

KENWOOD

AUDIO VIDEO SURROUND RECEIVER

VR-6060 KRF-V8060D

INSTRUCTION MANUAL

KENWOOD CORPORATION

**This instruction manual is used to describe multiple models listed above.
Model availability and features (functions) may differ depending on the country and sales area.**

About the supplied remote control

Compared to standard remote controls, the remote control supplied with this receiver has several operation modes. These modes enable the remote control to control other audio/video components. In order to effectively use the remote control it is important to read the operating instructions and obtain a proper understanding of the remote control and how to switch its operation modes (etc.). Using the remote control without completely understanding its design and how to switch the operation modes may result in incorrect operations.

B60-5188-00 00 (MA) (K, P, M, X) 0109

Before applying the power

Caution : Read this page carefully to ensure safe operation.

Units are designed for operation as follows.

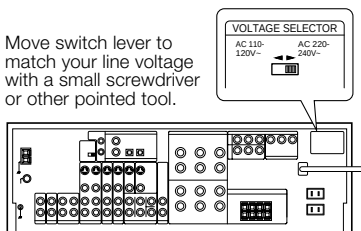
U.S.A. and Canada AC 120 V only
Australia AC 240 V only
China and Russia AC 220 V only
Other countries AC 110-120 / 220-240 V switchable*

* 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.

AC voltage selector switch

Move switch lever to match your line voltage with a small screwdriver or other pointed tool.



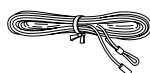
Note:

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

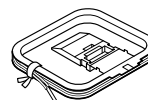
Unpacking

Unpack the unit carefully and make sure that all accessories are present.

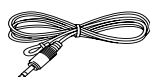
FM indoor antenna (1)



AM loop antenna (1)

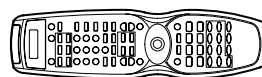


RF remote antenna (1)
(For VR-6060 only)



For VR-6060

Remote control unit (1)
RC-R0816

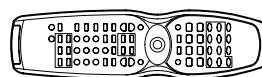


Batteries (R6/AA) (2)



For KRF-V8060D

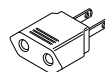
Remote control unit (1)
RC-R0725



Batteries (R6/AA) (2)



*AC plug adaptor (1)



*Use to adapt the plug on the power cord to the shape of the wall outlet.
(Accessory only for regions where use is necessary.)

If any accessories are missing, or if the unit is damaged or fails to operate, notify your dealer immediately. If the unit was shipped to you directly, notify your shipper immediately. Kenwood recommends that you retain the original carton and packing materials in case you need to move or ship the unit in the future.

Keep this manual handy for future reference.

Safety precautions

WARNING :

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



CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN



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



THE LIGHTNING FLASH WITH ARROWHEAD SYMBOL, WITHIN AN EQUILATERAL TRIANGLE, 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.



THE EXCLAMATION POINT WITHIN AN EQUILATERAL TRIANGLE IS INTENDED TO ALERT THE USER TO THE PRESENCE OF IMPORTANT OPERATING AND MAINTENANCE (SERVICING) INSTRUCTIONS IN THE LITERATURE ACCOMPANYING THE APPLIANCE.

Before applying the power

Contents

Caution : Read the pages marked  carefully to ensure safe operation.

Preparations	 Before applying the power	2
	 Safety precautions	2
	Unpacking	2
	How to use this manual	4
	Special features	5
	Names and functions of parts	6
	Main Unit	6
	Remote control unit RC-R0816 (VR-6060)	7
	Remote control unit RC-R0725 (KRF-V8060D)	8
	Setting up the system	9
	Connecting audio components	10
	Connecting video components	11
	Connecting a DVD player (6-channel input)	12
	Digital connections	13
	Connecting video components (COMPONENT VIDEO)	14
	Connecting the speakers	15
	Connecting the terminals	16
	Connecting the RF antenna and external IR Repeater (For VR-6060 only)	17
	Connecting to the AV AUX jacks	18
Connecting the antennas	18	
Connecting the system control	19	
Preparing the remote control	20	
RF remote control function (For VR-6060 only)	20	
Preparing for surround sound	21	
Speaker settings	21	
Operations	Normal playback	24
	Preparing for playback	24
	Listening to a source component	24
	Adjusting the sound	25
	Recording	26
	Recording audio (analog sources)	26
	Recording video	26
	Recording audio (digital sources)	26
	Listening to radio broadcasts	27
	Tuning radio stations	27
	Presetting radio stations manually	27
	Receiving preset stations	27
	Receiving preset stations in order (P.CALL)	28
Ambience effects	29	
Surround modes	29	
Surround play	31	
DVD 6-channel playback	33	
Convenient functions	33	
Remote Control	Basic remote control operations for other components	35
	Registering setup codes for other components	35
	Operating other components	35
	Learning the remote control code of the other components (For VR-6060 only)	36
	Setup code chart (RC-R0816) (VR-6060)	37
	Setup code chart (RC-R0725) (KRF-V8060D)	38
	DVD player operations	39
	CASSETTE deck, CD player & MD recorder operations	40
	Other components' operations	41

Additional Information

In case of difficulty 42
 Specifications 44

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.



As an ENERGY STAR® Partner, Kenwood Corporation has determined that this product meets the ENERGY STAR® guidelines for energy efficiency. This product can save energy. Saving energy reduces air pollution and lowers utility bills.

Before applying the power

How to use this manual

This manual is divided into four sections, Preparations, Operations, Remote Control, and Additional Information.

Preparations

Shows you how to connect your audio and video components to the receiver and prepare the surround processor.

Since this receiver works with all your audio and video components, we will guide you in setting up your system to be as easy as possible.

Operations

Shows you how to operate the various functions available on the receiver.

Remote Control

Shows you how to operate other components using the remote control, as well as a detailed explanation of all remote control operations. Once you have registered your components with the proper setup codes, you'll be able to operate both this receiver and your other AV components (TV, VCR, DVD player, CD player, etc.) using the remote control supplied with this receiver.

Additional Information

Shows you additional information such as "In case of difficulty" (trouble-shooting) and "Specifications".

Maintenance of the unit

When the front panel or case becomes dirty, wipe with a soft, dry cloth. Do not use thinner, benzine, alcohol, etc. for these agents may cause discoloration.

In regard to contact cleaner

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

Memory back up function

Please note that the following items will be deleted from the unit's memory if the power cord is disconnected from the AC outlet for approximately 2 days.

- | | |
|------------------------------|------------------------------|
| • Power mode. | • Speaker settings. |
| • Input selector settings. | • SW RE-MIX. |
| • Device preset. | • Distance setting. |
| • Picture output. | • Input mode setting. |
| • Speaker ON/OFF. | • Midnight mode setting. |
| • Volume level. | • PRO LOGIC II mode setting. |
| • BASS, TREBLE, INPUT level. | • Broadcast band. |
| • TONE ON/OFF. | • Frequency setting. |
| • LOUDNESS ON/OFF. | • Preset stations. |
| • Subwoofer ON/OFF. | • Tuning mode. |
| • Dimmer level. | • Source Direct. |
| • MD/TAPE settings. | • CINEMA EQ. |
| • RF-BAND. (VR-609 only) | • ACTIVE EQ. |
| • 6ch/2ch input setting. | • DSP mode. |
| • Listen mode setting. | |

Before applying the power

Special features

True home theater sound

This receiver incorporates a wide variety of surround modes to bring you maximum enjoyment from your video software. Select a surround mode according to your equipment or the software you are going to play and enjoy! → [29]

Dolby Digital

The DOLBY DIGITAL mode lets you enjoy full digital surround from software processed in the Dolby Digital format. Dolby Digital provides up to 5.1 channels of independent digital audio for better sound quality and more powerful presence than conventional Dolby Surround.

Dolby PRO LOGIC II

DOLBY PRO LOGIC II, whilst totally compatible with its predecessor PRO LOGIC, provides greater advantages in surround sound. It allows the user to enjoy the conventional stereo or Dolby Surround with a convincing "5.1 like" presentation. PRO LOGIC II offers special features for controlling the overall spatial, dimensionality and frontal sound field imaging. PRO LOGIC II produces an impressive surround sound from video software marked  [DOLBY SURROUND] and three-dimensional space from music CD. When listening to music, you will be able to enjoy the experience of sheer STEREO surround sound.

DTS-ES

The DTS-ES (Digital Theater System-Extended Surround) represents 6.1-channel Discrete Surround format, expanding upon 5.1 surround. DTS-ES format is a 6.1 channel sound system for movie theatres that includes an additional surround-center channel matrixed within surround-left and surround-right. It's compatible on predecessor DTS 5.1 system. The extra channel allows more accurate placement and steering of sound across the rear soundstage. The DTS-ES receiver will be required, to experience a discrete 6.1-channel mix. In the DTS-ES mode, the 5.1 or 6.1 channel digital input from a DTS CD, LD or DVD disc (carrying the "DTS" or "DTS-ES" marking) can be played in Digital Surround.

Important:

When a DTS disc is played on a CD, LD or DVD player, noise may be output from the analog output. It is recommended that you connect the digital output of the player to the digital input of this unit.

Multi channel mode (SRS Circle Surround II (●)CS™)

SRS Circle Surround II™ improves on its predecessor CS-5.1™ resulting in the CS-6.1™ system, enabling you to listen to realistic, multi-channel, surround sound playback from a stereo source or conventional surround-encoded video source. You already enjoy listening to Dolby digital sound/DTS multi-channel sound with your multi-speakers. Now you can listen to audio CDs, MDs, Broadcast and Home Theater using your multi-speakers. You will discover a new type of sound through SRS Circle Surround II.

DSP surround modes

The DSP (Digital Signal Processor) used for this receiver incorporates a variety of high quality adjustable sound fields, like "ARENA", "JAZZ", "CLUB", "THEATER", "STADIUM" and "DISCO". It is compatible with almost any kind of program source.

DVD 6-channel input

If you own a DVD player equipped with 6-channel output, this receiver allows you to obtain the full surround sound impact of DVD source material featuring multi-channel encoding. Since the source signals are digital and each channel is input independently, the resulting ambience is far superior to what can be achieved with conventional surround sound systems.

CINEMA EQ

Cinema EQ mode will produce a more dynamic sound quality in any conditions. You can enjoy a more impressive sound effect when you switch CINEMA EQ ON during Dolby Digital and DTS playback.

ACTIVE EQ

AAAAAAAAAAAAAAAAAAAAA AAAAAAAAA.AAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAA AAAA AAAAAAAAAAAAAA AAA
AAAAAAAA AAAA.

Remote control

This remote control has two kinds of signal.

Universal IR (InfraRed) remote control

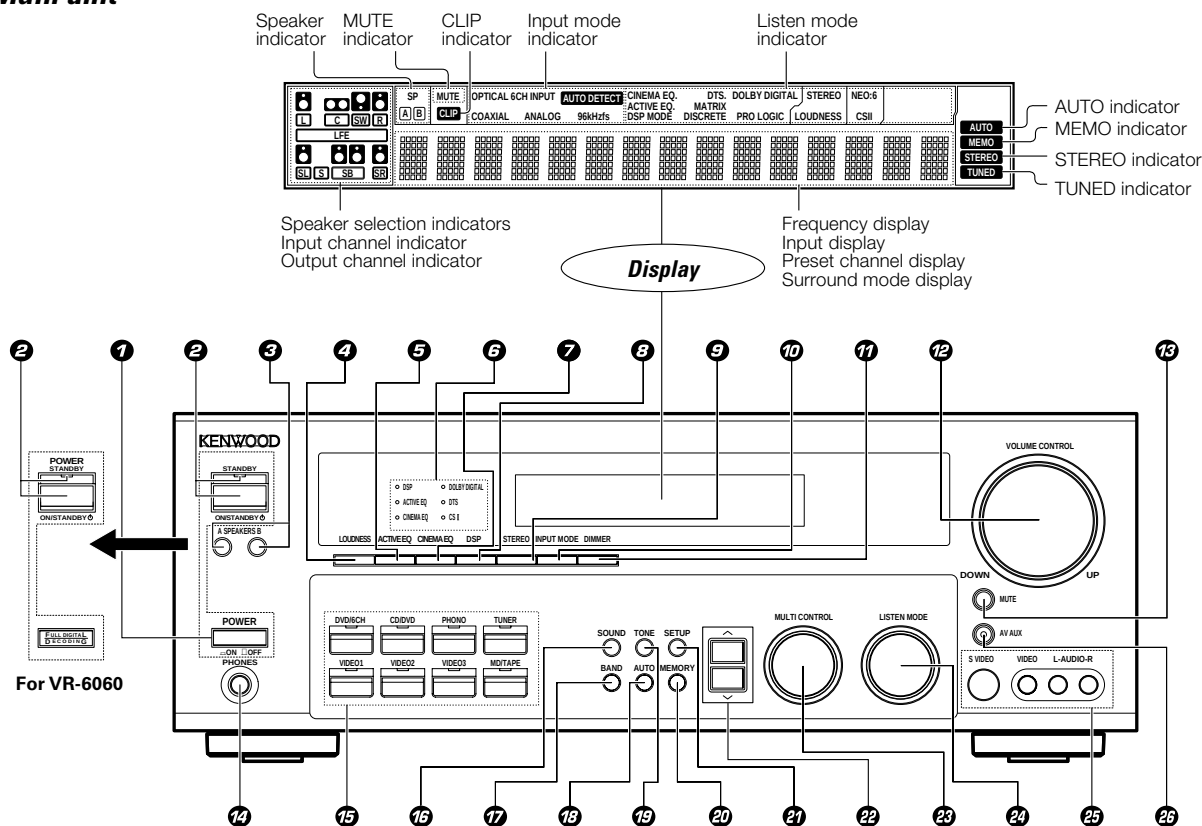
In addition to the basic receiver, the remote control supplied with this receiver can also operate almost all of your remote controllable audio and video components. Just follow the simple setup procedure to register the components you have connected.

RF remote signal (For VR-6060 only)

You can operate the receiver by sending RF remote signal from the remote control. The controllable range of the remote control is not influenced by surroundings such as distance or an obstruction.

Names and functions of parts

Main unit



- | | | |
|--|---|--|
| <p>1 POWER ON/OFF key
(For KRF-V8060D)
Use to turn the main power ON/OFF.</p> <p>2 ON/STANDBY (⏻) key
(For KRF-V8060D)
Use to turn the power ON/STANDBY when the POWER is turned ON.</p> <p>STANDBY indicator</p> <p>2 POWER and ON/STANDBY (⏻) key
(For VR-6060)
Use to turn the power ON/STANDBY.</p> <p>STANDBY indicator</p> <p>3 SPEAKERS A/B keys
Use to turn the A/B speakers ON/OFF.</p> <p>4 LOUDNESS key
Use to switch the status of LOUDNESS.</p> <p>5 ACTIVE EQ key
Use to switch the status of ACTIVE EQ.</p> <p>6 Surround indicators</p> <p>DSP indicator
Lights when the receiver is in the DSP mode.</p> <p>ACTIVE EQ indicator
Lights when the receiver is in the ACTIVE EQ mode.</p> <p>CINEMA EQ indicator
Lights when the receiver is in the CINEMA EQ mode.</p> <p>DOLBY DIGITAL indicator
Lights when the receiver is in the Dolby Digital mode.</p> | <p>DTS indicator
Lights when the receiver is in the DTS mode.</p> <p>CS II indicator
Lights when the receiver is in the CIRCLE SURROUND mode.</p> <p>7 CINEMA EQ key
Use to switch the status of CINEMA EQ.</p> <p>8 DSP key
Use to select any of the DSP mode.</p> <p>9 STEREO key
Use to switch the status of STEREO.</p> <p>10 INPUT MODE key
Use to switch between the digital and analog inputs (FULL AUTO → DIGITAL MANUAL → ANALOG → 6CH INPUT).</p> <p>11 DIMMER key
Use to select the REC MODE.
Use to adjust the brightness of the display.</p> <p>12 VOLUME CONTROL knob
Use to temporarily mute the sound.</p> <p>13 PHONES jack
Use for headphone listening.</p> <p>14 Input Selector keys
(DVD/6CH, CD/DVD, PHONO, TUNER, VIDEO1, VIDEO2, VIDEO3, MD/TAPE)
Use to select input sources.</p> | <p>15 SOUND key
Use to adjust the sound quality and the ambience effects.</p> <p>16 BAND key
Use to select the broadcast band.</p> <p>17 AUTO key
Use to select the auto or manual tuning mode.</p> <p>18 TONE key
Use to switch the status of TONE control.</p> <p>19 MEMORY key
Use to store radio stations in the preset memory.</p> <p>20 SETUP key
Use to select the speakers' settings etc.</p> <p>21 ^/v keys
Use for selection adjustments during TONE, SOUND, SETUP and PRESET CHANNEL functions.</p> <p>22 MULTI CONTROL knob
Use to control a variety of settings.</p> <p>23 LISTEN MODE knob
Use to select the listening mode.</p> <p>24 AV AUX (S VIDEO, VIDEO, AUDIO L/R) jacks</p> <p>25 AV AUX key
Use to switch the input to AV AUX.</p> |
|--|---|--|

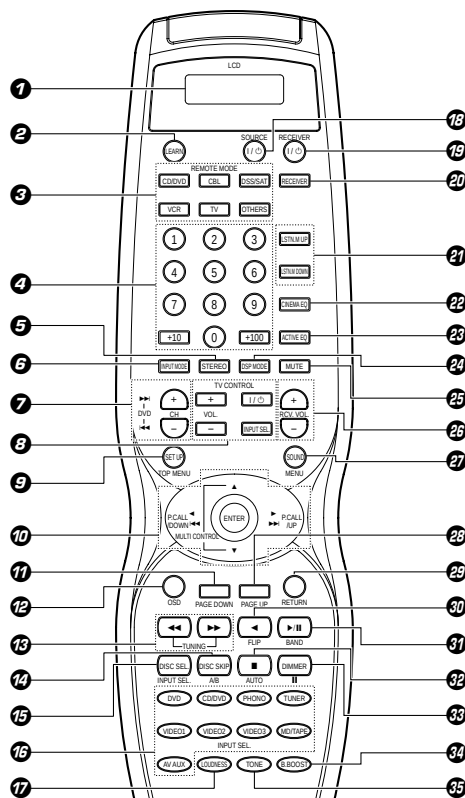
Standby mode

When the standby indicator is lit, a small amount of power is supplied to the system to back up the memory. This is called standby mode. Under the condition, the system can be turned ON by remote control unit.

Names and functions of parts

Remote control unit RC-R0816 (VR-6060)

This remote control unit can be used not only for Kenwood products but also for other non-Kenwood products by setting the appropriate manufacture's setup codes. - 36



If the name of a function is different on the receiver and on the remote control, the name of the remote control key in this manual is indicated in parentheses.

1 LCD (Liquid Crystal Display)

2 LEARN key - 36
Use to memorize the operation of the other remote controls.

3 REMOTE MODE keys (CD/DVD, CBL, DSS/SAT, VCR, TV, OTHERS) - 36
Use to select the components registered at the respective input.

4 Numeric keys - 35
Provide functions identical to those of the original remote control supplied with the component you are controlling.

5 STEREO key - 31
Use to switch the status of STEREO.

6 INPUT MODE key
Use to switch between the digital and analog inputs (FULL AUTO → DIGITAL MANUAL → ANALOG → 6CH INPUT).

7 CH +/- keys
Use to select the channels.
▶▶ DVD ◀◀ keys - 39
When in DVD player operations, these keys function as skip keys.

8 TV CONTROL keys
Use when in TV operation.

9 SET UP key - 21
Use to select the speakers' settings etc.
TOP MENU key

10 ENTER key
Use to operate other components.

MULTI CONTROL ▲/▼ keys - 21
Use to control a variety of settings.

P.CALL ◀◀ and P.CALL ▶▶ keys - 28
Use to select preset channels when in tuner mode.

DOWN ◀ and UP ▶ keys
Use for selection adjustments during TONE, SOUND, SETUP and PRESET CHANNEL functions.

11 PAGE DOWN key

Use to operate other components.

12 OSD key
Use to operate other components.

13 TUNING ◀◀/▶▶ keys
Use to operate the tuner mode.

14 DISC SKIP key
If CD is selected as the input source, this key functions as the multi-CD player disc skip key.

A/B key
If TAPE is selected as the input source, this is A and B deck of a double cassette deck.

15 DISC SEL. key
Use to operate other components.

INPUT SEL. key
Use to operate other components.

16 INPUT SEL. keys (DVD, CD/DVD, PHONO, TUNER, VIDEO1, VIDEO2, VIDEO3, MD/TAPE, AV AUX)
Use to select the input sources. - 24

17 LOUDNESS key - 25
Use to switch the status of LOUDNESS.

18 SOURCE (I/O) key
Use to turn the other components ON/OFF.

19 RECEIVER (I/O) key - 21
Use to turn the receiver ON/OFF when receiver is in operation.

20 RECEIVER key
Use to return to the operation of the receiver.

21 LSTN. M UP/ LSTN. M DOWN keys - 31
Use to select the listening mode.

22 CINEMA EQ key - 25
Use to switch the status of CINEMA EQ.

23 ACTIVE EQ key - 25
Use to switch the status of ACTIVE EQ.

24 DSP MODE key - 31
Use to select any of the DSP MODE.

25 MUTE key - 25
Use to temporarily mute the sound.

26 RCV. VOL. +/- keys - 24

Use to adjust the receiver volume.

27 SOUND key - 33
Use to adjust the sound quality and the ambience effects.

MENU key
Use to operate other components.

28 PAGE UP key
Use to operate other components.

29 RETURN key
Use to operate other components.

30 ◀ key
Use as revers play when in receiver operation.

FLIP key
Use to operate other components.

31 ▶/II key
If CD is selected as the input source, this key functions as the play/pause key.
If MD or TAPE key is selected as input source, this key functions as the play key.

BAND key - 27
Use to select the broadcast band.

32 ■ key
If CD, MD, or TAPE is selected as the input source, this key functions as the stop key.

AUTO key - 27
Use to select the auto or manual tuning mode.

33 DIMMER key - 34
Use to adjust the brightness of the display.

II key
Use to operate other components.

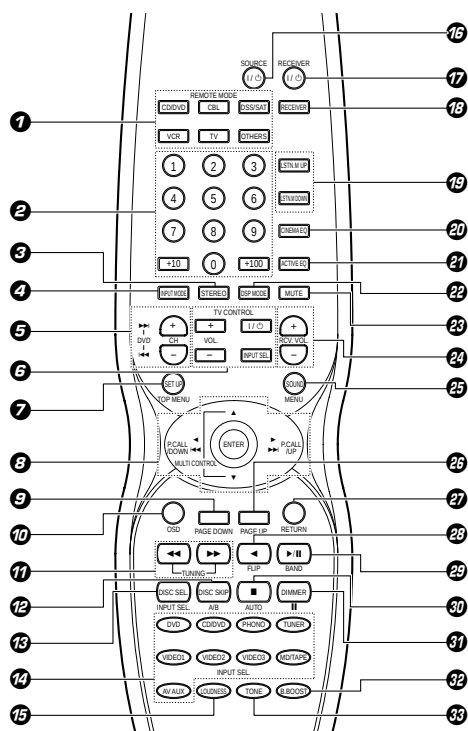
34 B. BOOST key - 25
Use to select the maximum adjustment setting for the low frequency range.

35 TONE key - 25
Use to switch the status of TONE control.

Names and functions of parts

Remote control unit RC-R0725 (KRF-V8060D)

This remote control unit can be used not only for Kenwood products but also for other non-Kenwood products by setting the appropriate manufacture's setup codes. - 39



If the name of a function is different on the receiver and on the remote control, the name of the remote control key in this manual is indicated in parentheses.

1 REMOTE MODE keys (CD/DVD, CBL, DSS/SAT, VCR, TV, OTHERS) - 35

Use to select the components registered at the respective input.

2 Numeric keys - 35

Provide functions identical to those of the original remote control supplied with the component you are controlling.

3 STEREO key - 31

Use to switch the status of STEREO.

4 INPUT MODE key

Use to switch between the digital and analog inputs (FULL AUTO → DIGITAL MANUAL → ANALOG → 6CH INPUT).

5 CH +/- keys

Use to select the channels.

▶▶ DVD ◀◀ keys - 39

When in DVD player operations, these keys function as skip keys.

6 TV CONTROL keys

Use when in TV operation.

7 SET UP key - 21

Use to select the speakers' settings etc.

TOP MENU key

Use to operate other components.

8 ENTER key

Use to operate other components.

MULTI CONTROL ▲/▼ keys - 21

Use to control a variety of settings.

P.CALL ◀◀ and P.CALL ▶▶ keys - 28

Use to select preset channels when in tuner mode.

DOWN ◀ and UP ▶ keys

Use for selection adjustments during TONE, SOUND, SETUP and PRESET CHANNEL functions.

9 PAGE DOWN key

Use to operate other components.

10 OSD key

Use to operate other components.

11 TUNING ◀◀/▶▶ keys

Use to operate the tuner mode.

12 DISC SKIP key

If CD is selected as the input source, this key functions as the multi-CD player disc skip key.

A/B key

If TAPE is selected as the input source, this is A and B deck of a double cassette deck.

13 DISC SEL. key

Use to operate other components.

INPUT SEL. key

Use to operate other components.

14 INPUT SEL. keys (DVD, CD/DVD, PHONO, TUNER, VIDEO1, VIDEO2, VIDEO3, MD/TAPE, AV AUX) - 24

Use to select the input sources.

15 LOUDNESS key - 25

Use to switch the status of LOUDNESS.

16 SOURCE (I/φ) key

Use to turn the other components ON/OFF.

17 RECEIVER (I/φ) key - 21

Use to turn the receiver ON/OFF when receiver is in operation.

18 RECEIVER key

Use to return to the operation of the receiver.

19 LSTN. M UP/ LSTN. M DOWN keys - 31

Use to select the listening mode.

20 CINEMA EQ key - 25

Use to switch the status of CINEMA EQ.

21 ACTIVE EQ key - 25

Use to switch the status of ACTIVE EQ.

22 DSP MODE key - 31

Use to select any of the DSP MODE.

23 MUTE key - 25

Use to temporarily mute the sound.

24 RC.VOL. +/- keys - 24

Use to adjust the receiver volume.

25 SOUND key - 33

Use to adjust the sound quality and the ambience effects.

MENU key

Use to operate other components.

26 PAGE UP key

Use to operate other components.

27 RETURN key

Use to operate other components.

28 ◀ key

Use as revers play when in receiver operation.

FLIP key

Use to operate other components.

29 ▶/II key

If CD is selected as the input source, this key functions as the play/pause key.

If MD or TAPE key is selected as input source, this key functions as the play key.

BAND key - 27

Use to select the broadcast band.

30 ■ key

If CD, MD, or TAPE is selected as the input source, this key functions as the stop key.

AUTO key - 27

Use to select the auto or manual tuning mode.

31 DIMMER key - 34

Use to adjust the brightness of the display.

II key

Use to operate other components.

32 B. BOOST key - 25

Use to select the maximum adjustment setting for the low frequency range.

33 TONE key - 25

Use to switch the status of TONE control.

Setting up the system

Make connections as shown in the following pages. When connecting the related system components, be sure to refer to the instruction manuals supplied with the components you are connecting. Do not connect the power cord to a wall outlet until all connections are completed.

DTS disclaimer clause

DTS Digital Surround™ is a discrete 5.1 channel digital audio format available on CD, LD, and DVD software which consequently cannot be decoded and played back inside most CD, LD, or DVD players. For this reason, when DTS-encoded software is played back through the analog outputs of the CD, LD, or DVD player, excessive noise will be exhibited. To avoid possible damage to the audio system, proper precautions should be taken by the consumer if the analog outputs are connected directly to an amplification system. To enjoy DTS Digital Surround™ playback, an external 5.1 channel DTS Digital Surround™ decoder system must be connected to the digital output (S/P DIF, AES/EBU, or TosLink) of the CD, LD or DVD player. This unit is equipped with DTS Digital Surround™ decoder.

Notes

1. Be sure to insert all connection cords securely. If their connections are imperfect, sound may not be produced or there will be noise inference.
2. Be sure to remove the power cord from the AC outlet before plugging or unplugging any connection cords. Plugging/unplugging connection cords without disconnecting the power cord can cause malfunctions and may damage the unit.
3. Do not connect power cords from components whose power consumption is larger than what is indicated on the AC outlet at the rear of this unit.

Analog connections

Audio connections are made using RCA pin cords. These cables transfer stereo audio signal in an "analog" form. This means the audio signal corresponds to the actual audio of two channels. These cables usually have 2 plugs on each end, one red for the right channel and one white for the left channel. These cables are usually packed together with the source unit, or are available at your local electronics retailer.

Microcomputer malfunction

If operation is not possible or an erroneous display appears, even though all connections have been made properly, reset the micro-computer referring to "In case of difficulty". → 42

For countries other than U.S.A., U.S.-Military and Canada

CAUTION

Be sure to adhere to the following, or proper ventilation will be blocked causing damage or fire hazard.

- Install the R-SH7 on the top of the system.
- Do not place any objects impairing heat radiation onto the top of the unit.
- Leave some space around the unit (from the largest outside dimension including projection) equal to or greater than, shown below.

Top panel : 50 cm Side panel : 10 cm Back panel : 10 cm

For the U.S.A., U.S.-Military and Canada

CAUTION

Be sure to adhere to the following, or proper ventilation will be blocked causing damage or fire hazard.

- Do not place any objects impairing heat radiation onto the top of the unit.
- Leave some space around the unit (from the largest outside dimension including projection) equal to or greater than, shown below.

Top panel : 50 cm Side panel : 10 cm Back panel : 10 cm

Input mode settings

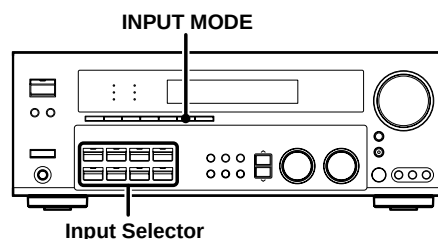
CD/DVD, VIDEO2, VIDEO3 and DVD/6ch inputs each include jacks for digital audio input and analog audio input.

You must select beforehand which type of input is to be used for each connected component.

The initial factory settings for audio signal playback (CD/DVD, DVD/6ch) and (VIDEO2, VIDEO3) are digital and analog respectively.

To use the analog audio input for playback instead (if, for example, you have connected a VCR to the VIDEO2 or VIDEO3 input), you must set the input mode for the corresponding input to the analog mode.

After completing connections and turning on the receiver, follow the steps below.



- ① Use the Input Selector keys to select CD/DVD, VIDEO2, VIDEO3 or DVD/6CH.

- ② Press the INPUT MODE key.

Each press switches the setting as follows:

In DTS play mode

- ① FULL AUTO (digital input, auto detect)
- ② DIGITAL MANUAL (digital input, manual sound)

In DVD/6ch play mode

- ① FULL AUTO (digital input, auto detect)
- ② DIGITAL MANUAL (digital input, manual sound)
- ③ 6CH INPUT (DVD/6ch input)
- ④ ANALOG (analog input, manual detect)

In modes other than DTS or DVD/6ch play mode

- ① FULL AUTO (digital input, auto detect)
- ② DIGITAL MANUAL (digital input, manual sound)
- ③ ANALOG (analog input, manual sound)

Digital input:

Select this setting to play digital signals from a DVD, CD, or LD player.

Analog input:

Select this setting to play analog signals from a cassette deck, VCR, or record player.

Auto detect:

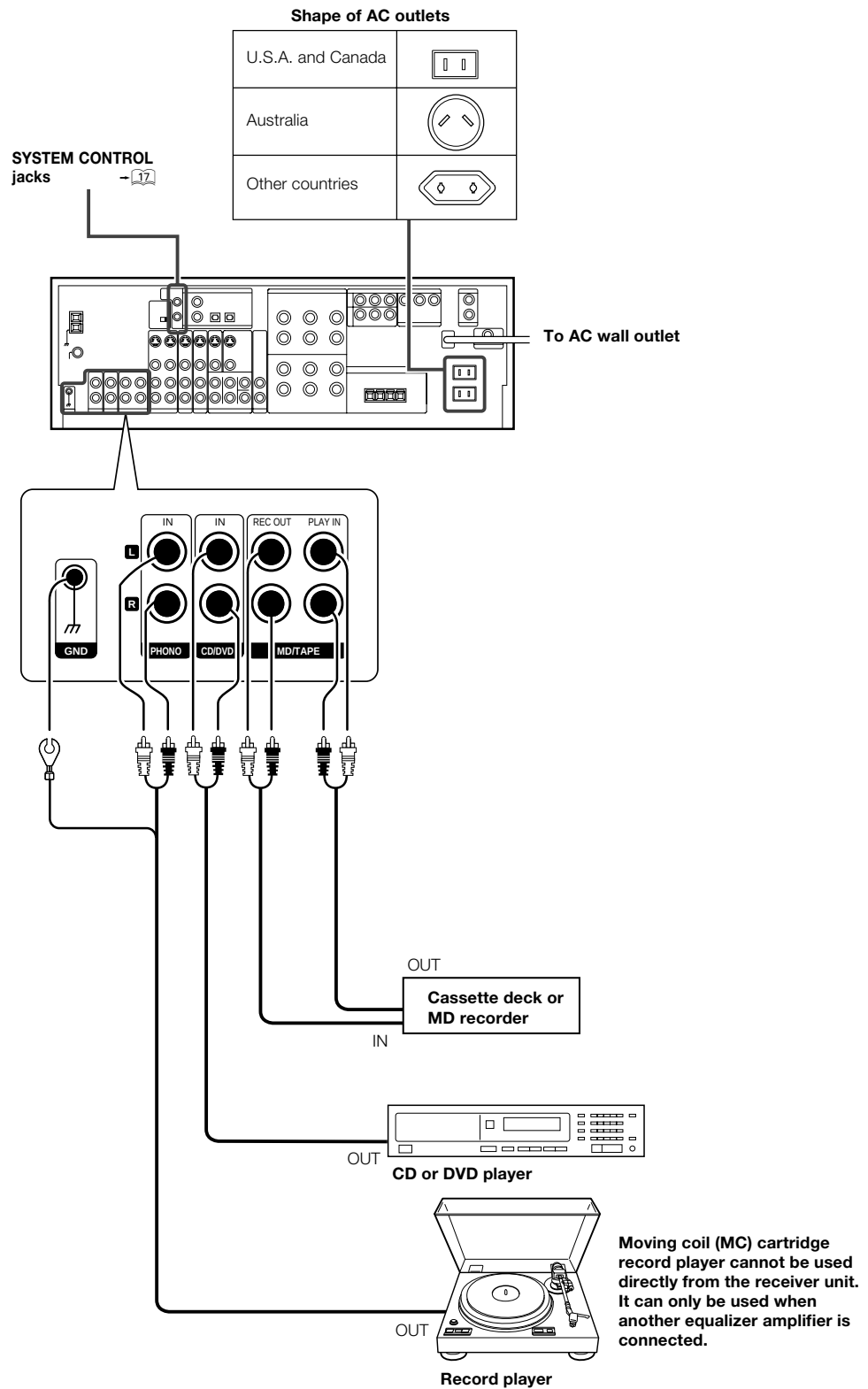
In the auto detect mode (AUTO DETECT indicator lights), the receiver selects the listening mode automatically during playback to match the type of input signal (Dolby Digital, PCM, DTS) and the speaker setting. The OPTICAL and COAXIAL indicator on the display will light up when digital signal is detected. If the input signal is analog, the ANALOG indicator will light up. The initial factory setting is auto detect on.

To keep the receiver set to the currently selected listening mode, use the INPUT MODE key to select "DIGITAL MANUAL" (manual sound). However, even when this setting is selected, there may be cases in which the listening mode is selected automatically to match a Dolby Digital source signal depending on the combination of listening mode and source signal.

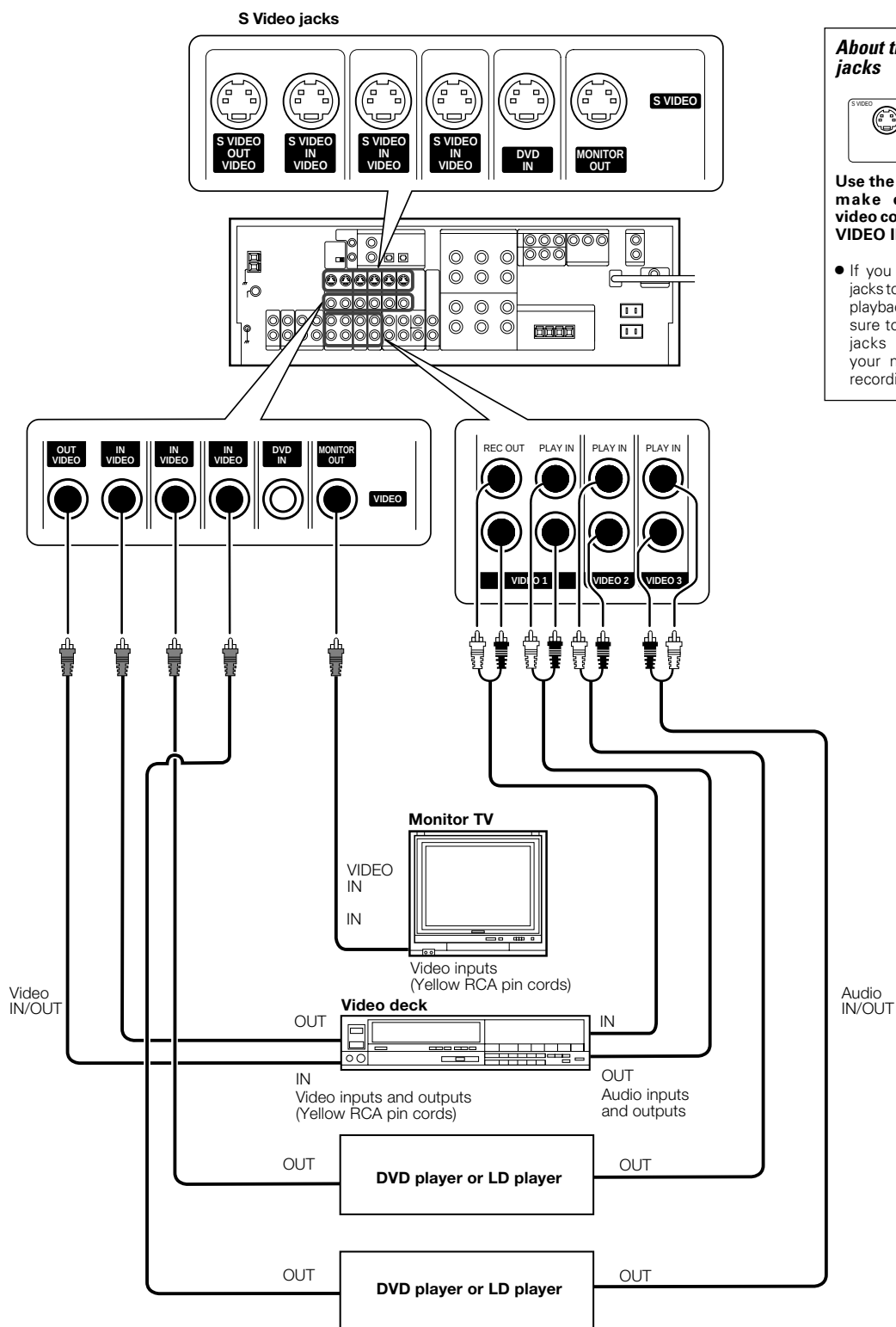
If the INPUT MODE key is pressed quickly, sound may not be produced.

Setting up the system

Connecting audio components



Connecting video components

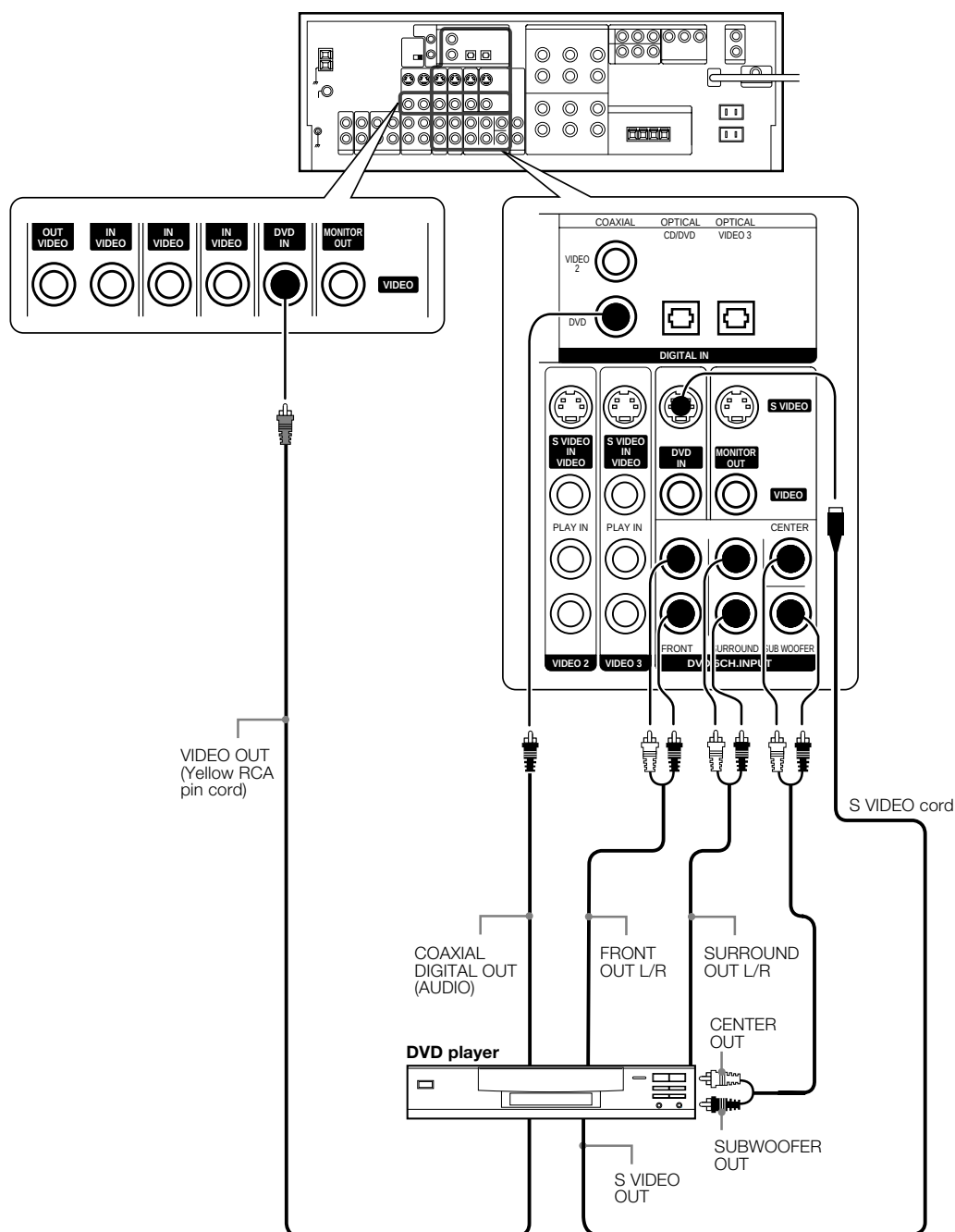


A video component with digital audio outputs should be connected to the VIDEO2 or VIDEO3 jacks.

Setting up the system

Connecting a DVD player (6-channel input)

If you have connected a DVD player to the receiver with digital connection, be sure to read the "Input mode settings" section carefully.



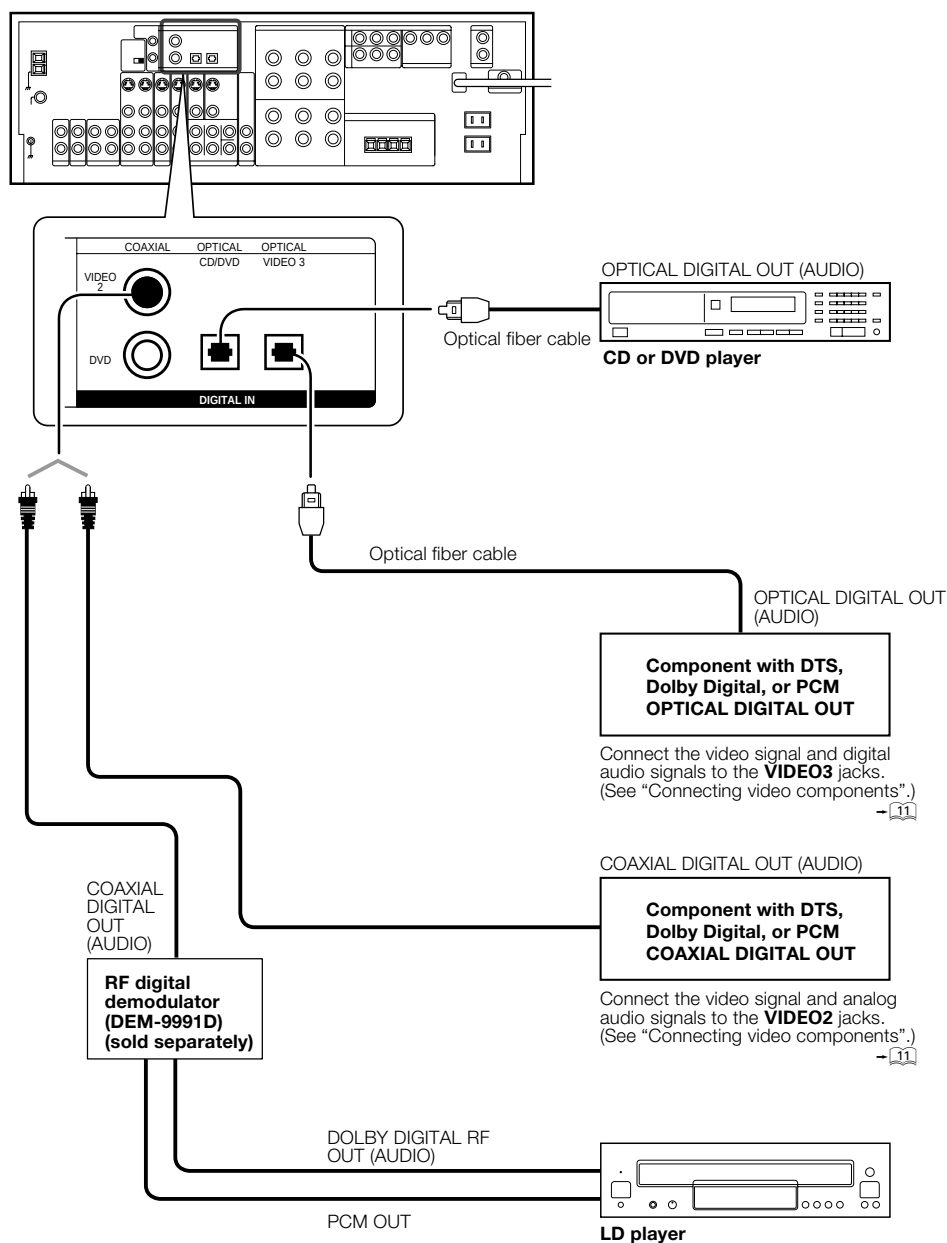
To switch the speakers off, press SPEAKERS A and B keys or press the MUTE key.

Setting up the system

Digital connections

The digital in jacks can accept DTS, Dolby Digital, or PCM signals. Connect components capable of outputting DTS, Dolby Digital, or standard PCM (CD) format digital signals.

If you have connected any digital components to the receiver, be sure to read the "Input mode settings" section carefully.

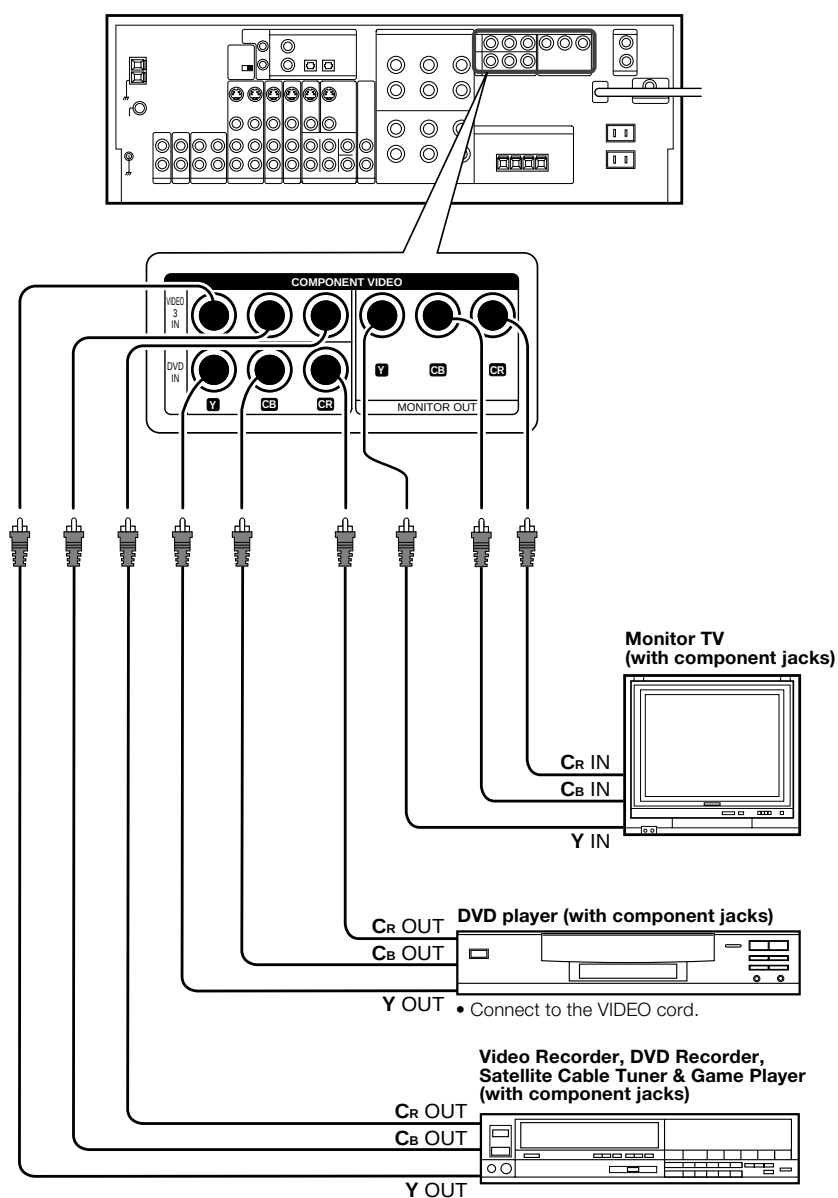


To connect an LD player with a DIGITAL RF OUT, connect the LD player to the KENWOOD RF digital demodulator (DEM-9991D). Next, connect the DIGITAL OUT jacks of the demodulator to the DIGITAL IN jacks of the receiver. Connect the video signal and analog audio signals to the VIDEO2 or VIDEO3 jacks. (See "Connecting video components".)

Setting up the system

Connecting video components (COMPONENT VIDEO)

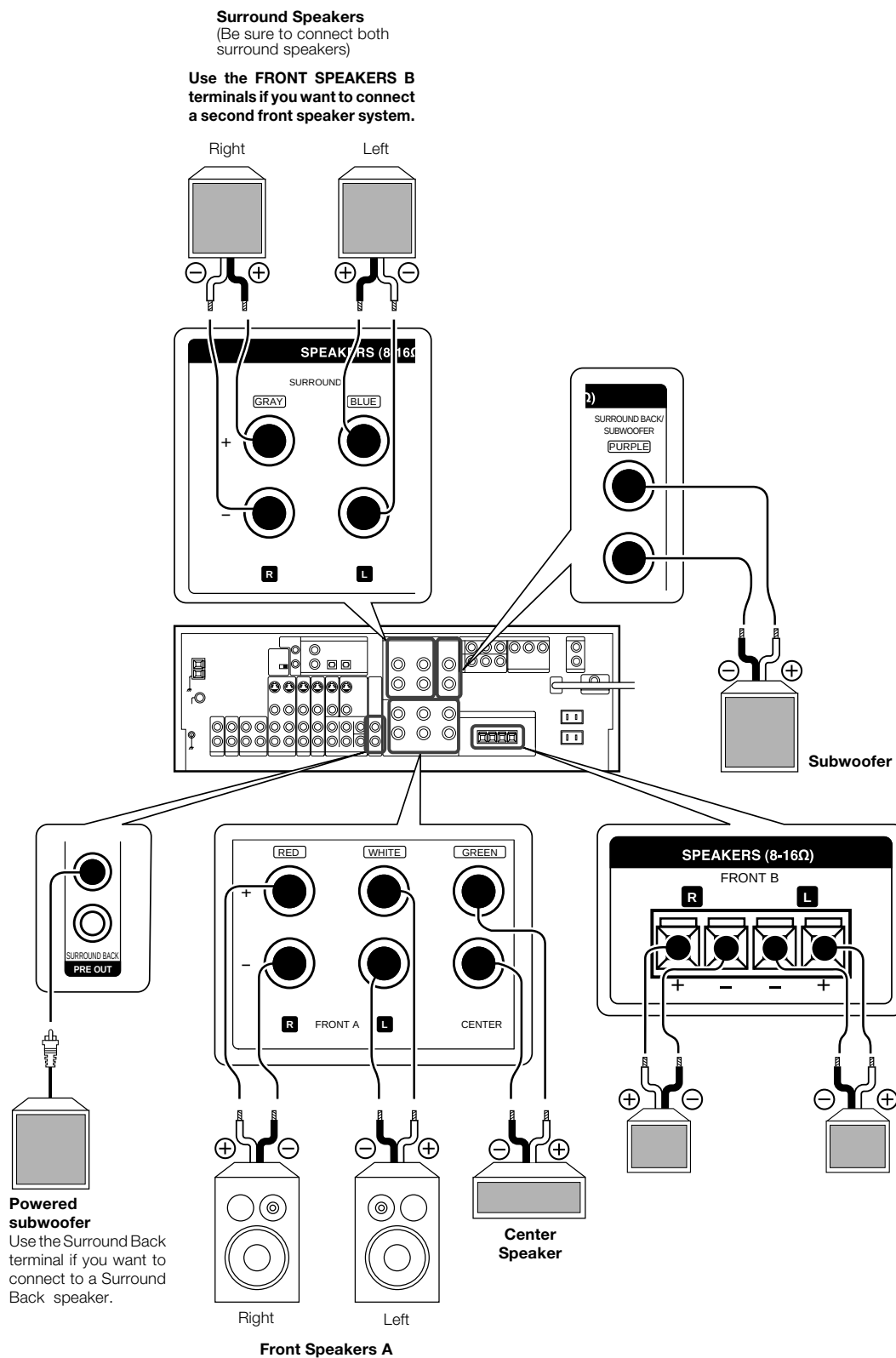
If you have connected the receiver to a video component with COMPONENT jacks, you can get a better picture quality than by connecting to the S-VIDEO jacks.



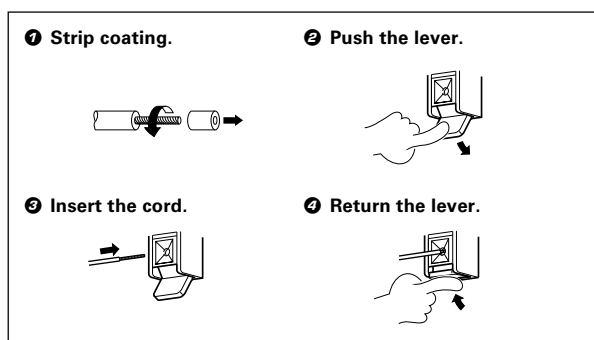
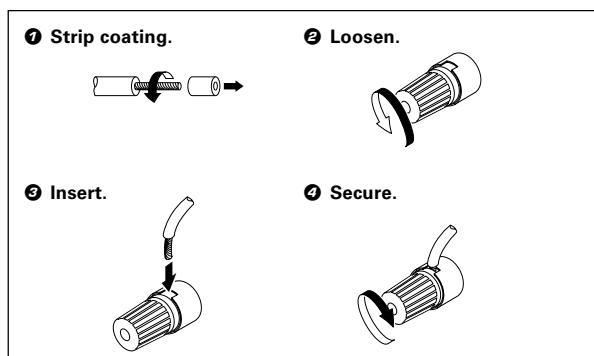
When connecting the TV to the COMPONENT jacks, be sure to connect all the other components to the COMPONENT jacks.

Setting up the system

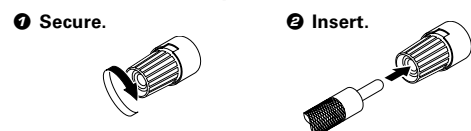
Connecting the speakers



Connecting the terminals



Connection of banana plugs (For the U.S.A. and Canada)



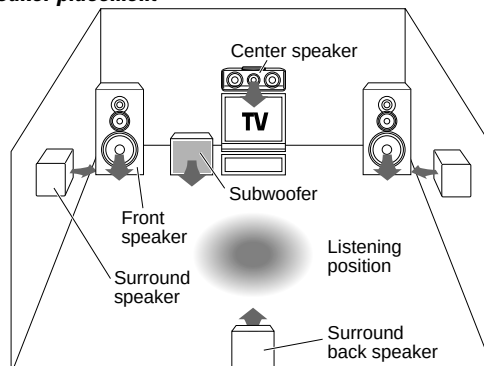
• Sound will not be heard if the speaker terminal is not fully secured.

- Never short circuit the + and – speaker cords.
- If the left and right speakers are connected inversely or the speaker cords are connected with reversed polarity, the sound will be unnatural with ambiguous acoustic imaging. Be sure to connect the speakers correctly.

Speaker impedance

After confirming the speaker impedance indications printed on the rear panel of the receiver, connect speakers with matching impedance ratings. Using speakers with a rated impedance other than that indicated on the rear panel of the receiver could result in malfunctions or damage to the speakers or receiver.

Speaker placement



Front speakers : Place to the front left and right of the listening position. Front speakers are required for all surround modes.

Center speaker : Place front and center. This speaker stabilizes the sound image and helps recreate sound motion. Be sure to connect a center speaker when using the Dolby 3 Stereo mode.

Surround speakers : Place to the direct left and right, or slightly behind, the listening position at even heights, approximately 1 meter above the ears of the listeners. These speakers recreate sound motion and atmosphere. Required for surround playback.

Subwoofer : Reproduces powerful deep bass sounds.

Surround back speaker : Place the speaker directly at the rear of the listening position. The optimum position depends mainly on the room condition.

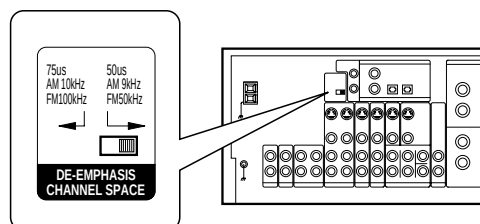
- Although the ideal surround system consists of all the speakers listed above, if you don't have a center speaker or a subwoofer, you can divide those signals between the available speakers in the speaker settings steps to obtain the best possible surround reproduction from the speakers you have available.

Channel space switching

(Except for the U.S.A., Canada and Australia)

The space between radio channels has been set to the one that prevails in the area to which the system is shipped. However, if the current channel space setting does not match the setting in the area where the system is to be used, for instance when you move from area 1 or area 2 shown in the following table or vice versa, proper reception of AM/FM broadcasts cannot be expected. In this case, change the channel space setting in accordance with your area by referring to the following table.

Area		CHANNEL Space Frequency
1	U.S.A., Canada and South American countries	FM : 100 kHz AM : 10 kHz
2	Other countries	FM : 50 kHz AM : 9 kHz



Move switch lever to match your area with a small screwdriver or other pointed tool.

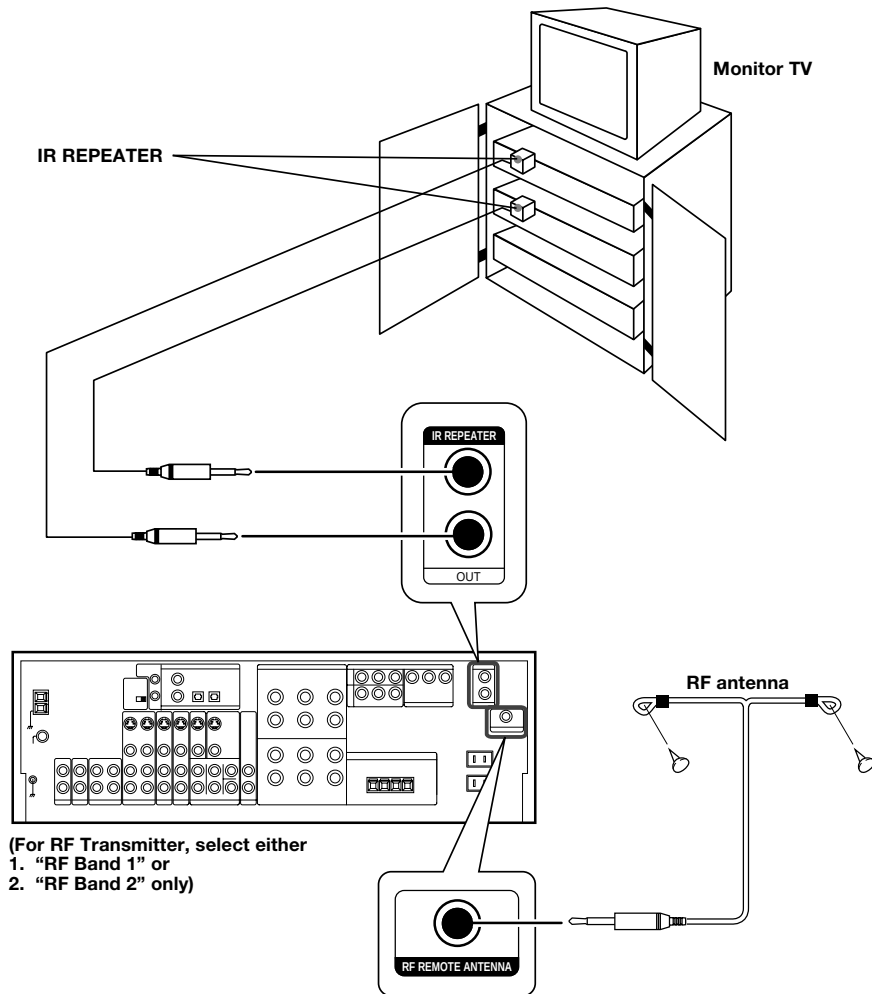
Setting up the system

Connecting the RF antenna and external IR Repeater (For VR-6060 only)

The remote control for this receiver has the RF (radio frequency) and IR (infrared rays) transmission function. IR repeaters enables you to control components located in cabinets or behind glass doors. You can enjoy a wider remote control signal range by placing the RF antenna and IR repeater away from the receiver.

KENWOOD components (except DVD player): System control
Other components: (Registering setup codes) IR REPEATER

19
35



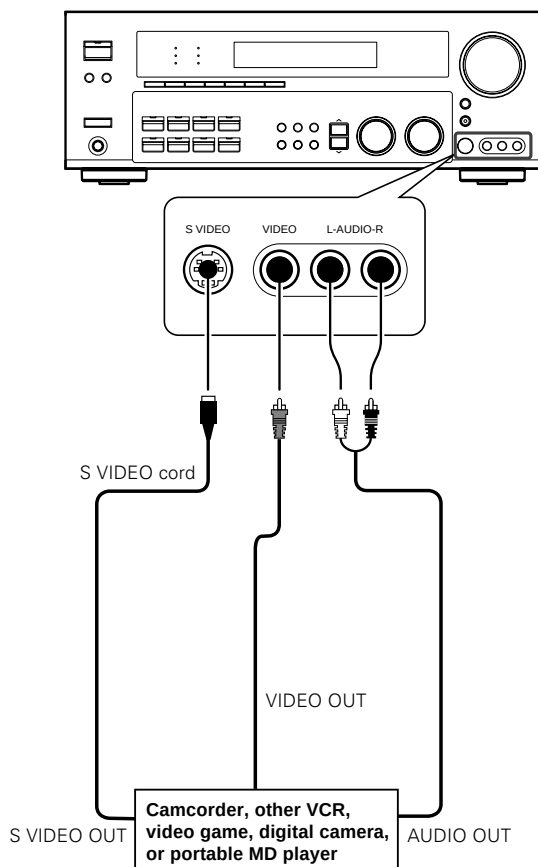
Shape of plug to be connected.

IR REPEATER OUT	
Mono Mini Plug	
IR OUT SPECIFICATION:	
Terminal	IR OUT LCD Remote
To Tip	Signal
To Sleeve	Ground

Setting up the system

Connecting to the AV AUX jacks

The **AV AUX** jacks are convenient for connection of video components such as a camcorder or a video game.



- To select the source connected to the AV AUX jacks. Press the AV AUX key. ~ 24
- When you connect an audio source such as an MD player, you do not need to connect a video cable.
- When you connect the unit and the component with the S VIDEO cord, you can get better picture quality.

Connecting the antennas

AM loop antenna

The supplied loop antenna is for use indoors. Place it as far as possible from the receiver, TV set, speaker cords and power cord, and adjust the direction for best reception.

AM antenna terminal connections

- 1 Push lever.
- 2 Insert cord.
- 3 Release lever.



FM indoor antenna

The supplied indoor antenna is for temporary use only. For stable signal reception we recommend using an outdoor antenna. Disconnect the indoor antenna when you connect one outdoors.

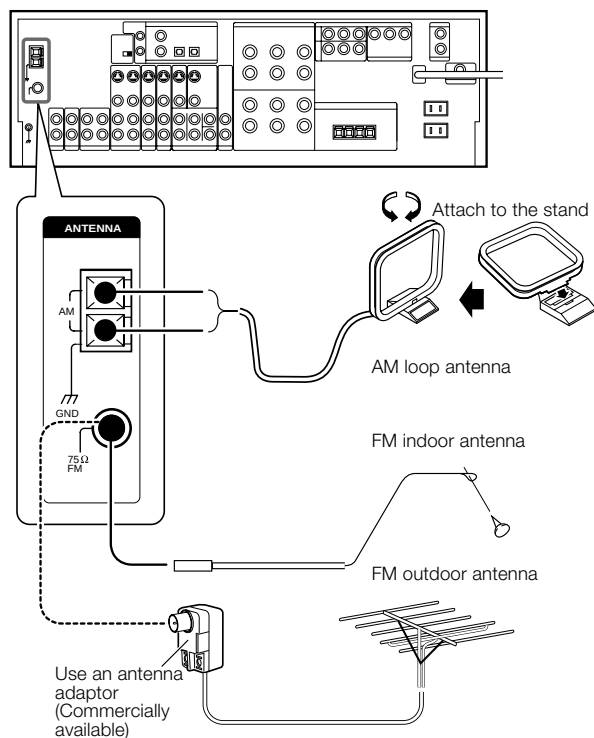
FM antenna terminal connections

- 1 Insert cord.



FM outdoor antenna

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

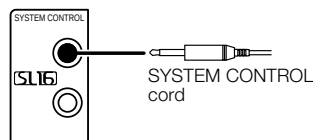


Connecting the system control

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

This unit is compatible only with the [SL16] mode. The system control operation is not available if the unit is connected in the [XS8], [XS], or [XR] connection mode.

If your component has the mode select switch, set the connected components to the [SL16] mode.



- You may connect the system control cord to either the left or right jack.

EXAMPLE: [SL16] mode connections

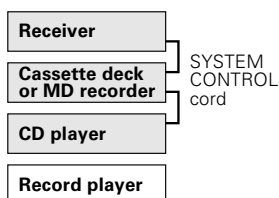
The underlined portion represents the setting of the system control mode.

[SL16]

[SL16] [XS] [XS8] [XR]

[SL16] [XS] [XS8]

[XS]



- In order to take advantage of the system control operations, the components must be connected to the correct jacks. To use a CD player it must be connected to the CD jacks. To use a cassette deck (or MD recorder) it must be connected to the MD/TAPE jacks. When using more than one CD player (etc.) only the one connected to the specified jacks may be connected for system control.
- Some CD players and cassette decks are not compatible with the [SL16] system control mode. Do not make 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.

Notes

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

SYSTEM CONTROL OPERATIONS

Remote Control

Lets you operate this unit with the system remote supplied with the receiver.

Automatic Operation

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

Synchronized Recording

Lets you synchronize recording with the start of playback when recording from CD, MD or analog discs.

Registering setup codes for KENWOOD audio components

If you own remote controllable KENWOOD audio components that are not compatible with system control, registering the setup code enables you to control those components using the remote control supplied with this unit (without connecting system control cords). To register setup codes for your remote controllable KENWOOD audio components, see "Registering setup codes for other components".

→ 35

Setting up the system

Preparing the remote control

Loading the batteries

- ❶ Remove the cover.
- ❷ Insert the batteries.



- ❸ Close the cover.



- Insert two AA-size (R6) batteries as indicated by the polarity markings.

RF remote control function (For VR-6060 only)

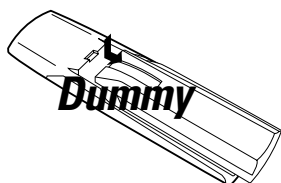
The remote control has the RF remote function in addition to the IR remote function. The VR-6060 can receive the remote control commands even when they are installed in a position where the IR remote signal can hardly access, for example inside a cabinet. The receiver is not equipped with the RF remote bi-directional communication function. The bi-directional communication is available only using the IR remote function.

Changing the RF transmission frequency

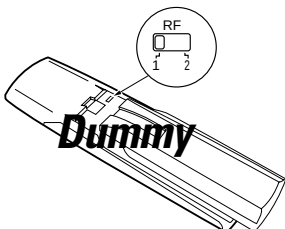
The RF remote function may be unavailable due to radio wave cross talk, etc. In this case, the transmission frequency can be changed.

To change the RF remote transmission frequency:

- ❶ Open the battery cover on the rear.



- ❷ Change the RF switch setting.



After changing the RF frequency of remote control, be also sure to change that of the receiver.

- ❸ Change the receiver's RF reception frequency.

- Press and hold the **SET UP** key on the front panel of the receiver for more than 2 seconds.
- Each time you press the **SET UP** key, the RF reception frequency changes as follows:

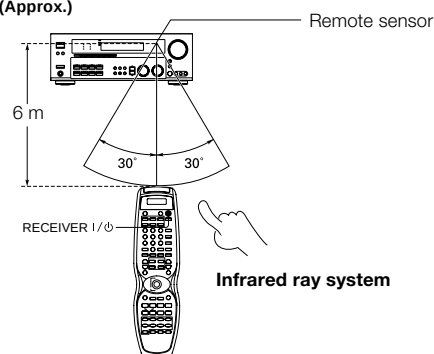
- ➡ ① "RF BAND 1"
- ➡ ② "RF BAND 2"
- ➡ ③ "RF OFF"

- Select the same number as the position number of the RF switch of the remote control.

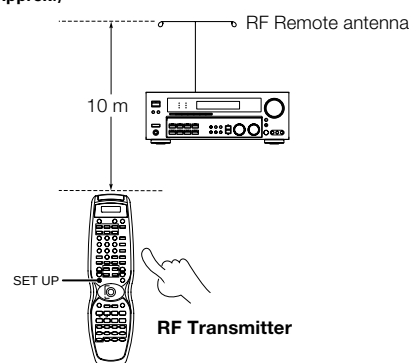
Remote control operation

When the **STANDBY** indicator is lit, the power turns ON when you press the **RECEIVER (I/φ)** key on the remote control. When the power comes ON, press the key you want to operate.

Operating range (Approx.)



Operating range (Approx.)



- The remote control signal received by main unit IR and RF signals.
- When pressing more than one remote control key successively, press the keys securely by leaving an interval of 1 second or more between keys.

Notes

- The supplied batteries may have shorter lives than ordinary batteries due to use during operation checks.
- When the remote-controllable distance gets shorter than before, replace both batteries with new ones.
- Placing the remote sensor in direct sunlight, or in direct light from a high frequency fluorescent lamp may cause a malfunction. In such a case, change the location of the system installation to prevent malfunction.

Important notes

Here is list of adjustment which can maximize the operation of your remote control. For optimal operation of the remote control:

- Aim the remote control toward the room where the receiver is located.
- Do not position the receiver and remote control near metal (such as heat ducts). Metal can absorb RF signals.
- Make sure the batteries in the remote control are fully charged. Weak batteries will affect the range of the remote control.
- When there is an obstruction around other equipments that send signal from the remote control, the control distance of the RF remote signal will be short.

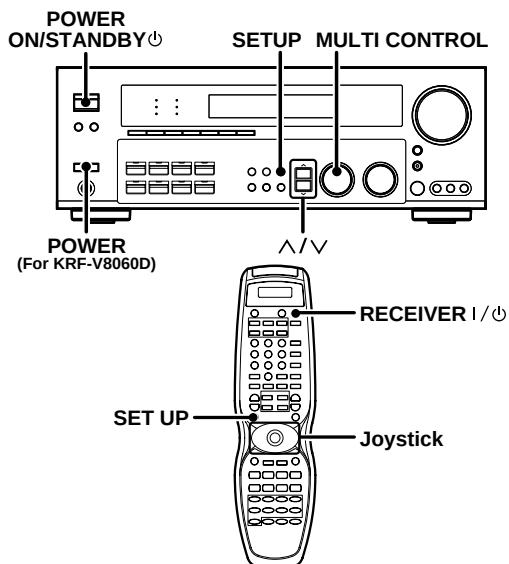
Note

- The tests for range limits of the remote control and the receiver are conducted in open-air distance test. Actual distance of the signal will be based on the construction of the building the unit is being used in as well as other factors such as outside interference.

Preparing for surround sound

Speaker settings

To enable you to obtain optimum enjoyment from the receiver's listening modes, make sure to complete the speaker settings (subwoofer, front, center, and surround speakers) as described below.



1 Turn on the power to this receiver by pressing the POWER ON/OFF and ON/STANDBY (⏻) (for VR-6060 only) key or RECEIVER (I/⏻) key.

2 Press the SETUP key to enter the SET UP mode and press ^/∨ keys for the following displays.

- ① SP SETUP
- ② TEST TONE
- ③ SP DISTANCE
- ④ SETUP END

The Surround Back and Subwoofer speakers are displayed as follows:

- ① 6ch AMP SB
- ② 6ch AMP SW

Use the MULTI CONTROL knob or Joystick to select the speakers. Press the SETUP key to proceed to the following selection.

3 Select a speaker system.

1 Select the SP SETUP and press the SETUP key again, so that the subwoofer setting indication "SUBW ON" appears.



2 Use the ^/∨ keys to select the appropriate settings.

- ① SUBWOOFER
- ② FRONT
- ③ CENTER
- ④ SURROUND
- ⑤ SURROUND BACK
- ⑥ SW RE-MIX

3 Use the MULTI CONTROL knob or Joystick to adjust the subwoofer setting.

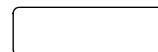
- ➔ ① **SUBW ON** : Subwoofer setting mode to the receiver is ON.
- ➔ ② **SUBW OFF** : Subwoofer setting mode to the receiver is OFF.

- The initial setting is "SUBW ON".
- When the setting "SUBW OFF" is selected, the front speakers are automatically set to "FRNT LARGE" and the procedure skips to step 4.
- When subwoofer output sound is required, select "FRNT NORMAL".

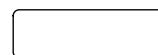
(For VR-6060 only)

When you operate on the remote control unit.

- ① Press the SET UP key repeatedly until "SUBWOOFER" scrolls from right to left in the display of the remote control unit.

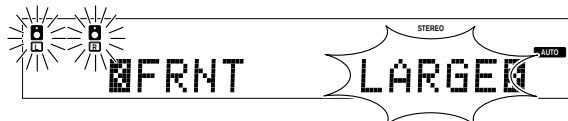


- ② Press the Joystick to select "SUBW ON", then press the ENTER key.



4 Press the ^/∨ keys to accept the setting.

- The front speakers setting indication "FRNT" appears.



5 Use the MULTI CONTROL knob or Joystick to select the appropriate front speakers setting.

- ➔ ① **FRNT LARGE** : Large front speakers are connected to the receiver.
- ➔ ② **FRNT NORMAL** : Average size front speakers are connected to the receiver.

- For "FRNT LARGE" selection, no sound will be heard from SUBWOOFER even when it is set to ON. However, if you select CINEMA EQ when subwoofer is selected, you will be able to hear sound from the subwoofer.
- When in STEREO mode, the sound goes directly to front speaker.

6 Press the ^/∨ keys to accept the setting.

- The center speaker setting indication "CENTER" appears.

7 Use the MULTI CONTROL knob or Joystick to select the appropriate center speaker setting.

If you selected "LARGE" as the front speakers setting.

- ➔ ① **CENTER LARGE** : A large center speaker is connected to the receiver.
- ➔ ② **CENTER NORMAL** : An average size center speaker is connected to the receiver.
- ➔ ③ **CENTER OFF** : Center speaker setting mode to the receiver is OFF.

If you have selected "NORMAL" as the front speakers setting.

- ➔ ① **CENTER NORMAL** : Center speaker setting mode to the receiver is ON.
- ➔ ② **CENTER OFF** : Center speaker setting mode to the receiver is OFF.

Continued to next page

Preparing for surround sound

- ③ Press the $\wedge/\vee$ keys again to accept the setting.
- The surround speaker setting indication "Surr." appears.

- ④ Use the MULTI CONTROL knob or Joystick to select the appropriate surround speaker setting.

If you have selected "LARGE" as the center speaker setting.

- ① Surr. LARGE : Large surround speakers are connected to the receiver.
- ② Surr. NORMAL : Average size surround speakers are connected to the receiver.
- ③ Surr. OFF : Surround back speaker setting mode to the receiver is OFF.

If you have selected other than "LARGE" as the center speaker setting.

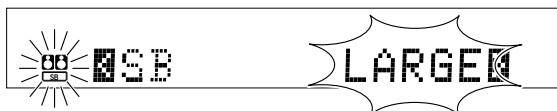
- ① Surr. ON : Surround speaker setting mode to the receiver is ON.
- ② Surr. OFF : Surround speaker setting mode to the receiver is OFF.

- ⑩ Press the $\wedge/\vee$ keys again to accept the setting.
- The surround speaker setting indication "SB" appears.

- ⑪ Use the MULTI CONTROL knob or Joystick to select appropriate surround back speaker setting.

If you have selected "LARGE" as the surround speaker setting.

- ① SB LARGE : Large surround back speaker is connected to the receiver.
- ② SB NORMAL : Average size surround back speaker is connected to the receiver.
- ③ SB OFF : Surround back speaker setting mode the receiver is OFF.



If you have selected other than "LARGE" as the surround speaker setting.

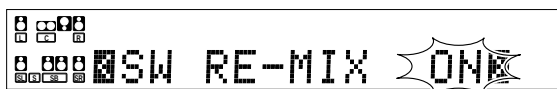
- ① SB ON : Surround back speaker setting mode the receiver is ON.
- ② SB OFF : Surround back speaker setting mode the receiver is OFF.

- ⑫ Press the $\wedge/\vee$ keys again to accept the setting.
- The subwoofer remix setting indication "SW RE-MIX" appears.

- ⑬ Use the MULTI CONTROL knob or Joystick to select the appropriate subwoofer remix setting.

- ① SW RE-MIX OFF : Subwoofer remix setting mode to the receiver is OFF.
- ② SW RE-MIX ON : Subwoofer remix setting mode to the receiver is ON.

If Subwoofer is turned OFF, Subwoofer remix setting is not usable.



- ⑭ Press the SETUP key again to return to the main set up displays.

- The receiver enters the speaker volume level adjustment mode.
- In steps ④ and ⑤, indications appear only for the selected channels of the speakers that require adjusting.

4 Adjust the speaker volume level.

From your usual listening position, adjust the volume levels. The volume levels from each speaker should be the same.

- ① Select the TEST TONE by pressing the SETUP key for the following displays:

- ① T. TONE AUTO
- ② T. TONE MANUAL

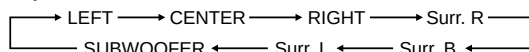
- ② The selection of AUTO/MANUAL TEST TONE is done by the MULTI CONTROL knob.
- Press the SETUP key again to begin TEST TONE.

- ③ Use the MULTI CONTROL knob or Joystick to adjust the volume level of the test tone output from the speaker channel to be adjusted.

The channel indication blinks while the test tone is being output.



The test tone is heard from the speakers in the following sequence for 2 seconds each.



- If you change the volume level settings for the speakers while listening to music, the settings referred to on this page are also changed.
- If the speaker setting selects are OFF, the speaker level settings are reset.

- ④ Press the SETUP key again.

- The test tone is turned off and return to the main setup item.

5 Input the distance to the speakers.

- ① Select the SP DISTANCE on set up displays and the SETUP key again.

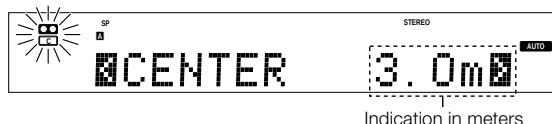
- ② Measure the distance from the listening position to each of the speakers.

Not down the distance to each of the speakers.

Distance to Front left speaker	: ____ meters (feet)
Distance to Center speaker	: ____ meters (feet)
Distance to Front right speaker	: ____ meters (feet)
Distance to Surr. right	: ____ meters (feet)
Distance to Surr. back	: ____ meters (feet)
Distance to Surr. left	: ____ meters (feet)
Distance to Subwoofer	: ____ meters (feet)

- ③ Use the $\wedge/\vee$ keys to select the speakers and MULTI CONTROL knob or Joystick to adjust the distance to the front speakers.

The speaker indicator to be adjusted blinks.



Indication in meters

- The allowable setting range is 0.3 to 9.0 m (1 to 30 feet), adjustable in 0.3 m (1 foot) increments.

- ④ Repeat steps ③ to input the distance for each of the speakers.

- ⑤ Press the SETUP key again and it will return to main set up displays.

Preparing for surround sound

- ③ Setup is complete when the input indication reappears.



Display when all speakers have been selected.

- The speakers you have selected should appear on the display. Confirm that all the speakers have been correctly selected.

Input level adjustment (analog sources only)

If the input level of an analog source signal is too high, the CLIP indicator will blink to indicate the source signal. Adjust the input level.



- ① Use the Input Selector keys to select the source of which the input level you want to adjust.

- You can store a separate input level for each input source.

- ② Press the SOUND and ^/∨ keys until the "INPUT" indication appears.

- ③ Use the MULTI CONTROL knob or Joystick to adjust the input level.



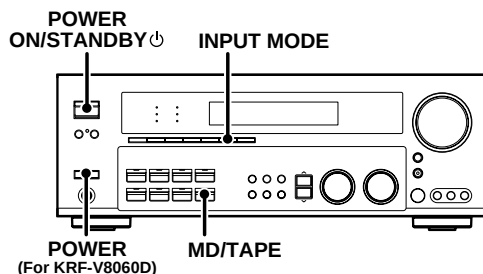
- The adjustment mode is displayed for approximately 8 seconds.
- The input level may be adjusted to any one of three settings: 0dB, -3dB, and -6dB. (The initial setting is 0dB.)

- ④ Press the SOUND key again to return to the input indication.

Normal playback

Preparing for playback

Some preparatory steps are needed before starting playback.



Turning on the receiver

- 1 Turn on the power to the related components.
- 2 Turn on the power to this receiver by pressing the **POWER** (for VR-6060) or **POWER** key and **ON/STANDBY** () (for KRF-V8060D) keys.

Selecting the input mode

If you have selected a component connected to the **CD/DVD**, **VIDEO2**, **VIDEO3** or **DVD/6CH** jacks, make sure that the input mode setting is correct for the type of audio signal to be used.

Selecting MD/TAPE

Select the source name corresponding to the component connected to the MD/TAPE jacks. The initial factory setting is "**MD**". To change the source to "**TAPE**," follow the steps below:

Hold down the MD/TAPE key for more than 2 seconds.

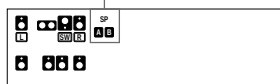
- The source indication changes to "**TAPE**".
- To return to the original indication, repeat procedure above.

Selecting the speaker system

Press the **SPEAKERS A** or **B** key to select the speaker system to be used.

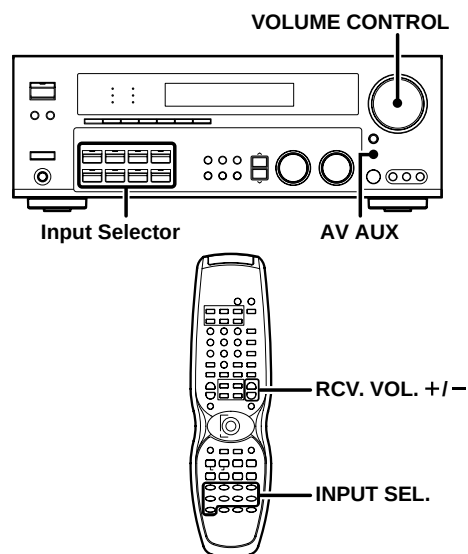
- A ON** : Sound from the speakers connected to the **SPEAKERS A** terminals on the rear panel.
- B ON** : Sound from the speakers connected to the **SPEAKERS B** terminals on the rear panel. No sound will be heard from the subwoofer.
- A+B ON** : Sound from both the speakers connected to the **SPEAKERS A** and **B** terminals on the rear panel.
- A+B OFF** : No sound from the speakers. Use this setting when listening with headphones for stereo sound in all playback modes.

The indicator for the speakers you want to use should be lit.



- Selecting "**6CH INPT**" by pressing the **INPUT MODE** key, whereby "**DVD/6CH**" is the input source will cause **SPEAKERS A** to be selected automatically.

Listening to a source component



- 1 Use the **Input Selector** and **AV AUX** keys to select the source you want to listen to.

The input sources change as shown below:
Selecting a source using each key.

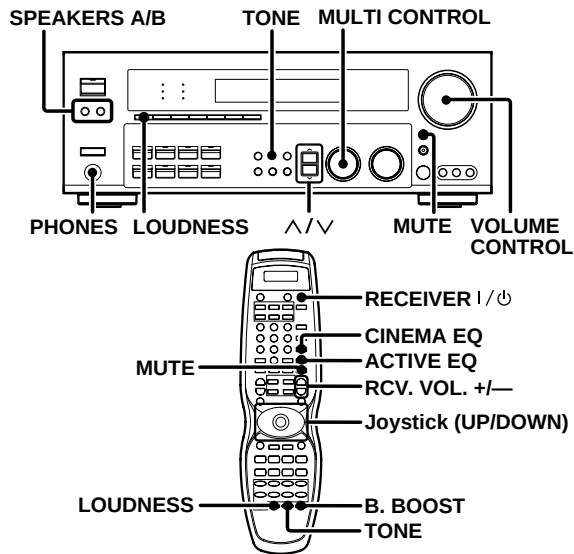
- 1 "DVD/6CH"
- 2 "CD/DVD"
- 3 "PHONO"
- 4 "TUNER"
- 5 "VIDEO1"
- 6 "VIDEO2"
- 7 "VIDEO3"
- 8 "MD/TAPE"
- 9 "AV AUX"

- 2 Start playback from the selected source.

- 3 Use the **VOLUME CONTROL** knob or **RCV. VOL. +/-** keys to adjust the volume.

Normal playback

Adjusting the sound



Adjusting the TONE

You can adjust the sound quality when the receiver is in the PCM stereo and analog stereo mode.

- 1 Press the **TONE** key to select the TONE mode.
- 2 Use the **MULTI CONTROL** knob or **Joystick** to select **TONE ON/OFF**.



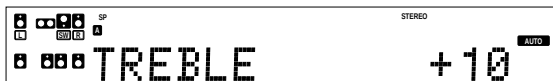
- 3 When in **TONE ON** selection, pressing the **TONE** key will display the level of **BASS** or **TREBLE**.

BASS : Select this to adjust the low frequency range.
TREBLE: Select this to adjust the high frequency range.



- 4 Use the **MULTI CONTROL** knob or **Joystick** to adjust the sound quality.

- The bass and treble levels are adjustable from -10dB to +10dB in 2 step increments.
- The adjustment item is displayed for approximately 8 seconds.



Once-touch low frequency emphasis (bass boost) (remote control only)

You can adjust the sound quality when the receiver is in the PCM stereo and analog stereo modes.

Press the **B. BOOST** key.

- Press the key once to select the maximum (+10dB) low frequency emphasis setting.
- This key does not function when the receiver is in the sound quality or ambience effects adjustment mode.

Switching back to the previous setting

Press the **B. BOOST** key again.

Adjusting the LOUDNESS

You can adjust the Loudness function which controls the low volume settings to maintain the music's richness.

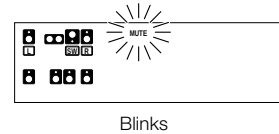
Press the **LOUDNESS** key to turn the **LOUDNESS** setting ON/OFF.

- 1 **LOUDNESS ON** : The **LOUDNESS** indicator lights up.
- 2 **LOUDNESS OFF** : The **LOUDNESS** indicator goes off.

Muting the sound

The **MUTE** key lets you mute the sound of the speakers.

Press the **MUTE** key.



To cancel

Press the **MUTE** key again so that the "MUTE" indicator goes off.

- **MUTE ON** can also be deactivated by turning the **VOLUME CONTROL** knob.

CINEMA EQ mode

You can enjoy a more impressive sound effect when you switch **CINEMA EQ ON** during Dolby Digital and DTS playback.

Press the **CINEMA EQ** key to turn the **CINEMA EQ** setting ON/OFF.

- 1 **CINEMA EQ ON** : The **CINEMA EQ** indicator lights up.
- 2 **CINEMA EQ OFF** : The **CINEMA EQ** indicator goes off.

ACTIVE EQ mode

AAAAAAAAAAAAAAAA AAAAAAAAAAAAAA AAAAAAAAA AA.

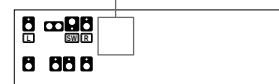
Press the **ACTIVE EQ** key to switch the following setting:

- 1 **ACTIVE EQ ON** : The **ACTIVE EQ** indicator lights up.
- 2 **ACTIVE EQ OFF** : The **ACTIVE EQ** indicator goes off.

Listening with headphones

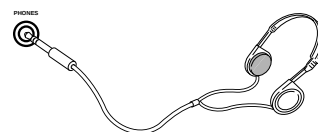
- 1 Press the **SPEAKERS A** or **B** keys so that the speaker indicator goes off.

Make sure the **SPEAKERS** indicators are turned off.



- If you turn off all of the speakers when in surround mode, the surround mode will be canceled as well, resulting in stereo playback.

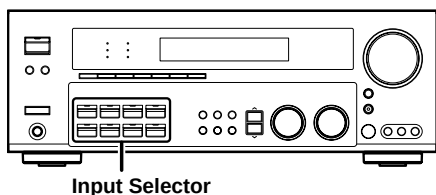
- 2 Connect headphones to the **PHONES** jack.



- 3 Use the **VOLUME CONTROL** knob or **RCV. VOL. +/-** keys to adjust the volume.

Recording

Recording audio (analog sources)



Recording a music source

- ❶ Use the Input Selector keys to select the source (other than "MD/TAPE") you want to record.
- ❷ Set the MD or TAPE recorder to record.
- ❸ Start playback, then start recording.

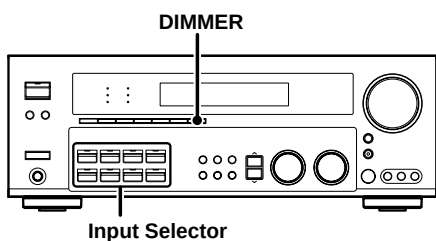
Recording video

- ❶ Use the Input Selector keys to select the video source (other than "VIDEO1") you want to record.
- ❷ Set the video deck connected to VIDEO1 to record.
 - Select the REC MODE to record a digital input source.
- ❸ Start playback, then start recording.
 - Recording may not be normal for some video software. This is due to the copy guard condition. → 42

Recording audio (digital sources)

Switch on the **REC MODE** to record a digital input source. Usually use the **AUTO REC MODE** to record audio input sources. When the digital mode changes during recording in the **AUTO REC MODE**, the audio input source may be interrupted momentarily.

Recording music in AUTO REC MODE or MANUAL REC MODE



- ❶ Use the Input Selector keys to select the source (CD/DVD, DVD/6CH, VIDEO2 or VIDEO3) you want to record.

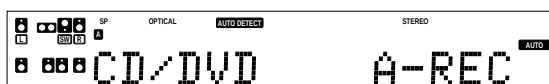
- ❷ Set the MD or TAPE recorder to record.

- ❸ Press and hold the DIMMER key for more than 2 seconds to select the **AUTO REC MODE** or **MANUAL REC MODE**.

- The mode changes every 3 seconds as shown below.

- ➔ ❶ **REC MODE OFF** : The digital input record mode is switched off.
- ➔ ❷ **AUTO REC MODE** : The digital input signals (DTS, Dolby Digital, or PCM) are identified automatically and converted into stereo signals that are ready for recording.
- ➔ ❸ **MANUAL REC MODE** : The input signal type at the moment this mode is selected is held throughout this mode.

For **AUTO REC MODE** :



For **MANUAL REC MODE** :



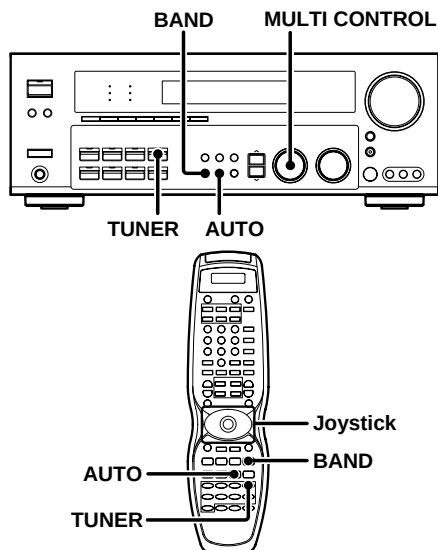
- ❹ Start playback, then start recording.

- If the audio reproduction stops in the middle due to change in the input signals, etc., press the **DIMMER** key.

Listening to radio broadcasts

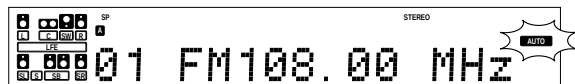
The receiver can store up to 40 stations in the memory and recall them by one-touch operation.

Tuning radio stations



- 1 Use the **TUNER** key to select the tuner.
- 2 Use the **BAND** key to select the desired broadcast band.

Each press switches the band :



- 3 Use the **AUTO** key to select the desired tuning method.

Each press switches the tuning method to either auto or manual tuning.

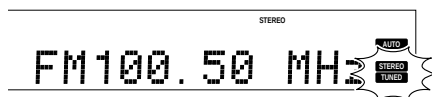
"**AUTO**" indicator lights up in the display.



- Normally, set to "**AUTO**" (auto tuning). If the radio waves are weak and there is a lot of interference, switch to manual tuning. (With manual tuning, stereo broadcasts will be received in monaural.)

- 4 Use the **MULTI CONTROL** knob or **Joystick** to select the station.

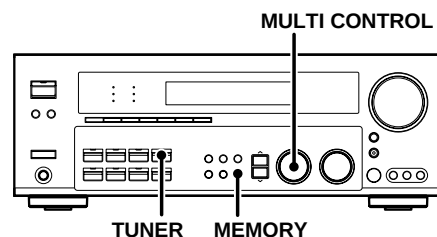
"**STEREO**" lights when a broadcast is being received in stereo.



"**TUNED**" is displayed when a station is received.

- Auto tuning** : The next station is tuned automatically.
Manual tuning : Turn the knob or use the Joystick to select the desired station.

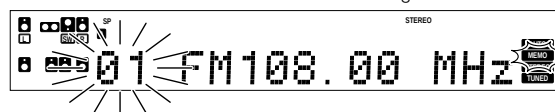
Presetting radio stations manually



- 1 Tune to the station you want to store.
- 2 Press the **MEMORY** key while receiving the station.

Blinks for 5 seconds

Lights for 5 seconds

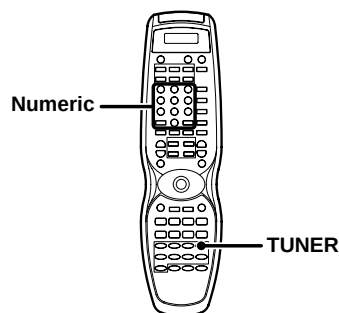


Proceed to step 3 within 5 seconds.
 (If more than 5 seconds elapse, press the **MEMORY** key again).

- 3 Use the **MULTI CONTROL** knob to select one of the station presets (1 – 40).
- 4 Press the **MEMORY** key again to confirm the setting.

- Repeat steps 1, 2, 3, and 4 to store as many stations as necessary.
- If you store a station at a previously used preset, the old station will be replaced by the new one.

Receiving preset stations



- 1 Press the **TUNER** key to select tuner as the source.
- 2 Enter the number of the preset station you want to receive (up to "40").

Press the numeric keys in the following order:

For "15", press **+10**, **5**
 For "20", press **+10**, **+10**, **0**

- If you make a mistake entering a two digit number, press the **+10** key repeatedly to return to the original display and start again.

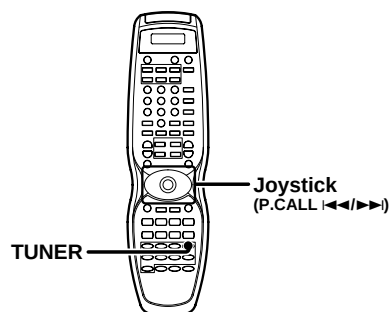


Continued to next page



Listening to radio broadcasts

Receiving preset stations in order (P.CALL)



1 Press the **TUNER** key to select the tuner as the source.

2 Use the Joystick to adjust the **P.CALL <</>>** keys to select the desired station.

- Each time you push the Joystick, another preset station is received in order.

Pushing the Joystick to **P.CALL >>** does the following:

→ 01 → 02 → 03 → ... → ... → 38 → 39 → 40 →

Pushing the Joystick to **P.CALL <<** does the following:

← 01 ← 02 ← 03 ← ... ← ... ← 38 ← 39 ← 40 ←

Holding the Joystick on **>>** or **<<** direction, lets you skip through the presets, receiving each preset station at 0.5 second intervals.

Ambience effects

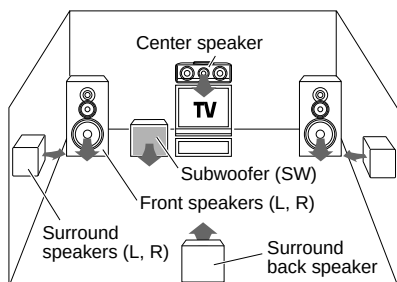
This receiver is equipped with listening modes that allow you to enjoy an enhanced sonic ambience with a variety of video sources.

In order to obtain the optimum effect from the surround modes, make sure to input the proper speaker settings beforehand.

Surround modes

DTS-ES

The DTS-ES (Digital Theater System-Extended Surround) represents 6.1-channel Discrete Surround format, expanding upon 5.1 surround. DTS-ES format is a 6.1 channel sound system for movie theatres that includes as additional surround-center channel matrixed within surround-left and surround-right. It's compatible on predecessor DTS 5.1 system. The extra channel allows more accurate placement and steering of sound across the rear soundstage. The DTS-ES receiver will be required, to experience a discrete 6.1-channel mix. The DTS-ES decoders used in home cinema systems have decoding options for utilising the extra channel, in addition to processing existing 5.1 channel surround sound : DTS-ES Discrete 6.1 and DTS-ES Matrix 6.1 add the surround back channel audio to the DTS 5.1-channel format to improve the acoustic positioning and makes acoustic image movement more natural with the 6.1-channel reproduction. NEO:6 is a new technology which decodes 2-channel signals into 6-channel signals using high-accuracy digital matrix technology. According to the signals to be played back, DTS NEO:6 uses either the NEO:CINEMA mode optimized for movie playback or the NEO:MUSIC mode optimized for music playback.



* Optional in this mode.

* LFE = Low Frequency Effects. This channel delivers separate non-directional bass signals to the subwoofer for more dynamic deep bass sound effects. DTS has a .1 or LFE channel. The indication "LFE" appears in the display when a signal is being input for this channel.

"DTS", "DTS-ES Extended Surround" and "Neo:6" are trademarks of Digital Theater Systems, Inc.



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

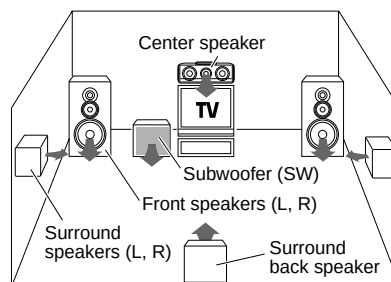
"Circle Surround II and the (C) symbol are trademarks of SRS Labs, Inc. Circle Surround technology is incorporated under license from SRS Labs, Inc."

Dolby Digital

The Dolby Digital surround format lets you enjoy up to 5.1 channels of digital surround sound from Dolby Digital program sources (such as Laserdisc or DVD software marked). Compared with previous Dolby surround, Dolby Digital provides even better sound quality, greater spatial accuracy, and improved dynamic range.

Note

Although a full set of speakers (front left, right, and center, surround left and right, and a subwoofer) is required for true 5.1 channel Dolby Digital surround sound, this receiver lets you enjoy Dolby Digital (and Dolby Surround) program sources, even if you connect only the front speakers.



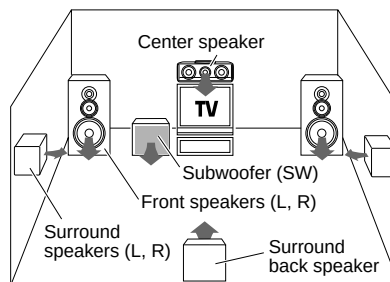
* LFE = Low Frequency Effects. This channel delivers separate non-directional bass signals to the subwoofer for more dynamic deep bass sound effects.

Although only Dolby Digital soundtracks incorporate a separate low frequency channel, connecting a subwoofer will also improve deep bass performance in the other surround modes.

The indication "LFE" appears in the display when a signal is being input for this channel.

Dolby PRO LOGIC II

Dolby Pro Logic II was designed specifically to provide a new sense of spatiality, directionality and articulation of sounds from Dolby Surround encoded sources (such as video and Laserdisc software marked). This is achieved with an intelligent, built-in feedback logic design, a matrix surround decoding and the decoding of stereo, full bandwidth surround outputs. The PRO LOGIC II modes programmed into this receiver are "MOVIE", "MUSIC" and "PRO LOGIC". The "MOVIE" mode of the PRO LOGIC II has preset characteristics to produce a calibrated, high-level surround sound playback while the "MUSIC" mode has user-adjustable characteristics to offer the three optional controls, like "Dimension", "Center Width" and "Panorama mode" to allow optimization of the soundfields as desired. The "Dimension" control allows the user to gradually adjust the soundfield either towards the front or towards the rear; the "Center Width" control allows various adjustment of the left-center-right speakers' balance; the "Panorama mode" extends the front stereo image to include the surround speakers for an exciting "wrap-around" effect with side wall imaging.

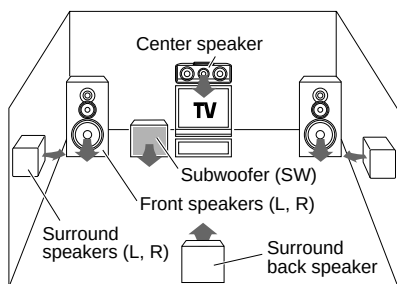


Ambience effects

Multi channel mode (SRS Circle Surround II)

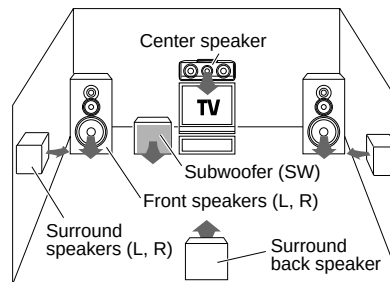
SRS Circle Surround II™ improves on its predecessor CS-5.1™ resulting in the CS-6.1™ system, enabling you to listen to realistic, multi-channel, surround sound playback from a stereo source or conventional surround-encoded video source. You already enjoy listening to Dolby digital sound/DTS multi-channel sound with your multi-speakers. Now you can listen to audio CDs, MDs, Broadcast and Home Theater using your multi-speakers. You will discover a new type of sound through SRS Circle Surround II.

The CS system dramatically reduces storage space requirements for multi-channel content. It creates a listening environment that places the listener "inside" music performances, and dramatically improves both hi-fi audio and conventional surround-encoded video material. The CS decoder also includes the SRS technologies Focus™ and TruBass™. Focus electronically raises the sound stage from the speaker location to an optimal position. TruBass creates deep, rich bass in small speaker systems without the need for a subwoofer.



DSP mode

The DSP mode lets you add the atmosphere of a live concert or hall to almost any type of program source. These modes are particularly effective when used with stereo program sources, like CD, television, and FM radio. You might enjoy trying the ARENA, JAZZ CLUB, THEATER, STADIUM or DISCO mode the next time you watch a concert or sporting event!



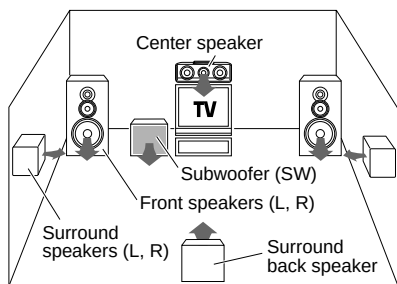
What's DSP?

DSP stands for Digital Signal Processor.

The way a sound is heard in an actual environment depends on a variety of different factors. One of the most important is reverberation (the act of decaying elements of sound echoing in various places). The DSP modes produce the feeling of presence by using the DSP to create reverberation, without spoiling the sound quality of the original signal.

DVD 6-channel mode

Using a DVD player or the like equipped with six (5.1) output channels and the receiver, you can enjoy multi-channel encoded DVD source material in all its splendor. Since the source signals are digital and each channel is input independently, the resulting sound quality, sense of spaciousness, and dynamic range are superb.



* LFE = Low Frequency Effects. This channel delivers separate non-directional bass signals to the subwoofer for more dynamic deep bass sound effects.

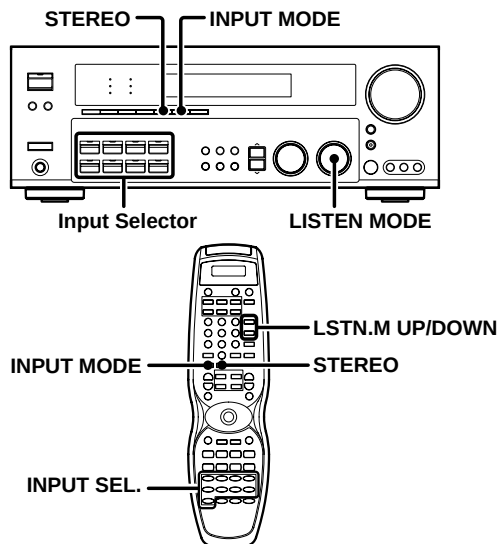
Ambience effects

Surround play

The DTS compatible models can reproduce a CD, DVD, or LD carrying the DTS mark.

DOLBY DIGITAL can be used when playing DVD or LD software bearing the  mark and DOLBY DIGITAL format digital broadcasts (etc.). DOLBY PRO LOGIC can be used when playing video, DVD, or LD software bearing the  mark.

Circle Surround II enable you to listen to multi channel sound from the stereo source.



Preparations

- Turn ON related components.
- Complete "Preparing for surround sound" (speaker settings). → 21
- Use the **Input Selector** keys to select the component you wish to play back with surround sound.
- Use the **INPUT MODE** key to select the input mode (analog or digital) for the source you wish to play back. → 9
- Noise will be produced when a DTS source is played by selecting the analog input.

1 Start playing the video software.

2 Turn the LISTEN MODE knob (press the LSTN. M UP/DOWN keys) or STEREO key to select the listening mode.

The listening mode settings are stored separately for each input. If the input mode is set to digital auto ("AUTO DETECT" lights), the receiver selects the optimal listening mode automatically based on the type of input signal and the speaker settings.

Each turn of the LISTEN MODE knob or press of the LSTN. M UP/DOWN keys switches the setting as listed below. The listening mode settings are different depending on the type of input signal.

When the DTS-ES (matrix or discrete) signal is input :

- ① **DTS 5.1ch** : (DTS indicator light up.)
- ② **DTS MATRIX or DTS DISCRETE** : (DTS MATRIX or DISCRETE indicator light up.)
- ③ **2ch DOWNMIX**

When the DOLBY DIGITAL signal is input :

(The DOLBY DIGITAL or PRO LOGIC indicator lights up.)

- ① **DOLBY DIGITAL** : DOLBY DIGITAL surround.
- ② **PL II MOVIE** : PRO LOGIC II surround MOVIE mode. (The PRO LOGIC indicator lights up.)
- ③ **PL II MUSIC** : PRO LOGIC II surround MUSIC mode. (The PRO LOGIC indicator lights up.)
- ④ **PRO LOGIC** : PRO LOGIC II surround PRO LOGIC mode. (The PRO LOGIC indicator lights up.)
- ⑤ **STEREO** : Normal stereo playback. (The STEREO indicator lights up.)

When you select DOLBY DIGITAL.

"DOLBY DIGITAL" will be appear.



When the DTS signal is input :

(The DTS indicator lights up.)

- ① **DTS** : DTS surround.
- ② **STEREO** : Normal stereo playback.

When the analog signal or the digital signal (except for DOLBY DIGITAL or DTS signal) is input :

- ① **PL II MOVIE** : PRO LOGIC II surround MOVIE mode. (The PRO LOGIC indicator lights up.)
- ② **PL II MUSIC** : PRO LOGIC II surround MUSIC mode. (The PRO LOGIC indicator lights up.)
- ③ **PRO LOGIC** : PRO LOGIC II surround PRO LOGIC mode. (The PRO LOGIC indicator lights up.)
- ④ **NEO CINEMA** : DTS-ES Surround NEO:6 mode. (The NEO:6 indicator lights up.)
- ⑤ **NEO MUSIC** : DTS-ES Surround NEO:6 mode. (The NEO:6 indicator lights up.)
- ⑥ **CS II CINEMA** : CS 5.1 surround. (The CS II indicator lights up.)
- ⑦ **CS II MUSIC** : CS 5.1 surround. (The CS II indicator lights up.)
- ⑧ **STEREO** : Normal stereo playback. Sound is produced from the two front channels only. (The STEREO indicator lights up.)

- Dolby Digital or DTS signal having more channels than the maximum number of playback channels available using the receiver's current settings is input, downmixing is performed to match the number of available channels.

3 DSP mode (Digital Signal Processor).

DSP can produce these effects without spoiling the sound quality of the original music or video source.

1 Pressing the DSP key or DSP MODE key will display the current DSP MODE status.

2 Each key press will switch to the next status as shown below :

- ① **ARENA** : DSP surround ARENA mode.
- ② **JAZZ CLUB** : DSP surround JAZZ CLUB mode.
- ③ **THEATER** : DSP surround THEATER mode.
- ④ **STADIUM** : DSP surround STADIUM mode.
- ⑤ **DISCO** : DSP surround DISCO mode.
- ⑥ **DSP MODE OFF** : DSP mode OFF.

- The DSP mode selection is displayed for approximately 6 seconds.
- Fine adjusting the DSP effects on the receiver refer to 30 page.

4 Adjust the volume.

Notes

- Depending on the type of the signal or speaker setting, some listening modes cannot be selected.
- When playback is started, the sound may be cut or interrupted before the input source is confirmed as Dolby Digital.
- To enjoy Dolby Digital surround (as well as all the other listening modes) from a single component, be sure to use a Dolby Digital compatible source component. Connect the Dolby Digital compatible source component's Dolby Digital format digital audio signal to one of the **DIGITAL IN** jacks on the back of the receiver. → [10] → [11] → [12] → [13] → [14]
- Dialogue Normalization (Dial Norm) is a feature of Dolby Digital. It is able to automatically maintain the overall audio output level constant. When playing source material with Dolby Digital software encoding, a brief message will appear.



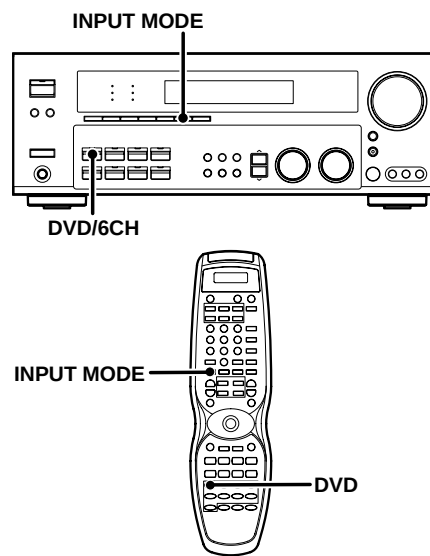
This message informs you that the source material has been recorded at a different level than usual. For example, "OFFSET +4" will scroll across the display to indicate that it had been automatically adjusted to the normal output. If this message does not appear, no adjustment will be made.

DVD 6-channel playback

Using a DVD player or the like equipped with six (5.1) output channels and the receiver, you can enjoy surround sound playback.

When you try to play a disc other than Dolby Digital such as DTS CD, no sound is produced or, noise may be heard. To avoid this situation, make sure that you connect the component to the receiver's DVD/6ch. INPUT jacks through a surround processor which can decode the surround signal you want to listen to.

Connecting a DVD player which can decode the surround signal itself is also acceptable.



Preparations

- Connect your DVD player to the DVD/6ch jacks of the receiver.
- Turn on all other components that will be used.
- Complete "Preparing for surround sound". → [21]

1 Press "DVD/6CH" as the input source.

- If speaker system B is on when "DVD/6CH" is selected as the input source, it switches off and speaker system A turns on automatically.

2 Select "6CH INPUT" by pressing the INPUT MODE key.

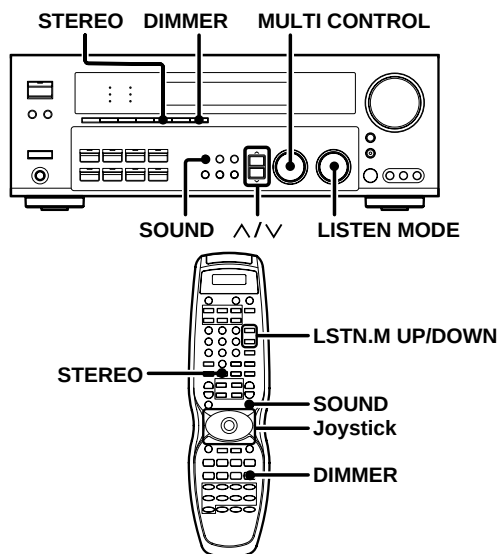
3 Start playback of the DVD software.

4 Adjust the volume.

- It is not possible to adjust the volume level or sound quality (**SET UP, SOUND**) of the channels separately when the receiver is in the DVD/ 6ch mode. Adjust the volume with the controls of the DVD player.

For the powered subwoofer, you can adjust the volume of the subwoofer using the subwoofer's own volume control.

Convenient functions



Adjusting the sound

You can make further adjustments to the sound while listening to playback in the surround mode.

- 1 Press the **SOUND** key until the desired item appears in the display.

Each time you press the **^/V** keys, the menu changes as follows:
Note that some items are not displayed in certain modes.

- 1 **CENTER** (center speaker level adjustment)
- 2 **Surr. R** (right surround speaker level adjustment)
- 3 **Surr. B** (back surround speaker level adjustment)
- 4 **Surr. L** (left surround speaker level adjustment)
- 5 **SUBWOOFER** (subwoofer level adjustment)
- 6 **INPUT** (input level adjustment - analog mode only) → [23]
- 7 **MIDNIGHT** (midnight mode ON/OFF - Dolby Digital mode only)
- 8 **PANORAMA** (panorama mode ON/OFF)*
- 9 **WALL TYPE** (wall type adjustment - DSP mode only)
- 10 **ROOM SIZE** (room type adjustment - DSP mode only)
- 11 **DIMENSION** (dimension adjustment)*
- 12 **CENTER WIDTH** (center width adjustment)*

* Pro Logic II Music mode only.

- 2 Use the **MULTI CONTROL** knob or **Joystick** to adjust the setting as desired.

Midnight mode (Dolby Digital mode only)

When watching movies at night, you might not be able to raise the volume as loud as normal. Midnight mode compresses the dynamic range of previously specified parts of the Dolby Digital sound track (like scenes with sudden increases in volume) to minimize the difference in volume between the specified and non-specified parts. This makes it easy to hear all of the sound track, even when listening at low volumes.

- 1 Press the **SOUND** key first, then use the **^/V** keys to select "MIDNIGHT".

- This can be selected only if CD/DVD, DVD/6CH, VIDEO2 or VIDEO3 is selected as the source and the listen mode is set to "DOLBY DIGITAL."

- 2 Use the **MULTI CONTROL** knob or **Joystick** to select the **ON** or **OFF** setting.



- The adjustment item is displayed for approximately 8 seconds.
- Some Dolby Digital software may not be compatible with the Midnight mode.

Circle Surround mode

When you enjoy multi sound from the stereo source (Circle Surround), you can select the circle surround mode.

Use the **LISTEN MODE** knob or **LSTN. M UP/ DOWN** keys to select "CS II MOVIE" (for movies) or "CS II MUSIC" (for music).



Panorama mode (Pro Logic II Music mode only)

When listening to music, you will be able to enjoy the "wraparound" sound effect when you adjust the panorama mode.

- 1 Press the **SOUND** and **^/V** keys until "PANORAMA" appears on the display.

- 2 Use the **MULTI CONTROL** knob or **Joystick** to select **PANORAMA ON** or **OFF**.

- 1 **PANORAMA ON** : PANORAMA mode is ON.
- 2 **PANORAMA OFF** : PANORAMA mode is OFF.



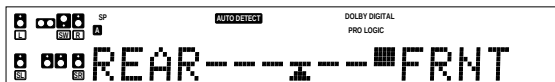
Ambience effects

Dimension mode (Pro Logic II Music mode only)

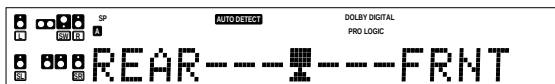
When listening to music with certain recordings, you will also be able to achieve a suitable balance from all the speakers by adjusting the dimension mode.

- 1 Press the **SOUND** and **^/v** keys until **"DIMENSION"** appears on the display.
- 2 Use the **MULTI CONTROL** knob or Joystick to adjust the soundfield towards the rear or the front.

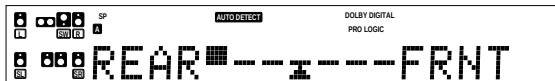
Soundfield is adjusted towards the front.



Soundfield is in neutral position.



Soundfield is adjusted towards the rear.

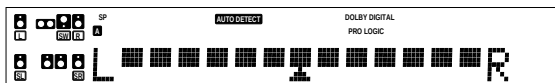


Center Width mode (Pro Logic II Music mode only)

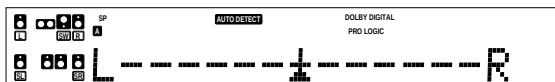
Center width adjustment allows you to enjoy an enhanced sound when listening to music through center image from only center speaker, or left and right speakers or various combinations adjustments.

- 1 Press the **SOUND** and **^/v** keys until **"CENTER WIDTH"** appears on the display.
 - The **CENTER WIDTH** indication scrolls across the display.
 - When the center speaker is switched OFF, this mode will not be effective.
- 2 Use the **MULTI CONTROL** knob or Joystick to adjust the left-center-right output.

Center image will be heard from center speaker only.



Center image will be heard from left and right speakers only.



- When in other positions, center image from center speaker, left and right speakers can be heard simultaneously with various combinations.

Subwoofer adjustment

It is easy to adjust the volume of the subwoofer using the remote control.

- 1 Press the **SOUND** and **^/v** keys until **"SUBWOOFER"** appears on the display.



- 2 Use the **MULTI CONTROL** knob or Joystick to adjust the volume.
 - The adjustment range is -10 dB to +10 dB.

Display dimmer adjustment

The dimmer function lets you select the brightness of the receiver's display. You might find this useful if you darken your room to watch movies or listen to music.

Each time you press the DIMMER key, the display brightness changes among the three available settings. Select the brightness level you find most pleasing.

- 1 BRIGHT
- 2 MEDIUM
- 3 DARK

96kHz LPCM playback

The receiver is compatible with the 96kHz LPCM playback. To play a 96kHz DVD, set the listen mode to **"STEREO"**.

- When **"FS 96kHz LPCM"** appears in the display, press the **STEREO** key (the listen mode changes to the **STEREO** mode) to output sound from the speakers.

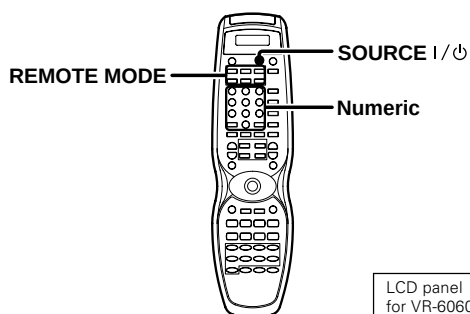
Basic remote control operations for other components

The remote control supplied with this receiver is also capable of controlling components from a variety of manufacturers once you register the appropriate setup codes into the remote control unit.

Low battery warning

Replace all two batteries with new ones when you notice a shortening of the distance from which the remote control will operate. The remote control is designed to retain setup codes in memory while you change batteries.

Registering setup codes for other components



1 Find the setup code of the component to be registered.

- Refer to the setup code lists to find the setup code for the component to be registered. → 37
- Example: To register a DVD made by KENWOOD, you would enter "805".

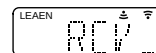
Input	Component	Maker	Code	Key
(DVD)	DVD player	KENWOOD	805, 808	DVD

2 Hold down the SOURCE (I/φ) key and press the Numeric keys to enter the setup code.

- Example: Press "805" to register a DVD player made by KENWOOD.
- If you push an invalid key, the remote will exit the setup mode.



3 Press the REMOTE MODE (CD/DVD, CBL, DSS/SAT, VCR, TV, OTHERS) keys for more than 2 seconds, and check to see that the component you want to control turns on.



If the component does not react, and there is more than one setup code, enter another setup code and try again.

- If the component is already on, pressing the REMOTE MODE keys for more than 2 seconds will turn it off.

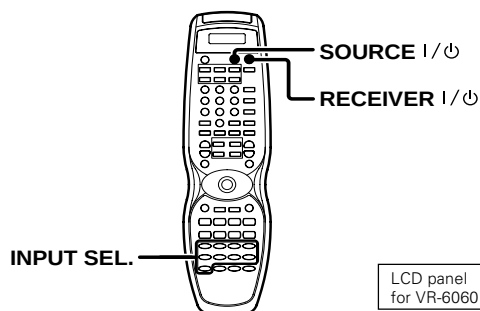
4 Repeat steps 2 to 3 to register additional components until all components have been registered.

Note

Although each setup code is designed to work with a number of different models, certain codes may not work with some models. (Also, certain codes may only operate some of the functions available on a given model.)

Operating other components

This operation lets you operate the registered components. KENWOOD audio components with system control turn on and off automatically with the receiver via the system control connections.



1 Use the Input Selector keys to select the component you desire.

- Pressing the Input selector keys also changes the input selector on the receiver.
- When you operate your registered TV, VCR, DVD player, Cable tuner, or DSS receiver, go to step 2.
- When you operate the CD player, Cassette deck, MD player, or Tuner with system control connection, go to step 3.

2 Press the SOURCE (I/φ) key.

3 Press the operation keys you desire. → 41

- To return to the receiver operation mode, press the RECEIVER (I/φ) key.

The remote control mode returns to the receiver operation mode when you do not operate for more than 15 seconds.

Note

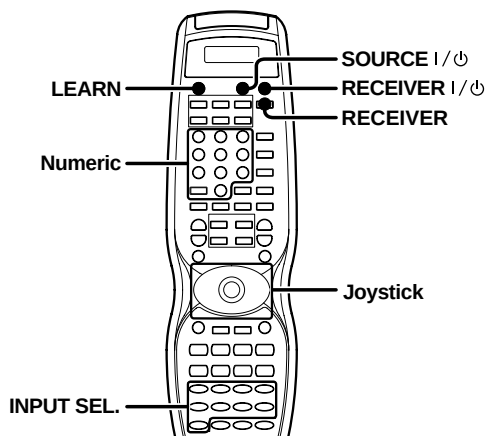
Be sure to point the remote control at the remote sensor on the receiver when you want to operate KENWOOD components connected by system control cords. Otherwise, point the remote control at the component you want to operate.

Learning the remote control code of the other components (For VR-6060 only)

The remote control unit can learn the remote control code of the other components and you can operate the other components from the remote control unit. The remote control code is learned on the key or memory of the remote control unit.

Learning on the key

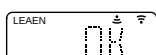
You can learn the remote control code to the key as shown below:



- ❶ Point the infrared ray system part of another remote control unit to the remote sensor of the remote control unit.
- ❷ Press the LEARN key.
 - The remote control is ready for receiving the remote control code.



- ❸ From the remote control unit of the other source, press the key that you want to learn.
 - The remote code is sent to the remote control unit.
 - "OK_" appears when finished.



- When it does not receive the remote control code well, "AGAIN_" or "ERROR_" appears in the display. In this case, re-operate from step 2.

- ❹ The remote control code is learned on the key of the remote control unit.
- ❺ Press the LEARN key, the Learning mode will be turned off.

To delete the memory learned on the key

To operate other components

- ❶ Press the LEARN key to select the desired input source.
- ❷ Press the desired key.

Learning on the memory

You can store on the remote control unit up to ** memories.

- ❶ Point the infrared ray system part of the other remote control unit to the remote sensor of the remote control unit .
- ❷ Press the LEARN key to select the input of the desired remote control unit.



** From the remote control unit of the other source, press the key that you want to store.

- The remote code is sent to the remote control unit.
- "OK_" appears when finished.
- When it does not receive the remote control code well, "AGAIN_" or "ERROR_" appears in the display. In this case, re-operate from step 2.

To delete the learned memory

To operate other components by using the learned memory

- ❶ Press the LEARN key to select desired input source.
- ❷ *****

Setup code chart (RC-R0816) (VR-6060)

TV Setup codes

Maker	Setup codes

VCR Setup codes

Maker	Setup codes

DVD player Setup codes

Maker	Setup codes

Setup code chart (RC-R0725) (KRF-V8060D)

TV Setup codes

Maker	Setup codes

VCR Setup codes

Maker	Setup codes

DVD player Setup codes

Maker	Setup codes

Basic remote control operations for other components

DVD player operations

The remote control of this unit can control two groups of KENWOOD DVD players directly without using the remote control supplied with the DVD player.

- Group-1 : DV-4900, DV-4070B, DV-2070, DV-203, DVF-9010, DVF-K7010, DVF-5010, DVF-R9030, DVF-R7030, DVF-3530 and DV-402
Group-2 : DV-4050, DV-303, DVF-R6030, DVF-K5020, DVF-5020, DVF-3020 and DVF-3030

Depending on your KENWOOD DVD model, you need to set up your receiver remote control as follows:

To set for Group-1 DVD players:

Press the numeric "1" key while pressing the "POWER" key (not the DVD Power key) on your remote control.

To set for Group-2 DVD players:

Press the numeric "2" key while pressing the "POWER" key (not the DVD Power key) on your remote control.

- If your DVD player is not listed in the list above, perform the set up for either Group-1 or Group-2. When the set up is successful, then your DVD player falls into that particular group.

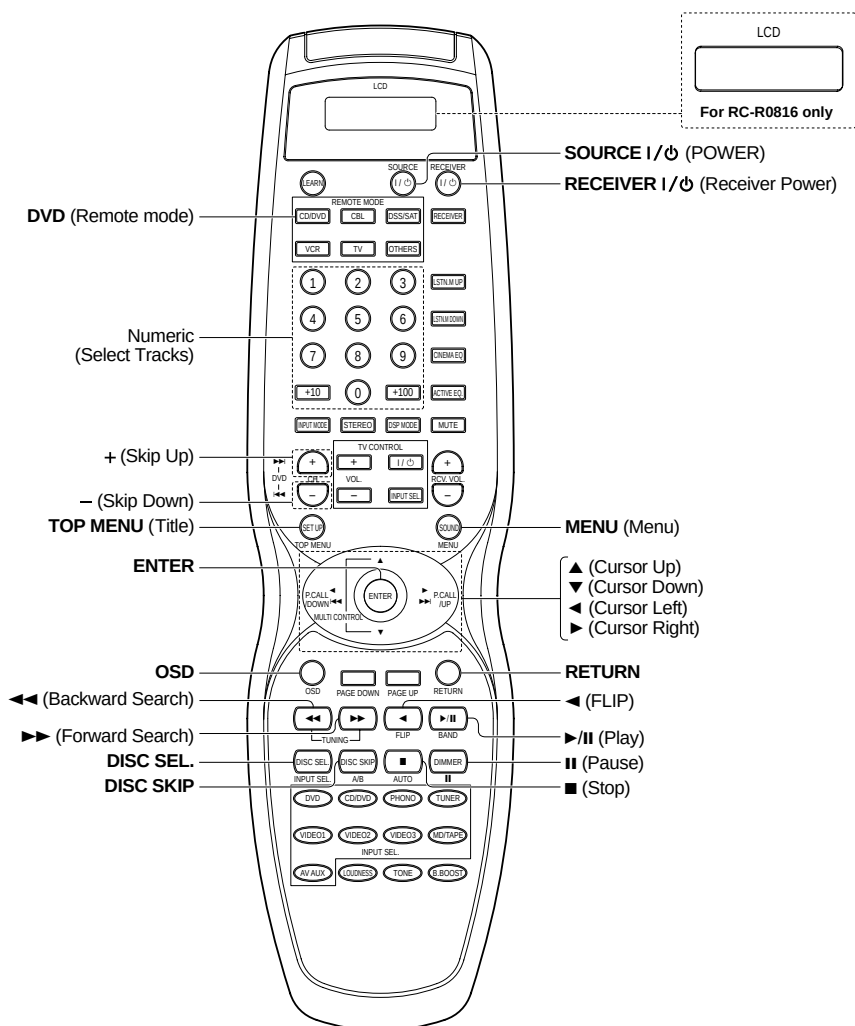
How to operate DVD player with the remote control

1. Pressing the DVD Power key for more than 2 seconds turns the DVD player on or off.
2. To carry out the functions of the DVD player, first press the DVD Power key, then press each key for each operation as explained in the DVD operation pages in the operating instructions. In this case, the DVD operation mode is retained for 15 seconds after pressing any of those DVD operation buttons.

(To turn the receiver operation mode within 15 seconds, press the RECEIVER (I/φ) key.)

DVD player operation keys

You can perform these basic operations using the keys described below when connected to KENWOOD DVD player.



RC-R0816/R0725



→ 19

Basic remote control operations for other components

Other components' operations

Refer to the following for the type of remote control operations available for each component.

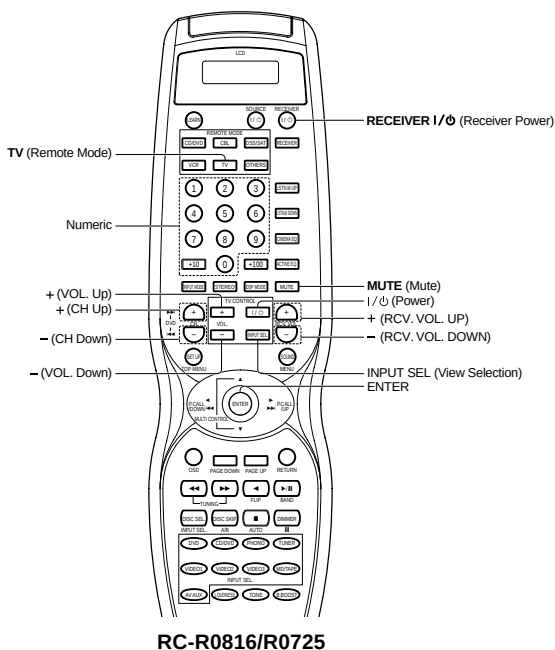
- ❶ Select the input source.
- ❷ Press the keys corresponding to the operations you desire.
Refer to the following sections for details.

- When pressing keys in succession, press each key firmly and be sure to wait at least 1 second before pressing the next key.
- Numeric keys function the same as the numeric keys on the original remote.

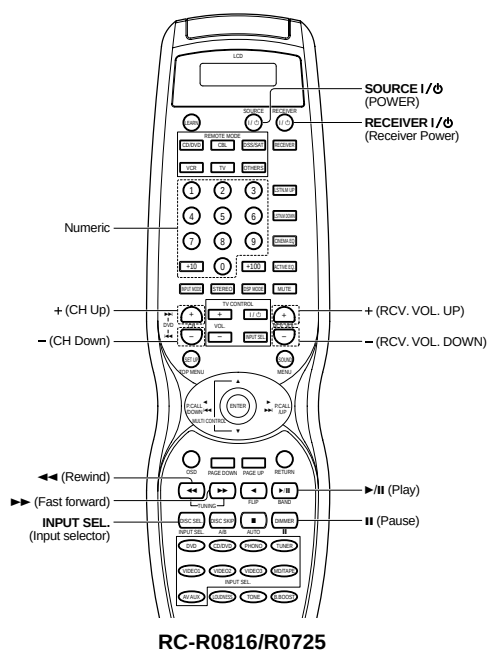
These keys can be used to perform the basic operations of KENWOOD and other manufactures' components which the setup code for each component had been entered beforehand.
The LCD panel is only for remote control RC-R0816.

- 37

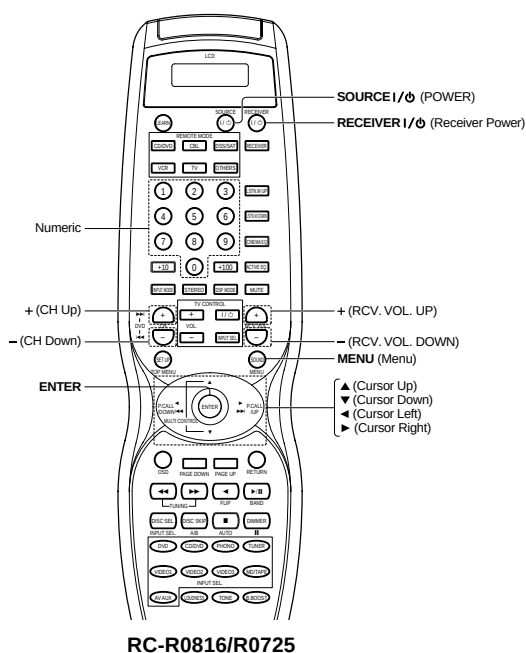
TV operation keys



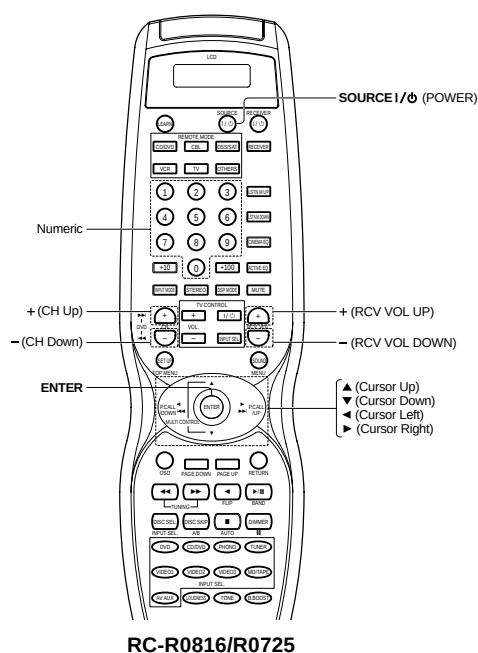
VCR operation keys



DBS/DSS receiver operation keys



Cable tuner operation keys



In case of difficulty

Resetting the Microcomputer

The microcomputer may malfunction (unit cannot be operated, or shows an erroneous display) if the power cord is unplugged while the power is ON, or due to some other external factor. If this happens, execute the following procedure to reset the microcomputer and return the unit to its normal operating condition.

- Please note that resetting the microcomputer will clear the contents of the memory and returns the unit to the state it was in when it left the factory.

For the U.S.A. and Canada

Unplug the power cord from the wall outlet, then plug it back in while holding down the POWER key.

For other countries

With the power cord plugged in, turn the POWER key OFF. Then, while holding down the ON/STANDBY key, press POWER.

Amplifier

Symptom	Cause	Remedy
No sound from the speakers.	• The speaker cords are disconnected. • VOLUME is set to the minimum position. • MUTE is ON. • The SPEAKERS switches are set to OFF.	• Connect them properly referring to "Connecting the speakers". → 15 • Adjust the volume to a proper level. • Turn OFF the MUTE. → 25 • Set the SPEAKERS switches to ON. → 24
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.
Sound is not output from one of the speakers.	• The speaker cord is disconnected.	• Connect it properly referring to "Connecting the speakers". → 15
Sound is not output from the surround speakers and/or the center speaker, or their sound is very small.	• The surround speaker cords and/or the center speaker cord is disconnected. • A surround mode has not been engaged. • The surround and/or center volume controls are set to the minimum level.	• Connect it properly referring to "Connecting the speakers". → 15 • Select a surround mode. • Adjust the speaker levels using the test tone. → 22
A humming noise is generated when the PHONO input selector is selected.	• The audio cord from the turntable is not connected to the PHONO jacks. • The turntable is not grounded.	• Insert the audio cord plugs securely into the PHONO jacks. • Connect the grounding wire to the GND terminal on the rear panel.
When playing a Dolby Digital source signal using a DVD player, the sound is cut off soon after it starts.	• There are many possible causes for this problem, depending on the type of DVD player used.	• Set the input mode to digital manual before starting playback of the Dolby Digital source. → 9
No sound is produced during playback from a DVD player.	• The input mode is set to digital manual.	• Press the INPUT MODE key to select to digital auto mode. → 9
A video source cannot be recorded normally.	• The software is copy-guarded.	• Copy-guarded video software cannot be recorded.

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. → 18 • Set the broadcast band properly. • Tune the frequency of the desired station. → 27
Interference.	• Noise due to ignition noise from an automobile. • Noise due to interference 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 receiver farther away from the TV.
A station which was preset cannot be received by pressing the corresponding numeric 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.	• Preset a station with a receivable frequency. • Preset the station again.

In case of difficulty

Remote control unit

Symptom	Cause	Remedy
Certain inputs cannot be selected using the remote control.	No setup codes registered at for the respective input(s).	Register a setup code at the respective input(s). → 37 → 38
Remote control operation is not possible.	- The remote control is set to a different operation mode. - 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 between the receiver and the remote. - The audio cords and system control cords are not connected properly. - No software is loaded in the source component. - An attempt is made to play a tape which is being recorded in the cassette deck. - The remote control has not been set to the operation mode for the component you wish to control. - The microprocessor of the remote control malfunctions.	- Press the source select keys or source POWER keys to select the appropriate operation mode. - Replace with new batteries. - Operate the remote control unit within the controllable range. - Connect properly referring to "Setting up the system". - Place software in the source component you want to play. - Wait until recording has completed. - Press the source select keys or SOURCE / ϕ keys to activate the operation mode for the component you want to control before operation. → 35 - Reset the microprocessor.

Specifications

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

For the U.S.A and Canada

AUDIO section (VR-6060)

Rated power output during STEREO operation

100 watts per channel minimum RMS, both channels driven, at 8 Ω from 20 Hz to 20 kHz with no more than 0.09% total harmonic distortion. (FTC)

Effective power output during SURROUND operation

FRONT (20-20kHz, 0.09% T.H.D. at 8 Ω one channel driven)	100 W + 100 W
CENTER (20-20kHz, 0.09% T.H.D. at 8 Ω one channel driven)	100 W
SURROUND (20-20kHz, 0.09% T.H.D. at 8 Ω one channel driven)	100 W + 100 W
SURROUND BACK/SUBWOOFER (20-20kHz, 0.09% T.H.D. at 8 Ω one channel driven)	100 W
Total harmonic distortion	0.05% (1 kHz, 50W, 8 Ω)
Frequency response	
Line (CD/DVD, TAPE, VIDEO1, VIDEO2, VIDEO3, DVD/6ch)	20 Hz ~ 100 kHz, +0 dB - -3.0 dB
PHONO 'RIAA' response	40 Hz ~ 20 kHz, 1.5 dB - -3.0 dB
Maximum input level	
PHONO (MM)	100 mV, 1% T.H.D. at 1 kHz
Signal to noise ratio (IHF'66)	
PHONO (MM)	75 dB
Line (CD/DVD, TAPE, VIDEO1, VIDEO2, VIDEO3, DVD/6ch)	93 dB
Input sensitivity / impedance	
PHONO (MM)	2.5 mV / 47 k Ω
Line (CD/DVD, TAPE, VIDEO1, VIDEO2, VIDEO3, DVD/6ch)	200 mV / 47 k Ω
Output level / impedance	
TAPE REC	200 mV / 1 k Ω
PRE OUT (Surround Back channel)	1 V / 1 k Ω
PRE OUT (SUBWOOFER)	1 V / 1 k Ω
Tone control	
BASS	± 10 dB (at 100 Hz)
TREBLE	± 10 dB (at 10 kHz)

For other countries

AUDIO section (KRF-V8060D)

Effective power output during STEREO operation

20 Hz ~ 20 kHz, 0.09% T.H.D., at 6 Ω 100 W + 100 W

Rated power output during STEREO operation

100 watts per channel minimum RMS, both channels driven, at 6 Ω from 20 Hz to 20 kHz with no more than 0.09% total harmonic distortion. (FTC)

Effective power output during SURROUND operation

FRONT (1kHz, 0.09% T.H.D. at 6 Ω one channel driven)	100 W + 100 W
CENTER (1kHz, 0.09% T.H.D. at 6 Ω one channel driven)	100 W
SURROUND (1kHz, 0.09% T.H.D. at 6 Ω one channel driven)	100 W + 100 W
Total harmonic distortion	0.05% (1 kHz, 50W, 6 Ω)
Frequency response	
Line (CD/DVD, TAPE, VIDEO1, VIDEO2, VIDEO3, DVD/6ch)	10 Hz ~ 60 kHz, +0 dB, -3.0 dB
PHONO 'RIAA' response	40 Hz ~ 20 kHz, 1.5 dB - -3.0 dB
Maximum input level	
PHONO (MM)	100 mV, 1% T.H.D. at 1 kHz
Signal to noise ratio (IHF'66)	
PHONO (MM)	75 dB
Line (CD/DVD, TAPE, VIDEO1, VIDEO2, VIDEO3, DVD/6ch)	93 dB
Input sensitivity / impedance	
PHONO (MM)	2.5 mV / 27 k Ω
Line (CD/DVD, TAPE, VIDEO1, VIDEO2, VIDEO3, DVD/6ch)	200 mV / 47 k Ω
Output level / impedance	
TAPE REC	200 mV / 1 k Ω
PRE OUT (Surround Back channel)	1 V / 1 k Ω
PRE OUT (SUBWOOFER)	1 V / 1 k Ω
Tone control	
BASS	± 10 dB (at 100 Hz)
TREBLE	± 10 dB (at 10 kHz)

Specifications

DIGITAL AUDIO section

Sampling frequency 32 kHz, 44.1 kHz, 48 kHz, 96kHz
Input level / impedance / wave length
Optical (-15 dBm ~ -21 dBm), 660 nm $\pm$ 30nm
Coaxial 0.5 Vp-p / 75 Ω

VIDEO section

VIDEO inputs / outputs
VIDEO (composite) 1 Vp-p / 75 Ω
S VIDEO inputs / outputs
S VIDEO (luminance signal) 1 Vp-p / 75 Ω
S VIDEO (chrominance signal) 0.286 Vp-p / 75 Ω
COMPONENT inputs / outputs
COMPONENT (luminance signal) 1 Vp-p / 75 Ω
COMPONENT (chrominance signal) +/- 0.32 V Vp-p / 75 Ω

FM tuner section

Tuning frequency range 87.5 MHz ~ 108.0 MHz
Usable sensitivity (MONO)
VR-6060 . 1.3 μ V (75 Ω) / 13.2 dBf (75 kHz DEV., SINAD 30 dB)
KRF-V8060D 1.6 μ V (75 Ω) / 15.2 dBf (75 kHz DEV., SINAD 30 dB)
50dB quieting sensitivity
STEREO 28 μ V (75 Ω) / 40.2 dBf
Total harmonic distortion (1 kHz)
MONO 0.5% (65 dBf input)
STEREO 0.7% (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 ($\pm$ 400 kHz) (VR-6060) 70 dB
(KRF-V8060D) 50 dB
Frequency response (30 Hz ~ 15kHz), +0.5 dB, -3.0 dB

AM tuner section

Tuning frequency range
10 kHz step 530 kHz ~ 1,700 kHz (VR-6060)
10 kHz step 530 kHz ~ 1,610 kHz (KRF-V8060D)
9 kHz step 531 kHz ~ 1,602 kHz (KRF-V8060D)
Usable sensitivity 16 μ V / (600 μ V/m)
Signal to noise ratio (30% mod. 1 mV input) 50 dB

GENERAL

Power consumption VR-6060	A
KRF-V8060D	W
Maximum power consumption (For other countries)	W
AC outlet	
SWITCHED VR-6060	(total W, A max.)
KRF-V8060D	(total W, A max.)
Dimensions	W : mm (")
	H : mm (")
	D : mm (")
Weight (Net)	
VR-6060	kg (lb)
KRF-V8060D	kg (lb)

For the U.S.A.

FCC Compliance Notice

Audio-video Receiver VR-6060,
These devices comply with Part 15 of FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
KENWOOD U.S.A. CORPORATION
2201 East Dominguez St., Long Beach, CA 90801-5745
Telephone: 310-639-9000

Notes

1. KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.
2. The full performance may not be exhibited in an extremely cold location (under a water-freezing temperature).





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 _____ Serial Number _____