch-through mode, punch-through devices and the one punch-through deleting mode ("DELETE") are selected as follows :
- In case of the volume punch-through,  $\rightarrow$  AUDIO  $\leftrightarrow$  DELETE  $\leftrightarrow$  TV  $\leftarrow$
- In case of the transport punch-through,  $\rightarrow$  CD  $\leftrightarrow$  DELETE  $\leftrightarrow$  DVD  $\leftrightarrow$  VCR  $\leftrightarrow$  AUX  $\leftarrow$
- In case of the channel punch-through,  $\rightarrow$  TV  $\leftrightarrow$  DELETE  $\leftrightarrow$  SAT  $\leftrightarrow$  CABLE  $\leftrightarrow$  VCR  $\leftarrow$
- Then "OK" is displayed and the current punch-through mode is displayed.

#### Continued

- **4.** While the punch-through mode is displayed, repeat the above steps 2 and 3 to program other punch-through function under the same master device mode.
- **5.** To program punch-through functions under other master device mode, repeat the above steps 1 to 4.

#### Operating a punch-through function

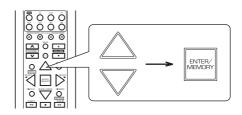
 While this remote control is set to control a master device, aim the remote control at the REMOTE SENSOR of the punchthrough device and press the desired button of the programmed punch-through controls.
 Example: When pressing "PLAY (▶)" button.



• Then the punch-through device is displayed on the LCD screen.

#### Erasing the programmed punch-through function

- Perform the steps 3 and 4 in "Entering a setup code" procedure on page 15 to select a master device and the punch-through mode ("PUNCH").
- Then "VOL" is displayed on the LCD screen for several seconds.
- While "VOL" is displayed, press the CURSOR UP(▲)/ DOWN(▼) buttons to select the punch-through mode to be erased, then press the ENTER/MEMORY button.

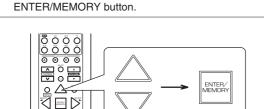


- Each time the CURSOR UP(▲)/DOWN(♥) buttons are pressed, the mode changes as follows:
   → VOL ↔ DELETE ↔ PLAY ↔ CH ←
- Then the device is displayed .

#### Continued

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3. While the device is displayed, press the CURSOR

 $UP(\blacktriangle)/DOWN(\blacktriangledown)$  buttons to select the one punch-

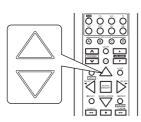
through deleting mode ("DELETE"), then press the

- Each time the CURSOR UP(▲)/DOWN(▼) buttons are pressed, depending on the selected punchthrough mode, the punch-through devices and the deleting mode ("DELETE") are selected.
- Then "OK" is displayed and the current punchthrough mode is displayed .

- **4.** While the punch-through mode is displayed, repeat the above steps 2 and 3 to erase other punch-through function under the same master device mode.
- **5.** To erase punch-through functions under other master device mode, repeat the above steps 1 to 4.

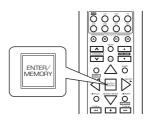
#### Erasing all the punch-through functions programmed under a master device mode

- **1.** Perform the steps 3 and 4 in "Entering a setup code" procedure on page 15 to select a master device and the punch-through mode ("PUNCH").
- Then "VOL" is displayed on the LCD screen for several seconds.
- While "VOL" is displayed, press the CURSOR UP(▲)/ DOWN(▼) buttons to select the all punch-through deleting mode ("DELETE").



- Each time the CURSOR UP(▲)/DOWN(▼) buttons are pressed, the mode changes as follows:
   → VOL ↔ DELETE ↔ PLAY ↔ CH ←
- Then "DELETE" is displayed .

**3.** While "DELETE" is displayed, to erase all the punchthrough functions programmed under the master device mode, press ENTER/MEMORY button.



- Then "OK" is displayed and "DELETE" is displayed.
- To exit from the deleting mode, press any of the DEVICE buttons.
- **4.** To erase all the punch-through functions programmed under other master device mode, repeat the above steps 1 to 3.

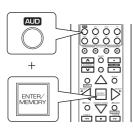
#### Changing the transmission signal

- This remote control can emit not only the infrared beams which the conventional remote control uses but also the RF(Radio Frequency) beams which are stronger than those.
- When you want to control this receiver from longer distance even if there are obstacles such as walls, furniture, etc. in the way, change the transmission signal into "RF" (Radio Frequency).

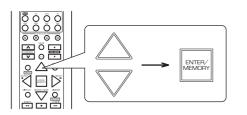
#### ■Notes:

- When the RF remote antenna is not connected, remote operation will become unreliable. (For details, refer to "CONNECTING RF REMOTE ANTENNA" on page 7.)
- If the transmission signal mode is set to "RF" (Radio Frequency), this remote control cannot control other audio and video components.
- In this case, to control the component, connect the IR emitter to the IR OUT jack. (For details, refer to "CONNECTING MULTI-ROOM SYSTEM KIT" on page 8.)

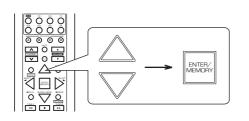
1. Press and hold down the ENTER/MEMORY button and the AUDIO button for more than 2 seconds.



 While "LEARN" is displayed, press the CURSOR UP(▲)/ DOWN(▼) buttons to select the transmission signal mode("RF-IR"), then press the ENTER/MEMORY button.



- Then "RF" (or "IR") is displayed.
- If "RF" (or "IR") goes off, start again from the above step 1.
- 3. While "RF" (or "IR") is displayed, press the CURSOR UP (▲)/DOWN(▼) buttons to select the desired transmission signal, then press the ENTER/MEMORY button.

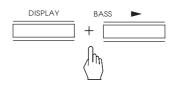


- Each time the CURSOR UP(▲)/DOWN(▼) buttons are pressed, the mode changes as follows :
  - "RF" : This remote control emits the RF(Radio Frequency)
  - \$ beams which stronger than the infrared beams.
  - "IR" : This remote control emits the infrared beams which the conventional remote control uses.
- Then "OK" is displayed.

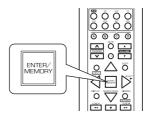
- Then "LEARN" is displayed on the LCD screen for several seconds.
- Note: During setting operation, to exit from the setting mode, press any of the DEVICE buttons.

#### ■When "RF" is set to.

**4.** To pair up this remote control and the receiver, press the DISPLAY button and the BASS UP(►) button simultaneously on the receiver.



- "RF REMOCON PAIRING MODE" is displayed for several seconds on the display of the receiver.
- If "RF REMOCON PAIRING MODE" goes off, press these buttons again.
- **5.** While "RF REMOCON PAIRING MODE" is displayed, press the ENTER/MEMORY button, aiming at the receiver.



• Then "PAIRING SUCCESS" is displayed.

## **Operations**

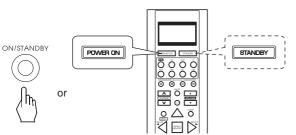
#### LISTENING TO A PROGRAM SOURCE

#### **Before operation**

• Push the POWER switch.

# -ON LOFF

1. In the standby mode, turn the power on.



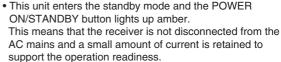
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 (B) (C)

2. Switch the desired speakers on.

SPEAKER



- To switch the power off, push the POWER switch again. Then the power is cut off and the POWER ON/STANDBY button goes off.
- Each time the POWER ON/STANDBY button on the front panel is pressed, the receiver is turned on to enter the operating mode(the POWER ON/STANDBY button lights up blue) or off to enter the standby mode(the POWER ON/STANDBY button lights up amber).
- On the remote control, press the POWER ON button to enter the operating mode or press the STANDBY button to enter the standby mode.
- You can select the various combinations of speakers depending on where the speakers C or/and D are installed.
- Each time the SPEAKER A/B SELECTOR button on the front panel is pressed, the speakers are switched on or off as follows:

 $\rightarrow$  A/B ~  $\rightarrow$  - /- ~  $\rightarrow$  A/ - ~  $\rightarrow$  - /B ~ - or (MAIN A/B) or (MAIN -/-) or (MAIN A/-) or (MAIN-/B)

(): When the ROOM2 mode is set to on.

• Each time the SPEAKER C/D SELECTOR button on the front panel is pressed, the speakers are switched on or off as follows:

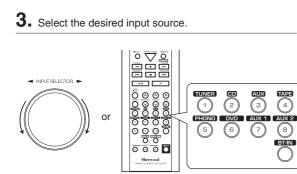
$\rightarrow$ ~C/D $\rightarrow$	~ - / -	$\rightarrow$ ~ C/	→ ~ - / D	
or (R2 C/D)	or (R2 -/-)	or (R2 C/-)	or (R2 -/D)	

or

(): When the ROOM2 mode is set to on.

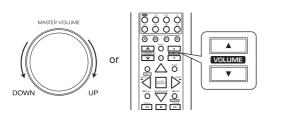
• When using the headphones for private listening, switch off all the speakers installed in the main room.

Note: To use ROOM2 function, you should install speakers C or/and D in another room (ROOM2) and set the ROOM2 mode to on. (For details, refer to "CONNECTING SPEAKERS" on page 7 and "ROOM2 PLAYBACK" on page 33.)

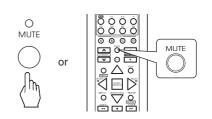


- Each time the INPUT SELECTOR knob is rotated, the input source is changed as follows:
   → TUNER ↔ PHONO ↔ AUX 2 ↔ AUX 1 ← (Frequency display)
   → BT-IN ↔ CD ↔ TAPE ↔ DVD ↔ AUX ←
- **4.** Operate the selected component for playback.

**5.** Adjust the volume to a comfortable listening level.



6. To mute the sound.



- "MUTE" flickers.
- To resume the previous sound level, press this button again.
- When adjusting the volume, the mutting effect is turned off.

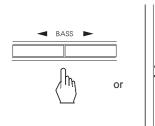
#### **7.** To listen with the headphones.

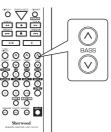


- Be sure to switch off all the speakers installed in the main room.
- Note : Be careful not to set the volume too high when using headphones.

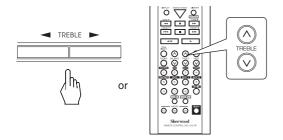
#### **8.** Adjust the tone as desired.

#### When adjusting the bass





#### When adjusting the treble



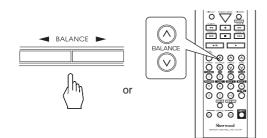
• Each time the buttons are pressed, the tone (BASS and TRBL) can be adjusted within the range of -10~+10 dB.

#### ■Notes:

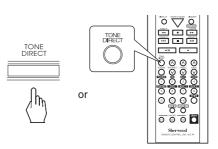
- When the tone direct function is activated, the tone mode cannot be entered and "TON DIR" flickers for 3 seconds.
- Extreme settings at high volume may damage your speakers.
- In general, the bass and treble levels are adjusted to 0.

#### Adjusting the sound volume balance

**10.** Adjust the sound volume balance between the left and right speakers.



**9.** To listen to a program source without the tone effect.



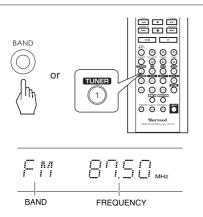
- "TON DIR" is displayed, "DIRECT" lights up and the sound that bypasses the tone circuitry will be heard.
- To cancel the tone direct function, press this button again to display "TON CTRL", and then "DIRECT" goes off.

- $\bullet$  Each time the buttons are pressed, the balance level can be adjusted within the range of L 10~R 10.
- Note : In general, the balance level is adjusted to 0.

#### LISTENING TO RADIO BROADCASTS

#### Auto tuning

**1**. Select the tuner and then the desired band.



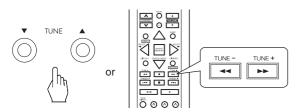
• Each time this button is pressed, the tuner is automatically selected and the band is changed as follows ;

<b>→</b>	FM STereo	$\rightarrow$ FM MONO $\rightarrow$ AM $\rightarrow$	XM
	("ST" lights up)	("ST" goes off)	

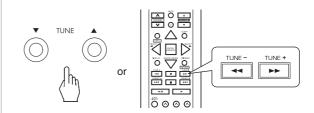
- When FM stereo broadcasts are poor because of weak broadcast signals, select the FM mono mode to reduce the noise, then FM broadcasts are reproduced in monaural sound.
- To listen to XM Satellite Radio, select XM mode. (For details, refer to "XM Satellite Radio (only for North America)" on page 29.)

#### Manual tuning

- Manual tuning is useful when you already know the frequency of the desired station.
- After selecting the desired band, press the TUNING UP(▲, +)/ DOWN(▼, -) buttons repeatedly until the right frequency has been reached.



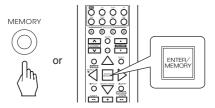
 Press the TUNING UP(▲, +)/ DOWN(▼, -) buttons for more than 0.5 second.



- The tuner will now search until a station of sufficient strength has been found. The display shows the tuned frequency and "TUNED".
- If the station found is not the desired one, simply repeat this operation.
- Weak stations are skipped during auto tuning.

#### Auto presetting

- Auto presetting function automatically searches for FM stations only and store them in the memory.
- While listening to FM or AM radio broadcasts, press and hold down the (ENTER/)MEMORY button for more than 2 seconds.



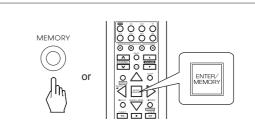
- Then "AUTO MEM" flickers and this receiver starts auto presetting.
- Up to 30 FM stations can be stored.

#### Notes:

- FM stations of weak strength cannot be memorized.
- To memorize AM stations or weak stations, preform "Manual presetting" procedure with using "Manual tuning" operation.

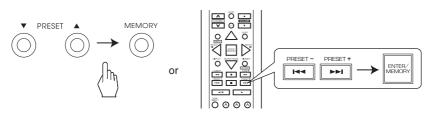
#### Manual presetting

- You can store up to 30 preferred stations in the memory.
- **1**. Tune in the desired station with auto or manual tuning.
- **2.** Press the (ENTER/)MEMORY button.



• "MEM" is flickering for 5 seconds.

3. Select the desired preset number (1~30) and press the (ENTER/)MEMORY button.



- The station has now been stored in the memory.
- A stored frequency is erased from the memory by storing another frequency in its place.
- If "MEM" goes off, start again from the above step 2.

**4.** Repeat the above steps1 to 3 to memorize other stations.

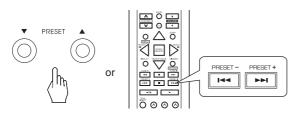
#### ■ MEMORY BACKUP FUNCTION

The following items, set before the receiver is turned off, are memorized.

- INPUT SELECTOR settings
- Preset stations,etc.
- The ROOM2 settings

#### Tuning to preset stations

• After selecting the tuner as an input source, select the desired preset number.



## XM Satellite Radio (only for North America)

• This receiver is the XM Ready® receiver. You can receive XM Satellite Radio® by connecting to the XM Mini-Tuner system (sold separately) and subscribing the XM service.

#### ■ About XM Satellite Radio for U.S. & Canadian products

XM Satellite Radio offers an extraordinary variety of commercial-free music, plus the best in sports, news, talk and entertainment. XM is broadcast in superior digital audio from coast to coast. From rock to reggae, from classical to hip hop, XM has something for every music fan. XM's dedication to playing the richest selection of music is matched by its passion for live sporting events, talk radio, up-to-the-minute news, stand-up comedy, children's programming, and much more. For U.S. customers, information about XM Satellite Radio is available online at www.xmradio.com. For Canadian customers, information about XM Canada is online at www.xmradio.ca.

#### ■ XM Ready® legal for U.S. & Canadian products

Hardware and required monthly subscription sold separately. Other fees and taxes, including a one-time activation fee may apply. Subscription fee is consumer only. All fees and programming subject to change. Channels with frequent explicit language are indicated with an XL. Channel blocking is available for XM radio receivers by calling 1-800-XMRADIO (US residents) and 1-877-GET-XMSR (Canadian residents). For a full listing of the XM commercial-free channels and advertising-supported channels, visit lineup.xmradio.com (US residents) or xmradio.ca (Canadian residents). Subscriptions subject to Customer Agreement available at xmradio.com (US residents) and xmradio.ca (Canadian residents). Only available in the 48 contiguous United States and Canada. ©2006 XM Satellite Radio Inc. All rights reserved. All other trademarks are the property of their respective owners.

#### ■XM Ready® subscriptions for U.S. Products & Canadian products

Once you have installed the XM Mini-Tuner Dock, inserted the XM Mini-Tuner, connected the XM Dock to your XM Ready® home audio system, and installed the antenna, you are ready to subscribe and begin receiving XM programming. There are three places to find your eight character XM Radio ID: on the XM Mini-Tuner, on the XM Mini-Tuner package, and on XM Channel 0. Record the Radio ID in the following eight squares for reference.

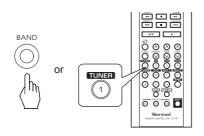


Note: The XM Radio ID does not use the letters "I", "O", "S" or "F". Activate your XM Satellite Radio service in the U.S. online at http://activate.xmradio.com or call 1-800-XM-RADIO (1-800-967-2346). You will need a major credit card. XM will send a signal from the satellites to activate the full channel lineup. Activation normally takes 10 to 15 minutes, but during peak busy periods you may need to keep your XM Ready home audio system on for up to an hour. When you can access the full channel lineup on your XM Ready home audio system you are done. For more information or to subscribe in Canada, visit XM on the Web at www.xmradio.ca or call XM's Listener Care at 1-877-GET-XMSR (1-877-438-9677).

#### LISTENING TO XM SATELLITE RADIO

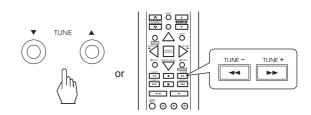
#### Signing up for XM Satellite Radio

- Before using XM Satellite Radio, you must first sign up for an account. You will need a major credit card and your XM Satellite Radio ID, which you can get from this receiver as explained below.
- **1.** Press the BAND button or the TUNER button repeatedly to select XM mode.



• Then "XM ~" is displayed.

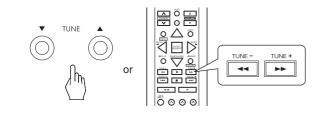
 Press the TUNING UP(▲, +)/ DOWN(▼, -) buttons repeatedly to select "XM 000".



- Then your XM Satellite Radio ID is displayed.
- You can find the XM Satellite Radio ID on the XM Mini-Tuner itself and the XM Mini-Tuner package. too.
- **3.** To sign up, access the website at "http://activate.xmradio.com" or call "1-800-967-2346".

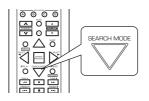
#### **Channel search**

• In the XM mode, press the TUNING UP(▲, +)/DOWN(▼, -) buttons repeatedly to select the desired channel.



#### **Direct search**

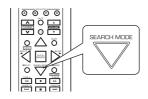
- Direct search is useful when you already know the channel number.
- **1.** In the XM mode, select the direct search mode.



• Each time this button is pressed, the search mode changes as follows:

```
→ XM - - - → Category name → OFF -
(Direct search) (Category search)
```

- Note: When using channel search or preset search, press this button to select the search off.
- **Category search**
- Category search allows you to select the desired channel by the selected category.
- **1.** In the XM mode, select the category search mode.



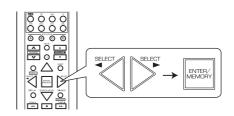
• Then a category name is displayed.

**2.** While displaying "XM - - -", select the desired channel number with pressing the NUMERIC (0 ~ 9) buttons.



• When "XM - - - " disappears, repeat again from the above step 1.

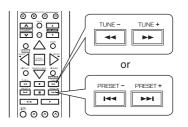
While displaying a category name, press the SELECT
 √▶ buttons to select the desired category, then
 press the ENTER/MEMORY button.



- Each time the SELECT ◄/▶ buttons are pressed, one of different categories is selected.
- When a category name disappears, repeat again from the above step 1.

#### Continued

**3.** While displaying the selected category, select the desired channel.

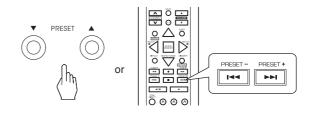


#### **Presetting channels**

- You can store up to 30 preferred channels in the memory.
- **1.** Select the desired channel with preforming channel search, direct search or category search.
- **2.** To memorize the channels, perform the steps 2 to 4 in "Manual presetting" procedure on page 28.

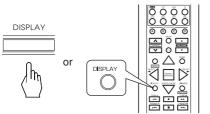
Preset search

• In the XM mode, select the desired preset channel.



#### **Displaying XM information**

- You can display XM information such as channel name, artist name, song title and signal strength.
- In the XM mode,



#### ■Note:

 If the information on artist name, song title or category is not available, it will not be displayed correctly.

#### Signal strength display mode

- If the reception is poor, you can check the signal strength of the XM radio signal and adjust the position of the XM antenna until "GOOD" is displayed.
- Each time the DISPLAY button is pressed, the display mode changes as follows:
  - $\rightarrow$  Channel number/name  $\rightarrow$  Artist name  $\rightarrow$  Song title  $\rightarrow$  Category

- Signal strength("GOOD", "MARGINAL", "WEAK", "NO SIGNL")  $\leftarrow$ 

#### Error message and status

• If an operation takes longer than usual or an error occurs, one of the following messages may be displayed.

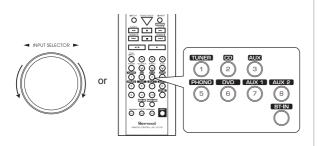
Message	Status
ANTENNA	The XM antenna is not connected correctly. Check the antenna.
UPDATING	The XM user encryption code is being updated. Please wait.
NO SIGNL	The signal is too weak. Check the antenna connection and reposition it for the best reception.
LOADING	This receiver is tuning or decoding audio or text data. Please wait.
OFF AIR	The selected XM channel is not currently broadcasting. Select another channel.

#### RECORDING

- The volume, tone(bass, treble) and balance settings have no effect on the recording signals.
- When you select tuner, BT-IN, CD, DVD, AUX, AUX 1, AUX 2 or PHONO as a recording source, recording can be made on the TAPE.
- The ROOM2 input source cannot be recorded onto the TAPE.

#### **Recording with TAPE**

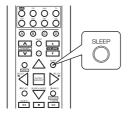
**1.** Select the desired input as a recording source except for TAPE.



#### **OTHER FUNCTIONS**

#### Operating the sleep timer

 The sleep timer allows the system to continue to operate for a specified period of time before automatically shutting off.



• Each time this button is pressed, the sleep time changes as follows:

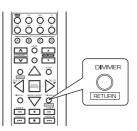
$\rightarrow 10 \rightarrow 20 \rightarrow 30 \rightarrow \bullet \bullet \bullet \rightarrow 90 \rightarrow OFF -$	
Unit : minutes	

- While operating the sleep timer, " \*) " lights up.
- When the sleep time is selected, the fluorescent display is dimly lit.
- When the ROOM2 function is operating, it will not be turned off by the sleep timer.

2. Start recording on the TAPE.

3. Start play on the desired input.

## Adjusting the brightness of the fluorescent display



• Each time this button is pressed, the brightness of the fluorescent display changes as follows:



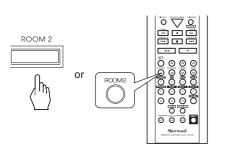
 In the display OFF mode, pressing any button will restore the display ON mode.

## ENGLISH

#### **ROOM2 PLAYBACK**

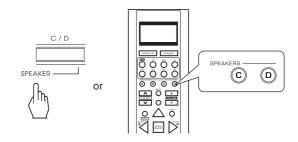
- This function allows enjoying one source in the main room and playing another in a different room at the same time.
- Even when this receiver enters the standby mode, in such a case that "R2" is dimly lit, meaning only the ROOM2 circuitry operates, the ROOM2 source can be played independently. Therefore, when you do not use the ROOM2 function, turn off the ROOM2 function to save electricity.
- To enjoy ROOM2 source, turn on the ROOM2 function and adjust the ROOM2 settings as below.

#### 1. Enter the ROOM2 mode.



- "R2 > ~ " is displayed for several seconds.
- Each time this button is pressed, the mode is changed to the ROOM2 mode ("R2 > ~") or the main mode (main input display).
- When "R2 > ~" is not displayed, press this button again.
- Note : Only while displaying the ROOM2 mode, you can set the ROOM2 mode.

#### **3.** Select the desired ROOM2 speakers.

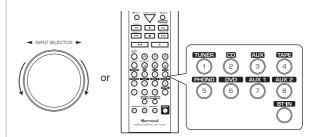


• Each time the SPEAKER C/D SELECTOR button is pressed, the speakers are switched on or off as follows:

 $\rightarrow$  R2 C/D  $\rightarrow$  R2 - / -  $\rightarrow$  R2 C/ -  $\rightarrow$  R2 - /D -

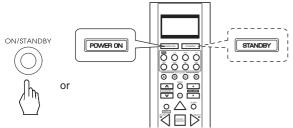
■ Note : Only when the ROOM2 mode is set to on, the speakers C or/and D can be used as ROOM2 speakers.

#### **4.** Select the desired ROOM2 input.



- Each time the INPUT SELECTOR knob is rotated, the ROOM2 input source is changed as follows :

#### **2.** Turn on the ROOM2 mode.



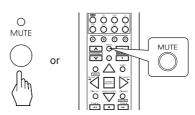
 Each time the POWER ON/STANDBY button on the front panel is pressed, the ROOM2 mode changes as follows:

R2 > OFF : ROOM2 off mode("R2" turns off) ↑

- R2 > input display : ROOM2 on mode("R2" lights up)
- On the remote control, press the POWER ON button to turn on the ROOM2 mode or press the STANDBY button to turn it off.
- Note : Only while displaying the ROOM2 on mode, you can adjust the ROOM2 settings.

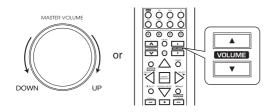
**5.** Start play on the component related to the ROOM2 source.

#### 7. To mute the sound.



- While the mute function for ROOM2 is operating, "R2" is flickering.
- To resume the previous sound level, press this button again.

- ENGLISH
- **6.** Adjust the ROOM2 volume to a comfortable listening level.



## Troubleshooting Guide

If a fault occurs, run through the table below before taking your receiver for repair.

If the fault persists, attempt to solve it by switching the receiver off and on again. If this fails to resolve the situation, consult with your dealer. Under no circumstances should you repair the receiver yourself as this could invalidate the warranty.

PROBLEM	POSSIBLE CAUSE	REMEDY
No power	<ul> <li>The AC input cord is disconnected.</li> <li>Poor connection at AC wall outlet or the outlet is inactive.</li> </ul>	<ul> <li>Connect the cord securely.</li> <li>Check the outlet using a lamp or another appliance.</li> </ul>
No sound	<ul> <li>The speaker cords are disconnected.</li> <li>The volume is adjusted too low.</li> <li>The MUTE button on the remote control is pressed to ON.</li> <li>Speakers are not switched on.</li> <li>Incorrect selection of the input source.</li> <li>Incorrect connections between the components.</li> </ul>	<ul> <li>Check the speaker connections.</li> <li>Adjust the volume.</li> <li>Press the MUTE button to cancel the muting effect.</li> <li>Switch on the desired speakers.</li> <li>Select the desired input source correctly.</li> <li>Make connections correctly.</li> </ul>
Stations cannot be received	<ul> <li>No antenna is connected.</li> <li>The desired station frequency is not tuned in.</li> <li>The antenna is in wrong position.</li> </ul>	<ul> <li>Connect an antenna.</li> <li>Tune in the desired station frequency.</li> <li>Move the antenna and retry tuning.</li> </ul>
Preset stations cannot be received	<ul> <li>An incorrect station frequency has been memorized.</li> <li>The memorized stations are cleared.</li> </ul>	<ul><li>Memorize the correct station frequency.</li><li>Memorize the stations again.</li></ul>
Poor FM reception	<ul> <li>No antenna is connected.</li> <li>The antenna is not positioned for the best reception.</li> </ul>	<ul> <li>Connect an antenna.</li> <li>Change the position of the antenna.</li> </ul>
Continuous hissing noise during FM reception, especially when a stereo broadcast is received.	• Weak signals.	<ul> <li>Change the position of the antenna.</li> <li>Install an outdoor antenna.</li> </ul>
Continuous or intermittent hissing noise during AM reception, especially at night.	Noise is caused by motors, fluorescent lamps or lightning, etc.	<ul> <li>Keep the receiver away from noise sources.</li> <li>Install an outdoor AM antenna.</li> </ul>
No recording	<ul> <li>Incorrect selection between the components.</li> <li>Incorrect operation of each component for playback and recording.</li> </ul>	<ul> <li>Make connections correctly.</li> <li>Operate each component correctly.</li> </ul>
Remote control unit does not operate.	<ul><li>Batteries are not loaded or exhausted.</li><li>The remote sensor is obstructed.</li></ul>	<ul><li> Replace the batteries.</li><li> Remove the obstacle.</li></ul>

## Specifications

#### AMPLIFIER SECTION

- Power output, 8 $\Omega$ , THD 0.7 %, 20 Hz~20 kHz, only a pair of speakers driven | 2 X 100 W
- Total harmonic distortion, 8Ω, @ -3dB, 20 Hz~20 kHz | 0.05 %
- Intermodulation distortion
- 60 Hz : 7 kHz= 4 : 1 SMPTE, 8Ω, 100 W | 0.03 %
- Input sensitivity, 47 kΩ
   Phono(MM) | 2.5 mV
- Line(CD,DVD,TAPE,AUX) | 220 mV
- Signal to noise ratio, IHF "A" weighted Phono(MM) | 75 dB
- Line(CD,DVD,TAPE,AUX) | 98 dB
- Frequency response Phono(MM), RIAA, 20 Hz~20 kHz | ±0.3 dB Line(CD,DVD,TAPE,AUX), 10 Hz~100 kHz | ±3 dB
- Output level TAPE OUT, 2.2 kΩ | **200 mV**
- Bass/Treble control. 100 Hz/10 kHz | ±10 dB

#### ■ FM TUNER SECTION

- Tuning frequency range | 87.5~108 MHz
- Usable sensitivity, THD 3%, S/N 30 dB | 15 dBf
- 50 dB quieting sensitivity, mono/stereo | 25.2/45.2 dBf
- Signal to noise ratio, 65 dBf, mono/stereo | 68/65 dB
- Total harmonic distortion, 65 dBf, 1 kHz, mono/stereo | 0.5/0.8%
- Frequency response, 20 Hz~14 kHz | ±3 dB
- Stereo separation, 1 kHz | 30 dB
- Capture ratio | 4 dB
- IF rejection ratio | 75 dB

#### AM TUNER SECTION

- Tuning frequency range | 520~1710 kHz
- Usable sensitivity , S/N 20 dB | 55 dBµ/m
- Signal to noise ratio | 50 dB
- Selectivity | 30 dB

#### ■ RF REMOTE SECTION

- Operating frequency | 2,433 GHz ±100 kHz
- RF range | 15 ~ 30 meters(50 ~ 100 feet), depending on the environment
- Sensitivity | Min. -90 dB

#### GENERAL

- Power supply | 120 V~ 60 Hz
- Power consumption | 3.3 A
- Switched AC outlets | TOTAL 120 W (1 A) max.
- Dimensions (WXHXD, including protruding parts) | 440X141X370mm(17-3/8X5-1/2X14-1/2 inches)
- Weight (Net) | 8.6 kg(19 lbs)

Note: Design and specifications are subject to change without notice for improvements.

## Setup Code Table\_\_\_\_\_

## TV

ì														
l	AOC	005	003					Goldstar	005	025	003	011		
l	Admiral	041	031					Gradiente	009	011				
l	Aiko	014						Grunpy	027	026				
	Akai	005						Hallmark	025					
l	Alaron	026						Harley Davidson	026					
l	Ambassador	024						Harman/Kardon	010					
l	America Action	027						Havard	027					
l	Ampro	043						Hitachi	016	011	018			
	Anam	027	047	048	049			Infinity	010					
l	Audiovox	030	027	014	034			Inteq	002					
l	Baysonic	027						JBL	010					
l	Belcor	003						JCB	050					
l	Bell & Howell	019	001					JVC	009	046				
l	Bradford	027						KEC	027					
l	Brockwood	003						KTV	027	005	006			
l	Broksonic	028	031					Kenwood	005	003				
l	CXC	027						LG	011					
l	Candle	005	011					LXI	007	010	019	020	025	
l	Carnivale	005						Logik	001					
l	Carver	010						Luxman	011					
l	Celebrity	050						MGA	017	005	025	003		
l	Cineral	030	014					MTC	012	005	003	011		
l	Citizen	012	005	011	006	014		Magnavox	010	005	026	• • • •		
l	Concerto	011		0		•••		Magestic	001		020			
l	Contec	027						Marantz	010	005				
l	Craig	027						Matsushita	042	000				
l	Crosley	010						Magatron	025	016				
l	Crown	027	006					Memorex	019	042	031	017	025	011
l	Curtis Mathes	007	010	019	008	030	041	Wembrex	001	042	001	017	020	011
l		012	005	016	011	001	006	Midland	007	002	008	006	015	
l		012	0032	038	040	001	000	Minutz	007	002	000	000	015	
l	Daewoo	022	0032	006	040	034	035	Mitsubishi	004	017	025	003		
l		003	003	000	014	034	035	Motorola	041	017	025	003		
l	Daytron							Multitech	041					
l	Denon	016	000					NAD		005	022			
l	Dumont	002	003					NEC	020 005	025 003				
l	Dwin	044	036							003	011			
l	Electroband	050	000	004	007	000	005	NTC	014	005	044			
l	Emerson	019	028	031	027	029	025	Nikko	005	025	014			
l	_ ···	003	026	006	024	034	035	Onwa	027	0.40				
l	Envision	005						Optimus	019	042	022			
	Fisher	019						Optonica	041	021	000			
l	Fujitsu	026						Orion	028	031	026			
	Funai	027	026	023				Panasonic	008	042				a.c
	Futuretech	027			_			Penney	007	020	800	012	005	025
	GE	007	800	030	041	029	025		004	003	011	006	015	040
		004	015	038	040			Pilco	010	031	005	016	003	
	Gibralter	002	005	003				Philips	010					
- 1														

	Pilot	005	003	006				Vidtech	025	003				
	Pioneer	022						Wards	010	021	005	025	004	003
	Portland	003	006	014					026	011	001			
	Prism	008						White Westinghouse	031	034	035			
	Proscan	007						Yamaha	005	003				
	Proton	025	032					Zenith	002	031	001	014		
	Pulsar	002	003											
	Quasar	008	042	021										
	RCA	007	800	041	003	013	015	VCR						
		037	038	039	040			VCR						
	Radio Shack	007	019	021	027	005	025							
		003	011	006				Admiral	027	021				
	Realistic	019	021	027	005	025	003	Adventura	000					
		011	006					Aiko	025					
_	Runco	002	005	033				Aiwa	005	000				
	SSS	027	003					Akai	026					
	Sampo	005	006					America Action	025					
	Samsung	012	005	025	003	011	045	America High	004					
	Samsux	006						Asha	023					
	Sansei	030						Audiovox	005					
	Sansui	031						Beaumark	023					
	Sanyo	019						Bell & Howell	017					
	Scimitsu	003						Brocksonic	021					
	Scotch	025						Broksonic	020	018	021	001		
	Scott	028	027	025	003	026		CCE	015	025				
	Sears	007	010	019	020	025	026	Calix	005					
		011	023					Canon	004					
	Semivox	027						Carver	016					
	Semp	020						Cineral	025	0.05				
	Sharp	041	021	006				Citizen	005	025				
	Sherwood	000						Colt	015	010	000	015	004	
	Shogun	003						Craig Curtis Mathes	005	012 004	023	015 028	024	
_	Signature	001							013 023	004	026	028		
	Sony	050	005	000				Cybernex Daewoo	023	025				
_	Soundesign	027 023	025	026				Denon	008	025				
	Squareview	023						Dynatech	000					
	Starlite							Electrohome	005					
_	Supreme Sylvania	050 010	005					Electrophonic	005					
	Symphonic	023	005					Emerex	003					
_	TMK	025	011	024				Emerson	002	020	000	018	009	021
	Tandy	025	011	024				Linerson	000	025	000	010	000	021
	Technics	041	042					Fisher	012	025				
	Technoi Ace	008	042					Fuji	004	003				
	Techwood	020	011					Funai	000	000				
	Teknika	010	027	017	012	003	026	GE	013	004	027	023		
	I GRITINA	010	027 001	017 006	012	003	020	Garrard	000	004	0L1	020		
	Telefunken	011	001	000	014			GoldStar	000	006				
	Toshiba	011	020	012				Gradiente	000	000				
	Totevision	019	020	012				HI-Q	012					
	Vector Research	005						Harley Davidson	000					
	Victor	005						Harman/Kardon	016	006				
	Vidikron	010						Harwood	015	000				
		010												

Headquarter	011						Realistic	004	005	027	012	000	017
Hitachi	000	008	026					011					
JVC	014	026					Runco	007					
Jensen	026						STS	008					
KEC	005	025					Samsung	023	010	033			
KLH	015						Sanky	027	007				
Kenwood	014	026	006				Sansui	000	014	021	026	024	
Kodak	004	005					Sanyo	012	023	017	011		
LXI	005						Scott	020	010	018	009		
Lloyd's	000						Sears	004	005	012	000	008	017
Logik	015						00013	011	000	012	000	000	017
MEI	013						Some	010					
MGA		000					Semp						
	023	009					Sharp	027					
MGN Technology	023						Shintom	015					
MTC	023	000					Shogun	023					
Magnasonic	025						Singer	015					
Magnavox	004	007	016	000	019		Sony	004	002	000	003		
Magnin	023						Syvania	004	016	000	009		
Marantz	004	016					Symphonic	000					
Marta	005						ТМК	023					
Matsushita	004	028	029				Tatung	026					
Memorex	004	005	027	007	012	023	Teac	000	026				
	000	017	021	011	031	032	Technics	004	028				
Minolta	008						Teknika	004	005	000			
Mitsubishi	027	014	009				Thomas	000					
Motorola	004	016					Toshiba	010	009				
Multitech	000	015					Totevision	005	023				
NEC	017	014	026	006			Unitech	023					
Nikko	005						Vector	010					
Noblex	023						Vector Research	006					
Olympus	004						Video Concepts	010					
Opimus	005	027	017	028	029	030	Videosonic	023					
	031	032					Wards	013	004	027	012	016	023
Orion	020	021	001					000	008	015	019		
Panasonic	004	028	022	029	031		White WestingHouse	021	025				
Penny	004	005	023	800	006		XR-100	004	000	015			
Pentax	008						Yamaha	006					
Philco	004	021					Zenith	007	000	021	003		
Philips	004	016											
Pilot	005												
Pioneer	014							00					
Profitronic	023						VCR-TV/V	CH					
Proscan	013												
Protec	015						Ameira High	004	(TV us	e 008)			
Pulsar	007						Brocksonic	001		,			
Quarter	011						Colt	015					
Quartz	011						Cutis Mathes		TV us	e 008)			
Quasar	004	028	029	031			Daewoo	025		,			
RCA	013	004	027	023	008	019	Emerson	001					
Radio Shack	000						Funai	000					
Radix	005						GE		TV us	e 008)	013	(TV us	e 007)
Randex	005								(TV us				
	500						Hitachi		(TV us				
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000
023
016 (TV use 010) 004 (TV use 008)
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023
005 028 (TV use 042)
027 (TV use 041)
001
004 (TV use 008) 028 (TV use 042)
004 (TV use 008) 023
028 (TV use 042)
004 (TV use 008) 028 (TV use 042)
013 (TV use 007) 004 (TV use 008)
027 (TV use 041)
000
023
000 005
027 (TV use 041)
002 (TV use 050)
000
000

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DVD						
Apex	015					
Harman/Kardon	009					
JVC	008					
Kenwood	005					
Megavox	024					
Mitsubishi	001					
Onkyo	024					
Panasonic	013					
Philips	024	006				
Pioneer	003	014	026			
Proscan	002					
RCA	002					
Samsung	017					
Sherwood	001	023	012	011	000	016
	018	019	020	021	022	
Sony	004					
Technics	013					
Theta Digital	014					
Toshiba	024					
Yamaha	013	007				
Zenith	024	010				

#### CBL

ABC	002	003	009	030	006	008
	037	107	036	059	062	066
	072					
Adelphia	063	085				
Allegro	018	021				
Altrio	063					
Americast	103					
Archer	018	026	038	040	047	
Armstrong	085					
AT&T Broadband	085					
Atlantic Broadband	063	085				
Bell South	103					
Bell&Howell	009					
Blue Ridge	063	085				
Bresnan	085					
Bright House	063	114				
Buckeye Comm	085					
Cablevision	063	085	112			
Centurion	096					
Century	018	040				
Charter	063	085				
Citizen	018	021	040			
Cogeco	085					
Combano	089	090				
Comcast	063	085	114			
Comsat	085					
Comtronics	014					
Contec	011					
Cox Digital	063	085				
Digicable	105					
Eagle	050	052	060			
Eastern	001	076	081			
Echostar	110					
Electricord	054					
Emerson	026					
Everquest	010	014				
Focus	022					
Garrard	018					
Gemini	010	041	073			
Eeneral Electric	084					
General Instrument	033	032	006	034	085	107
	108					
GNC	103					
Golden Channel	052					
GoldStar	017	014				
Goodmind	026					
Hamlin	012	020	004	013	068	069
	074					

Hitachi	006	107	074				Stargate	010	014	026	041	052	101
Insight	085							108					
Jasco	010	018	021				Starquest	010					
Jerrold	002	007	033	032	009	010	Susquehanna	063	085				
	006	034	035	036	037	041	Teleview	014					
	042	043	082	085	107		Time Warner	063	085				
Magnavox	043	045	080	088	099	098	Tocom	007	008	059	060	075	
Massillon	085						Toshiba	000	071				
Media One	111						Tusa	010					
Medicom	074						TV86	015					
Memorex	000	071					Unika	018					
Mitsubishi	106						United Cable	037	072				
Motorola	085	114	113	106			Universal	018	019	038	040	047	054
Movie Time	015	028	054					056					
Moxi	106						Videotron	063					
Nctc	085						Viewstar	015	045	048	049	092	093
NSC	015	048	051	058	083			094	095				
Oak	011	053	057	072			Wide Open West	063	103				
Optimus	031						Zenith	000	024	071	078	097	104
Pace	063	085					Zentek	022					
Panasonic	000	016	031	064	067								
Paragon	000	071											
Philips	018	039	045	046	050	091	SAT						
	099						0/11						
Pioneer	017	025	063	107	055	070							
	079	086	109				AlphaStar	008					
Popular Mechanics	022						Cablevision/voom	031					
Prucer	077						Chaparral	001					
Pulsar	000	071					Directv	053					
Quasar	000						Echostar/dish	009	024	049	050		
RCA	031	067					Expreevu	009					
Radio Shack	010	021	026	028			Expressvu	024					
Recoton	022	102					General Electric	033	021	032			
Regal	012	020	068	069			General Instrument	016	015	018	031		
Regency	001	076					Goi	024					
Rembrandt	006						Hitachi	011	028	029			
Rodgers	063						HTS	009	024			o 17	0.40
Runco	000						Hughes	043	044	019	036	047	048
Samsung	017	014	052				Liberth en Niet Oren	022	023				
Scientific Atlanta	003	023	030	027	063	044	Hughes Net.Sys	007	004				
	036	061	062	065	066		JVC	009	024				
Seren	063						Jerrold	016	015				
Service Electric	085						LG	052					
Shaw	085						Megnavox	027	005				
Sherwood	000						Megavox	006	005				
Sigecom	063						Memorex	006	000				
Signal	010	014					Mitsubishi	019	036				
Signature	006						Motorola	031	004				
SL Marx	014						Next Level	018	031	040			
Sony	100	112					Panasonic	017	030	042			
Sprucer	031	067	087				Pansat	027	005	004	005	000	010
Starcom	002	010	035	037	041	042	Philips	006 036	005 027	034 022	035 023	038	019
							_	000	021	022	020		

Primestar	016	015				
Proscan	033	021	032			
Radio Shack	018	031				
RCA	003	000	002	012		
Realistic	014					
RSA	033	021	032			
Samsung	025	037	045	051	054	
Sherwood	000					
SKY	046					
Sony	004	020				
Star Choice	018	031				
Toshiba	010	026	019	036	039	040
Uniden	006	005	014	027		
Zenith	013	041				

## AUX-CD AMP

Aiwa	030	
Carver	023	
Curtis Mathes	027	
Denon	037	
Harman/Kardon	040	
Linn	023	
Megavox	023	
Marantz	023	
Panasonic	039	
Philips	023	040
Pioneer	003	027
Sony	019	033
Technics	039	
Wards	003	
Yamaha	028	

## AUX-MD

Sherwood

035 (for Mini Disc)

018

AUX-LD	
Denon	

007
007
007
007
017

## AUX-TAPE

Aiwa	004	034	
Carver	004		
Harman/Kardon	016	004	
JVC	022	024	
Kenwood	800		
Megavox	004		
Marantz	004		
Onkyo	012	025	
Opimus	002	020	
Panasonic	038		
Pioneer	002	019	011
Sansui	004		
Sherwood	000		
Sony	021	014	026
Technics	038		
Victor	024		
Wards	002		
Yamaha	010	009	

## AUX-HOME AUTOMATION

GE	043
Lutron	044
One For All	042
Radio Shack	043
Security System	042
Universal X10	042
X10	042

## AUX-DBS

Aiwa	045	029
Fisher	005	
Harman/Kardon	046	
JBL	046	
JVC	047	
Jerrold	031	
RCA	006	
Scientific Artlanta	032	
Sony	045	
Starcom	031	

## AUX-VIDEO ACCESSARY

Archer	013
GC Electronics	013
Jebsee	013
Rabbit	036
Radio Shack	013
Telecaption	015

## CD

Aiwa	010	030				
Burmester	019					
California Audio Lab	002					
Carver	010	012	020			
DKK	001					
Denon	028	034				
Emerson	035					
Fisher	012	033				
Garrard	019	018				
Genexxa	004	035				
Harman/Kardon	010	011				
Hitachi	004					
JVC	007					
Kenwood	003	029	016	024	025	
Krell	010					
LXI	035					
Linn	010					
MCS	002					
MTC	019					
Megavox	010	035				
Marantz	002	010	013			
Mission	010					
NSM	010					
Nikko	033					
Onkyo	008	026				
Opimus	001	004	012	035	029	
	019	009	021	020		
Panasonic	002	031				
Parasound	019					
Philips	010	023				
Pioneer	004	035	021	017		
Proton	010					
QED	010					
Quasar	002					
RCA	012	035	006	036		
Realistic	012	019	013			
Rotel	010	019				
SAE	010					
Sansui	010	035				
Sanyo	012					
Scott	035					
Sears	035					
Sharp	029	013	037			
Sherwood	013	027	038	039	040	041
	000					
Sony	001	014	022			
Soundesign	009					

Tascam	019			
Teac	019	018	033	013
Technics	002	031		
Victor	007			
Wards	010	006		
Yamaha	005	015		
Yorx	032			

## **RX-773** AM/FM 4CHANNEL STEREO RECEIVER

