KENWOOD

AUDIO VIDEO SURROUND RECEIVER KR-897 KR-797 INSTRUCTION MANUAL

KENWOOD CORPORATION

This manual contains instructions for two models. Model availability and features (functions) may differ depending on country and sales area.

Model KR-897 is not available in except for U.S.A. and Canada.

Before applying power

Before applying power A Caution : Read this section carefully to ensure safe operation.

Units are designed for operation as follows.

U.S.A. and Canada	AC120 V only
Australia	AC 240 V only

*AC voltage selection

The AC voltage selector switch on the rear panel is set to the voltage that prevails in the area to which the unit is shipped. Before connecting the power cord to your AC outlet, make sure that the setting position of this switch matches your line voltage. If not, it must be set to your voltage in accordance with the following direction.

Note:

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Our warranty does not cover damage caused by excessive line voltage due to improper setting of the AC voltage selector switch.

Safety precautions

▲ Caution : Read this section carefully to ensure safe operation.

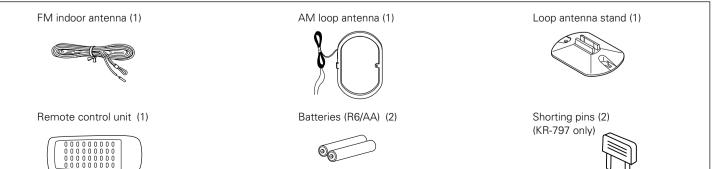
WARNING : TO PREVENT FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CAUTION RISK OF ELECTRIC SHOC DO NOT OPEN	CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COV (OR BACK). NO USER-SERVICEABLE PARTS INSIDE, REFER SERVICING TO QUA FIED SERVICE PERSONNEL.	
	THE LIGHTNING FLASH WITH ARROWHEAD SYMBOL, WITHIN AN EQUILATERAL TRIANGLE, IS TENDED TO ALERT THE USER TO THE PRESENCE OF UNINSULATED "DANGEROUS VOLTAGE" WITH THE PRODUCT'S ENCLOSURE THAT MAY BE OF SUFFICIENT MAGNITUDE TO CONSTITUTE A RISK ELECTRIC SHOCK TO PERSONS.	HIN
	THE EXCLAMATION POINT WITHIN AN EQUILATERAL TRIANGLE IS INTENDED TO ALERT THE USER THE PRESENCE OF IMPORTANT OPERATING AND MAINTENANCE (SERVICING) INSTRUCTIONS IN T LITERATURE ACCOMPANYING THE APPLIANCE.	-

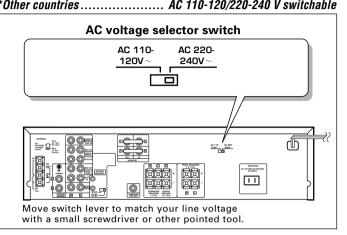
Unpacking

Unpack the unit carefully and make sure that all accessories are put aside so they will not be lost. Examine the unit for any possibility of shipping damage. If your unit is damaged or fails to operate, notify your dealer immediately. If your unit was shipped to you directly, notify the shipping company without delay. Only the consignee (the person or company receiving the unit) can file a claim against the carrier for shipping damage. We recommend that you retain the original carton and packing materials for use should you transport or ship the unit in the future.

Accessories



Europe and U.K.	AC 230 V only
China and Russia	AC 220 V only
* Other countries	AC 110 120/220 240 V awitababla



Special features

DOLBY PRO LOGIC & DOLBY 3 STEREO

The surround system reproduces video software programs carrying the **I DOLBY SURROUND** mark with similar acoustic effects to movie theaters.

The DOLBY PRO LOGIC mode controls the audio signals of the Front Left/Right, Center and Rear surround channels using the built-in directivity enhancer circuit to reproduce the feeling of sound motions very realistically.

The DOLBY 3 STEREO mode can reproduce the motions of sound even when only the front and center speakers are used, by providing proper acoustic position using the directivity enhancer circuit.

SRS 3D Stereo

The SRS (Sound Retrieval System) is an innovative system simulating a 3-dimensional sound space, which features clearly improved feelings of depth, sound field extension and acoustic image positioning as well as a widened listening area.

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System connection

Connections of Audio and Video components (KR-897)

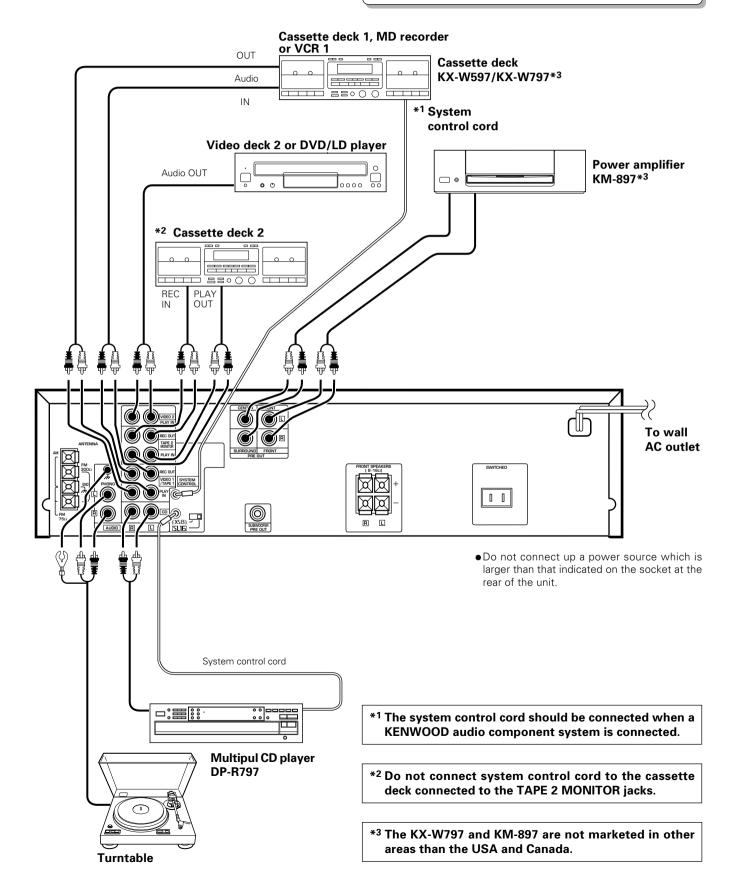
Make connection as shown below.

Δ

When connecting the related system components, refer also to the instruction manuals of the related components.

Malfunction of microcomputer

If operation is not possible or erroneous display appears even though all connections have been made properly, reset the microcomputer referring to "In case of difficulty". $\rightarrow 28$



System connection

Connections of Audio and Video components (KR-797)

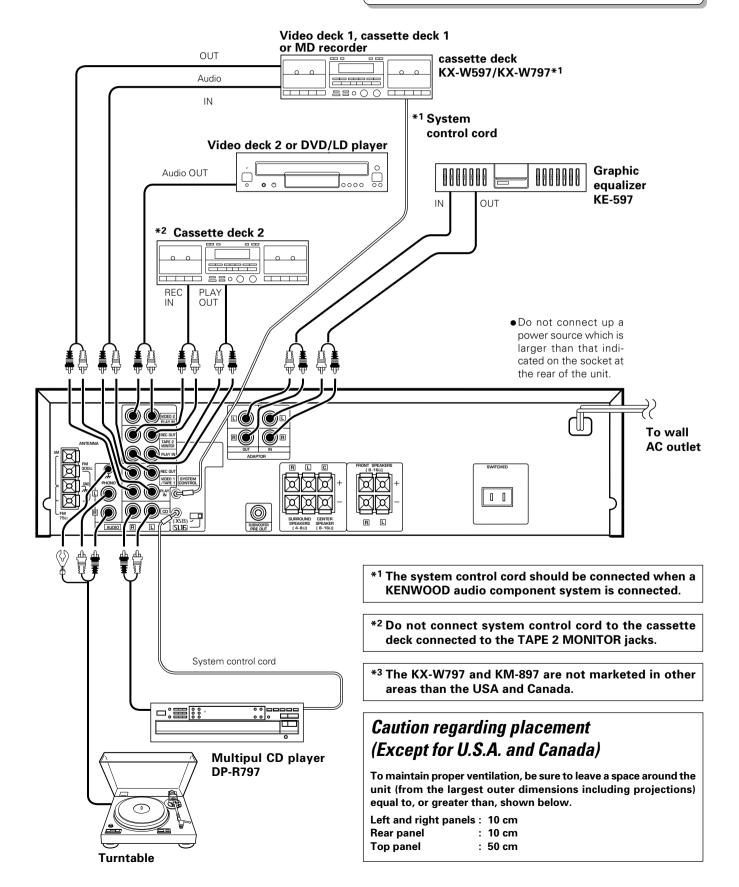
Make connection as shown below.

When connecting the related system components, refer also to the instruction manuals of the related components.

 $\ensuremath{\underline{\wedge}}$ Do not plug in the power lead until all connections are completed.

Malfunction of microcomputer

If operation is not possible or erroneous display appears even though all connections have been made properly, reset the microcomputer referring to "In case of difficulty". $\rightarrow 28$



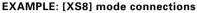
About the system control connections

Connecting system control cords after connecting a KENWOOD audio component system lets you take advantage of convenient system control operations.

There are two KENWOOD system control modes. Make connections according to the groups of terminal symbols shown below.

XS8 Mode: lets you combine XR, XS, and XS8 terminals SL16 Mode: for SL16 terminals only

This unit is compatible with both [XS8] and [SL16] modes. It comes from the factory set to the [SL16] mode. To switch to the [XS8] mode, follow the instructions in "SWITCHING BETWEEN [XS8] AND [SL16]" below.

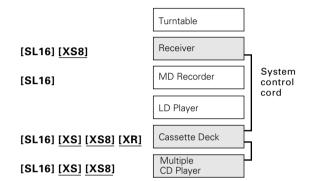


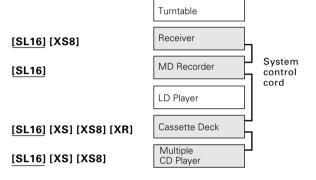
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The underlined portion represents the setting of the system control mode.

EXAMPLE: [SL16] mode connections

The underlined portion represents the setting of the system control mode.



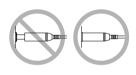


• Some CD players and cassette decks are not compatible with the [SL16] system control mode. Be sure to use the [XS8] system control mode when making system connections with equipment that is not [SL16] compatible.

• Some MD players are not system control compatible. You cannot make system control connections to this kind of equipment.

1. [SL16] equipment cannot be combined with [XR], [XS], and [XS8] equipment for system operations. If your equipment consists of this kind of combination, please do not connect any system control cords. Even without system control cords, normal operations can be carried out without affecting performance.

2. Do not connect system control cords to any components other than those specified by KENWOOD. It may cause a malfunction and damage your equipment. 3. Be sure the system control plugs are inserted all the way in to the system control terminals.



ABOUT THE SYSTEM CONTROL OPERATIONS

Remote Control (possible when the system control mode matches)

Lets you operate source components with the system remote supplied with this unit.

Automatic Operation (Except [XR] equipment)

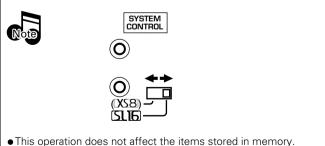
When you start playback from a source component, the input selector on this unit switches to that component automatically. (Except TAPE 2)

Synchronized Recording (Except [XR] equipment) Lets you synchronize recording with the start of playback when recording from CD or MD.

SWITCHING BETWEEN [XS8] AND [SL16]

The system control mode can be switched over easily with the following operation.

- Unplug the AC power cord from the wall outlet.
- Set the SYSTEM CONTROL switch on the rear panel to the desired position.





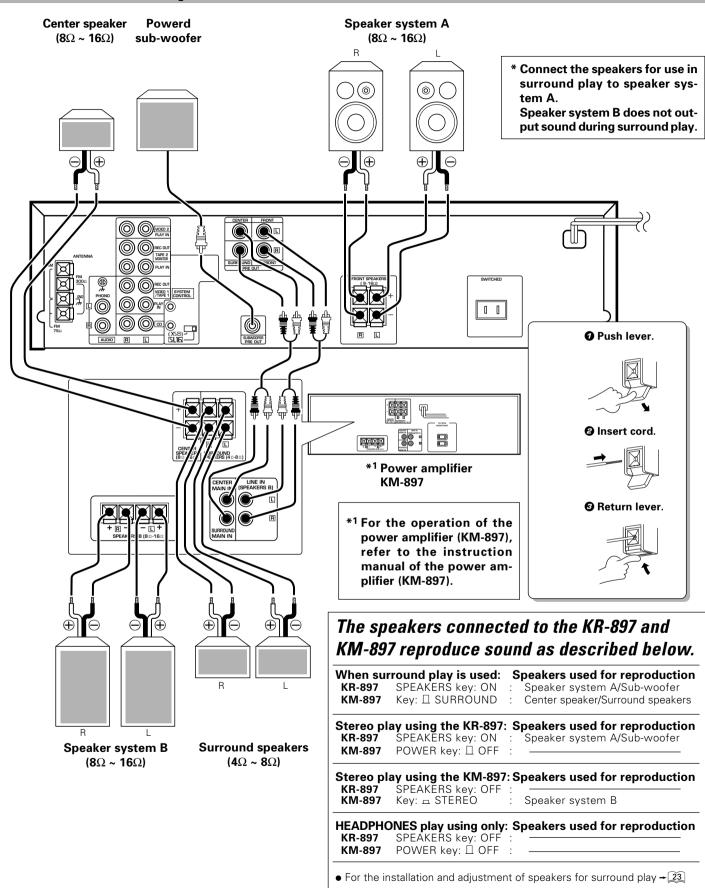
1. Connect all cords firmly. If connections are loose, there could be loss of sound or noise produced.

^{2.} When plugging and unplugging connection cords, be sure to first remove the power cord from the AC outlet. Plugging / unplugging connection cords without removal of the power cord can cause malfunctions or damage to the unit.

^{3.} If the system control cords or audio cords are not connected properly, the remote control or automatic operation between system components will not work properly.



Connection of speakers (KR-897)



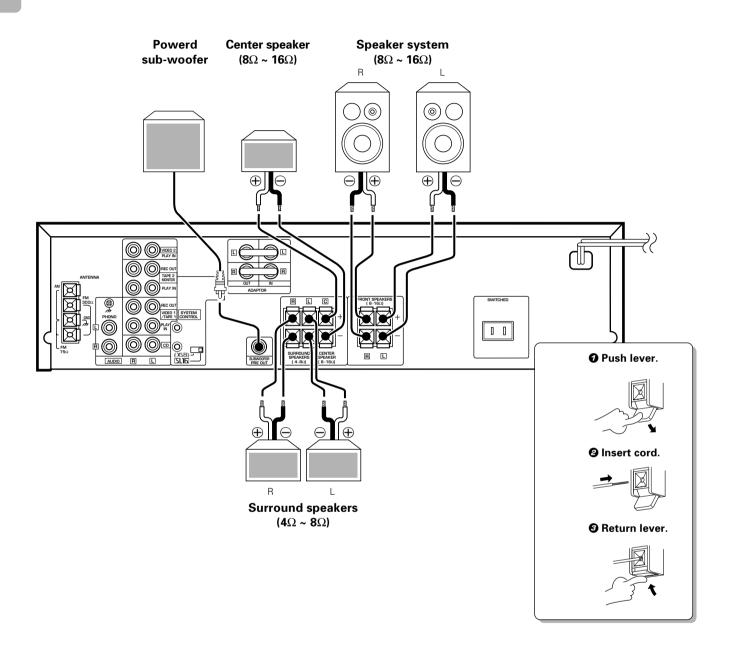
• Never short-circuit the + and - speaker cords. For the symptom and remedy when a speaker cord is shorted.

• If the left and right speakers are connected inversely or if the speaker cords are connected with reversed polarity, the sound becomes unnatural with ambiguous acoustic image positioning. Be sure to connect the speakers and speaker cords correctly.

• Connect a sub woofer if you want to enhance the bass sound. The connected sub-woofer should be a power sub-woofer with a built-in amp.

+ 28

g Connection of speakers (KR-797)

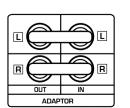


- Never short-circuit the + and speaker cords. For the symptom and remedy when a speaker cord is shorted:
- →<u>28</u>
- If the left and right speakers are connected inversely or if the speaker cords are connected with reversed polarity, the sound becomes unnatural with ambiguous acoustic image positioning. Be sure to connect the speakers and speaker cords correctly.
- Connect a sub woofer if you want to enhance the bass sound. The connected sub-woofer should be a power sub-woofer with a built-in amp.

ADAPTOR jacks (KR-797)

When an adaptor-type component such as a graphic equalizer is connected, unplug the shorting pins from the ADAPTOR jacks and connect the component to these jacks.

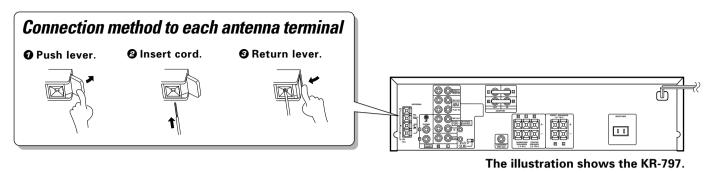
- •When the ADAPTOR jacks are not used, be sure to plug the shorting pins into jacks. Otherwise, the sound will not be produced.
- •When the ADAPTOR jacks are used, retain the shorting pins and be careful not to lose them.
- •Never plug a shorting pin into other jacks than ADAPTOR jacks. Otherwise, the unit may be damaged.



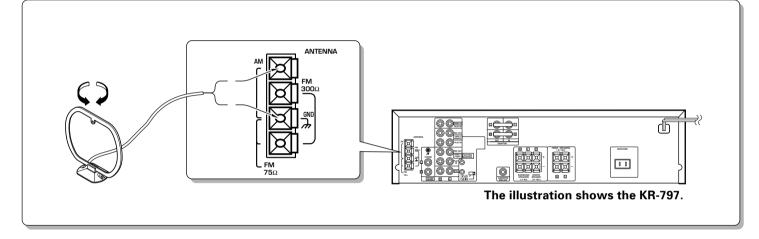
shorting pins



Connection of antenna



AM loop antenna connection The supplied antenna is for indoor use. Place it as far as possible from the main system, TV set, speaker cords and power cord, and set it to a direction which provides the best reception.

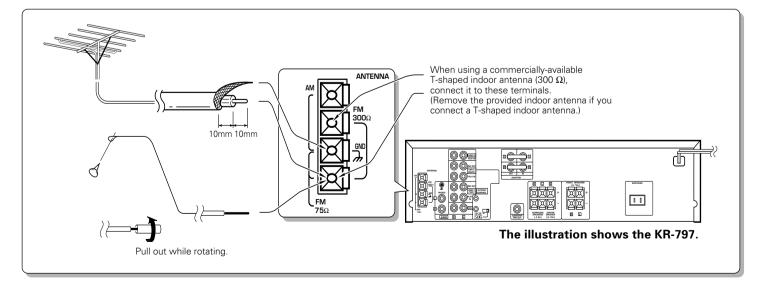


FM indoor antenna connection

The accessory antenna is for temporary indoor use only. For stable signal reception we recommend using an outdoor antenna. Remove the indoor antenna if you connect one outdoors.

FM outdoor antenna connection

Lead the 75 Ω coaxial cable connected to the FM outdoor antenna into the room and connect it to the FM 75 Ω terminal.

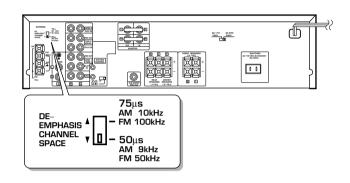


q

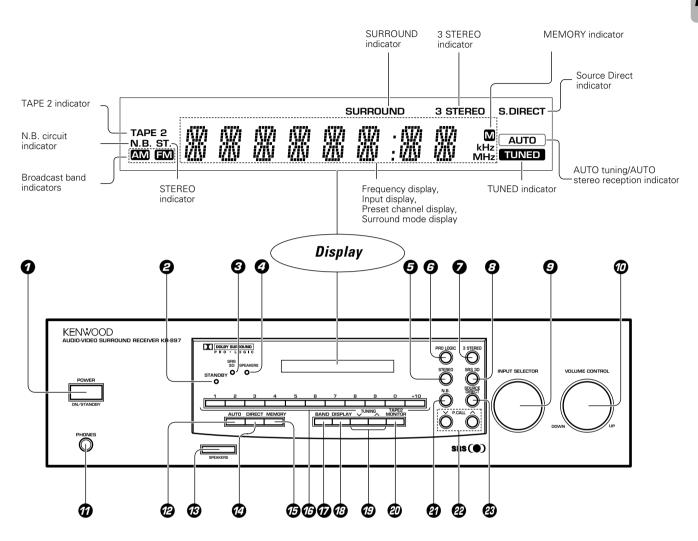
FM DE-EMPHASIS / CHANNEL SPACE switch (Except for U.S.A. and Canada)

The FM DE-EMPHASIS / CHANNEL SPACE switch on the rear panel is set to the correct setting that prevails in the area to which the unit is shipped. However, if the FM DE-EMPHASIS / CHANNEL SPACE setting is not matched to the area where the unit is to be used; for instance, when you moved from area 1 to area 2 or vice versa, desired reception of AM / FM broadcasts is not expected. In this case, change the FM DE-EMPHASIS / CHANNEL SPACE setting in accordance with the area corresponding to the table. The FM DE-EMPHASIS is switched over at the same time.

•When changing the setting of the FM DE-EMPHASIS / CHANNEL SPACE switch, first disconnect the power cord of the amplifier, then reset the channel space switch, connect the power cord again, and turn the power on.



	Area	CHANNEL SPACE freq.	FM DE- EMPHASIS
1	U.S.A., Canada, Hawaii, South American countries	FM: 100kHz AM: 10kHz	75 µs
2	Other countries	FM: 50kHz AM: 9kHz	50 µs



OPOWER key

Press to switch the power ON and OFF.

STANDBY indicator

OSRS 3D indicator

Lights when the SRS 3D system is ON.

OSPEAKERS indicator

Lights when the speakers are ON.
Press to turn the surround mode OFF.
ODLBY PRO LOGIC key → 24
DOLBY 3 STEREO key - 26
③ SRS 3D key → <u>27</u>
INPUT SELECTOR knob
Rotate to select the input source.
VOLUME CONTROL knob

OPHONES jack

Plug headphones into this jack.

AUTO key

Press to select the tuning mode from the auto tuning and manual tuning modes. \rightarrow $\boxed{19}$ Press and hold the **AUTO** key for more than 2 seconds to switch the TAPE1 display to another input display. \rightarrow $\boxed{14}$

SPEAKERS key

- Press to turn the speakers ON and OFF. **② DIRECT key** → 20
- Press when tuning a broadcast station by entering the digits of its frequencies.
- MEMORY key 21 Press when registering a broadcast station in the preset memory.

ONumeric keys (1 to 0, +10)

BAND key

Press to switch the broadcasting band.

+ 19

ODISPLAY key

Press to switch the displayed information between the surround mode display and input selector display. Press and hold the **DISPLAY** key for more than 2 seconds to switch the display brightness.

@TUNING keys (∨, ∧) → 🗐
Press to select a radio station.
② TAPE 2 MONITOR key → 18
Press to monitor the sound being re-
corded, etc.
② N.B. key → 16
Press to compensate for the insuffi-
ciency in the base sound.
⑦P.CALL keys (∨, ∧) →21
Press to select one of the preset sta- tions.
SOURCE DIRECT key → 16
Press to listen to the source sound with a higher sound quality.

About the STANDBY indicator

This unit has a **STANDBY** indicator, the lighting of which indicates that a small amount of current is supplied to back up the internal memory of the unit. This status is referred to as the standby mode of the unit. In this mode, the power of the unit can be switched ON from the remote control unit. When the unit is not to be used for a long period of time, unplug the power cord from the power outlet.

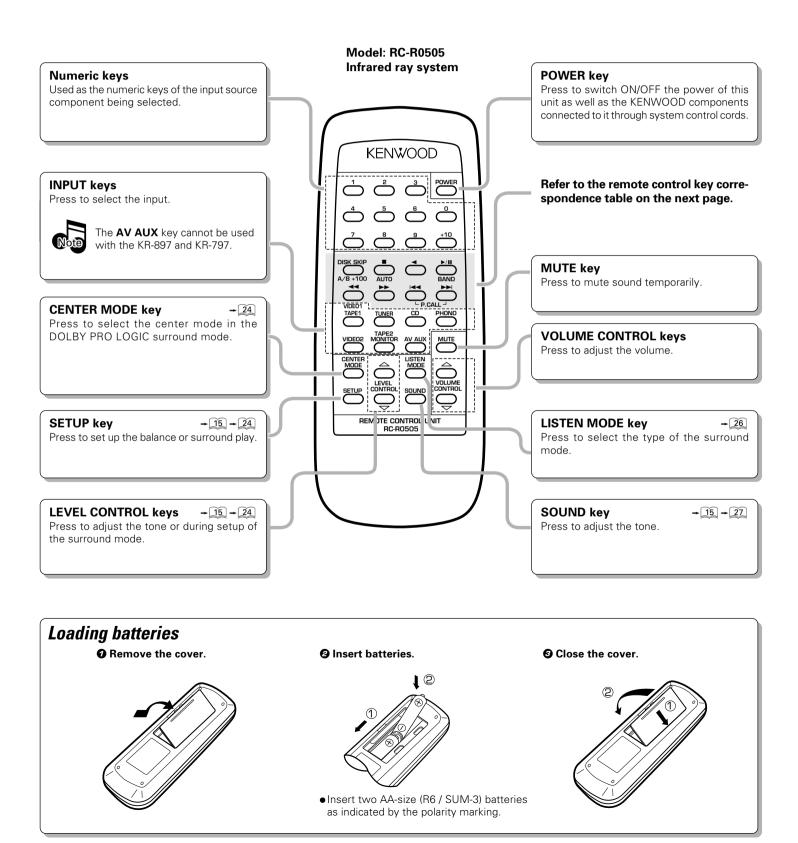
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Operation of remote control unit

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Names of keys and their functions

The remote control unit provided with the receiver can also control KENWOOD cassette decks, MULTIPLE CD player and MD recorder connected to the recieiver through system control cords. For details of the controllable functions, refer to the instruction manuals of these components.



Operation procedure

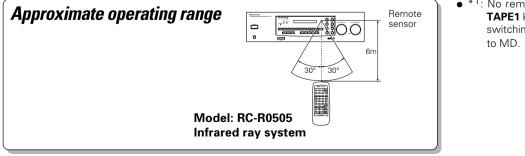
1	Switch ON the power of the main unit.
2	Select the component to be remote controlled with one of the controlled component selection keys.
3	Refer to the remote control key correspondence

Refer to the remote control key correspondence table below and press the key for the desired operation.

- Pressing the **POWER** key of the remote control unit while the STANDBY indicator is lit turns the power ON. Press the desired key after the power has been turned ON.
- •When two operation keys of the remote control unit are pressed successively, press each key securely reserving an interval of more than 1 second for each press.

Remote control key correspondence table (For KENWOOD component control mode)

Controlled component <u>selection</u> key		Ö		*1 (When used with a MD)
	P.CALL keys Recalls preset stations.	I⊲⊲ , ►►I (Skip key)		l ⊲⊲ , ►►I (Skip key)
AUTO	AUTO key Press to select the auto tuning mode.	■ (Stop key)	∎ (Stop key)	■ (Stop key)
DISK SKIP A/B +100		DISC SKIP key Press to select the disc to be played.	A/B key Press TAPE A or B	+100
	BAND key Press to switch the broad- cast band.	►/II (Play/pause key)	►/ II (Forward play key)	►/II (Play key)
A ↓	◄◀ , ►► (Tuning keys) Press to tune broadcast stations.	◄◀ , ►► (Search key)	◄< , ►► (Search key)	◀◀ , ▶► (Search key)
Ď			◄ (Reverse play key)	

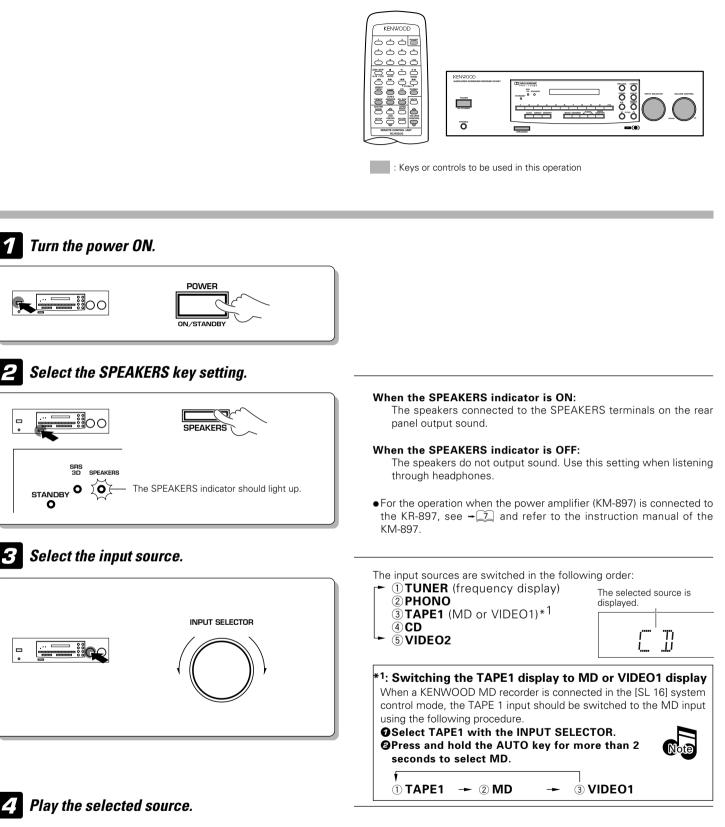


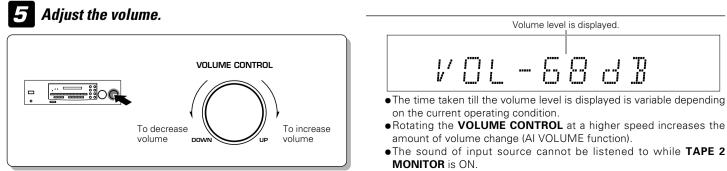
*1: No remote control key is marked MD, but the TAPE1 key can be used to control a MD player by switching the display of the main unit from TAPE1 to MD.

- 1. The supplied batteries are intended for use in operation checks. Therefore, their lives may be shorter than ordinary batteries. 2. When the remote-controllable distance gets shorter than before, replace both batteries with new ones.
- 3. Malfunction may occur if direct sunlight or the light of a high-frequency lighting fluorescent lamp enters the remote control light sensor. In such a case, change the system installation position to prevent the malfunction.

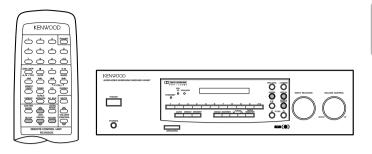
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Playing music

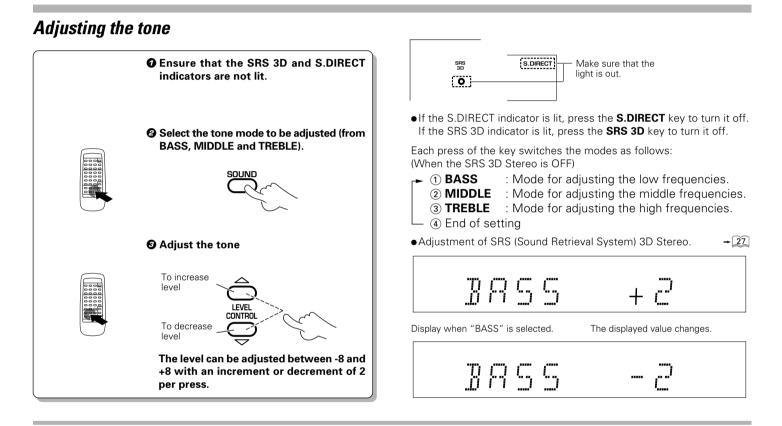




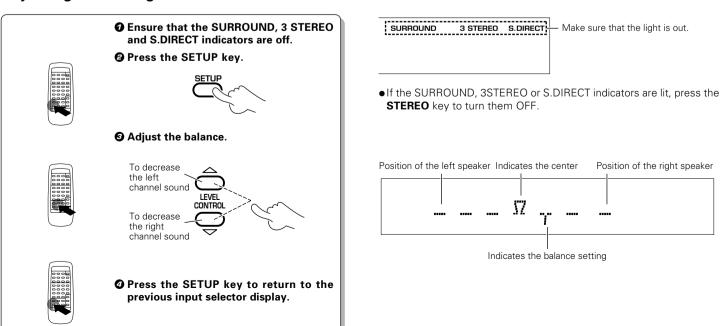
Sound adjustment functions



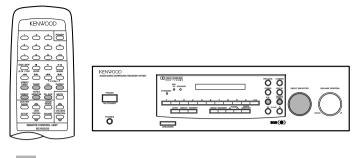
: Keys or controls to be used in this operation

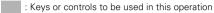


Adjusting the left/right sound balance



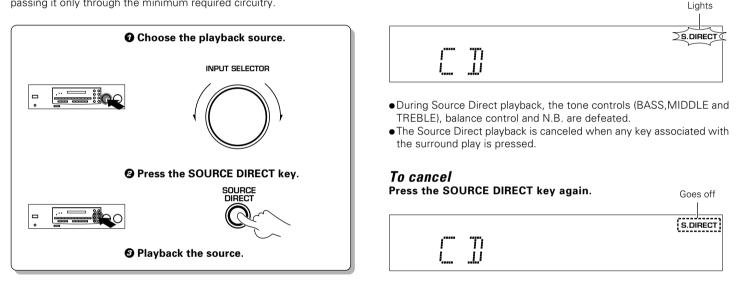
KR-897/KR-797 (En)





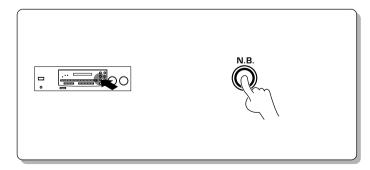
Source Direct playback

This feature allows you to play the source signal with a high quality by passing it only through the minimum required circuitry.



Compensating for low frequencies (N.B.: Natural Bass circuit)

N.B. circuit is used to compensate for the low frequencies which are less audible during low-volume listening.



2 N.B. C	Th LU	

Lights

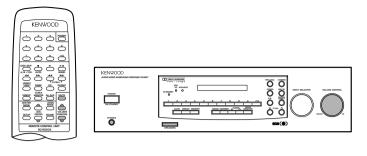
• When the S.DIRECT is selected, the N.B. control keys are not effective.

To cancel Press the N.B. key again.

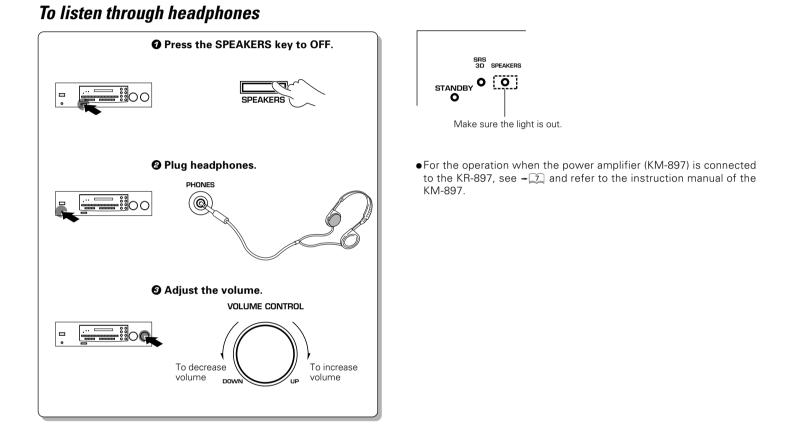


Goes off

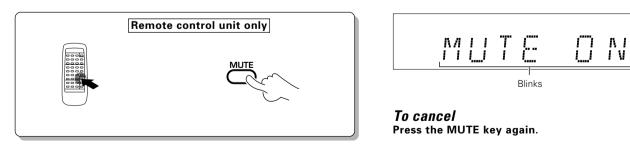
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: Keys or controls to be used in this operation



To mute sound temporarily



Recording

KR-897/KR-797 (En)

When recording sound with a recorder component of KENWOOD, synchro recording is possible by setting the INPUT SELECTOR to select TAPE1 or MD according to the connected component.

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Preparation

• Switch the TAPE1 display to MD or VIDEO1 with the following operation.

Select the source to be recorded.

2 Put the cassette deck in record-pause

O Play the source and start recording.

O Select TAPE1 with the INPUT SELECTOR.

To record a music source

② Press and hold the AUTO key for more than 2 seconds.

The input sources are switched in the following order:

① TUNER (frequency display)
 ② PHONO
 ③ TAPE1 (MD or VIDEO1)
 ④ CD
 ⑤ VIDEO2

Each press switches the display.

- 2 MD

1) **TAPE1**

Lights

• The VIDEO1 display can be switched to the display of other input by using the procedure described in "Preparation" above.

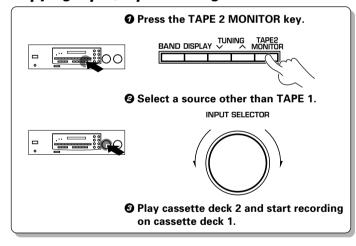
3 VIDEO1

- For the synchro recording with a cassette deck and/or MD recorder, refer to the respective instruction manuals..
- It is not possible the VIDEO1 or MD input to TAPE1 because all of these components should use the same INPUT SELECTOR position.

Copying tape (Tape dubbing TAPE $2 \rightarrow TAPE 1$)

Select an input source other than TAPE 1.

mode.



Т Ш

• For copying a tape using a double cassette deck, read the instruction manual of the double cassette deck.

Copying tape (Tape dubbing TAPE 1 \rightarrow TAPE 2)

- **O** Select TAPE 1 with the INPUT SELECTOR control of the main unit.
- Play the cassette deck connected to the TAPE 1 jacks and start recording of the cassette deck connected to the TAPE 2 jacks.

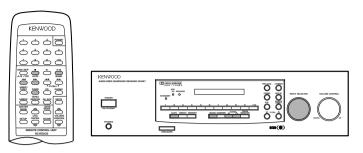
Regarding TAPE 2 MONITOR

A cassette deck or graphic equalizer can be connected to this unit's **TAPE 2 MONITOR** terminals. If you connect a graphic equalizer, turn the **TAPE 2 MONITOR** key ON. If you connect a 3-head cassette deck, you can monitor the source sound, or the sound being recorded, while recording. Pressing the **TAPE 2 MONITOR** key lets you compare the recorded sound and the source sound. Refer to the operating manual for the component you connected for further details.

Broadcast reception

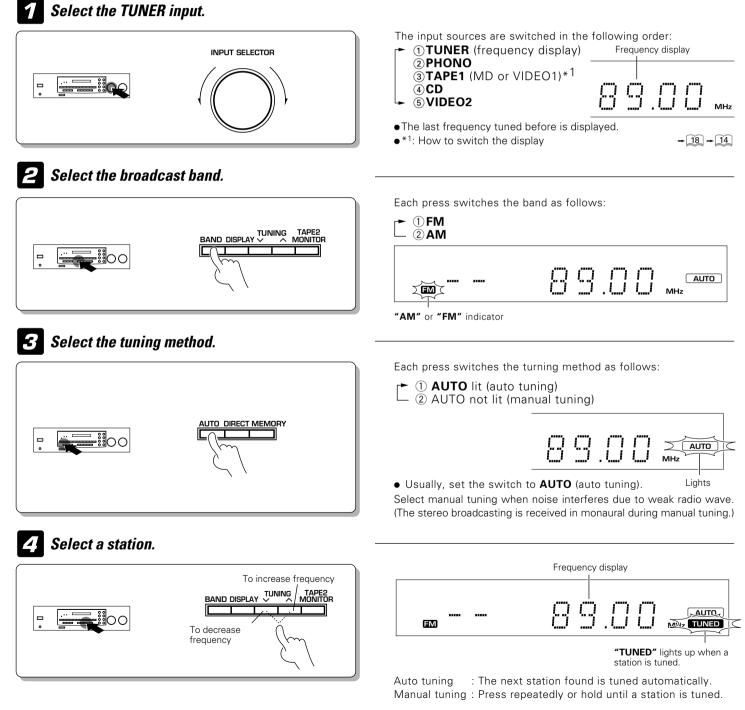
KR-897/KR-797 (En)

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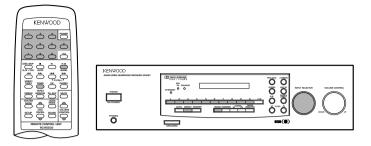


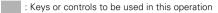
: Keys or controls to be used in this operation

Receiving broadcast stations

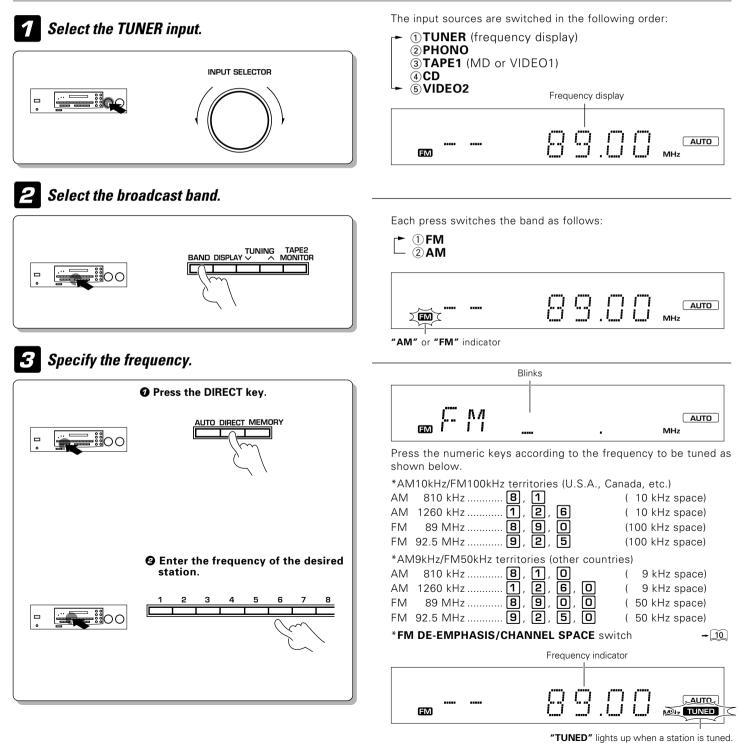


• The same operation is also available with the 🕁 and 😁 keys of the remote control unit.





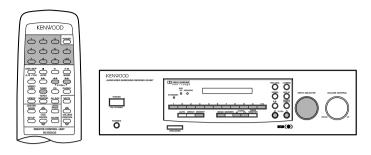
Receiving radio stations by specifying its frequency



• If you make a mistake, the frequency display blinks for a few seconds. In this case, repeat step **I** from the beginning.

Lights up (for 5 sec.)

89.00



: Keys or controls to be used in this operation

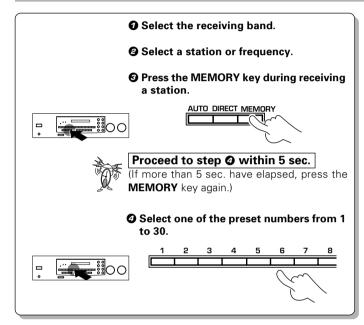
Lights up (for 5 sec.)

To store in "15" ... **+10**, **5**

memory content

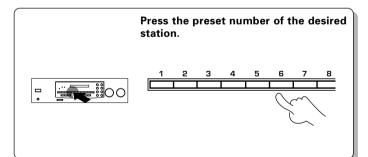
To store in "20" ... [+10], [+10], [0]

Storing radio stations in memory (Station preset)



Preparation • Select the **TUNER** input.

Receiving a preset station



Press the numeric keys in the following order.

Press the numeric keys in the following order.



• If you make a mistake in entering the figure of 10, press the 0 key repeatedly until the original display is shown, then enter the correct number

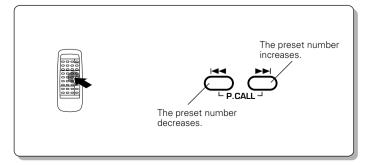
• Repeat steps **1** ~ **4** for each of the stations to be stored in memory.

•If a station is stored in a preset number which has already stored a station memory under it, the previous memory is replaced by the new

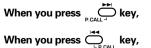
Preset number stored in memory



Receiving all preset stations in order (P. CALL)



• Every time the key is pressed, the next station in the order of the preset number is received.

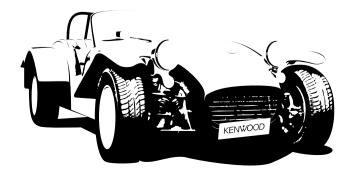


i 1→ 2→	3	28-29-30
1 - 2 -	3	28-29-30

If the key is held pressed Preset stations will be received successively for about half a second each.

P.CALL keys of the • The same operation is also available with the \check{O} main unit.

21



22

Presence play

KR-897/KR-797 (En)

The surround modes allow you to enjoy the feeling of presence in music. Select the mode according to the source or components played. For the connections of the surround and/or center speakers, refer to "Connection of speakers".

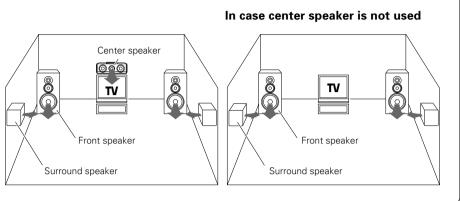
23

DOLBY PRO LOGIC surround mode

Video, DVD and LD software programs carrying the TODUBY SURROUND mark contain recording of the same Dolby Surround data as those used in movie theaters.

The DOLBY PRO LOGIC surround mode uses the Dolby Surround data and brings into home a similar sound field with full of presence to movie theatres.

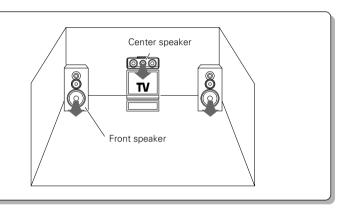
To use this mode, connect the surround (and center) speakers.



DOLBY 3 STEREO mode

If the left and right speakers are installed apart from each other, the center acoustic image (words, etc.) may vary depending on the listener's position. The DOLBY 3 STEREO mode provides an improved positioning of the center acoustic image regardless of the listening position.

To use this mode, connect the center speaker.



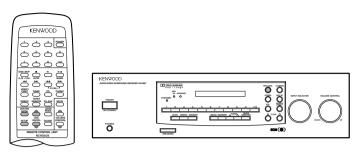
Recommended speaker installation



It is recommended that the surround speakers are installed straight to the left and right of the listening position or slightly behind, at a height of about 1 meter higher than the listener's ears. Each surround speaker should be installed so that the longer sides are horizontal.

To improve the feeling of presence in the surround modes, various parameters of each surround mode can be set up according to the speaker system used as well as to the environmental of the listening room. The following procedure let you set the parameters of the surround mode (DOLBY PRO LOGIC, DOLBY 3 STEREO).

Once the settings have been done, it is held in memory so readjustment is not necessary even after the mode has been changed to other modes.



: Keys or controls to be used in this operation

Adjustments for surround play

PRO LOGIC

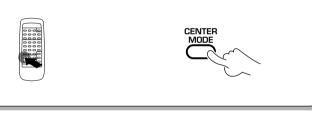
1 Select the DOLBY PRO LOGIC surround mode.

•Select a surround mode according to the played source and your system components.



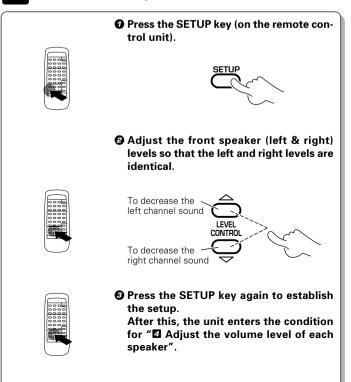
Each press of **CENTER MODE** key switches the modes as follows:

- ① **NORMAL** : When the center speaker is a compact speaker.
- ② WIDEBAND : When the center speaker is a large speaker.
 ③ PHANTOM : When no center speaker is used.





Select the CENTER MODE.

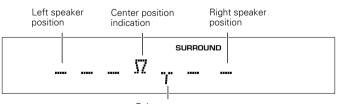


Adjustment procedure: Each press of the **SETUP** key switches the adjusted items as shown below.

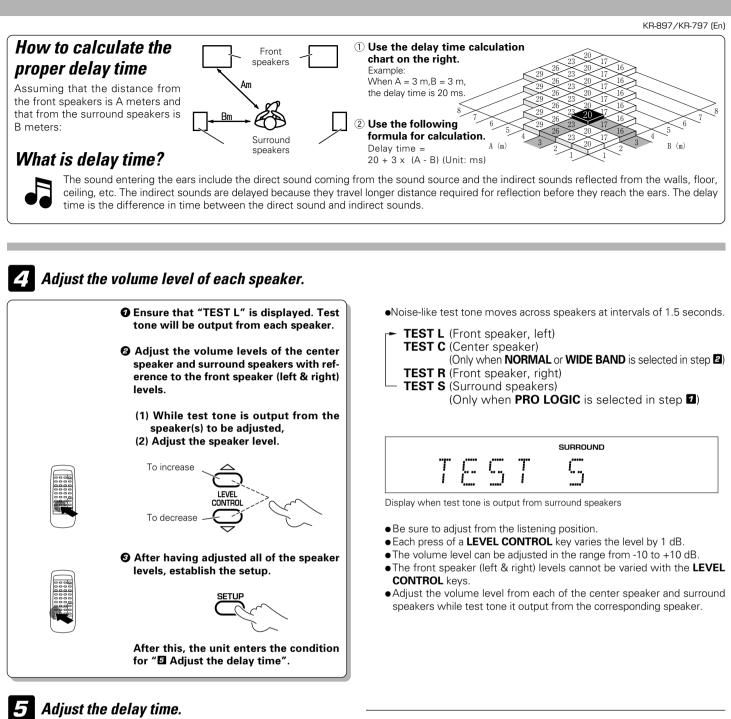
- Adjusting the front speaker balance
- Adjusting the volume level of each speaker
- Adjusting the delay time

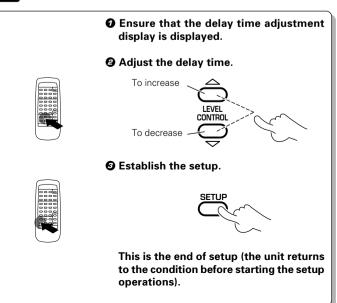
End of setup

To cancel setup in the middle, press the **SETUP** key repeatedly until the setup mode is cancelled.



Balance setup

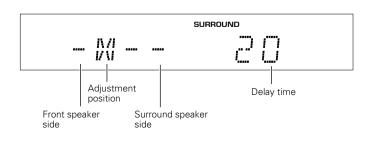




• Check the proper delay time for your listening room by referring to "How to calculate the proper delay time".

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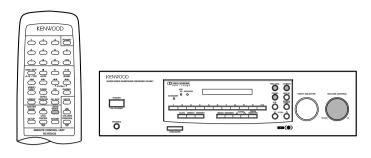
- •Select an integer value which is closest to the value obtained with "How to calculate the proper delay time"
- The delay time can be adjusted to 15, 20, 25 or 30 ms.

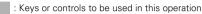




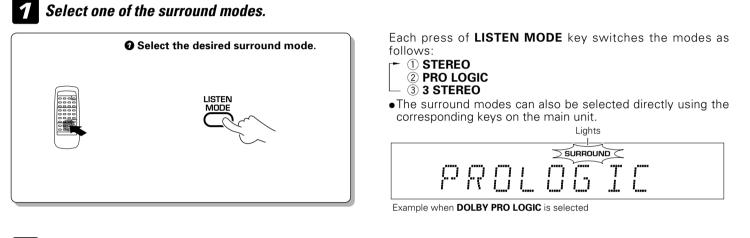
When playing videotape (DVD or LD) software carrying the DOLEY SURROUND mark, a sound field with enhanced surround effects can be enjoyed by using the DOLBY PRO LOGIC or DOLBY 3 STEREO mode.

Be sure to complete "Adjustments for surround play" prior to starting playback in one of these surround modes.





Surround play



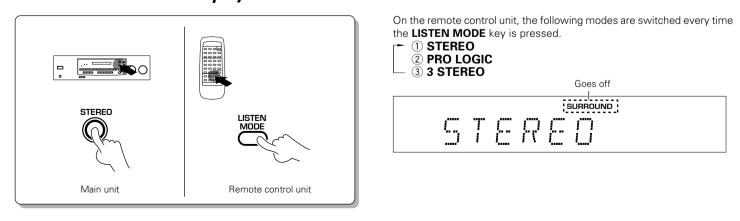
→24



Play a video software program.

Adjust the volume.

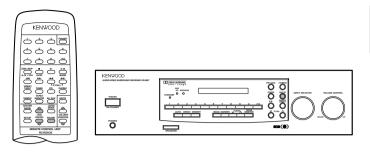
To cancel the SURROUND play



Manufactured under licence from Dolby Laboratories Licensing Corporation. "Dolby", "Pro Logic" and the double - D symbol are trademarks of Dolby Laboratories Licensing Corporation.

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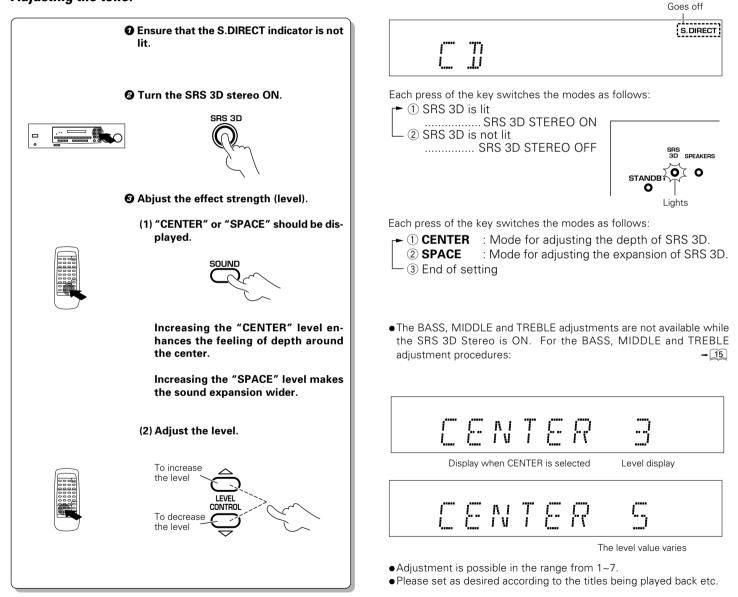
The Sound Retrieval System is an epochal system which produces a three-dimensional sound space by applying the most suitable processing to the sound signal on the basis of the human listening mechanism. This permits real depth and sound location, considered as difficult to realize with conventional 2-channel stereo (general stereo). A sufficient effect can be obtained for any source (CD, tape, broadcasts, etc.).



: Keys or controls to be used in this operation

SRS 3D Stereo (Sound Retrieval System)

Adjusting the tone.



Even if the sound is recorded while the SRS 3D stereo effect is applied, the effect is not recorded together with the source sound.

In case of difficulty

KR-897/KR-797 (En)

What appears to be a mulfunction may not always be serious. If your unit should not perform as expected, consult the table below to see if the problem can be corrected before seeking help from your dealer or service representative.

Operation to reset

The microcomputer may fall into malfunction (impossibility to operate, erroneous display, etc.) when the power cord is unplugged while power is ON or due to an external factor. In this case, execute the following procedure to reset the microcomputer and return it to normal condition.

- Unplug the AC power plug from the wall outlet.
 While holding the POWER switch depressed, plug the AC plug into the power outlet.
- Please note that resetting the microcomputer clears the contents stored in and returns to the condition when it left the factory.

Amplifier

Symptom	Cause	Remedy
Sound is not output or the volume level is low.	 The speaker cords are disconnected. MUTE is ON. (The MUTE ON indicator is blinking) The SPEAKERS keys are set to OFF. The TAPE 2 MONITOR key is set to ON. 	 Connect them properly referring to "Connection of speakers". → 17 → 8 Press the MUTE key to OFF. → 17 Set the SPEAKERS key to ON. → 14 Set the TAPE 2 MONITOR key to OFF. Set the input selector to the position other than tuner.
The STANDBY indicator blinks and sound is not output.	• Speaker cords are short-circuited.	 Turn the power off, eliminate the short-circuiting, then turn on the power again. →□□→□⑧
Sound is not output from one of the speakers.	 The speaker cord is disconnected. The BALANCE control is set to an extreme position. 	 Connect it properly referring to "Connection of speakers". → 1 → 1 → 1 → 1 → 1 → 1 → 1 → 1 → 1 → 1
Sound is not output from the surround speaker and/or center speaker, or their sound is very small.	 The surround speaker cords and/or center speaker cord are disconnected. The Surround play mode has not been engaged. The surround and center speaker levels are set to the minimum positions. 	 Connect them properly referring to "Connection of speakers". Set the presence mode. Adjust the surround and center speaker levels.
A hum noise is generated when the PHONO input is selected.		
System control is not available when TAPE1 or MD is selected.	• "TAPE1" or "MD" is not displayed.	● Switch the display to TAPE 1 or MD. → <u>[14]</u> → <u>[18]</u>
System control is not available.	• The XS8 and SL16 modes were switched while the AC plug is left plugged into the wall power outlet.	● Unplug the AC plug from the wall outlet and switch the XS8 or SL16 mode as required.
Display is dimly lit.	•The setting is not correct.	●Adjust the brightness with the DISPLAY key. → <u>(1</u>)

Tuner

Symptom	Cause	Remedy
Radio stations cannot be received.	 No antenna is connected. The broadcast band is not set properly. The frequency of the desired station is not tuned. 	 Connect an antenna. Set the broadcast band properly. Tune the frequency of the desired station. 19
Interference.	 Noise due to ignition noise of an automobile. Noise due to an influence from an electric appliance. Noise due to a nearby TV set. 	 Install the outdoor antenna away from the road. Turn off the power to the appliance. Install the system farther away from the TV set.
A station which was preset cannot be re- ceived by pressing the corresponding nu- meric key.	 The preset station belongs to a frequency that cannot be received. The preset memory was cleared because the power cord had been unplugged for a long period of time. The TUNER input is not selected. 	 Preset a station with a receivable frequency. Preset the station again. Select the TUNER input.

Remote control unit

Symptom	Cause	Remedy
Remote control operation is not possible.	 Batteries are exhausted. The remote control unit is too far away from the main system, controlling angle is too large, or there is an obstacle in between. The audio cords and system control cords are not connected properly. The source component to be operated does not contain the tape(s) or CD. An attempt is made to play a tape which is being recorded in the cassette deck. 	 Replace with new batteries12 Operate the remote control unit within the controllable range13 Connect properly referring to "System connection"14 - 5 Place the tape(s) or CD in the source component to be played. Wait until the recording is completed.

Memory backup function

Please note that the following items will be deleted from this unit's memory if the power cord is disconnected from the AC outlet or the main power switch is turned off for approximately three days.

- The power setting is cleared and the power is set to OFF.
- \bullet The input selection is cleared and the TUNER input is selected.
- The volume setting is cleared and the volume is set to -80 dB.
- The receiving band setting is cleared and the FM band is selected. • The frequency setting is cleared and 87.5 MHz is selected.
- The preset station memory is cleared.
- The preset station memory is cleared

Do not use contact cleaners because it could cause a malfunction. Be specially careful against contact cleaners containing oil, for they may deform the plastic components.

For the U.S.A.

FCC WARNING

This equipment may generate or use radio frequency energy. Changes or modifications to this equipment may cause harmful interference unless the modifications are expressly approved in the instruction manual. The user could lose the authority to operate this equipment if an unauthorized change or modification is made.

NOTE:

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 may cause harmful interference to radio communications, if it is not installed and used in accordance with the instructions. 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.

For the U.S.A.

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.

⚠ Caution : Read this page carefully to ensure safe operation.

30 Audio section

Rated power output at the STEREO operation

110 watts per channel minimum RMS, both channels driven at 8 Ω , from 40 Hz to 20,000 Hz with no more than 0.8 % total harmonic distortion. (FTC)

Power output at the SURROUND operation Front

110 watts per channel minimum RMS, both channels driven, at 8 Ω , 1 kHz with no more than 0.8 % total harmonic distortion.

Center

110 watts minimum RMS at 8 Ω , 1 kHz with no more than 0.8 % total harmonic distortion.

Surround

110 watts per channel minimum RMS, at 8 Ω , 1 kHz with	
no more than 0.8 % total harmonic distortion.	

Total harmonic distortion 0.3 % Signal to noise ratio (IHF'66)	o (1 kHz, 55 W, 8 Ω)
PHONO (MM)	75 dB
LINE (CD)	93 dB
Input sensitivity / impedance	
PHONO (MM)	3.0 mV / 47 k Ω
CD	220 mV / 47 k Ω
Tone controls	
BASS	± 8 dB (at 100 Hz)
MIDDLE	± 8 dB (at 900 Hz)
TREBLE	± 8 dB (at 10 kHz)
N.B. circuit	+ 5 dB (80 Hz)
Output level / impedance	
Sub woofer preout	2.0 V / 600 Ω

FM Tuner section

Tuning frequency range Usable sensitivity	87.5 MHz ~ 108 MHz	
MONO	1.3 μV (at 75 Ω) / 13.2 dBf (75 kHz dev., SINAD 30 dB)	
50 dB quieting sensitivity		
STEREO	31.6 μV (at 75 Ω) / 41.2dBf	
Total harmonic distortion (1 kH	iz)	
MONO	0.5 % (65 dBf input)	
STEREO	0.6 % (65 dBf input)	
Signal to noise ratio (1 kHz 75 kHz dev.)		
MONO	75 dB (65 dBf input)	
STEREO	68 dB (65 dBf input)	
Stereo separation (1 kHz)	40 dB	
Selectivity (IHF ±400 kHz)	66 dB	
Frequency response 30 H		

AM Tuner section

Tuning frequency range	530 kHz ~ 1,700 kHz
Usable sensitivity (30 % mod., S/N 20	dB)
	15 μV / (500 μV / m)
Signal to noise ratio (30 % mod., 1 m)	/ input) 48 dB

General

Power consumption	2.8 A
AC outlet	
SWITCHED	1: (300 W, 2.5 A max.)
Dimensions	W:440 mm(17-5/16")
	H:127 mm (5″)
	D:389 mm (15-5/16")
Weight (net)	9.0 kg (19.9 lb)



⚠ Caution : Read this page carefully to ensure safe operation.

Audio section

Rated power output at the STEREO operation

100 watts per channel minimum RMS, both channels driven at 8 Ω , from 40 Hz to 20,000 Hz with no more than 0.7 % total harmonic distortion. (FTC)

$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Front (1 kHz, 10 % T.H.D. at 8 Ω) 120 W + 120 W
Center (1 kHz, 10 % T.H.D. at 8 Ω) 120 W
Surround (1 kHz, 10 % T.H.D. at 8 Ω) 120 W
Total harmonic distortion (1 kHz, 8 Ω) 0.3 % at 50 W
Signal to noise ratio (IHF'66)
PHONO (MM)
CD
Input sensitivity / impedance
PHONO (MM)
CD
Output level / impedance
Sub woofer preout
Tone controls
BASS ± 8 dB (at 100 Hz)
MIDDLE ± 8 dB (at 900 Hz)
TREBLE ± 8 dB (at 10 kHz)
N.B. circuit+ 5 dB (80 Hz)

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FM Tuner section

Tuning frequency range 87.5 MHz~108 MHz Usable sensitivity
MONO 2.0 μV (at 75 Ω) / 17.2 dBf (75 kHz dev., S/N 30 dB)
50 dB quieting sensitivity
STEREO 35 μV (at 75 Ω) / 42.2 dBf
Total harmonic distortion (1 kHz)
MONO
STEREO
Signal to noise ratio (1 kHz 75 kHz dev.)
MONO 73 dB (65 dBf input)
STEREO 66 dB (65 dBf input)
Selectivity (IHF ± 400 kHz) 50 dB
Stereo separation (1 kHz) 40 dB
Frequency response 30 Hz ~ 15 kHz, + 0.5 dB, – 3.0 dB

AM Tuner section

Tuning frequency range	
9 kHz	531 kHz ~ 1,602 kHz
10 kHz	530 kHz ~ 1,610 kHz
Usable sensitivity (30 % mod., S/N 2	0 dB)
-	13 µV / (500 µV / m)
Signal to noise ratio (30 % mod., 1 m	V input) 50 dB
0 1	

General

Power consumption	
▲ AC outlet	
SWITCHED	Australia1: (300 W max.)
Dimensions	W: 440 mm
	H: 127 mm
	D: 389 mm
Weight (net)	9.0 kg



A Caution : Read this page carefully to ensure safe operation.

32 Audio section

Rated power output at the STEREO operation

120 watts per channel minimum RMS, both channels driven at 8 Ω , from 40 Hz to 20,000 Hz with no more than 0.8 % total harmonic distortion. (FTC)

Power output at the SURROUND operation Front

120 watts per channel minimum RMS, both channels driven, at 8 Ω , 1 kHz with no more than 0.8 % total harmonic distortion.

Total harmonic distortion

	.0.3 % (1 kHz, 55 W, 8 Ω)
Signal to noise ratio (IHF'66)	
PHONO (MM)	75 dB
LINE (CD)	93 dB
Input sensitivity / impedance	
PHONO (MM)	3.0 mV / 47 k Ω
CD	220 mV / 47 k Ω
Tone controls	
BASS	± 8 dB (at 100 Hz)
MIDDLE	± 8 dB (at 900 Hz)
TREBLE	± 8 dB (at 10 kHz)
N.B. circuit	+ 5 dB (80 Hz)
Output level / impedance	
Sub woofer preout	2.0 V / 600 Ω

FM Tuner section

Tuning frequency range 87.5 MHz ~ Usable sensitivity	108 MHz	
MONO 1.3 μV (at 75 Ω) /	/ 13.2 dBf	
(75 kHz dev., SINA	AD 30 dB)	
50 dB quieting sensitivity		
STEREO 31.6 μV (at 75 Ω)	/ 41.2dBf	
Total harmonic distortion (1 kHz)		
MONO 0.5 % (65 d	Bf input)	
STEREO 0.6 % (65 d	Bf input)	
Signal to noise ratio (1 kHz 75 kHz dev.)		
MONO 75 dB (65 d	Bf input)	
STEREO 68 dB (65 d	Bf input)	
Stereo separation (1 kHz)	40 dB	
Selectivity (IHF ±400 kHz)	66 dB	
Frequency response 30 Hz ~15 kHz, + 0.5 dB	, – 3.0 dB	

AM Tuner section

Tuning frequency range	530 kHz ~ 1,700 kHz
Usable sensitivity (30 % mod., S/N 20	dB)
	15 μV / (500 μV / m)
Signal to noise ratio (30 % mod., 1 m)	/ input) 48 dB

General

Power consumption	160 W
▲ AC outlet	
SWITCHED	1: (300 W, 2.5 A max.)
Dimensions	W:440 mm (17-5/16″)
	H:127 mm (5″)
	D:389 mm (15-5/16")
Weight (net)	9.0 kg (19.9 lb)



1. KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice. 2. Full performance may not be exhibited in extremely cold locations (below 0 deg.C).

KENWOOD

For your records

Record the serial number, found on the back of the unit, in the spaces designated on the warranty card, and in the space provided below. Refer to the model and serial numbers whenever you call upon your dealer for information or service on this product.

Model_