JVC

AUDIO/VIDEO CONTROL RECEIVER

AUDIO/VIDEO-RECEIVER MIT STEUEREINHEIT
AMPLI/TUNER DE COMMANDE AUDIO/VIDEO
GEINTEGREERDE AUDIO/VIDEO-VERSTERKER
RECEPTOR DE CONTROL DE AUDIO/VÍDEO
RICEVITORE DI CONTROLLO AUDIO/VIDEO

RX-888RBK

K2 INTERFACE
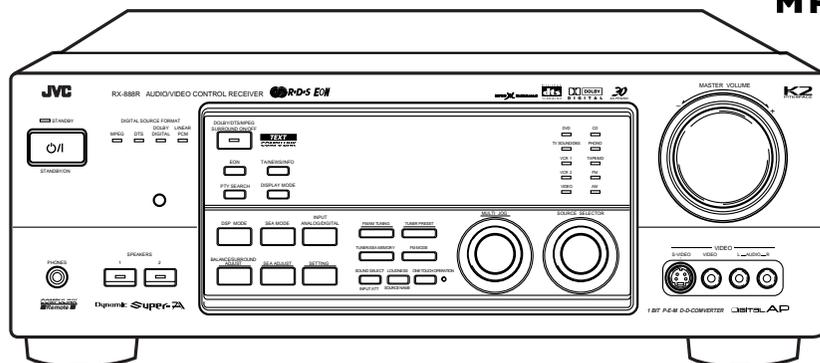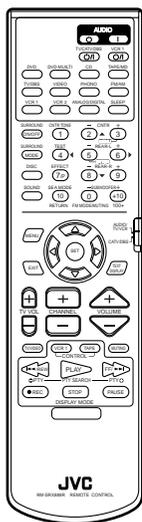
digital AP

Dynamic Super-A

TEXT
COMPU LINK

COMPU LINK
||||Remote||||

3D
3D-PHONIC

MPEG)|(Multichannel

DIGITAL
dts
SURROUND

DOLBY
DIGITAL

R·D·S EON

INSTRUCTIONS

BEDIENUNGSANLEITUNG
MANUEL D'INSTRUCTIONS
GEBRUIKSAANWIJZING
MANUAL DE INSTRUCCIONES
ISTRUZIONI

Warnings, Cautions and Others/Warnung, Achtung und sonstige Hinweise/ Mises en garde, précautions et indications diverses/Waarschuwingen, voorzorgen en andere mededelingen/Avisos, precauciones y otras notas/ Avvertenze e precauzioni da osservare

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IMPORTANT for the U.K.

DO NOT cut off the mains plug from this equipment. If the plug fitted is not suitable for the power points in your home or the cable is too short to reach a power point, then obtain an appropriate safety approved extension lead or consult your dealer.

BE SURE to replace the fuse only with an identical approved type, as originally fitted.

If nonetheless the mains plug is cut off ensure to remove the fuse and dispose of the plug immediately, to avoid a possible shock hazard by inadvertent connection to the mains supply.

If this product is not supplied fitted with a mains plug then follow the instructions given below:

IMPORTANT.

DO NOT make any connection to the terminal which is marked with the letter E or by the safety earth symbol or coloured green or green-and-yellow.

The wires in the mains lead on this product are coloured in accordance with the following code:

        Blue :   Neutral
        Brown :   Live

As these colours may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:

The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.

The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

IF IN DOUBT - CONSULT A COMPETENT ELECTRICIAN.

Per l'Italia:

"Si dichiara che il questo prodotto di marca JVC è conforme alle prescrizioni del Decreto Ministeriale n.548 del 28/08/95 pubblicato sulla Gazzetta Ufficiale della Repubblica Italiana n.301 del 28/12/95."

Caution — STANDBY/ON ⏻/| switch!
Disconnect the mains plug to shut the power off completely. The STANDBY/ON ⏻/| switch in any position does not disconnect the mains line. The power can be remote controlled.

Achtung — STANDBY/ON ⏻/|-Schalter!
Den Netzstecker aus der Steckdose ziehen, um die Stromversorgung vollkommen zu unterbrechen. Der Schalter STANDBY/ON ⏻/| unterbrichet in keiner Stellung die Stromversorgung vollkommen. Die Stromversorgung kann mit der Fernbedienung ein- und ausgeschaltet werden.

Attention — Commutateur STANDBY/ON ⏻/|!
Déconnecter la fiche de secteur pour couper complètement le courant. Le commutateur STANDBY/ON ⏻/| ne coupe jamais complètement la ligne de secteur, quelle que soit sa position. Le courant peut être télécommandé.

Voorzichtig — STANDBY/ON ⏻/| schakelaar!
Om de stroomtoevoer geheel uit te schakelen, trekt u de stekker uit het stopkontakt. Anders zal er altijd een geringe hoeveelheid stroom naar het apparaat lopen, ongeacht de stand van de STANDBY/ON ⏻/| schakelaar. U kunt het apparaat ook met de afstandsbediening aan-en uitschakelen.

Precaución — Interruptor STANDBY/ON ⏻/|!
Desconectar el cable de alimentación para desactivar la alimentación totalmente. Cualquier que sea la posición de ajuste del interruptor STANDBY/ON ⏻/|, la alimentación no es cortada completamente. La alimentación puede ser controlada remotamente.

Attenzione — L'interruttore STANDBY/ON ⏻/|!
Disinserire la spina del cavo di alimentazione dalla presa della rete elettrica per staccare completamente l'alimentazione. L'interruttore STANDBY/ON ⏻/| in nessuna posizione stacca la linea di alimentazione elettrica principale. È possibile il controllo remoto dell'alimentazione.

CAUTION
To reduce the risk of electrical shocks, fire, etc.:
1. Do not remove screws, covers or cabinet.
2. Do not expose this appliance to rain or moisture.

ACHTUNG
Zur Verhinderung von elektrischen Schlägen, Brandgefahr, usw:
1. Keine Schrauben lösen oder Abdeckungen enternen und nicht das Gehäuse öffnen.
2. Dieses Gerät weder Regen noch Feuchtigkeit aussetzen.

ATTENTION
Afin d'éviter tout risque d'électrocution, d'incendie, etc.:
1. Ne pas enlever les vis ni les panneaux et ne pas ouvrir le coffret de l'appareil.
2. Ne pas exposer l'appareil à la pluie ni à l'humidité.

VOORZICHTIG
Ter vermindering van gevaar voor brand, elektrische schokken, enz.:
1. Verwijder geen schroeven, panelen of de behuizing.
2. Stel dit toestel niet bloot aan regen of vocht.

PRECAUCIÓN
Para reducir riesgos de choques eléctricos, incendio, etc.:
1. No extraiga los tornillos, los cubiertas ni la caja.
2. No exponga este aparato a la lluvia o a la humedad.

ATTENZIONE
Per ridurre il rischio di scosse elettriche, incendi, ecc...
1. Non togliere viti, coperchi o la scatola.
2. Non esporre l'apparecchio alla piogggia e all'umidità.

Caution: Proper Ventilation

To avoide risk of electric shock and fire and to protect from damage.
Locate the apparatus as follows:

Front: No obstructions open spacing.
Sides: No obstructions in 10 cm from the sides.
Top: No obstructions in 10 cm from the top.
Back: No obstructions in 15 cm from the back
Bottom: No obstructions, place on the level surface.

In addition, maintain the best possible air circulation as illustrated.

Achtung: Angemessene Ventilation

Stellen Sie das Gerät zur Verhütung von elektrischem Schlag und
Feuer und zum Schutz gegen Beschädigung wie folgt auf:

Vorderseite: Offener Platz ohne Hindernisse.
Seiten: Keine Hindernisse innerhalb 10 cm von den Seiten.
Oberseite: Keine Hindernisse innerhalb 10 cm von der Oberseite.
Rückseite: Keine Hindernisse innerhalb 15 cm von der Rückseite.
Unterseite: Keine Hindernisse. Auf eine ebene Oberfläche stellen.

Zusätzlich die bestmögliche Luftzirkulation wie gezeigt erhalten.

Attention: Ventilation Correcte

Pour éviter les chocs électriques, l'incendie et tout autre dégât.
Disposer l'appareil en tenant compte des impératifs suivants

Avant: Rien ne doit gêner le dégagement
Flancs: Laisser 10 cm de dégagement latéral
Dessus: Laisser 10 cm de dégagement supérieur
Arrière: Laisser 15 cm de dégagement arrière
Dessous: Rien ne doit obstruer par dessous; poser l'appareil sur
une surface plate.

Veiller également à ce que l'air circule le mieux possible comme
illustré.

Voorzichtig: Zorg Voor Goede Ventilatie

Om gevaar voor brand of een elektrische schok te voorkomen, dient u
bij opstelling van het apparaat op de volgende punten te letten:

Voorkant: Voldoende ruimte vrij houden.
Zijkanten: Minstens 10 cm aan weerszijden vrij houden.
Bovenkant: Niets bovenop plaatsen; 10 cm speling geven.
Achterkant: Minstens 15 cm ruimte achteraan vrij houden.
Onderkant: Opstellen op een egaal horizontaal oppervlak.

Bovendien moet er rondom voldoende luchtdoorstroming zijn, zoals in
de afbeelding aangegeven.

Precaución: Ventilación Adecuada

Para evitar el riesgo de choque eléctrico e incendio y para proteger el
aparato contra daños.
Ubique el aparato de la siguiente manera:

Frente: Espacio abierto sin obstrucciones
Lados: 10 cm sin obstrucciones a los lados
Parte superior: 10 cm sin obstrucciones en la parte superior
Parte trasera: 15 cm sin obstrucciones en la parte trasera
Fondo: Sin obstrucciones, colóquelo sobre una superficie
nivelada

Además, mantenga la mejor circulación de aire posible como se
ilustra.

Attenzione: Problemi di Ventilazione

Per evitare il rischio di folgorazioni ed incendi e proteggere l'unità da
danni, installarla nel modo seguente.

Davanti: Nessun ostacolo, spazio libero
Lati: Nessun ostacolo per almeno 10 cm
Sopra: Nessun ostacolo per almeno 10 cm
Retro: Nessun ostacolo per almeno 15 cm
Fondo: Libero ed in piano

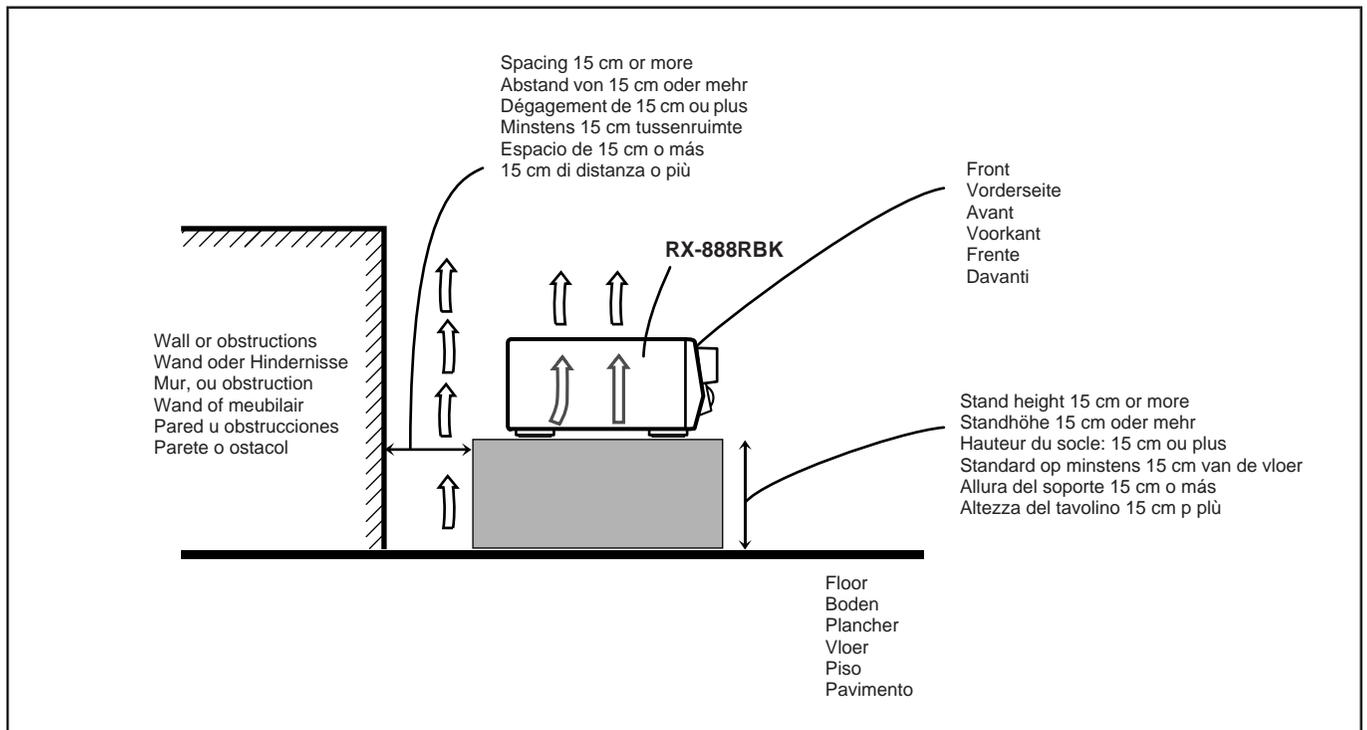Inoltre, mantenere il più possibile la circolazione dell'aria.

Spacing 15 cm or more
Abstand von 15 cm oder mehr
Dégagement de 15 cm ou plus
Minstens 15 cm tussenruimte
Espacio de 15 cm o más
15 cm di distanza o più

Front
Vorderseite
Avant
Voorkant
Frente
Davanti

RX-888RBK

Wall or obstructions
Wand oder Hindernisse
Mur, ou obstruction
Wand of meubilair
Pared u obstrucciones
Parete o ostacol

Stand height 15 cm or more
Standhöhe 15 cm oder mehr
Hauteur du socle: 15 cm ou plus
Standard op minstens 15 cm van de vloer
Allura del soporte 15 cm o más
Altezza del tavolino 15 cm p plù

Floor
Boden
Plancher
Vloer
Piso
Pavimento

Table of Contents

Parts Identification

Become familiar with the buttons and controls on the receiver before use.
Refer to the pages in parentheses for details.
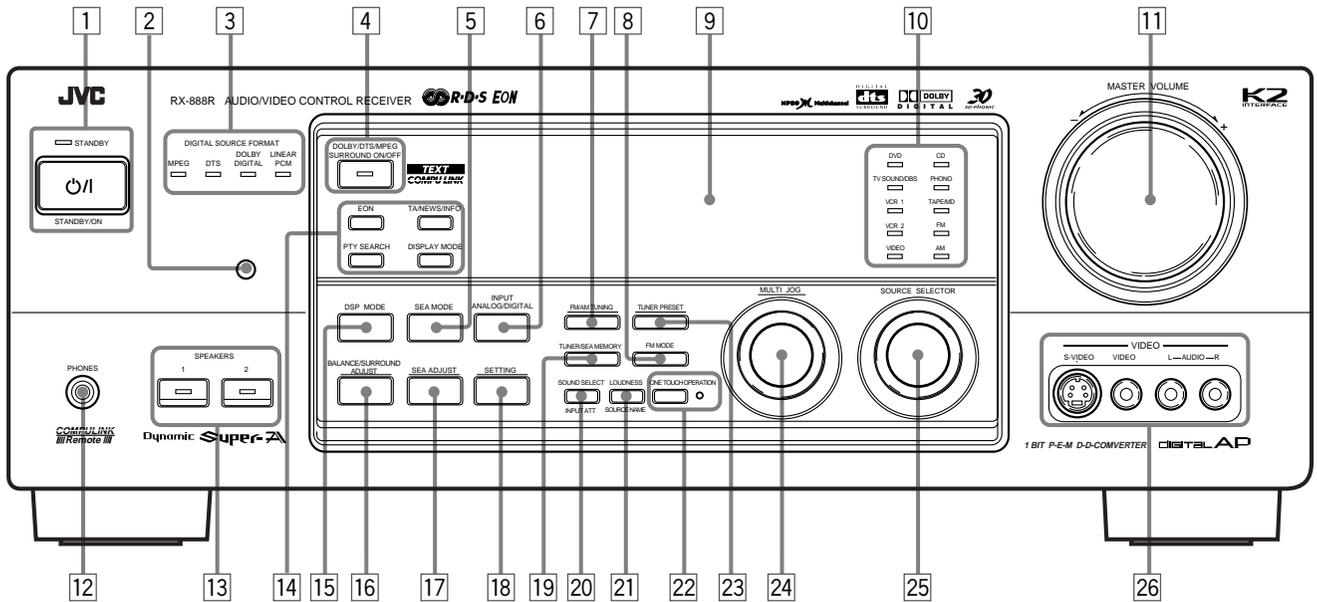
Front Panel

1. STANDBY/ON ⏻/| button and STANDBY lamp (9)
2. Remote sensor (8)
3. DIGITAL SOURCE FORMAT lamps (10) MPEG, DTS, DOLBY DIGITAL, LINEAR PCM
4. DOLBY/DTS/MPEG SURROUND ON/OFF button and lamp (30)
5. SEA MODE button (22)
6. INPUT ANALOG/DIGITAL button (13)
7. FM/AM TUNING button (17) *
8. FM MODE button (18)
9. Display (9)
10. Source lamps (9)
11. MASTER VOLUME control (10)
12. PHONES jack (11)
13. SPEAKERS 1/2 buttons and lamps (10)
14. RDS operation buttons (19 – 21) EON, TA/NEWS/INFO, PTY SEARCH, DISPLAY MODE
15. DSP MODE button (26)
16. BALANCE/SURROUND ADJUST button (11, 12, 26) *
17. SEA ADJUST button (22) *
18. SETTING button (12 – 15) *
19. TUNER/SEA MEMORY button (17, 18, 22)
20. SOUND SELECT/INPUT ATT button (10, 11)
21. LOUDNESS/SOURCE NAME button (11, 12)
22. ONE TOUCH OPERATION button and lamp (16)
23. TUNER PRESET button (18) *
24. MULTI JOG control
   What this control actually does depends on which function you are trying to adjust. Before using this control, select the function by pressing one of the buttons marked with *.
25. SOURCE SELECTOR control (9)
26. VIDEO input jacks (7)

Remote Control

1. TV/CATV/DBS ⏻/| button (46 – 48)
2. Source selecting buttons (9) DVD, DVD MULTI, CD, TAPE/MD, TV/DBS, VIDEO, PHONO, FM/AM, VCR 1, VCR 2
3. SURROUND ON/OFF button (30)
4. SURROUND MODE button (26)
5. DISC button (45)
6. SOUND button (22, 26)
7. On-screen operation buttons (34, 41) MENU, SET, EXIT, △, ▽, ◁, ▷
8. TV VOL +/– buttons (46, 47)
9. • RDS operation buttons (19 – 20) PTY SEARCH, PTY –/+, DISPLAY MODE
   • Operating buttons for audio/video components (45 – 48)
10. AUDIO buttons (9) ⏻, |
11. VCR 1 ⏻/| button (46, 48)
12. SLEEP button (16)
13. ANALOG/DIGITAL button (13)
14. • 10 keys for selecting preset channel (18)
   • 10 keys for adjusting sound (26 – 29, 33)
   • 10 keys for operating audio/video components (45 – 48)
15. Remote control mode selector (9, 45, 47)
16. TEXT DISPLAY button (41)
17. CHANNEL +/– button (46 – 48)
18. VOLUME +/– button (10)
19. MUTING button (11)

2
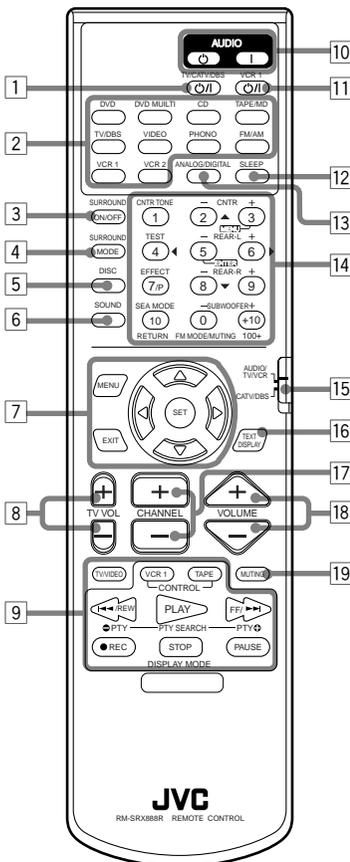
Getting Started

This section explains how to connect audio/video components and speakers to the receiver, and how to connect the power supply.

Before Installation

General

- Be sure your hands are dry.
- Turn the power off to all components.
- Read the manuals supplied with the components you are going to connect.

Locations

- Install the receiver in a location that is level and protected from moisture.
- The temperature around the receiver must be between –5˚ and 35˚ C (23˚ and 95˚ F).
- Make sure there is good ventilation around the receiver. Poor ventilation could cause overheating and damage the receiver.

Handling the receiver

- Do not insert any metal object into the receiver.
- Do not disassemble the receiver or remove screws, covers, or cabinet.
- Do not expose the receiver to rain or moisture.

Checking the Supplied Accessories

Check to be sure you have all of the following items, which are supplied with the receiver.
The number in the parentheses indicates quantity of the pieces supplied.

- **Remote Control (1)**

- **Batteries (2)**

- **AM (MW/LW) Loop Antenna (1)**

- **FM Antenna (1)**

If anything is missing, contact your dealer immediately.

Connecting the FM and AM (MW/LW) Antennas

FM Antenna Connections
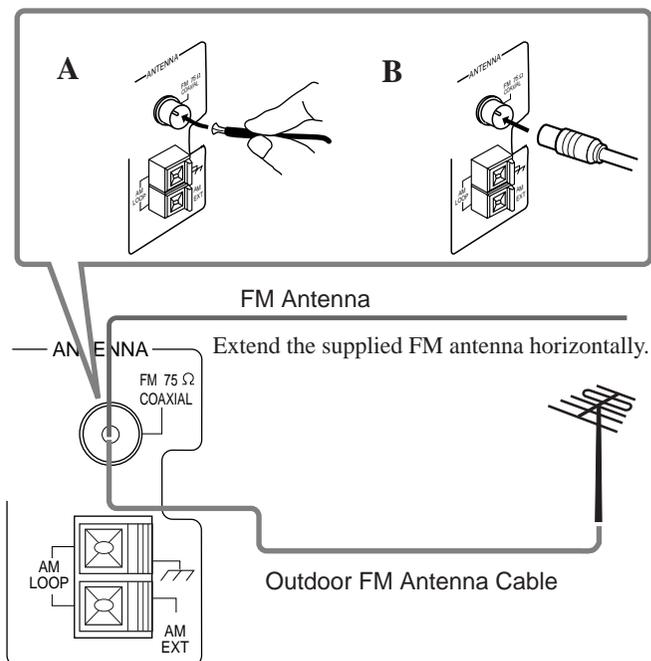
A. Using the Supplied FM Antenna
The FM antenna provided can be connected to the FM 75Ω COAXIAL terminal as temporary measure.

B. Using the Standard Type Connector (Not Supplied)
A standard type connector (IEC or DIN45325) should be connected to the FM 75Ω COAXIAL terminal.

Note:

If reception is poor, connect the outdoor antenna.
Before attaching a 75Ω coaxial cable (the kind with a round wire going to an outdoor antenna), disconnect the supplied FM antenna.

AM (MW/LW) Antenna Connections

Snap the tabs on the loop into the slots of the base to assemble the AM (MW/LW) loop.

AM (MW/LW) Loop Antenna

Outdoor single vinyl-covered wire
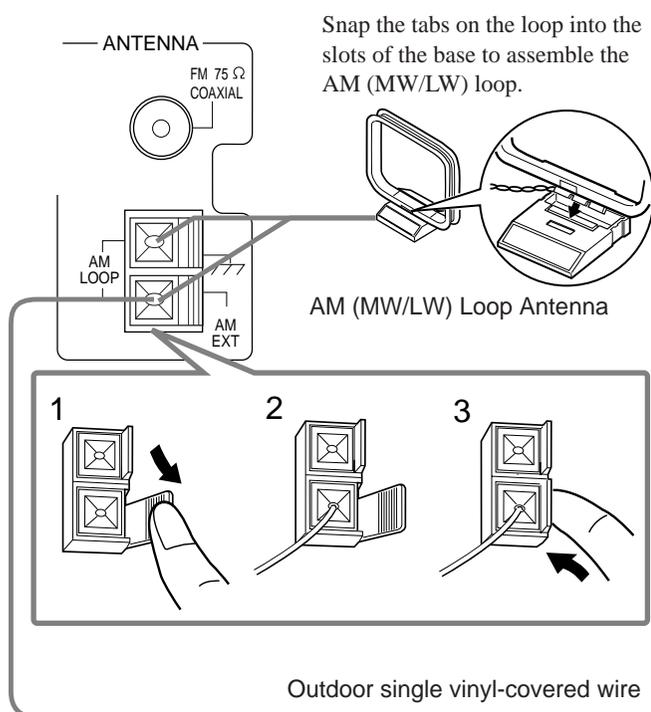
Turn the loop until you have the best reception.

Notes:

- *Make sure the antenna conductors do not touch any other terminals, connecting cords and power cord. This could cause poor reception.*
- *If reception is poor, connect an outdoor single vinyl-covered wire to the AM EXT terminal. (Keep the AM (MW/LW) loop antenna connected.)*

Connecting the Speakers

You can connect the following speakers:
- Two pairs of front speakers to produce normal stereo sound.
- One pair of rear speakers to enjoy the surround effect.
- One center speaker to produce more effective surround effect (to emphasize human voices).
- One subwoofer to enhance the bass.

IMPORTANT:

After connecting the speakers listed above, set the speaker setting information properly to obtain the best possible DSP effect. For details, see page 14.

For each speaker (except for a subwoofer), connect the (–) and (+) terminals on the rear panel to the (–) and (+) terminals marked on the speakers. For connecting a subwoofer, see page 5.

CAUTION:

Use speakers with the SPEAKER IMPEDANCE indicated by the speaker terminals.

Basic connecting procedure
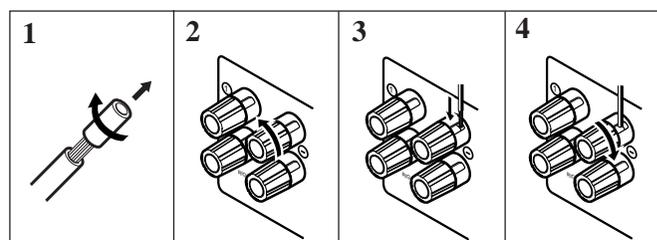
1 **Cut, twist and remove the insulation at the end of each speaker signal cable (not supplied).**

2 **Turn the knob counterclockwise.**

3 **Insert the speaker signal cable.**

4 **Turn the knob clockwise.**

Connecting the front speakers

You can connect two pairs of front speakers (one pair to the FRONT SPEAKERS ① terminals, and another pair to the FRONT SPEAKERS ② terminals).

Right speaker —— FRONT SPEAKERS ① —— Left speaker
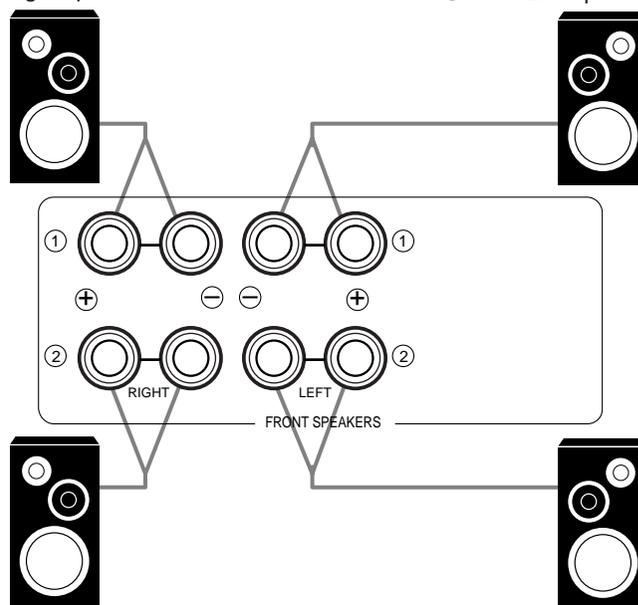
Right speaker —— FRONT SPEAKERS ② —— Left speaker

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About the speaker impedance

The required speaker impedance of the front speakers does differ depending on whether both the FRONT SPEAKERS ① and FRONT SPEAKERS ② terminals are used or only one of them is used.

| CASE 1 | When you connect only one set of front speakers |

Front speaker 1   Front speaker 1

Use front speakers with **4 – 16 ohm** impedance.

| CASE 2 | When you connect two sets of front speakers |

Front speaker 1   Front speaker 1

Front speaker 2   Front speaker 2

Use front speakers **8 – 16 ohm** impedance.
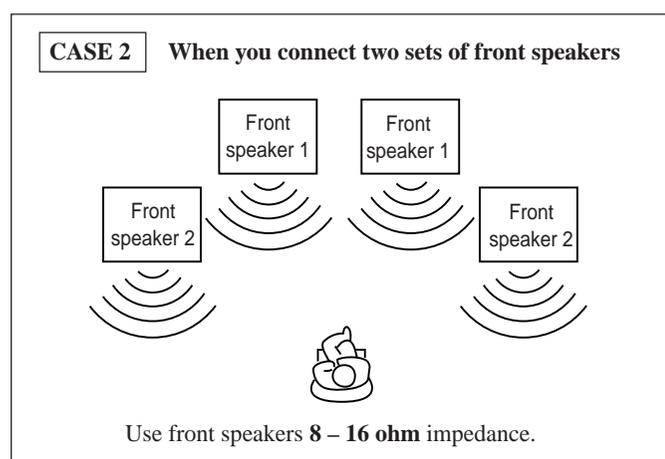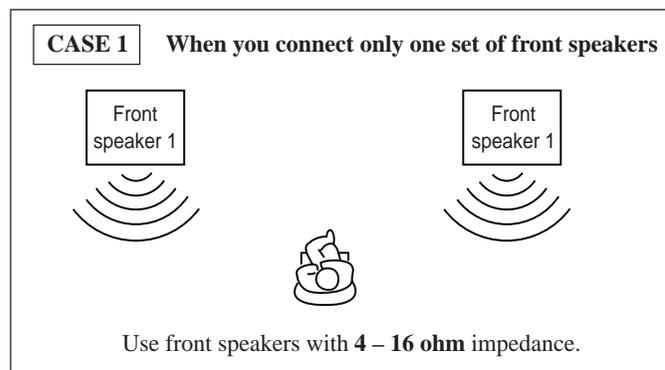
CAUTION:

Use speakers with the SPEAKER IMPEDANCE indicated by the speaker terminals.

Connecting the rear and center speakers

Connect rear speakers to the REAR SPEAKERS terminals and a center speaker to the CENTER SPEAKER terminals.

Center speaker

Left rear speaker   Right rear speaker

CENTER SPEAKER   REAR SPEAKERS

RIGHT   LEFT
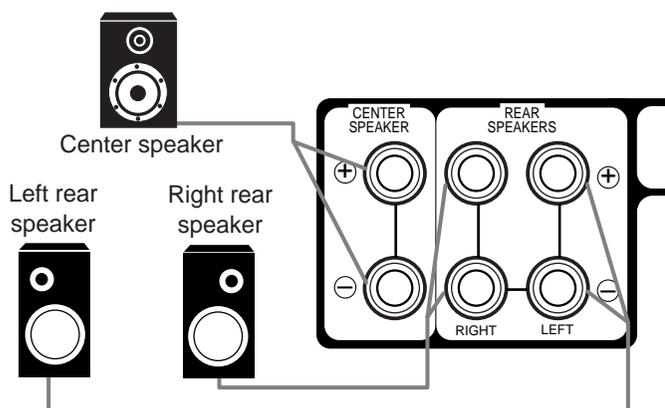
Connecting the subwoofer speaker

You can enhance the bass by connecting a subwoofer.
Connect the input jack of a powered subwoofer to the SUBWOOFER OUT jack on the rear panel, using a cable with RCA pin plugs (not supplied).

SUBWOOFER OUT

Powered subwoofer

Connecting Audio/Video Components

You can connect the following audio/video components to this receiver. Refer also to the manuals supplied with your components.

Audio Components	Video Components
• Turntable	• DVD player*
• CD player*	• TV
• Cassette deck or MD recorder*	• DBS tuner*
	• VCRs
———————	• Video camera

* You can connect these components using the methods described in "Analog connections" (below) or in "Digital connections" (see page 8).

Analog connections

Audio component connections

Use the cables with RCA pin plugs (not supplied).
Connect the white plug to the audio left jack, and the red plug to the audio right jack.

CAUTION:

If you connect a sound-enhancing device such as a graphic equalizer between the source components and this receiver, the sound output through this receiver may be distorted.

| Turntable |

If an earth cable is provided for your turntable, connect the cable to the screw marked (⏚) on the rear panel.

Turntable

RIGHT   LEFT   AUDIO
PHONO
CD
OUT (REC)
TAPE /MD
IN (PLAY)

To audio output

Note:

Any turntables incorporating a small-output cartridge such as an MC (moving-coil type) must be connected to this receiver through a commercial head amplifier or step-up transformer. Direct connection may result in insufficient volume.

CD player

CD player

To audio output

RIGHT   LEFT   AUDIO
PHONO
CD
OUT (REC)
TAPE /MD
IN (PLAY)

Cassette deck or MD recorder

Cassette deck

To audio input   To audio output

RIGHT   LEFT   AUDIO
PHONO
CD
OUT (REC)
TAPE /MD
IN (PLAY)

MD recorder

To audio input   To audio output

Note:

You can connect either a cassette deck or an MD recorder to the TAPE/MD jacks. When connecting an MD recorder to the TAPE/MD jacks, change the source name, which will be shown on the display when selected as the source, to "MD." See page 12 for details.

If your audio components have a COMPU LINK-3 or TEXT COMPU LINK terminal
- See also page 39 for detailed information about the connection and the COMPU LINK-3 remote control system.
- See also page 40 for detailed information about the connection and the TEXT COMPU LINK remote control system.

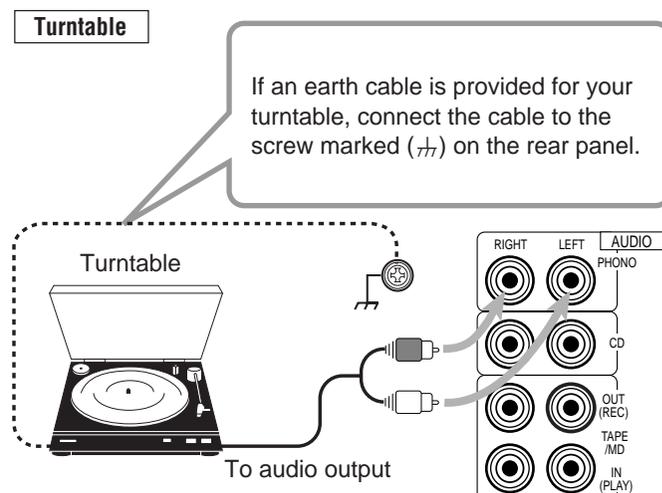**_Video component connections_**

Use the cables with RCA pin plugs (not supplied).
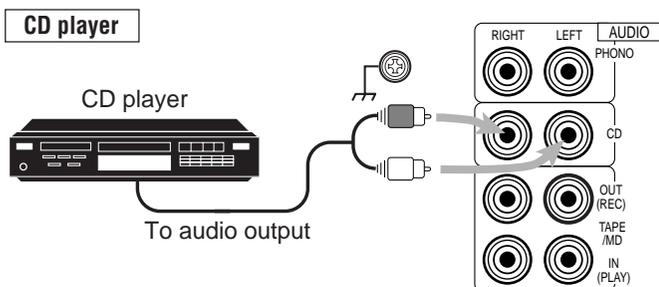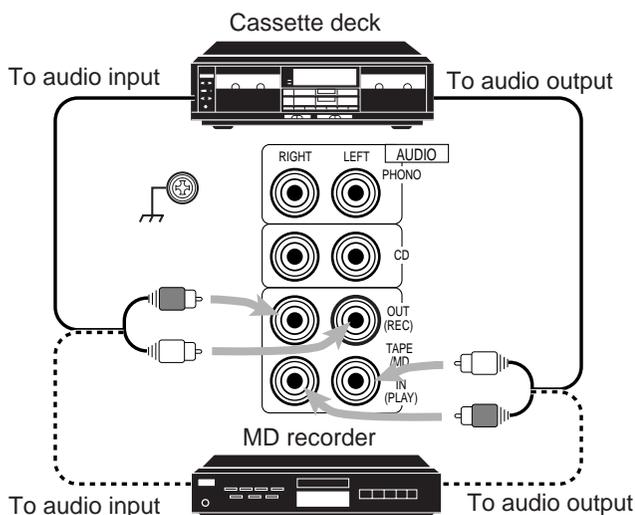Connect the white plug to the audio left jack, the red plug to the audio right jack, and the yellow plug to the video jack.
If your video components have S-video (Y/C-separation) terminals, connect them using S-video cables (not supplied). Connecting these video components through the S-video input/output terminals will give you better picture playback (or recording) quality.

IMPORTANT:

This receiver is equipped with both the composite video and S-video input/output terminals for connecting video components.
You do not have to connect both the composite video and S-video terminals.
However, **remember that the video signals from the composite video input terminals are output only through the composite video output terminals, while the ones from the S-video input terminals are output only through the S-video output terminals.**
Therefore, if a recording video component and a playing video component are connected to the receiver through the different video terminals, you cannot record the picture from the playing component on the recording component. In addition, if the TV and a playing video component are connected to the receiver through the different video terminals, you cannot view the playback picture from the playing component on the TV.

To view and record the playback picture from the video component connected to the VCR 2 jacks, you must connect the TV and the recording video component through the composite video terminals.

VCR

S-VHS (or VHS) VCR

A   B   C   D   E   F

AUDIO   RIGHT   LEFT   VIDEO   VIDEO   S-VIDEO
DVD
TV SOUND /DBS
OUT (REC)
VCR 1
IN (PLAY)
OUT (REC)
VCR 2
IN (PLAY)
MONITOR OUT

A   D

VHS VCR

B   E

Ⓐ To left/right channel audio output
Ⓑ To left/right channel audio input
Ⓒ To S-video output
Ⓓ To composite video output
Ⓔ To composite video input
Ⓕ To S-video input

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Video camera

The VIDEO jacks on the front panel is convenient when connecting and disconnecting the equipment frequently.

To audio output
To S-video output
To composite video output

TV and/or DBS tuner

To audio output

TV

Connect the TV to the MONITOR OUT jack to view the playback picture from the other connected video components.

To composite video input
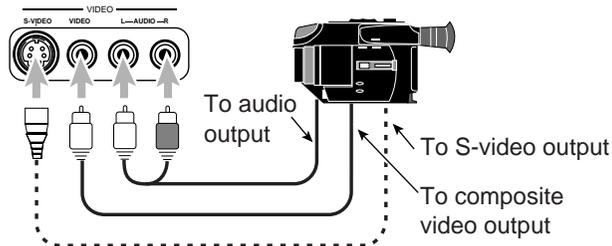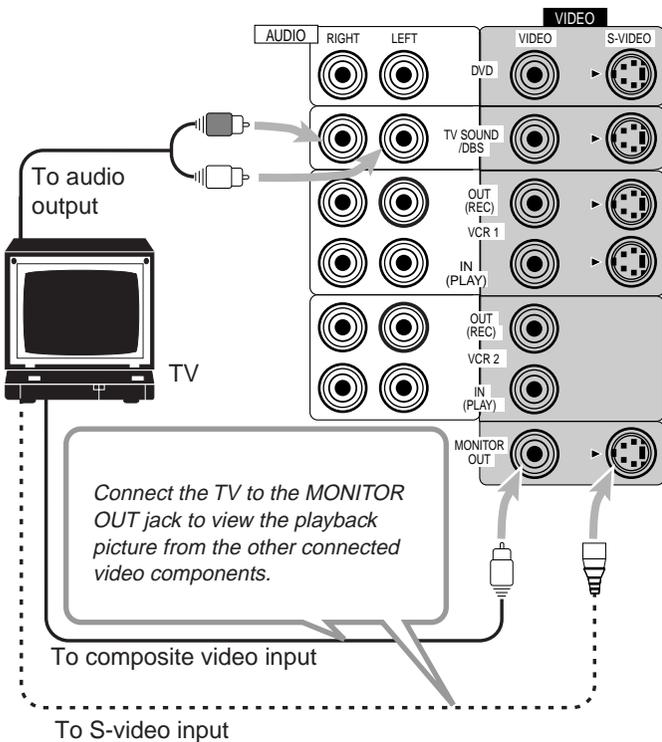
To S-video input

Notes:

• Use a TV of the PAL- or multi-color system.
• When connecting the TV to the TV SOUND/DBS jacks, DO NOT connect the TV's video output to these video input terminals.

To audio output

DBS tuner

To composite video output

To S-video output
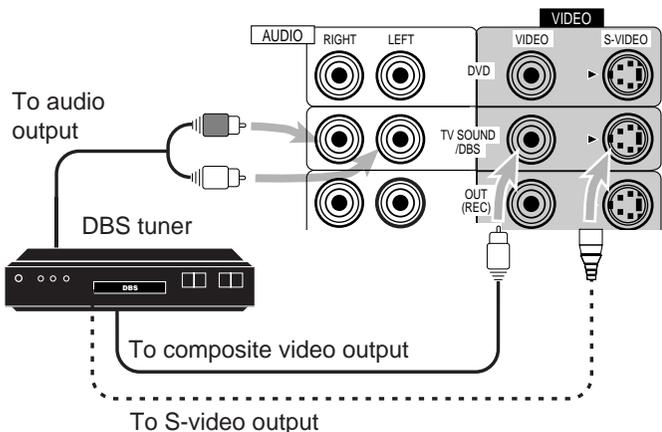
Note:

When connecting the DBS tuner to the TV SOUND/DBS jacks, change the source name, which will be shown on the display when selected as the source, to "DBS." See page 12 for details.

DVD player

• When you connect the DVD player with stereo output jacks:
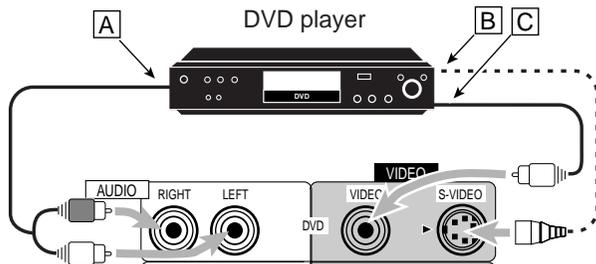
DVD player

A To front left/right channel audio output (or to audio mixed output if necessary)
B To S-video output
C To composite video output

• When you connect the DVD player with its analog discrete output (5.1 CH reproduction) jacks:

DVD player
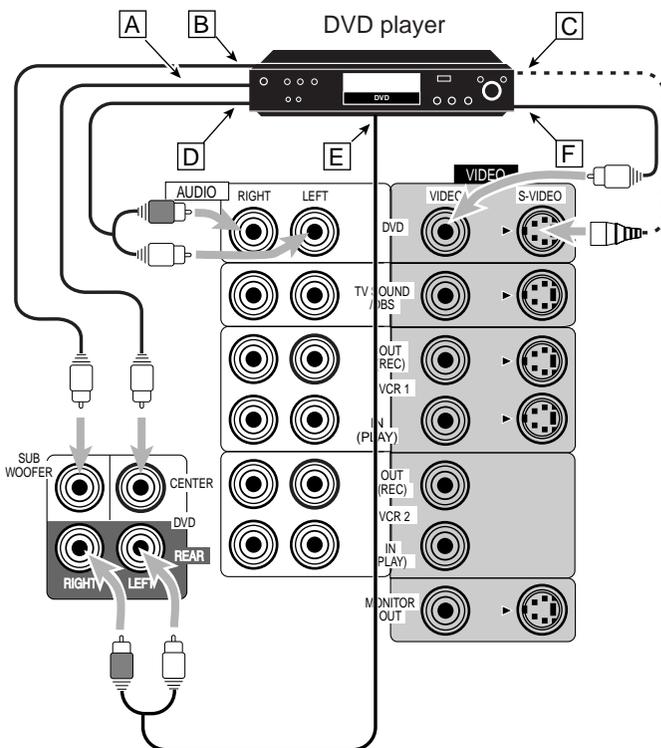
A To center channel audio output
B To subwoofer audio output
C To S-video output
D To front left/right channel audio output
E To rear left/right channel audio output
F To composite video output

7

Digital connections

This receiver is equipped with three DIGITAL IN terminals — one digital coaxial terminal and two digital optical terminals.
You can connect any component to any one of the digital terminals using the digital coaxial cable (not supplied) or digital optical cable (not supplied).

IMPORTANT:

• When connecting the DVD player or the DBS tuner using the digital terminal, you also need to connect it to the video jack (either composite video terminal or S-video terminal) on the rear. Without connecting it to the video jack, you can view no playback picture.
• After connecting the components using the DIGITAL IN terminals, set the following correctly if necessary.
– Select the digital input mode correctly. For details, see "Selecting the Analog or Digital Input Mode" on page 13.
– Set the digital input (DIGITAL IN) terminal setting correctly. For details, see "Digital Input (DIGITAL IN) Terminal Setting" on page 13.

DBS tuner

DVD player

CD player

MD recorder
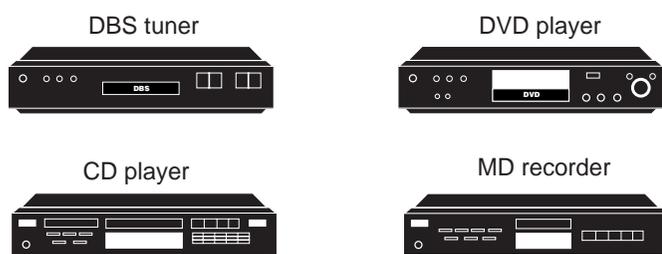
When the component has a digital coaxial output terminal, connect it to the DIGITAL 1 (DBS) terminal, using the digital coaxial cable (not supplied).

When the component has a digital optical output terminal, connect it to the DIGITAL 2 (DVD) or DIGITAL 3 (CD) terminal, using the digital optical cable (not supplied).

Before connecting a digital optical cable, unplug the protective plug.

DIGITAL IN
PCM / DOLBY DIGITAL
MPEG / DTS

DIGITAL 1 (DBS)

DIGITAL 2 (DVD)
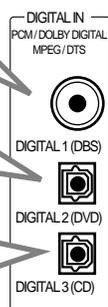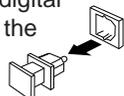
DIGITAL 3 (CD)

Notes:

• When shipped from the factory, the DIGITAL IN terminals has been set for use with the following components.
– DIGITAL 1 (coaxial): For DBS tuner
– DIGITAL 2 (optical): For DVD player
– DIGITAL 3 (optical): For CD player
• When you want to operate the CD player or MD recorder using the COMPU LINK remote control system, connect the target component also as described in "Analog connections" (see page 6).
• When you want to operate the DVD player using the AV COMPU LINK remote control system, connect the DVD player also as described in "Analog connections" (see page 7).

Connecting the Power Cord

Before plugging the receiver into an AC outlet, make sure that all connections have been made.

Plug the power cord into an AC outlet.

Keep the power cord away from the connecting cables and the antenna. The power cord may cause noise or screen interference. We recommend that you use a coaxial cable to connect the antenna, since it is well-shielded against interference.

Note:

The preset settings such as preset channel and sound adjustment may be erased in a few days in the following cases:
– When you unplug the power cord.
– When a power failure occurs.

CAUTIONS:

• Do not touch the power cord with wet hands.
• Do not pull on the power cord to unplug the cord. When unplugging the cord, always grasp the plug so as not to damage the cord.

Putting Batteries in the Remote Control

Before using the remote control, put two supplied batteries first. When using the remote control, aim the remote control directly at the remote sensor on the receiver.

1   2   3
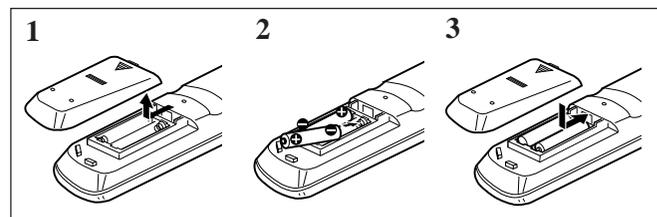
1. On the back of the remote control, remove the battery cover.

2. Insert batteries. Make sure to match the polarity: (+) to (+).

3. Replace the cover.

If the range or effectiveness of the remote control decreases, replace the batteries. Use two R6P(SUM-3)/AA(15F) type dry-cell batteries.

CAUTION:

Follow these precautions to avoid leaking or cracking cells:
• Place batteries in the remote control so they match the polarity: (+) to (+).
• Use the correct type of batteries. Batteries that look similar may differ in voltage.
• Always replace both batteries at the same time.
• Do not expose batteries to heat or flame.

8

Basic Operations

The following operations are commonly used when you play any sound source.

IMPORTANT:

When using the remote control, check to see if its remote control mode selector is set to the correct position:

To operate an audio system, TV, and VCR, set it to "AUDIO/TV/VCR."

To operate a CATV converter and DBS tuner, set it to "CATV/DBS."

AUDIO/TV/VCR
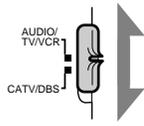
CATV/DBS
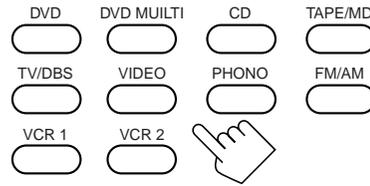
Turning the Power On and Off (Standby)

On the front panel:

To turn on the power, press STANDBY/ON ⏻/❙. The STANDBY lamp goes off. The name of the current source (or station frequency) appears on the display.

STANDBY

⏻/❙
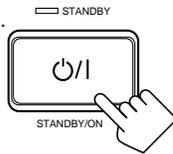
STANDBY/ON

Current source name appears

D V D

VOLUME
38

100   1k   10k
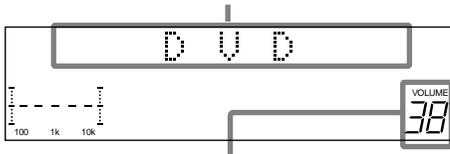
Current volume level is shown here

To turn off the power (into standby mode), press STANDBY/ON ⏻/❙ again.

The STANDBY lamp lights up. A small amount of power is consumed in standby mode. To turn the power off completely, unplug the AC power cord.

STANDBY

⏻/❙
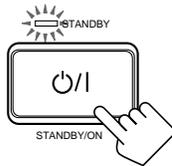
STANDBY/ON

From the remote control:

To turn on the power, press AUDIO ❙. The STANDBY lamp goes off. The name of the current source (or station frequency) appears on the display.

AUDIO
⏻   ❙

To turn off the power (into standby mode), press AUDIO ⏻. The STANDBY lamp lights up.

AUDIO
⏻   ❙

Selecting the Source to Play

On the front panel:

Turn SOURCE SELECTOR until the source name you want appears on the display.

SOURCE SELECTOR

• As you turn the selector, the source changes as follows:
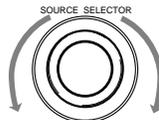
CD ⇄ PHONO ⇄ TAPE (or MD) ⇄ FM ⇄
AM ⇄ DVD ⇄ DVD MULTI ⇄
TV SOUND (or DBS) ⇄ VCR 1 ⇄
VCR 2 ⇄ VIDEO ⇄ (back to the beginning)

DVD   CD
TV SOUND/DBS   PHONO
VCR 1   TAPE/MD
VCR 2   FM
VIDEO   AM
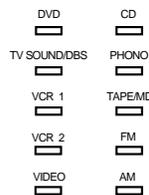
The selected source lamp also lights up.
• The DVD lamp lights up both for "DVD" and "DVD MULTI."

From the remote control:

Press one of the source selecting buttons.

DVD   DVD MUILTI   CD   TAPE/MD

TV/DBS   VIDEO   PHONO   FM/AM

VCR 1   VCR 2

Selected source name appears

CH-

RDS
EON
►TA
►NEWS
►INFO
VOLUME

S E A FR CNTR   DIGITAL   PRO LOGIC   THEATER
LIVE CLUB ACTION   TUNED
L   C   R   D S P   DANCE CLUB   STEREO
LFE   3D-PHONIC   HALL   MUTE AUTO
LS   S   RS   PAVILION   LOUDNESS
100   1k   10k   ATT   SLEEP

88
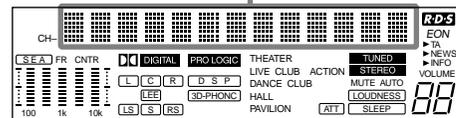
DVD	Select the DVD player.
DVD MULTI	Select the DVD player for viewing the digital video disc using the analog discrete output mode (5.1CH reproduction) on the DVD player. To enjoy the DVD MULTI playback, see page 32.
CD *	Select the CD player.
TAPE/MD *	Select the cassette deck (or the MD recorder).
TV/DBS	• Select TV sounds when the remote control mode selector is set to "AUDIO/TV/VCR." • Select the DBS tuner when the remote control mode selector is set to "CATV/DBS."
VIDEO	Select video component connected to the VIDEO jacks.
PHONO *	Select the turntable.
FM/AM *	Select an FM or AM (MW/LW) broadcast. • Each time you press the button, the band alternates between FM and AM (MW/LW).
VCR 1	Select the video component connected to the VCR 1 jacks.
VCR 2	Select the video component connected to the VCR 2 jacks.

Notes:

• When connecting an MD recorder (to the TAPE/MD jacks), and a DBS tuner (to the TV SOUND/DBS jacks), change the source name shown on the display. For details, see page 12.
• When you press one of the source selecting buttons on the remote control marked above with an asterisk (*), the receiver automatically turns on.

When playing a digital source through a digital terminal

- The DIGITAL SOURCE FORMAT lamps on the front panel indicate what type of the digital signal comes into the receiver.

DIGITAL SOURCE FORMAT

MPEG	DTS	DOLBY DIGITAL	LINEAR PCM
▢	▢	▢	▢
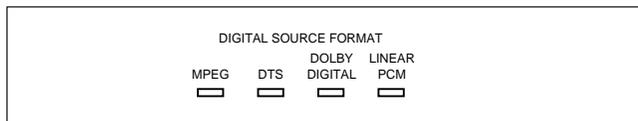
MPEG: Lights up when MPEG Multichannel signals (see page 24) come in.

DTS: Lights up when DTS Digital Surround signals (see page 24) come in.

DOLBY DIGITAL: Lights up when Dolby Digital signals (see page 24) come in.

LINEAR PCM: Lights up when Linear PCM signals come in.

- The signal indicators also light up on the display to indicate the incoming channel signals. (Only the indicators for the incoming signals light up.)

L	C	R
	LFE	
LS	S	RS

L: Left front channel
R: Right front channel
C: Center channel
LS: Left rear channel
RS: Right rear channel
S: Rear channel (monaural)
LFE: Subwoofer channel
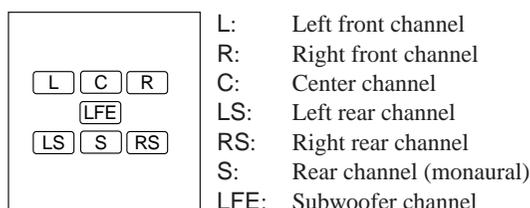
Selecting different sources for picture and sound

You can watch picture from a video component while listening to sound from another component.

On the front panel:

1. **Press SOUND SELECT (INPUT ATT) briefly while viewing the picture from a video component such as the VCR or DVD player, etc.**

   SOUND SELECT
   INPUT ATT.
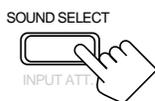
   "SOUND SELECT" appears on the display.

2. **Turn SOURCE SELECTOR to select the sound (except the TV sound), while the indication of the above step is still on the display.**
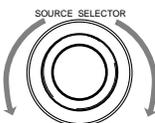
   SOURCE SELECTOR

From the remote control:

Press one of the audio source selecting buttons (CD, TAPE/MD, PHONO, FM/AM), while viewing the picture from a video component such as the VCR or DVD player, etc.

Notes:

- *Once you have selected a video source, pictures of the selected source are sent to the TV until you select another video source.*
- *When you select "TV SOUND" as the source, this function does not work.*

Adjusting the Volume

On the front panel:

MASTER VOLUME

To increase the volume, turn MASTER VOLUME clockwise.
To decrease the volume, turn it counterclockwise.

- When you turn MASTER VOLUME rapidly, the volume level also changes rapidly.
- When you turn MASTER VOLUME slowly, the volume level also changes slowly.
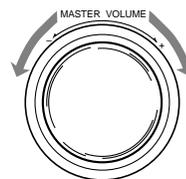
From the remote control:

VOLUME

To increase the volume, press VOLUME +.
To decrease the volume, press VOLUME –.

CAUTION:

Always set the volume to the minimum before starting any source. If the volume is set at its high level, the sudden blast of sound energy can permanently damage your hearing and/or ruin your speakers.

Note:

The volume level can be adjusted within the range of "0" (minimum) to "90" (maximum).

Selecting the Front Speakers

On the front panel ONLY:

When you have connected two pairs of the front speakers, you can select which to use.

Press SPEAKERS 1 or SPEAKERS 2 to select the speaker to use.

SPEAKERS
1   2

- Each time you press the button, the lamp on the respective button turns on and off. When the lamp on either button lights up, the respective speakers are activated.
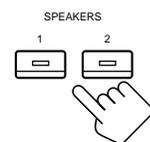
IMPORTANT:

You can activate two pairs of the front speakers at the same time only when no signals are sent to the center and rear speakers. Otherwise, activating one pair of the speakers deactivates the other.

Note:

If you use any of the DSP modes other than the 3D-PHONIC modes with both front speakers activated, the speakers connected to the FRONT SPEAKERS ② terminals are deactivated.

10

Listening only with headphones

1. Connect a pair of headphones to the PHONES jack on the front panel.
2. Press SPEAKERS 1 and/or 2 so that no lamps on the buttons are turned on.

CAUTION:

Be sure to turn down the volume before connecting or putting on headphones, as high volume can damage both the headphones and your hearing.

Muting the Sound

From the remote control ONLY:

Press MUTING to mute the sound through all speakers and headphones connected.

MUTING

"MUTING" appears on the display and the volume turns off (the volume level indicator goes off).

To restore the sound, press MUTING again so that "OFF" appears on the display.
• Turning MASTER VOLUME on the front panel or pressing VOLUME +/− on the remote control also restores the sound.

Listening at Low Volume (Loudness)

Human ears are not sensitive to bass at low volume. To compensate for this, the loudness function automatically boosts the bass level as you lower the volume.

On the front panel ONLY:

Press LOUDNESS (SOURCE NAME) briefly to select the loudness function.

LOUDNESS
SOURCE NAME

• Each time you press the button, the loudness function turns on ("LOUDNESS ON") and off ("LOUDNESS OFF").
  – Select "LOUDNESS ON" to activate the loudness function. The LOUDNESS indicator lights up on the display.
  – Select "LOUDNESS OFF" to cancel it. The indicator goes off.
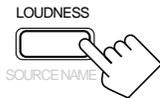
Note:

The loudness function affects the front speaker sounds only.

Attenuating the Input Signal

When the input level of the playing source is too high, the sounds will be distorted. If this happens, you need to attenuate the input signal level to prevent the sound distortion.

On the front panel ONLY:

Press and hold INPUT ATT (SOUND SELECT) so that the ATT indicator lights up on the display.

SOUND SELECT
INPUT ATT

• Each time you press and hold the button, the Input Attenuator mode turns on ("INPUT ATT ON") or off ("INPUT NORMAL").
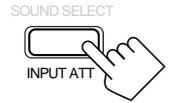
Notes:

• This function is available only for the sources connected using the analog terminals.
• This function takes effect when the DSP mode is in use.
• When selecting "DVD MULTI" as the source, this effect does not work.

Adjusting the Subwoofer Output Level

You can adjust the subwoofer output level if you have selected "YES" for the "SUBWOOFER" (see page 12).
Once it has been adjusted, the receiver memorizes the adjustment.

Before you start, remember....
• There is a time limit in doing the following steps. If the setting is canceled before you finish, start from step 1 again.

On the front panel:

1. **Press BALANCE/SURROUND ADJUST repeatedly until "SUBWFR LEVEL" appears on the display.**
   The display changes to show the current setting.

BALANCE/SURROUND
ADJUST

2. **Turn MULTI JOG to adjust the subwoofer output level (−10 dB to +10 dB).**

MULTI JOG
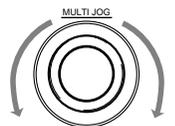
From the remote control:

1. **Press SOUND.**
   The 10 keys are activated for sound adjustments.

SOUND

2. **Press SUBWOOFER −/+ to adjust the subwoofer output level (−10 dB to +10 dB).**

−SUBWOOFER+
0   +10
FM MODE/MUTING 100+
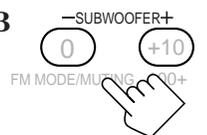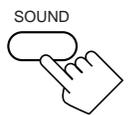
Basic Settings

Some of the following settings are required after connecting and positioning your speakers in your listening room, while others will make operations easier.

IMPORTANT:

When using the remote control, check to see if its remote control mode selector is set to the correct position:
To operate this receiver, set it to "AUDIO/TV/VCR" (except when selecting the DBS tuner as the source).

AUDIO/
TV/VCR

CATV/DBS
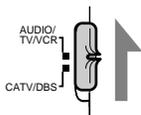
Recording a Source

You can record any source playing through the receiver to a cassette deck (or an MD recorder) connected to the TAPE/MD jacks and the VCRs connected to the VCR 1 and VCR 2 jacks at the same time.

While recording, you can adjust the volume level, without affecting the sound levels of the recording.

IMPORTANT:

• Before recording a digital source, turn off the DSP mode (see page 23).
• While recording a digital source, do not change the SEA mode (see page 22) or DSP mode (see page 23); otherwise, recording will be interrupted.

Note:

The SEA modes and DSP modes cannot affect the recording while recording an analog source.

Adjusting the Front Speaker Output Balance

If the sounds you hear from the front right and left speakers are unequal, you can adjust the speaker output balance.

Before you start, remember....
• There is a time limit in doing the following steps. If the setting is canceled before you finish, start from step 1 again.

On the front panel ONLY:

1. **Press BALANCE/SURROUND ADJUST repeatedly until "L/R BALANCE" appears on the display.**
   The display changes to show the current setting.

   BALANCE/SURROUND
   ADJUST

2. **Turn MULTI JOG to adjust the balance.**
   • Turning it clockwise decreases the left channel output.
   • Turning it counterclockwise decreases the right channel output.

   MULTI JOG
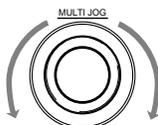
Changing the Source Name

When you have connected an MD recorder to the TAPE/MD jacks or the DBS tuner to the TV SOUND/DBS jacks on the rear panel, change the source name shown on the display when you select the MD recorder or DBS tuner as the source.

On the front panel ONLY:

1. *When changing the source name from "TAPE" to "MD":*
   • **Turn SOURCE SELECTOR until "TAPE" appears.**
   When changing the source name from "TV SOUND" to "DBS":
   • **Turn SOURCE SELECTOR until "TV SOUND" appears.**
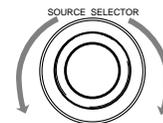
   SOURCE SELECTOR

2. **Press and hold SOURCE NAME (LOUDNESS) until "ASSGN. MD" or "ASSGN. DBS" appears on the display.**

   LOUDNESS
   SOURCE NAME

To change the source name to "TAPE" or "TV SOUND," repeat the same procedure above — in step 1, select "MD" or "DBS" then press and hold SOURCE NAME (LOUDNESS).

Note:

Without changing the source name, you can still use the connected components. However, there may be some inconvenience.
– "TAPE" or "TV SOUND" will appear on the display when you select the MD recorder or DBS tuner.
– You cannot use the digital input (see page 13) for the MD recorder and the DBS tuner.
– You cannot use the COMPU LINK remote control system (see page 39) to operate the MD recorder.

Setting the Subwoofer Information

Register whether or not you have connected a subwoofer.

Before you start, remember....
• There is a time limit in doing the following steps. If the setting is canceled before you finish, start from step 1 again.

On the front panel ONLY:

1. **Press SETTING repeatedly until "SUBWOOFER" appears on the display.**
   The display changes to show the current setting.

   SETTING

2. **Turn MULTI JOG to register whether you have connected a subwoofer or not.**
   • As you turn it, the subwoofer setting alternates between "YES" or "NO."

   MULTI JOG
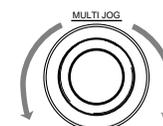
YES:	Select this when a subwoofer is used.
NO:	Select this when no subwoofer is used.

12

Digital Input (DIGITAL IN) Terminal Setting

When you use the digital input terminals, you have to register what components are connected to which terminals (DIGITAL IN 1/2/3).

Before you start, remember....
• There is a time limit in doing the following steps. If the setting is canceled before you finish, start from step 1 again.

On the front panel ONLY:

1. Press SETTING repeatedly until "DIGITAL IN" appears on the display.
The display changes to show the current setting.

SETTING

DIGITAL 2 terminal setting

1DBS 2DVD 3CD

DIGITAL 1 terminal setting   DIGITAL 3 terminal setting

2. Turn MULTI JOG to select the appropriate digital terminal setting.
• As you turn it, the display changes to show the following:

MULTI JOG

1 DBS 2 DVD 3 CD	⇄	1 MD 2 DVD 3 CD	⇄
1 MD 2 DBS 3 CD	⇄	1 MD 2 DBS 3 DVD	⇄
1 CD 2 DVD 3 MD	⇄	1 CD 2 DBS 3 MD	⇄
1 CD 2 DBS 3 DVD	⇄	1 DVD 2 CD 3 MD	⇄
1 DVD 2 DBS 3 MD	⇄	1 DVD 2 DBS 3 CD	⇄
1 DBS 2 CD 3 MD	⇄	1 DBS 2 DVD 3 MD	⇄
(back to the beginning)			
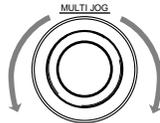
Note:

When shipped from the factory, the DIGITAL IN terminals can be used as the digital input for the following components.
• *DIGITAL 1 (coaxial): For DBS tuner*
• *DIGITAL 2 (optical): For DVD player*
• *DIGITAL 3 (optical): For CD player*

Selecting the Analog or Digital Input Mode

When you have connected some components such as CD player, MD recorder, DVD player and the DBS tuner using digital terminals (see page 8), you need to change the input mode for these components to the digital input.

On the front panel:

1. Turn SOURCE SELECTOR until the source (CD, MD, DBS, or DVD) for which you want to change the input mode from analog input to digital input appears on the display.
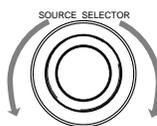
SOURCE SELECTOR

2. Press INPUT ANALOG/DIGITAL to change the input mode.
• Each time you press the button, the input mode alternates between the digital input and analog input.

INPUT ANALOG/DIGITAL

From the remote control:

1. Press the source selecting button (CD, TAPE/MD, TV/DBS*, or DVD) for which you want to change the input mode from analog input to digital input.

DVD DVD MUILTI CD TAPE/MD
TV/DBS VIDEO PHONO FM/AM
VCR 1 VCR 2
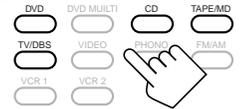
2. Press ANALOG/DIGITAL to change the input mode.
• Each time you press the button, the input mode alternates between the digital input and analog input.

ANALOG/DIGITAL

Notes:
* *Before pressing TV/DBS, make sure that the remote control mode selector on the remote control is set to "CATV/DBS."*
• *Once you have set the digital input for these components, it is always used every time you select these components as the source.*

Showing the Text Information on the Display

When you have connected an MD recorder or CD player equipped with TEXT COMPU LINK remote control system (see page 40), you can show the text information, such as disc title or track title, on the display of this receiver. To show it on the display, follow the procedure below.

Before you start, remember....
• There is a time limit in doing the following steps. If the setting is canceled before you finish, start from step 1 again.

On the front panel ONLY:

1. Press SETTING repeatedly until "FL DISPLAY" appears on the display.
The display changes to show the current setting.

SETTING

2. Turn MULTI JOG to select either the source name or the text information to be shown on the display.
• As you turn it, the display changes to show the following:

MULTI JOG

NORMAL ⟷ TEXT

NORMAL:	Source name appears during play.
TEXT:	Text information appears during play.
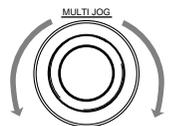
Notes:
• *Though you have selected "TEXT," the source name such as "CD" or "MD" appears if a playing disc has no text information.*
• *Though you have selected "NORMAL," the setting is changed to "TEXT" in the following case:*
  – *If the power failure occurs.*
  – *If you unplug the AC power cord.*

Setting the Speakers for the DSP Modes

To obtain the best possible surround sound of the DSP modes, you have to register the information about the speakers arrangement after all connections are completed.
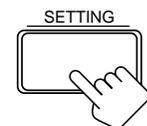
Before you start, remember....
• There is a time limit in doing the following steps. If the setting is canceled before you finish, start from step 1 again.

Front, Center, and Rear Speaker Setting

Register the sizes of all the connected speakers.
• When you change your speakers, you need to register the information about the speakers again.

On the front panel ONLY:

1. **Press SETTING repeatedly until "FRONT SPK" (Front Speaker), "CENTER SPK" (Center Speaker) or "REAR SPK" (Rear Speaker) appears on the display.**
   The display changes to show the current setting.

   SETTING

2. **Turn MULTI JOG to select the appropriate item about the speaker selected in the above step.**

   MULTI JOG
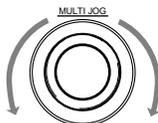
   • As you turn it, the display changes to show the following:

   LARGE ⟷ SMALL ⟷ NONE

LARGE:	Select this when the speaker size is relatively large.
SMALL:	Select this when the speaker size is relatively small.
NONE:	Select this when you have not connected a speaker. (Not selectable for the front speakers)

3. **Repeat steps 1 and 2 to select the appropriate items for the other speakers.**

Notes:

• *Keep the following comment in mind as reference when adjusting.*
  – *If the size of the cone speaker unit built in your speaker is greater than 12 cm (4 $^3/_4$ inches), select "LARGE," and if it is smaller than 12 cm (4 $^3/_4$ inches), select "SMALL."*
• *If you have selected "NO" for the subwoofer setting, you can only select "LARGE" for the front speaker setting.*
• *If you have selected "SMALL" for the front speaker setting, you cannot select "LARGE" for the center and rear speaker settings.*

Center Delay Time Setting

Register the delay time of the sound from the center speaker, comparing that of the sound from the front speakers.
If the distance from your listening point to the center speaker is equal to that to the front speakers, select 0 msec. As the distance to the center speaker becomes shorter, increase the delay time.
• 1 msec increase (or decrease) in delay time corresponds to 30 cm (11 $^{13}/_{16}$ inches) decrease (or increase) in distance.
• When shipped from the factory, delay time is set to 0 msec.

On the front panel ONLY:

1. **Press SETTING repeatedly until "CENTER DELAY" appears on the display.**
   The display changes to show the current setting.
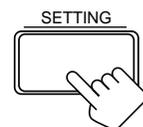
   SETTING

2. **Turn MULTI JOG to select the delay time of the center speaker output.**

   MULTI JOG
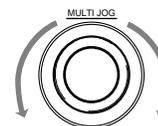
   • Turn it clockwise to increase the delay time from 0 msec ("C. DELAY: 0ms") to 5 msec ("C. DELAY: 5ms").
   • Turn it counterclockwise to decrease the delay time from 5 msec ("C. DELAY: 5ms") to 0 msec ("C. DELAY: 0ms").

Note:

Center delay time setting is not valid for the DVD MULTI playback mode.

Rear Delay Time Setting

Register the delay time of the sound from the rear speakers, comparing that of the sound from the front speakers.
If the distance from your listening point to the rear speakers is equal to that to the front speakers, select 0 msec. As the distance to the rear speakers becomes shorter, increase the delay time.
• 1 msec increase (or decrease) in delay time corresponds to 30 cm (11 $^{13}/_{16}$ inches) decrease (or increase) in distance.
• Rear delay time for Dolby Digital, DTS Digital Surround, and MPEG Multichannel is to be set to 5 msec.
• When shipped from the factory, delay time is set to 5 msec.

On the front panel ONLY:

1. **Press SETTING repeatedly until "REAR DELAY" appears on the display.**
   The display changes to show the current setting.
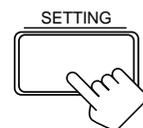
   SETTING

2. **Turn MULTI JOG to select the delay time of the rear speaker output.**

   MULTI JOG
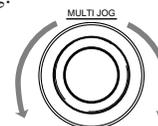
   • Turn it clockwise to increase the delay time from 0 msec ("R. DELAY: 0ms") to 15 msec ("R. DELAY: 15ms").
   • Turn it counterclockwise to decrease the delay time from 15 msec ("R. DELAY: 15ms") to 0 msec ("R. DELAY: 0ms").

Note:

Rear delay time setting is not valid for the DVD MULTI playback mode.

14

Crossover Frequency Setting

Small speaker cannot reproduce the bass sound very well. So, if you have used a small speaker any for the front, center, or rear channels, this receiver automatically reallocates the bass elements, originally assigned to the channel for which you have connected the small speaker, to another channel (for which you have connected the large speaker).

To use this function properly, you need to set this crossover frequency level according to the size of the small speaker connected.

• This function takes effect only when playing back a source using Dolby Pro Logic, Dolby Digital, DTS Digital Surround, or MPEG Multichannel. However, if you have selected "LARGE" for all speakers (see page 14), this function will not take effect.

On the front panel ONLY:

1. Press SETTING repeatedly until "CROSSOVER FRQ" (Crossover Frequency) appears on the display.

SETTING

The display changes to show the current setting.

2. Turn MULTI JOG to select the crossover frequency level according to the size of the small speaker connected.

MULTI JOG

• As you turn it, the display changes to show the following:

$$80Hz \longleftrightarrow 100Hz \longleftrightarrow 120Hz$$
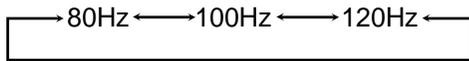
• Use the following comments as reference when adjusting.

80Hz:	Select this when the cone speaker unit built in the speaker is about 12 cm (4 $^3/_4$ inches).
100Hz:	Select this when the cone speaker unit built in the speaker is about 10 cm (3 $^{15}/_{16}$ inches).
120Hz:	Select this when the cone speaker unit built in the speaker is about 8 cm (3 $^3/_{16}$ inches).

Note:
Crossover frequency setting is not valid for the DVD MULTI playback mode.

Low Frequency Effect Attenuator Setting

If the bass sound is distorted while playing back a source using Dolby Digital, DTS Digital Surround, or MPEG Multichannel, follow the procedure below.

On the front panel ONLY:

1. Press SETTING repeatedly until "LFE ATT" (Low Frequency Effect Attenuator) appears on the display.

SETTING

The display changes to show the current setting.

2. Turn MULTI JOG to select the low frequency effect attenuator level.

MULTI JOG
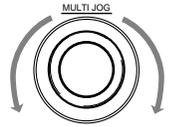
• As you turn it, the display changes to show the following:

$$0dB \longleftrightarrow 10dB$$

| 0dB: | Normally select this. |
| 10dB: | Select this when the bass sound is distorted. |

Note:
Low frequency effect attenuator setting is not valid for the DVD MULTI playback mode.

Dynamic Range Compression Setting

You can compress the dynamic range (difference between maximum sound and minimum sound) of the reproduced sound. This is useful when enjoying surround sound at night.

• This function takes effect only when playing back a source using Dolby Digital.

On the front panel ONLY:

1. Press SETTING repeatedly until "D. RANGE COMP." (Dynamic Range Compression) appears on the display.

SETTING

The display changes to show the current setting.
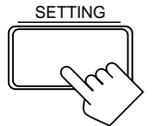
2. Turn MULTI JOG to select the appropriate item about the compression level.

MULTI JOG

• As you turn it, the display changes to show the following:

$$OFF \longleftrightarrow MID \longleftrightarrow MAX$$

OFF:	Select this when you want to enjoy surround with its full dynamic range. (No effect applied)
MID:	Select this when you want to reduce the dynamic range a little. (Factory setting)
MAX:	Select this when you want to apply the compression effect fully. (Useful at night)

Note:
Dynamic Range Compression setting is not valid for the DTS Digital Surround, MPEG Multichannel, and DVD MULTI playback mode.

15

Storing the Basic Settings and Adjustments — One Touch Operation

JVC's One Touch Operation function is used to assign and store different sound settings for each different playing source. By using this function, you do not have to change the settings every time you change the source. The stored settings for the newly selected source are automatically recalled.

The following can be stored for each source:
• Volume level (see page 10)
• Loudness (see page 11)
• Input attenuator mode (see page 11)
• Subwoofer output level (see page 11)
• Balance (see page 12)
• Analog/digital input mode (see page 13)
• SEA modes (see page 22)
• DSP modes
  – 3D-PHONIC mode settings (see page 26)
  – DAP mode settings (see page 26)
  – Surround mode settings (see page 27)
• DVD MULTI playback mode settings (see page 32)

On the front panel ONLY:

To store the sound settings

1. Press ONE TOUCH OPERATION.
ONE TOUCH OPERATION
The ONE TOUCH OPERATION lamp lights up, then the previously memorized settings are recalled.

2. Adjust the sound using the functions listed above.
The newly adjusted settings are memorized.

To recall the sound settings
With the ONE TOUCH OPERATION lamp lit, the settings for the currently selected source are recalled when the source is selected.

To cancel the One Touch Operation function
Press ONE TOUCH OPERATION so that the lamp goes off. (Even though the One Touch Operation function is canceled, the recalled sound effects remain active.)

Notes:
• If the source is FM or AM (MW/LW), you can assign a different setting for each band.
• The DSP modes and DVD MULTI playback mode cannot be used at the same time.

Using the Sleep Timer

Using the Sleep Timer, you can fall asleep to music and know the receiver will turn off by itself rather than play all night.

From the remote control ONLY:

Press SLEEP repeatedly.
The SLEEP indicator lights up on the display, and the shut-off time changes as follows (in minutes):

SLEEP

$$\rightarrow 10 \rightarrow 20 \rightarrow 30 \rightarrow 40 \rightarrow 50 \rightarrow 60 \rightarrow 70 \rightarrow 80 \rightarrow 90 \rightarrow$$
$$00 \text{ (Canceled)} \leftarrow$$
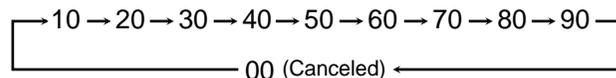
When the shut-off time comes
The receiver turns off automatically.

To check or change the time remaining until the shut-off time
Press SLEEP once.
The remaining time until the shut-off time appears in minutes.
• To change the shut-off time, press SLEEP repeatedly.

To cancel the Sleep Timer
Press SLEEP repeatedly until "SLEEP 00min." appears on the display. (The SLEEP indicator goes off.)
• Turning off the power also cancels the Sleep Timer.

16

Receiving Radio Broadcasts

You can browse through all the stations or use the preset function to go immediately to a particular station.

IMPORTANT:

When using the remote control, check to see if its remote control mode selector is set to the correct position:

AUDIO/ TV/VCR

CATV/DBS

To operate this receiver, set it to "AUDIO/TV/ VCR" (except when selecting the DBS tuner as the source).

Tuning in Stations Manually

On the front panel ONLY:

1. Turn SOURCE SELECTOR to select the band (FM or AM — MW/LW).

SOURCE_SELECTOR

The last received station of the selected band is tuned in.

```
FM  87.50MHz
                    TUNED
                    STEREO    VOLUME
100   1k   10k                 25
```

2. Press FM/AM TUNING.

FM/AM TUNING

3. Turn MULTI JOG until you find the frequency you want.

MULTI JOG

* Turning it clockwise increases the frequency.
* Turning it counterclockwise decreases the frequency.
* When you turn MULTI JOG quickly, the frequency keeps changing until a station is tuned in.

Note:

When a station of sufficient signal strength is tuned in, the TUNED indicator lights up on the display.
When an FM stereo program is received, the STEREO indicator also lights up.

Using Preset Tuning

Once a station is assigned to a channel number, the station can be quickly tuned. You can preset up to 30 FM and 15 AM (MW/LW) stations.

To store the preset stations

Before you start, remember...
* There is a time limit in doing the following steps. If the setting is canceled before you finish, start from step 1 again.

On the front panel ONLY:

1. Tune in the station you want to preset (see "Tuning in Stations Manually").

* If you want to store the FM reception mode for this station, select the FM reception mode you want. See "Selecting the FM Reception Mode" on page 18.

```
FM  87.50MHz
                    TUNED
                    STEREO    VOLUME
100   1k   10k                 25
```

2. Press TUNER/SEA MEMORY.

TUNER/SEA MEMORY

```
CH–  FM  87.50MHz
                    TUNED
                    STEREO    VOLUME
100   1k   10k                 25
```

"CH-" appears and the channel number position starts flashing on the display for about 10 seconds.

3. Turn MULTI JOG to select a channel number while the channel number position is flashing.

MULTI JOG

Note:

You can use the 10 keys on the remote control to select the preset number. When using the 10 keys, be sure that they are activated for the tuner, not for the CD and others. (See page 45.)

4. Press TUNER/SEA MEMORY again while the selected channel number is flashing on the display.

TUNER/SEA MEMORY

The selected channel number stops flashing.
The station is assigned to the selected channel number.

```
CH–  1FM  87.50MHz
                    TUNED
                    STEREO    VOLUME
100   1k   10k                 25
```
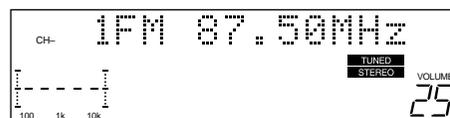
5. Repeat steps 1 to 4 until you store all the stations you want.

To erase a stored preset station
Storing a new station on a used number erases the previously stored one.

To tune in a preset station

On the front panel:

1. Turn SOURCE SELECTOR to select the band (FM or AM — MW/LW).
The last received station of the selected band is tuned in.

SOURCE SELECTOR

2. Press TUNER PRESET.

TUNER PRESET

3. Turn MULTI JOG until you find the channel you want.
- Turning it clockwise increases the channel numbers.
- Turning it counterclockwise decreases the channel numbers.

MULTI JOG
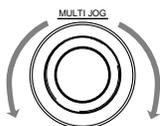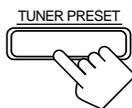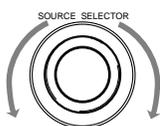
From the remote control:

1. Press FM/AM.
- Each time you press the button, the band alternates between FM and AM (MW/LW).

FM/AM

2. Press the 10 keys to select a preset channel number.
- For channel number 5, press 5.
- For channel number 15, press +10 then 5.
- For channel number 20, press +10 then 10.
- For channel number 30, press +10, +10, then 10.

CNTR TONE — CNTR +
1   2   3
MENU
TEST — REAR-L +
4   5   6
ENTER
EFFECT — REAR-R +
7/P   8   9
SEA MODE SUBWOOFER+
10   +10
RETURN FM MODE/MUTING 100+
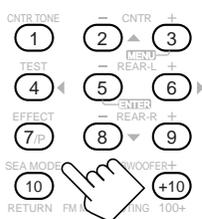
Note:

When you use the 10 keys on the remote control, be sure that they are activated for the tuner, not for the CD and others. (See page 45.)

Selecting the FM Reception Mode

When an FM stereo broadcast is hard to receive or noisy

You can change the FM reception mode while receiving an FM broadcast.
- You can store the FM reception mode for each preset station.

Press FM MODE on the front panel or FM MODE/MUTING on the remote control.
- Each time you press the button, the FM reception mode alternates between "AUTO" and "MONO."

FM MODE   —SUBWOOFER+
                                  0
                                 FM MODE/MUTING
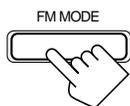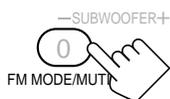
On the front panel   On the remote control

AUTO: When a program is broadcasted in stereo, you will hear stereo sound; when in monaural, you will hear monaural sounds. This mode is also useful to suppress static noise between stations. The MUTE AUTO indicator lights up on the display.

MONO: Reception will be improved although you will lose the stereo effect. In this mode, you will hear noise while tuning into the stations. The MUTE AUTO indicator goes off on the display.

Note:

When using the FM MODE/MUTING button on the remote control, be sure that the 10 keys are activated for tuner, not for the CD and others. (See page 45.)

Assigning Names to Preset Stations

You can assign a name of up to four characters to each preset station. When a preset station is tuned in, its assigned name will appear on the display.

Before you start, remember...
- There is a time limit in doing the following steps. If the setting is canceled before you finish, start from step 1 again.
- You can use the following characters: Space, A – Z, and 0 – 9.

On the front panel ONLY:

1. Tune in a preset station.
See the left.

2. Press TUNER/SEA MEMORY.
The preset channel number starts flashing for about 10 seconds.

TUNER/SEA MEMORY

CH—

- If you turn MULTI JOG while the preset channel number is flashing, you can change the preset channel number.

3. Press TUNER PRESET, while the preset channel number is flashing.
The first character position starts flashing.

TUNER PRESET

CH—
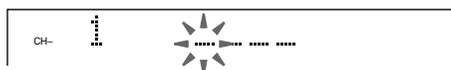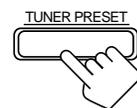
4. Turn MULTI JOG to select the first character, while the first character position is flashing.

MULTI JOG

CH—
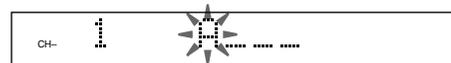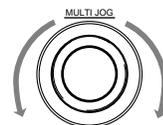
5. Press TUNER PRESET, while a character you want is flashing.
The next character position starts flashing.

TUNER PRESET

CH—
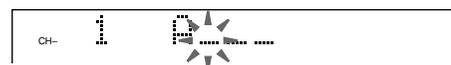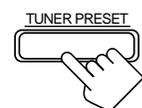
6. Repeat steps 4 and 5 to enter up to four characters.

7. Press TUNER/SEA MEMORY while the last selected character is flashing after you have assigned a name.

TUNER/SEA MEMORY

To erase the input characters

Insert spaces using the same procedure described above.

18

Using the RDS (Radio Data System) to Receive FM Stations

RDS allows FM stations to send an additional signal along with their regular program signals. For example, the stations send their station names, as well as information about what type of program they broadcast, such as sports or music, etc.

When tuned to an FM station which provides the RDS service, the RDS indicator lights up on the display.

With the receiver, you can receive the following types of RDS signals.

PS (Program Service):	Shows commonly known station names
PTY (Program Type):	Shows types of broadcast programs
RT (Radio Text):	Shows text messages the station sends
EON (Enhanced Other Network):	See page 21.

Notes:
* *RDS is not available for AM (MW/LW) broadcasts.*
* *RDS may not operate correctly if the station tuned is not transmitting RDS signal properly or if the signal strength is weak.*

What information can RDS signals provide?

You can see the RDS signals the station sends on the display.

To show the RDS signals
Press DISPLAY MODE while listening to an FM station.

DISPLAY MODE

On the front panel

STOP
DISPLAY MODE
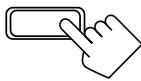
On the remote

* Each time you press the button, the display changes to show you the following information:

PS → PTY → RT → Frequency → (PS)
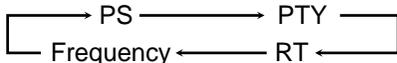
PS (Program Service):
While searching, "PS" appears and then the station names will be displayed. "NO PS" appears if no signal is sent.

PTY (Program Type):
While searching, "PTY" appears and then the type of the broadcast program will be displayed. "NO PTY" appears if no signal is sent.

RT (Radio Text):
While searching, "RT" appears and then text messages the station sends will be displayed. "NO RT" appears if no signal is sent.

Frequency:
Station frequency (non-RDS service)

Notes:
* *When pressing DISPLAY MODE on the remote control, make sure that you have selected FM station using the remote control. If not, the DISPLAY MODE button does not work for tuner operation. (Pressing FM/AM activates the remote control for tuner operation.)*
* *If searching finishes at once, "PS," "PTY," and "RT" will not appear on the display.*

You can also show the RDS information on the TV screen.
To use this function, you need to connect the TV to the MONITOR OUT jack on the rear panel (see page 7), and set the TV's input mode to the proper position to which the receiver is connected.
* When the TV's input mode is incorrect; for example, a different video input or TV tuner mode is selected, you cannot show the RDS information on the TV screen.

Press TEXT DISPLAY while listening to an FM station.
The following information appears on the TV screen.

TEXT DISPLAY

```
RDS INFORMATION      JVC

CH29  FM107.90MHz ───────────── Selected station
STATION : FM ABCD ───────────── Program service
PRG.TYPE: JAZZ ──────────────── Program type
R. TEXT :ABCDEFGH ───────────── Radio text

         EXIT : BACK
```
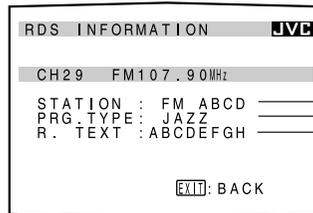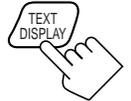
To erase the RDS information, press EXIT.

EXIT

Note:
The on-screen display will disappear in the following case:
– if no operation is done for about 10 minutes.
– if you do any operation other than explained in this section.

Searching for a Program by PTY Codes

One of the advantages of the RDS service is that you can locate a particular kind of program from the preset channels (see page 17) by specifying the PTY codes.

To search for a program using the PTY codes

Before you start, remember...
* The PTY Search is only applicable to preset stations.
* To stop searching any time during the process, press PTY SEARCH while searching.
* There is a time limit in doing the following steps. If the setting is canceled before you finish, start from step 1 again.
* When pressing the buttons on the remote control, make sure that you have selected the FM station using the remote control. If not, the RDS operation buttons do not work for RDS operation. (Pressing FM/AM activates the remote control for RDS operation.)

FM/AM

◄◄/REW   PLAY   FF/►►I
⊖ PTY ── PTY SEARCH ── PTY ⊕
STOP
DISPLAY MODE
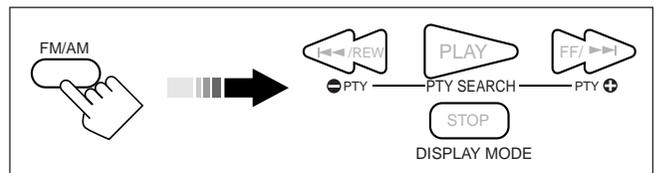
On the front panel:

1. **Press PTY SEARCH while listening to an FM station.**
   "PTY SELECT" flashes on the display.

PTY SEARCH

2. Turn MULTI JOG until the PTY code you want appears on the display, while "PTY SELECT" is flashing.
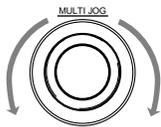
The display gives you the PTY codes described to the right.

3. Press PTY SEARCH again, while the PTY code selected in the previous step is still on the display.

While searching, "SEARCH" and the selected PTY code alternate on the display.

The receiver searches 30 preset FM stations, stops when it finds the one you have selected, and tunes in that station.

To continue searching after the first stop

Press PTY SEARCH again while the indications on the display are flashing.

If no program is found, "NOTFOUND" appears on the display.

From the remote control:

1. Press PTY SEARCH while listening to an FM station.

"PTY SELECT" flashes on the display.

2. Press and hold PTY –/+ until the PTY code you want appears on the display, while "PTY SELECT" is flashing.
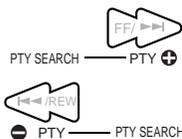
The display gives you the PTY codes described to the right.

3. Press PTY SEARCH again, while the PTY code selected in the previous step is still on the display.

While searching, "SEARCH" and the selected PTY code alternate on the display.

The receiver searches 30 preset FM stations, stops when it finds the one you have selected, and tunes in that station.

To continue searching after the first stop

Press PTY SEARCH again while the indications on the display are flashing.

If no program is found, "NOTFOUND" appears on the display.

PTY codes

```
              ┌──→ NONE ←──┐
          ALARM              NEWS
            │                  │
          TEST               AFFAIRS
            │                  │
        DOCUMENT          INFO (INFORMATION)
            │                  │
      FOLK M (MUSIC)         SPORT
            │                  │
         OLDIES          EDUCATE (EDUCATION)
            │                  │
  NATIONAL (NATIONAL MUSIC)  DRAMA
            │                  │
        COUNTRY             CULTURE
            │                  │
          JAZZ              SCIENCE
            │                  │
        LEISURE             VARIED
            │                  │
         TRAVEL           POP M (MUSIC)
            │                  │
        PHONE IN          ROCK M (MUSIC)
            │                  │
        RELIGION    M.O.R. M (MIDDLE OF ROAD MUSIC)
            │                  │
    SOCIAL A (AFFAIRS)     LIGHT M (MUSIC)
            │                  │
        CHILDREN           CLASSICS
            │                  │
        FINANCE         OTHER M (MUSIC)
            │                  │
            └──→ WEATHER ←──┘
```
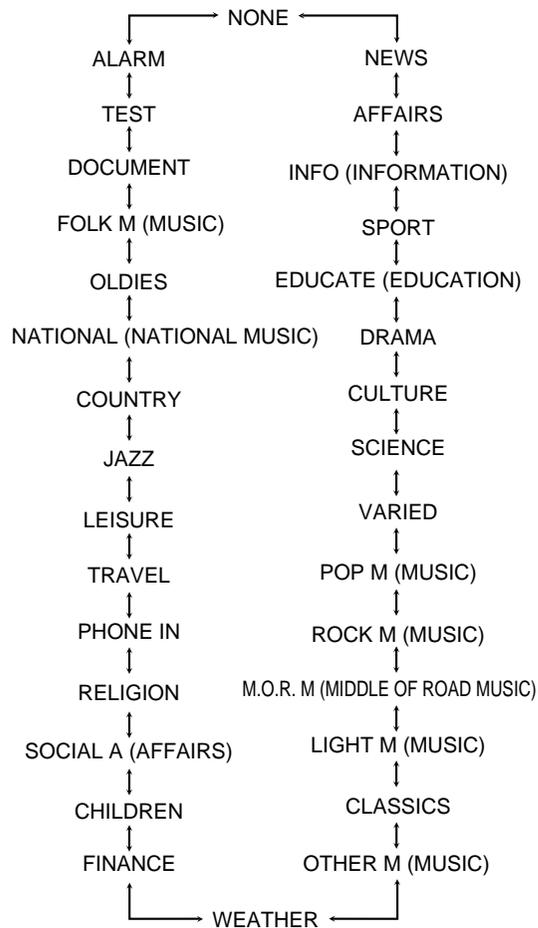
When an emergency broadcast (ALARM signal) is sent from an FM station:

The receiver automatically tunes in the station except in the following cases:

• When you are listening to non-RDS stations (all AM — MW/LW and some FM stations).
• When the receiver is in standby mode.

While receiving an emergency broadcast, "ALARM" appears on the display.

The TEST signal is used for equipment test — whether it can receive the ALARM signal correctly.

The TEST signal makes the receiver work in the same way as the ALARM signal does. If the TEST signal is received, the receiver automatically switches to the station broadcasting the TEST signal. While receiving the test signal, "TEST" appears on the display.

20

Switching to a Broadcast Program of Your Choice Temporarily

Another convenient RDS service is called "EON (Enhanced Other Network)."
The EON indicator lights up while receiving a station with the EON code.
This allows the receiver to switch temporarily to a broadcast program of your choice (NEWS, TA, and/or INFO) from a different station except in the following cases:
• When you are listening to non-RDS stations (all AM — MW/LW and some FM stations).
• When the last received FM station is a non-RDS station.
• When the receiver is in standby mode.

Before you start, remember...
• The EON function is only applicable to preset stations.

On the front panel ONLY:

1. Press EON so that the last selected program type appears on the display.

EON
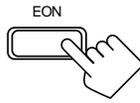
The receiver enters EON standby mode. When the receiver is in EON standby mode, the receiver is ready to receive the EON data (TA/NEWS/INFO) you select.

2. Press TA/NEWS/INFO until the program type you want appears on the display.

TA/NEWS/INFO

• Each time you press the button, the display changes to show the following:

TA → NEWS/INFO → TA/INFO → TA/NEWS →
NEWS ← INFO ← TA/NEWS/INFO ←
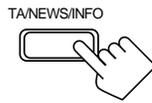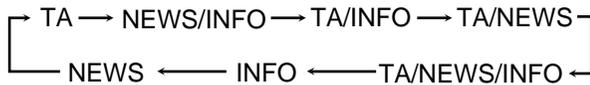
TA:	Traffic Announcement in your area.
NEWS:	News.
INFO:	Program the purpose of which is to impart advice in the widest sense.

CASE 1 — **If there is no station broadcasting the program you have selected**

The receiver continues playing the current source (all sources except AM — MW/LW).

⬇

When a station starts broadcasting the program you have selected, the receiver automatically switches to the station. The indicator of received PTY code starts flashing.

⬇

When the program is over, the receiver goes back to the previously selected source, but still remains in EON standby mode. The indicator of received PTY code stops flashing and remains lit.

CASE 2 — **If there is a station broadcasting the program you have selected**

The receiver changes the source (all sources except AM — MW/LW), and tunes in the station. The indicator of received PTY code starts flashing.

⬇

When the program is over, the receiver goes back to the previously selected source, but still remains in EON standby mode. The indicator of received PTY code stops flashing and remains lit.

CASE 3 — **If the FM station you are listening to is broadcasting the program you have selected**

The receiver continues to receive the station, but the indicator of received PTY code starts flashing.

⬇

When the program is over, the indicator of received PTY code stops flashing and remains lit, but the receiver remains in EON standby mode.

To stop listening to the program selected by EON
Press EON so that the program type (TA/NEWS/INFO) indicator goes off from the display. The receiver enters EON off mode and goes back to the previously selected source.
• Each time you press EON, the EON mode alternates between standby mode and off mode.

Notes:
• EON data sent from some stations may not be compatible with this receiver.
• In EON standby mode, if you change the source to AM (MW/LW) or if you carry out synchronized recording (see page 39), EON standby mode is canceled temporarily. The receiver goes back to EON standby mode again when you have finished that operation.
• While listening to a program tuned in by the EON function, you cannot use source selecting buttons and PTY SEARCH button.
• While listening to a program tuned in by the EON function, you cannot perform the on-screen operations (pages 34 and 41).

CAUTION:
When the source alternates intermittently between the station tuned in by the EON function and the currently selected source, press EON to cancel the EON function.
If you do not press the button, the currently tuned station is received finally, and the indication of the EON program type flashing on the display disappears.

21

Using the SEA Modes

The SEA (Sound Effect Amplifier) modes give you control of the way your music sounds.

IMPORTANT:

When using the remote control, check to see if its remote control mode selector is set to the correct position:
To operate this receiver, set it to "AUDIO/TV/VCR" (except when selecting the DBS tuner as the source).

AUDIO/TV/VCR

CATV/DBS
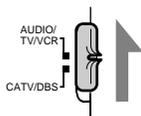
Selecting Your Favorite SEA Mode

On the front panel:

Press SEA MODE repeatedly until the SEA mode you want appears on the display.
• Each time you press the button, the SEA mode changes as follows:

SEA MODE

SEA ROCK → SEA MUSICAL → SEA MOVIE →
→ SEA COUNTRY
SEA OFF ← SEA USERMODE ← SEA JAZZ ←
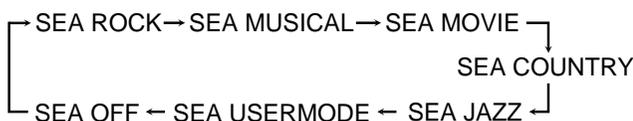
SEA ROCK:	Gives a heavy sound. Both high and low frequencies are boosted.
SEA MUSICAL:	Enhances the mid-frequency range, which the human voice is mostly made up of.
SEA MOVIE:	Adds breadth to sounds so you feel like you are in a movie theater.
SEA COUNTRY:	Enhances the high-frequency range so that instruments such the violin and banjo are emphasized.
SEA JAZZ:	Gives a feeling of a live atmosphere. Good for acoustic music.
SEA USERMODE:	Your original SEA adjustment (see the right).
SEA OFF:	No SEA mode is applied (see below).

Notes:

• *The SEA modes cannot be used for recording.*
• *When the SEA mode is turned on, the SEA indicator lights up on the display.*
• *When the SEA mode is used with the DAP mode (see page 26), sounds may be distorted. If this happens, turn off the DAP mode or decrease the effect level of the DAP mode.*

To cancel the SEA mode

Press SEA MODE repeatedly until "SEA OFF" appears. The SEA indicator goes off from the display.

From the remote control:

1. Press SOUND.

The 10 keys are activated for sound adjustments.

SOUND
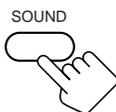
2. Press SEA MODE repeatedly until the SEA mode you want appears on the display.

SEA MODE
10
RETURN

To cancel the SEA mode

Press SEA MODE repeatedly until "SEA OFF" appears in step 2 above. The SEA indicator goes off from the display.

Creating Your Own SEA Mode

You can adjust and store your own SEA adjustment into memory (SEA USERMODE).

Before you start, remember...
• There is a time limit in doing the following steps. If the setting is canceled before you finish, start from step 1 again.

On the front panel ONLY:

If you do not want to store your adjustment, but rather want to adjust the SEA temporarily, skip step 4 below.

1. Press SEA ADJUST repeatedly until the frequency range (100Hz, 1kHz or 10kHz) you want appears on the display.

SEA ADJUST

SEA ADJUST
SEA FR
100 1k 10k
VOLUME
38

SEA 100Hz
SEA FR
100 1k 10k
VOLUME
38
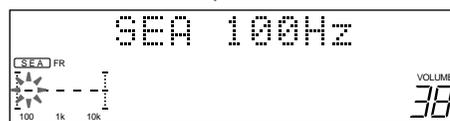
2. Turn MULTI JOG to adjust the SEA level of the selected frequency range.

MULTI JOG
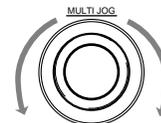
• Turning it clockwise increases the level.
• Turning it counterclockwise decreases the level.

This FR means this adjustment can be applied to the front speakers only.

SEA FR
100 1k 10k
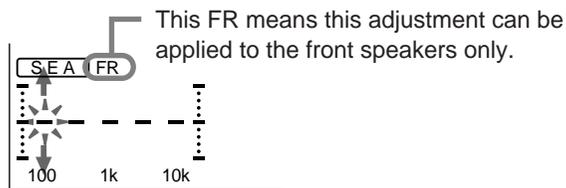
3. Repeat step 1 and 2 to adjust other frequency ranges if necessary.

4. Press TUNER/SEA MEMORY.

Your adjustment is stored into the SEA USERMODE.

TUNER/SEA MEMORY

To recall your own SEA adjustment

Press SEA MODE repeatedly until "SEA USERMODE" appears.

To erase a stored adjustment

Storing a new adjustment into SEA USERMODE erases the previously stored one.

Using the DSP Modes

The built-in Surround Processor provides three types of the DSP (Digital Signal Processor) mode — 3D-PHONIC mode, DAP (Digital Acoustic Processor) mode and Surround mode.

3D-PHONIC modes

The 3D-PHONIC mode gives you such a nearly surround effect as it is reproduced through the Dolby Surround decoder, which is widely used to reproduce sounds with a feeling of movement like those experienced in movie theaters. The 3D-PHONIC mode is the result of research on sound localization technology carried out at JVC for many years. **This mode can be used when the front speakers are connected to this receiver (without respect to the rear/center speaker connection).**

• You can select either 3D ACTION or 3D THEATER to your preference when playing an analog or Linear PCM (digital) source.

• You can select either 3D DIGITAL or 3D THEATER to your preference when playing a Dolby Digital, DTS Digital Surround, or MPEG Multichannel source.

3D ACTION:	Best for action and war movies — where the action is fast and explosive.
3D DIGITAL:	Reproduces multi-sound source encoded with Dolby Digital, DTS Digital Surround, or MPEG Multichannel.
3D THEATER:	Reproduces the sound field of a large theater. This mode can be selected when only front speakers are connected to this receiver and "REAR SPK" and "CENTER SPK" is set to "NONE" (see page 14).

Note on the subwoofer sound when using the 3D-PHONIC modes

Sound will or will not come out of the subwoofer according to the selected 3D-PHONIC mode.

• With **"3D ACTION"** selected**:** No sound comes out.

• With **"3D DIGITAL"** selected**:** Sound comes out if the subwoofer channel signals come into this receiver (LFE of the signal indicators lights up — see page 10) while playing a multi-sound source encoded with Dolby Digital, DTS Digital Surround, or MPEG Multichannel.

• With **"3D THEATER"** selected**:**

 – If "FRONT SPK" is set to "SMALL," sound comes out while playing any source.

 – If "FRONT SPK" is set to "LARGE," sound comes out only if the subwoofer channel signals come into this receiver (LFE of the signal indicators lights up — see page 10) while playing a multi-sound source encoded with Dolby Digital, DTS Digital Surround, or MPEG Multichannel.
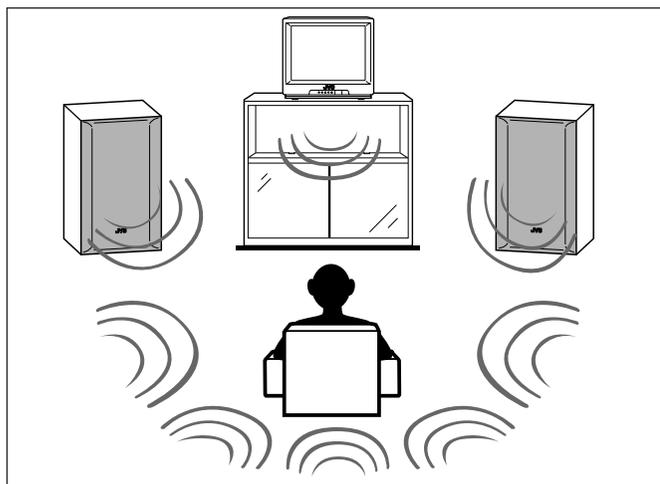
DAP modes

The sound heard in a concert hall or club consists of direct sound and indirect sound — early reflections and reflections from behind. Direct sounds reach the listener directly without any reflection. On the other hand, indirect sounds are delayed by the distances of the ceiling and walls. These direct sounds and indirect sounds are the most important elements of the acoustic surround effects. The DAP mode can create these important elements, and gives you a real "being there" feeling. **This mode can be used when the front speakers are connected to this receiver (without respect to the rear/center speaker connection).**

You can select one of the following to your preference.

LIVE CLUB:	Gives the feeling of a live music club with a low ceiling.
DANCE CLUB:	Gives a throbbing bass beat.
HALL:	Gives clear vocal and the feeling of a concert hall.
PAVILION:	Gives the spacious feeling of a pavilion with a high ceiling.
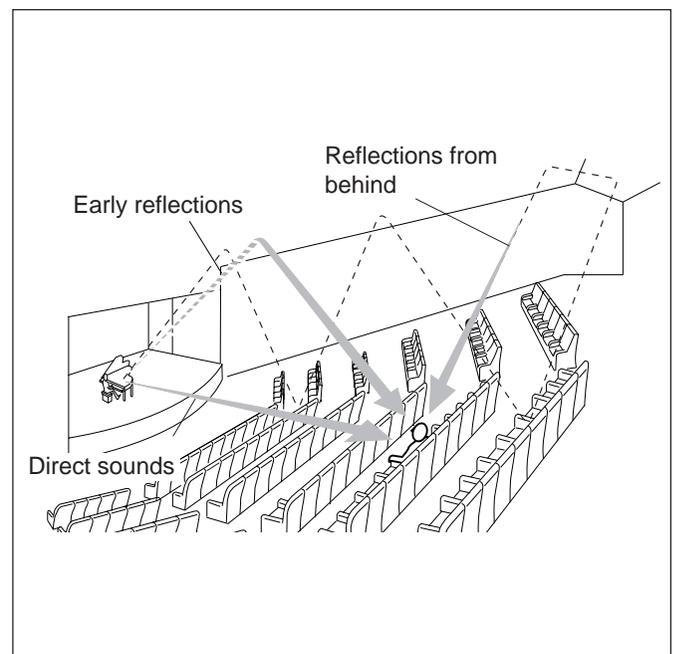
Surround modes

With this receiver, you can use four types of the Surround mode. **Following modes cannot be used when only the front speakers are connected to this receiver (without the rear speakers or center speaker).**

Dolby Surround (Dolby Digital and Dolby Pro Logic)*

Used to watch the soundtracks of software encoded with Dolby Digital (bearing the mark □□ DOLBY DIGITAL) or with Dolby Surround (bearing the mark □□ DOLBY SURROUND).
Dolby Digital and Dolby Pro Logic can be selected automatically according to software played back and the speaker arrangement you have done.
• To enjoy the software encoded with Dolby Digital, you must connect the source component using the digital terminal on the rear of this receiver. (See page 8.)

DTS Digital Surround**

DTS Digital Surround is a discrete 5.1 channel digital audio format available on CD, LD, and DVD software.
To watch the soundtracks of video software bearing the mark dts DIGITAL SURROUND, the receiver can provide you with DTS Digital Surround decoder.
DTS Digital Surround is automatically selected according to software played back and the speaker arrangement you have done.
• To enjoy the software encoded with DTS Digital Surround, you must connect the source component using the digital terminal on the rear of this receiver. (See page 8.)

Note:

A CD encoded with DTS Digital Surround cannot be played back through this receiver.

MPEG Multichannel

MPEG Multichannel is another discrete 5.1 channel digital audio format available on DVD software, and uses encoding method called MPEG2-Audio. (MPEG stands for "Motion Picture Expert Group" and has been originally developed for compressing video signals.)
To watch the soundtracks of video software bearing the mark MPEG Multichannel, the receiver can provide you with MPEG Multichannel decoder.
MPEG Multichannel is automatically selected according to software played back and the speaker arrangement you have done.
• To enjoy the software encoded with MPEG Multichannel, you must connect the source component using the digital terminal on the rear of this receiver. (See page 8.)

JVC Theater Surround

In order to reproduce a more realistic sound field in your listening room while playing soundtracks of software encoded;
– with Dolby Surround (bearing the mark □□ DOLBY SURROUND),
– with Dolby Digital (bearing the mark □□ DOLBY DIGITAL),
– with DTS Digital Surround (bearing the mark dts DIGITAL SURROUND),
– with MPEG Multichannel (bearing the mark MPEG Multichannel),
you can use JVC Theater Surround.
• When playing a source encoded with Dolby Digital, with DTS Digital Surround, or MPEG Multichannel, "DIG THEATER" is selected automatically.
• When playing a source encoded with Dolby Surround, "THEATER" is selected automatically.
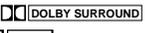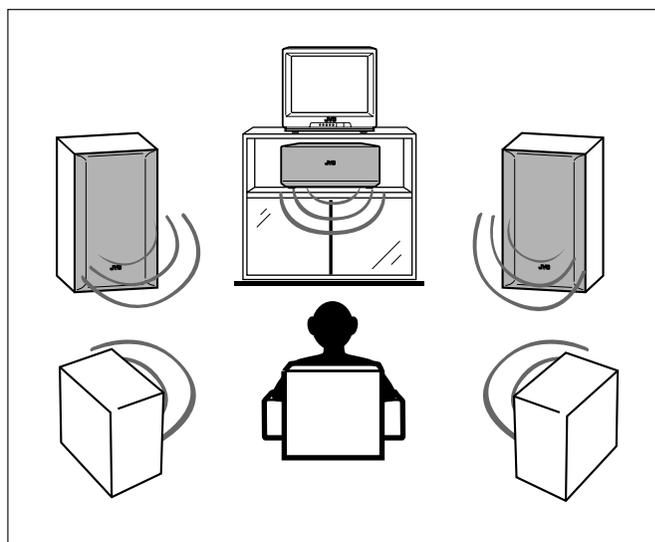
Notes:

• *The DSP modes have no effect on monaural sources.*
• *The DSP modes cannot be used for recording an analog source.*
• *When you select "DVD MULTI" as the source to play, you cannot select or adjust the DSP modes.*
• *The PRO LOGIC indicator lights up when the Dolby Pro Logic decoder built in this receiver is activated.*
• *The □□ DIGITAL indicator lights up when the signals encoded with Dolby Digital come into the receiver.*
• *The Dolby Pro Logic decoder is used not only for the analog sources but also for the sources encoded with Dolby Digital, DTS Digital Surround, or MPEG Multichannel in the following cases:*
  – *When only front channel signals are encoded.*
  – *When front channel and monaural rear channel signals are encoded.*

IMPORTANT:

Before recording a digital source, turn off the DSP mode.

DVD MULTI Playback Mode

This receiver provides the DVD MULTI playback mode for reproducing the analog discrete 5.1 channel output mode of the DVD player or other equipment.
You can adjust the DVD MULTI playback mode while playing back a video software such as a DVD using the analog discrete 5.1 channel output mode.
• For the DVD MULTI playback mode connection, see page 7.
• For details on the DVD MULTI playback mode, see page 32.

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Available DSP Modes According to the Speaker Arrangement

Available DSP modes will vary depending on how many speakers are used with this receiver.
Make sure that you have set the speaker information correctly (see page 14).

Speaker arrangements	Available DSP modes
Front speaker TV Front speaker	Each time you press DSP MODE on the front panel or SURROUND MODE on the remote control, the DSP modes change as follows: • 3D THEATER • LIVE CLUB • DANCE CLUB • HALL • PAVILION • 3D ACTION (or 3D DIGITAL) • DSP OFF (DSP mode is canceled)
Front speaker TV Center speaker Front speaker	Each time you press DSP MODE on the front panel or SURROUND MODE on the remote control, the DSP modes change as follows: **By pressing DSP MODE:** • THEATER (or DIG THEATER) • LIVE CLUB • DANCE CLUB • HALL • PAVILION • 3D ACTION (or 3D DIGITAL) • DSP OFF (DSP mode is canceled) **To activate the Surround mode,** press DOLBY/DTS/ MPEG SURROUND ON/OFF button so that the lamp on the button lights up. **By pressing SURROUND MODE:** • DOLBY/DTS/MPEG SURROUND (DOLBY PRO LOGIC, DOLBY DIGITAL, DTS SURROUND, or MPEG SURROUND) • THEATER (or DIG THEATER) • LIVE CLUB • DANCE CLUB • HALL • PAVILION • 3D ACTION (or 3D DIGITAL) • DSP OFF (DSP mode is canceled) **To activate the Surround mode,** you can also use the SURROUND ON/OFF button.
Front speaker TV Front speaker Rear speaker Rear speaker	
Front speaker TV Center speaker Front speaker Rear speaker Rear speaker	**Note on the center speaker sound when using the DAP modes:** Sounds come out of the center speaker only if the following take place at the same time; • If "CENTER SPK" is set to "LARGE" or "SMALL." • If the center channel signals come into this receiver ($\boxed{C}$ of the signal indicators lights up — see page 10) while playing a multi-sound source encoded with Dolby Digital, DTS Digital Surround, or MPEG Multichannel. In this case, you cannot adjust the center speaker output level.
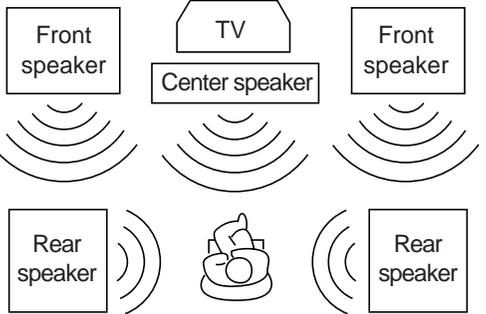
IMPORTANT:

When using the remote control, check to see if its remote control mode selector is set to the correct position:
To operate this receiver, set it to "AUDIO/TV/VCR" (except when selecting the DBS tuner as the source).
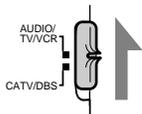
Adjusting the 3D-PHONIC Modes

Once you have adjusted the 3D-PHONIC modes, the adjustment is memorized for each 3D-PHONIC mode.

Before you start, remember...
• **Make sure that you have set the speaker information correctly (see page 14).**
• There is a time limit in doing the following steps. If the setting is canceled before you finish, start from step 1 again.

On the front panel:

1. Press DSP MODE repeatedly until "3D ACTION (or 3D DIGITAL)" or "3D THEATER" appears on the display.

The 3D-PHONIC, DSP, PRO LOGIC and selected 3D-PHONIC mode indicators also light up on the display.

2. Adjust the effect level.

1) **Press BALANCE/SURROUND ADJUST repeatedly until "DSP EFFECT" appears on the display.**
The display changes to show the current setting.

2) **Turn MULTI JOG to select the effect level.**
• As you turn it, the effect level changes as follows:

┌─ DSP EFFECT 1 ⟷ DSP EFFECT 2 ⟷ DSP EFFECT 3 ─┐
└──→ DSP EFFECT 5 ⟷ DSP EFFECT 4 ←──┘
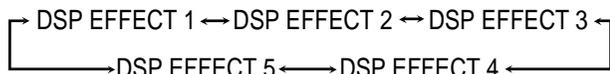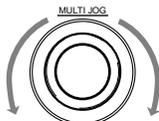
As the number increases, the selected 3D-PHONIC mode becomes stronger.

From the remote control:

1. Press SURROUND MODE repeatedly until "3D ACTION (or 3D DIGITAL)" or "3D THEATER" appears on the display.

The 3D-PHONIC, DSP, PRO LOGIC and selected 3D-PHONIC mode indicators also light up on the display.

2. Press SOUND.

The 10 keys are activated for sound adjustments.
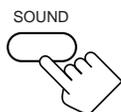
3. Press EFFECT to select an effect level you want.

• Each time you press the button, the effect level changes as follows:

┌─ DSP EFFECT 1 → DSP EFFECT 2 → DSP EFFECT 3 ─┐
└── DSP EFFECT 5 ←── DSP EFFECT 4 ←──┘
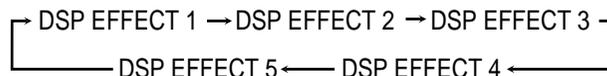
As the number increases, the selected 3D-PHONIC mode becomes stronger.

Adjusting the DAP Modes

Once you have adjusted the DAP modes, the adjustment is memorized for each DAP mode.

Before you start, remember...
• **Make sure that you have set the speaker information correctly (see page 14).**
• There is a time limit in doing the following steps. If the setting is canceled before you finish, start from step 1 again.
• You cannot adjust the rear speaker output level when you have set "REAR SPK" to "NONE." See page 14.
• When the DAP mode is used with the SEA mode (see page 22), sounds may be distorted. If this happens, turn off the SEA mode.

On the front panel:

1. Press DSP MODE repeatedly until the DAP mode — LIVE CLUB, DANCE CLUB, HALL, or PAVILION — appears on the display.

The DSP and the selected DAP mode indicators also light up on the display.
• When you have set "REAR SPK" to "NONE," the 3D-PHONIC indicator also lights up.

2. Adjust the speaker output levels.

1) **Press BALANCE/SURROUND ADJUST repeatedly until one of the indications appears on the display.**
"REAR L LEVEL":
To adjust the left rear speaker level.
"REAR R LEVEL":
To adjust the right rear speaker level.

2) **Turn MULTI JOG to adjust the selected speaker output level (from –10 dB to +10 dB).**

3) **Repeat 1) and 2) to adjust the other speaker output level.**

26

3. Adjust the effect level.

BALANCE/SURROUND ADJUST

1) Press BALANCE/SURROUND ADJUST repeatedly until "DSP EFFECT" appears on the display.
The display changes to show the current setting.

MULTI JOG

2) Turn MULTI JOG to select the effect level.
• As you turn it, the effect level changes as follows:

DSP EFFECT 1 ⟷ DSP EFFECT 2 ⟷ DSP EFFECT 3 →
→ DSP EFFECT 5 ⟷ DSP EFFECT 4 ←

As the number increases, the selected DAP mode becomes stronger.

From the remote control:

1. Press SURROUND MODE repeatedly until the DAP mode — LIVE CLUB, DANCE CLUB, HALL, or PAVILION — appears on the display.

SURROUND MODE

The DSP and the selected DAP mode indicators also light up on the display.

2. Press SOUND.

SOUND

The 10 keys are activated for sound adjustments.

3. Adjust the speaker output levels.

– REAR•L +
5   6 ▶
ENTER

• To adjust the left rear speaker level, press REAR•L –/+ (from –10 dB to +10 dB).
• To adjust the right rear speaker level, press REAR•R –/+ (from –10 dB to +10 dB).

– REAR•R +
8 ▼ 9

4. Press EFFECT to select an effect level you want.

EFFECT
7/P

• Each time you press the button, the effect level changes as follows:

DSP EFFECT 1 → DSP EFFECT 2 → DSP EFFECT 3 →
— DSP EFFECT 5 ← DSP EFFECT 4 ←
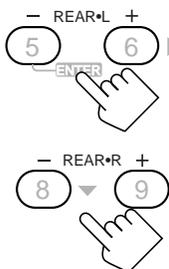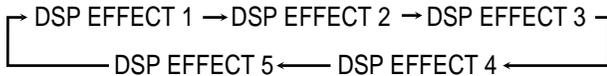
As the number increases, the selected DAP mode becomes stronger.

Adjusting the Surround Modes

Once you have adjusted the Surround modes, the adjustment is memorized for each Surround mode.

Dolby/DTS/MPEG Surround adjustments

Before you start, remember...
• **Make sure that you have set the speaker information correctly (see page 14).**
• There is a time limit in doing the following steps. If the setting is canceled before you finish, start from step 1 again.
• You cannot adjust the rear speaker output levels when you have set "REAR SPK" to "NONE." See page 14.
• You cannot adjust the center speaker output level and center tone when you have set "CENTER SPK" to "NONE." See page 14.

From the remote control:

1. Press SURROUND MODE repeatedly until the mode — PRO LOGIC, DOLBY DIGITAL, DTS SURROUND, or MPEG SURROUND — appears on the display.

SURROUND MODE

• When "PRO LOGIC" is selected, the PRO LOGIC indicator lights up on the display.

Note:

You can also press SURROUND ON/OFF to activate an appropriate Surround mode — PRO LOGIC, DOLBY DIGITAL, DTS SURROUND, MPEG SURROUND. Each time you press the button, the Surround mode turns on and off alternately.

2. Press SOUND.

SOUND

The 10 keys are activated for sound adjustments.

3. Press TEST to check the speaker output balance.

TEST
4

"TEST TONE L" starts flashing on the display, and a test tone comes out of the speakers in the following order:

→ TEST TONE L → TEST TONE C → TEST TONE R →
(Left front speaker) (Center speaker) (Right front speaker)
TEST TONE LS ← TEST TONE RS ←
(Left rear speaker)   (Right rear speaker)

Notes:

- *You can adjust the speaker output levels without outputting the test tone.*
- *No test tone comes out of the center speaker when "CENTER SPK" is set to "NONE" (see page 14).*
- *No test tone comes out of the rear speakers when "REAR SPK" is set to "NONE" (see page 14).*
- *If the TV is turned on and the proper video input is selected on the TV, the test tone screen will appear on the TV.*
- *The signal indicators also light on the display while the test tone comes out of the speakers.*
  - L: *Lights when the test tone comes out of the left front speaker.*
  - C: *Lights when the test tone comes out of the center speaker.*
  - R: *Lights when the test tone comes out of the right front speaker.*
  - RS: *Lights when the test tone comes out of the right rear speaker.*
  - LS: *Lights when the test tone comes out of the left rear speaker.*

L C R

LS RS

4. Adjust the speaker output levels.

- To adjust the center speaker level, press CNTR –/+ (from –10 dB to +10 dB).
- To adjust the left rear speaker level, press REAR•L –/+ (from –10 dB to +10 dB).
- To adjust the right rear speaker level, press REAR•R –/+ (from –10 dB to +10 dB).

– CNTR +
2 ▲ 3

– REAR•L +
5 6 ▶

– REAR•R +
8 ▼ 9

5. Press TEST again to stop the test tone.

TEST
4 ◀

6. Press CNTR TONE to select the center tone level you want.

CNTR TONE
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The center tone adjustment affects the mid-frequency range, which the human voice is mostly made up of.

- Each time you press the button, the display changes to show the following:

SOFT 2 → SOFT 1 → FLAT → SHARP 1 → SHARP 2

Adjusted levels are also shown on the equalizer display.

SEA CNTR

100 1k 10k

This CNTR means this adjustment can be applied to the center speaker only. (Example: When "FLAT" is selected.)

To make the dialogue clearer, select "SHARP 1" (little) or "SHARP 2" (much).
To make the dialogue softer, select "SOFT 1" (little) or "SOFT 2" (much).
When "FLAT" is selected, no adjustment is applied.

On the front panel:

You can also use the buttons on the front panel to adjust the Surround modes. However, no test tone is available when using the buttons on the front panel. So, make adjustments while listening to the sound of the source played back.

1. Press DOLBY/DTS/MPEG SURROUND ON/OFF to activate an appropriate Surround mode — PRO LOGIC, DOLBY DIGITAL, DTS SURROUND, or MPEG SURROUND.

DOLBY/DTS/MPEG
SURROUND ON/OFF

- Each time you press the button, the Surround mode turns on and off alternately.
- When "PRO LOGIC" is selected, the PRO LOGIC indicator lights up on the display.

2. Adjust the speaker output levels.

BALANCE/SURROUND
ADJUST

1) **Press BALANCE/SURROUND ADJUST repeatedly until one of the indications appears on the display.**
   "CENTER LEVEL":
     To adjust the center speaker level.
   "REAR L LEVEL":
     To adjust the left rear speaker level.
   "REAR R LEVEL":
     To adjust the right rear speaker level.
2) **Turn MULTI JOG to adjust the selected speaker output level (from –10 dB to +10 dB).**
3) **Repeat 1) and 2) to adjust the other speaker output levels.**

MULTI JOG

3. Adjust the center tone.

BALANCE/SURROUND
ADJUST

1) **Press BALANCE/SURROUND ADJUST repeatedly until "CENTER TONE" appears on the display.**
   The display changes to show the current setting.
2) **Turn MULTI JOG to select the center tone level you want.**
   - As you turn it, the display changes to show the following:

MULTI JOG

SOFT 2 ↔ SOFT 1 ↔ FLAT ↔ SHARP 1 ↔ SHARP 2

28
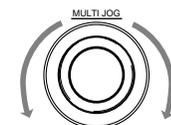
JVC Theater Surround adjustments

Before you start, remember...
- **Make sure that you have set the speaker information correctly (see page 14).**
- There is a time limit in doing the following steps. If the setting is canceled before you finish, start from step 1 again.
- You cannot adjust the rear speaker output levels when you have set "REAR SPK" to "NONE." See page 14.
- You cannot adjust the center speaker output level and center tone when you have set "CENTER SPK" to "NONE." See page 14.

From the remote control:

1. **Press SURROUND MODE repeatedly until "THEATER" or "DIG THEATER" appears on the display.**

   SURROUND MODE

   - When "THEATER" is selected, the PRO LOGIC, DSP, and THEATER indicators also light up on the display.
   - When "DIG THEATER" is selected, the DSP and THEATER indicators also light up on the display.

2. **Press SOUND.**

   SOUND

   The 10 keys are activated for sound adjustments.

3. **Press TEST to check the speaker output balance.**

   TEST 4

   "TEST TONE L" starts flashing on the display, and a test tone comes out of the speakers in the following order:

   ```
   ┌ TEST TONE L  →  TEST TONE C  →  TEST TONE R ┐
   │ (Left front speaker)   (Center speaker)   (Right front speaker) │
   │                                                                 │
   └──── TEST TONE LS ←──── TEST TONE RS ◄───────┘
            (Left rear speaker)        (Right rear speaker)
   ```

   Notes:
   - *You can adjust the speaker output levels without outputting the test tone.*
   - *No test tone comes out of the center speaker when "CENTER SPK" is set to "NONE" (see page 14).*
   - *No test tone comes out of the rear speakers when "REAR SPK" is set to "NONE" (see page 14).*
   - *If the TV is turned on and the proper video input is selected on the TV, the test tone screen will appear on the TV.*
   - *The signal indicators also light on the display while the test tone comes out of the speakers.*
     - *L: Lights when the test tone comes out of the left front speaker.* ` L ` ` C ` ` R `
     - *C: Lights when the test tone comes out of the center speaker.* ` LS `   ` RS `
     - *R: Lights when the test tone comes out of the right front speaker.*
     - *RS: Lights when the test tone comes out of the right rear speaker.*
     - *LS: Lights when the test tone comes out of the left rear speaker.*

4. **Adjust the speaker output levels.**

   − CNTR +
   2 ▲ 3 (CNTR)

   − REAR•L +
   5 6 (ENTER) ▶

   − REAR•R +
   8 ▼ 9

   - To adjust the center speaker level, press CNTR –/+ (from –10 dB to +10 dB).
   - To adjust the left rear speaker level, press REAR•L –/+ (from –10 dB to +10 dB).
   - To adjust the right rear speaker level, press REAR•R –/+ (from –10 dB to +10 dB).

5. **Press TEST again to stop the test tone.**

   TEST 4

6. **Press CNTR TONE to select the center tone level you want.**

   CNTR TONE 1

   The center tone adjustment affects the mid-frequency range, which the human voice is mostly made up of.
   - Each time you press the button, the display changes to show the following:

   ```
   ┌→SOFT 2→SOFT 1→FLAT→SHARP 1→SHARP 2┐
   └───────────────────────────────────┘
   ```

   Adjusted levels are also shown on the equalizer display.

   ` SEA ` (CNTR)   This CNTR means this adjustment can be applied to the center speaker only. (Example: When "FLAT" is selected.)

   100 1k 10k
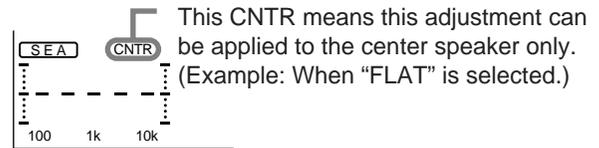
   To make the dialogue clearer, select "SHARP 1" (little) or "SHARP 2" (much).
   To make the dialogue softer, select "SOFT 1" (little) or "SOFT 2" (much).
   When "FLAT" is selected, no adjustment is applied.

7. **Press EFFECT to select an effect level you want.**

   EFFECT 7

   - Each time you press the button, the effect level changes as follows:

   ```
   ┌ DSP EFFECT 1 → DSP EFFECT 2 → DSP EFFECT 3 ┐
   │                                            │
   └──── DSP EFFECT 5 ←── DSP EFFECT 4 ◄────────┘
   ```

   As the number increases, JVC Theater Surround becomes stronger.

On the front panel:

You can also use the buttons on the front panel to adjust the Surround modes. However, no test tone is available when using the buttons on the front panel. So, make adjustments while listening to the sound of the source played back.

1. Press DSP MODE repeatedly until "THEATER" or "DIG THEATER" appears on the display.
- When "THEATER" is selected, the PRO LOGIC, DSP, and THEATER indicators light up on the display.
- When "DIG THEATER" is selected, the DSP and THEATER indicators light up on the display.

DSP MODE

2. Adjust the speaker output levels.
1) **Press BALANCE/SURROUND ADJUST repeatedly until one of the indications appears on the display.**
 "CENTER LEVEL":
  To adjust the center speaker level.
 "REAR L LEVEL":
  To adjust the left rear speaker level.
 "REAR R LEVEL":
  To adjust the right rear speaker level.
2) **Turn MULTI JOG to adjust the selected speaker output level (from –10 dB to +10 dB).**
3) **Repeat 1) and 2) to adjust the other speaker output levels.**

BALANCE/SURROUND ADJUST

MULTI JOG

3. Adjust the center tone.
1) **Press BALANCE/SURROUND ADJUST repeatedly until "CENTER TONE" appears on the display.**
 The display changes to show the current setting.
2) **Turn MULTI JOG to select the center tone level you want.**
 - As you turn it, the display changes to show the following:

BALANCE/SURROUND ADJUST

MULTI JOG

SOFT 2↔SOFT 1↔FLAT↔SHARP 1↔SHARP 2

4. Adjust the effect level.
1) **Press BALANCE/SURROUND ADJUST repeatedly until "DSP EFFECT" appears on the display.**
 The display changes to show the current setting.
2) **Turn MULTI JOG to select the effect level.**
 - As you turn it, the effect level changes as follows:

BALANCE/SURROUND ADJUST

MULTI JOG
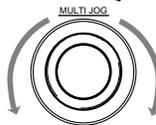
DSP EFFECT 1 ↔ DSP EFFECT 2 ↔ DSP EFFECT 3
DSP EFFECT 5 ↔ DSP EFFECT 4

As the number increases, JVC Theater Surround becomes stronger.

Activating the DSP Modes

You can use only one DSP mode at a time. When a DSP mode is activated, another DSP mode is canceled if in use.

For Dolby Pro Logic, Dolby Digital, DTS Digital Surround, and MPEG Multichannel

On the front panel:

1. Press DOLBY/DTS/MPEG SURROUND ON/OFF so that the lamp on the button lights up.
- Each time you press the button, the Dolby/DTS/MPEG Surround turns on and off alternately.

DOLBY/DTS/MPEG SURROUND ON/OFF

2. Select and play a sound source.
- To enjoy Dolby Pro Logic, play back a software encoded with Dolby Surround and labeled with ▯▯ DOLBY SURROUND mark.
- To enjoy Dolby Digital, play back a software encoded with Dolby Digital and labeled with ▯▯ DOLBY DIGITAL mark.
- To enjoy DTS Digital Surround, play back a software encoded with DTS Digital Surround and labeled with dts mark.
- To enjoy MPEG Multichannel, play back a software encoded with MPEG Multichannel and labeled with MPEG)((Multichannel mark.

To cancel the Dolby/DTS/MPEG Surround mode

Press DOLBY/DTS/MPEG SURROUND ON/OFF again so that the lamp on the button goes off. ("SURROUND OFF" appears on the display.)

DOLBY/DTS/MPEG SURROUND ON/OFF

From the remote control:

1. Press SURROUND ON/OFF so that the lamp on the DOLBY/DTS/MPEG SURROUND ON/OFF button on the front panel lights up.
- Each time you press the button, the Dolby/DTS/MPEG Surround turns on and off alternately.
- You can also turn on Dolby/DTS/MPEG Surround by pressing SURROUND MODE. (See page 25 for more details.)

SURROUND ON/OFF

2. Select and play a sound source.
- To enjoy Dolby Pro Logic, play back a software encoded with Dolby Surround and labeled with ▯▯ DOLBY SURROUND mark.
- To enjoy Dolby Digital, play back a software encoded with Dolby Digital and labeled with ▯▯ DOLBY DIGITAL mark.
- To enjoy DTS Digital Surround, play back a software encoded with DTS Digital Surround and labeled with dts mark.
- To enjoy MPEG Multichannel, play back a software encoded with MPEG Multichannel and labeled with MPEG)((Multichannel mark.

To cancel the Dolby/DTS/MPEG Surround mode

Press SURROUND ON/OFF again.
("SURROUND OFF" appears on the display.)

SURROUND ON/OFF

For the other DSP modes

On the front panel:

1. Press DSP MODE repeatedly until the mode you want appears on the display.

DSP MODE

- Each time you press the button, the DSP modes change. (See page 25 for more details.)

2. Select and play a sound source.

- To enjoy 3D-PHONIC and JVC Theater Surround, play back a software:
  - encoded with Dolby Surround and labeled with 𝐃𝐃 DOLBY SURROUND mark.
  - encoded with Dolby Digital and labeled with 𝐃𝐃 DOLBY DIGITAL mark.
  - encoded with DTS Digital Surround and labeled with dts mark.
  - encoded with MPEG Multichannel and labeled with MPEG Multichannel mark.

To cancel the DSP mode

Press DSP MODE repeatedly until "DSP OFF" appears on the display.

DSP MODE

From the remote control:

1. Press SURROUND MODE repeatedly until the DSP mode you want appears on the display.

SURROUND MODE

- Each time you press the button, the DSP modes change. You can also turn on Dolby/DTS/MPEG Surround. (See page 25 for more details.)

2. Select and play a sound source.

- To enjoy 3D-PHONIC and JVC Theater Surround, play back a software:
  - encoded with Dolby Surround and labeled with 𝐃𝐃 DOLBY SURROUND mark.
  - encoded with Dolby Digital and labeled with 𝐃𝐃 DOLBY DIGITAL mark.
  - encoded with DTS Digital Surround and labeled with dts mark.
  - encoded with MPEG Multichannel and labeled with MPEG Multichannel mark.

To cancel the DSP mode

Press SURROUND MODE repeatedly until "DSP OFF" appears on the display.

SURROUND MODE

——————— MEMO ———————

Use this column to write down your DSP mode adjustments for your future reference.

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Using the DVD MULTI Playback Mode

This receiver provides the DVD MULTI playback mode for reproducing the analog discrete output mode of the DVD player. Before playing back a DVD, refer also to the manual supplied with the DVD player.

IMPORTANT:

When using the remote control, check to see if its remote control mode selector is set to the correct position:

To operate this receiver, set it to "AUDIO/TV/VCR" (except when selecting the DBS tuner as the source).
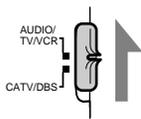
Activating the DVD MULTI Playback Mode

You can adjust the DVD MULTI playback mode while playing back a DVD using the analog discrete output mode on the DVD player. Once you made adjustments, the receiver memorizes the adjustments until you change them. You also need to set the DVD player to the analog discrete output mode.

Before you start, remember...

• There is a time limit in doing the following steps. If the setting is canceled before you finish, start from step 1 again.

On the front panel:

1. **Turn SOURCE SELECTOR until "DVD MULTI" appears on the display.**
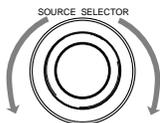
   Note:

   When you select "DVD MULTI" as the source to play, the DSP mode is canceled temporarily, and the DOLBY/DTS/MPEG SURROUND ON/OFF and DSP MODE buttons do not work.

2. **Select the analog discrete output mode on the DVD player, and start playing a DVD.**
   • Refer to the manual supplied with the DVD player.

   If you need to make any adjustment, go to the following steps.

3. **Adjust the speaker output levels.**
   1) **Press BALANCE/SURROUND ADJUST repeatedly until one of the indications appears on the display.**
      "CENTER LEVEL":
         To adjust the center speaker level.
      "REAR L LEVEL":
         To adjust the left rear speaker level.
      "REAR R LEVEL":
         To adjust the right rear speaker level.
   2) **Turn MULTI JOG to adjust the selected speaker output level (from –10 dB to +10 dB).**
   3) **Repeat 1) and 2) to adjust the other speaker output levels.**
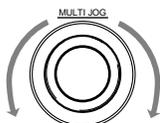
4. **Adjust the center tone.**
   1) **Press BALANCE/SURROUND ADJUST repeatedly until "CENTER TONE" appears on the display.**
      The display changes to show the current setting.
   2) **Turn MULTI JOG to select the center tone level you want.**
      The center tone adjustment affects the mid-frequency range, which the human voice is mostly made up of.
      • As you turn it, the display changes to show the following:

      SOFT 2 ←→ SOFT 1 ←→ FLAT ←→ SHARP 1 ←→ SHARP 2
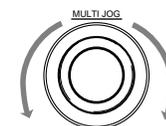
Adjusted levels are also shown on the equalizer display.

This CNTR means this adjustment can be applied to the center speaker only. (Example: When "FLAT" is selected.)

To make the dialogue clearer, select "SHARP 1" (little) or "SHARP 2" (much).
To make the dialogue softer, select "SOFT 1" (little) or "SOFT 2" (much).
When "FLAT" is selected, no adjustment is applied.

32

From the remote control:

1. Press DVD MULTI so that "DVD MULTI" appears on the display.

DVD MUILTI

Note:

When you select "DVD MULTI" as the source to play, the DSP mode is canceled temporarily, and the SURROUND ON/OFF and SURROUND MODE buttons do not work.

2. Select the analog discrete output mode on the DVD player, and start playing a DVD.
   • Refer to the manual supplied with the DVD player.

If you need to make any adjustment, go to the following steps.

3. Press SOUND.

SOUND

   The 10 keys are activated for adjusting the sound.

4. Adjust the speaker output levels.
   • To adjust the center speaker level, press CNTR –/+ (from –10 dB to +10 dB).
   • To adjust the left rear speaker level, press REAR•L –/+ (from –10 dB to +10 dB).
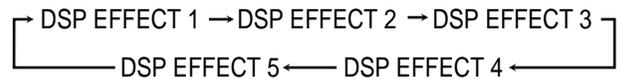   • To adjust the right rear speaker level, press REAR•R –/+ (from –10 dB to +10 dB).

– CNTR +
2 ▲ 3

– REAR•L +
5 6 ▶

– REAR•R +
8 ▼ 9

5. Press CNTR TONE to select the center tone level you want.

CNTR TONE
1

   • Each time you press the button, the display changes to show the following:

   ┌→SOFT 2 → SOFT 1 → FLAT → SHARP 1 → SHARP 2 ┐

33

─────────────── MEMO ───────────────

Use this column to write down your DVD MULTI playback mode adjustments for your future reference.

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Using the On-Screen Menus

You can use the Menus on the TV screen to control the receiver.
To use this function, you need to connect the TV to the MONITOR OUT jack on the rear panel (see page 7), and set the TV's input mode to the proper position to which the receiver is connected.
• When the TV's input mode is incorrect; for example, a different video input or TV tuner mode is selected, you cannot show the Menus on the TV screen.

On-Screen Operation buttons (on the remote control)
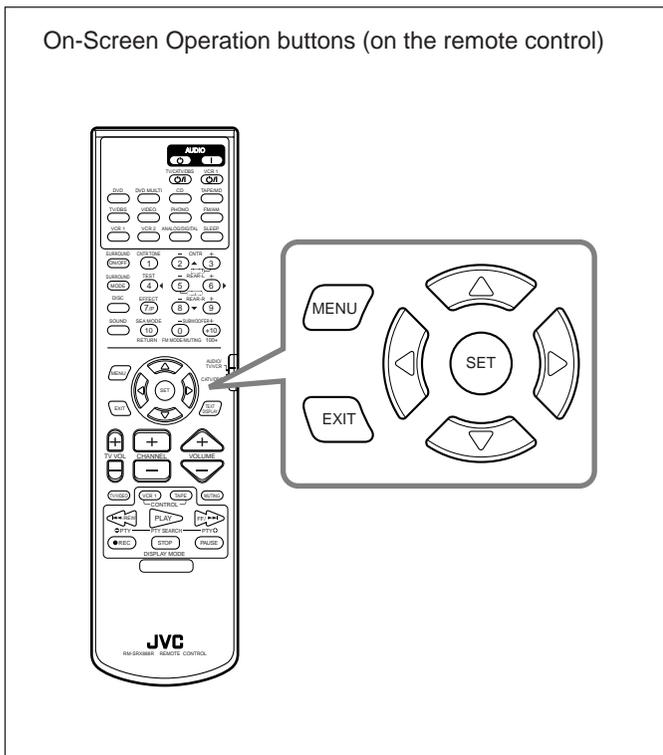
■ Selecting the Source to Play (Also see page 9)

1. Press MENU.
The MAIN MENU appears on the TV.
• Pressing one of the △ / ▽ / ◁ / ▷ buttons also displays the MAIN MENU.

```
MAIN MENU                JVC
 ▲
☞SOURCE  :ch 1 FM 87.5 MHz
 VISUAL  :VCR1
 MODE    :OFF

 x x    SOUND CONTROL   x x
 x x    TUNER CONTROL   x x
 x x       SETTING      x x
 ▼                  ◀▶:OPERATE
 VOLUME : 20▐▐▐▌
```
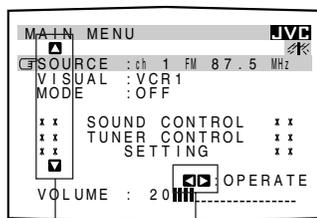
Shows the buttons you can use on the current menu.
In this case, use △ / ▽ to move ☞ up and down, and ◁ / ▷ to select, adjust or set the item.

Notes:

• *If your TV is not of the PAL- or multi-color system, the TV screen will be distorted.*
• *The on-screen display will disappear if no operation is done for about 1 minute.*

2. Press △ / ▽ to move ☞ to "SOURCE."

3. Press ◁ / ▷ to select the source.

4. When you finish, press EXIT.
The menu disappears from the TV.

■ Selecting Different Sources for Picture and Sound (Also see page 10)

1. Press MENU.
The MAIN MENU appears on the TV.
• Pressing one of the △ / ▽ / ◁ / ▷ buttons also displays the MAIN MENU.

2. Press △ / ▽ to move ☞ to "VISUAL."

3. Press ◁ / ▷ to select a different video source.

```
MAIN MENU                JVC
 ▲
 SOURCE  :PHONO
☞VISUAL  :VCR1
 MODE    :OFF

 x x    SOUND CONTROL   x x
 x x    TUNER CONTROL   x x
 x x       SETTING      x x
 ▼                  ◀▶:OPERATE
 VOLUME : 20▐▐▐▌
```

4. When you finish, press EXIT.
The menu disappears from the TV.

■ Activating the DSP Modes (Also see page 30)

1. Press MENU.
The MAIN MENU appears on the TV.
• Pressing one of the △ / ▽ / ◁ / ▷ buttons also displays the MAIN MENU.

2. Press △ / ▽ to move ☞ to "MODE."

3. Press ◁ / ▷ to select the DSP mode you want to use.

```
MAIN MENU                JVC
 ▲
 SOURCE  :VCR1
 VISUAL  :VCR1
☞MODE    :PRO LOGIC

 x x    SOUND CONTROL   x x
 x x    TUNER CONTROL   x x
 x x       SETTING      x x
 ▼                  ◀▶:OPERATE
 VOLUME : 20▐▐▐▌
```

4. When you finish, press EXIT.
The menu disappears from the TV.

■ Adjusting the Front Speaker Output Balance (Also see page 12)

1. Press MENU.
The MAIN MENU appears on the TV.
• Pressing one of the △ / ▽ / ◁ / ▷ buttons also displays the MAIN MENU.

2. Press △ / ▽ to move ☞ to "SOUND CONTROL," then press ◁ / ▷.
The SOUND CONTROL menu appears.

3. Press △ / ▽ to move ☞ to "BAL." (Balance).

4. Press ◁ / ▷ to adjust the balance.
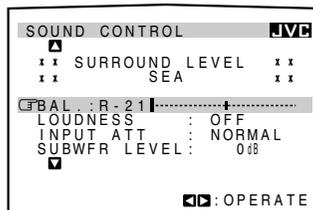
```
SOUND CONTROL            JVC
 ▲
 x x  SURROUND LEVEL    x x
 x x        SEA         x x

☞BAL.:R-21▐──────────────
 LOUDNESS     : OFF
 INPUT ATT    : NORMAL
 SUBWFR LEVEL:  0dB
 ▼
                   ◀▶:OPERATE
```

5. When you finish, press EXIT repeatedly until the menu disappears from the TV.

34

■ Listening at Low Volume (Loudness)
(Also see page 11)

1. Press MENU.
   The MAIN MENU appears on the TV.
   • Pressing one of the △ / ▽ / ◁ / ▷ buttons also displays the MAIN MENU.

2. Press △ / ▽ to move ☞ to "SOUND CONTROL," then press ◁ / ▷.
   The SOUND CONTROL menu appears.

3. Press △ / ▽ to move ☞ to "LOUDNESS."

4. Press ◁ / ▷ to turn the loudness "ON" or "OFF."

```
SOUND CONTROL          JVC
          ▲
    x x  SURROUND  LEVEL   x x
    x x        SEA          x x

BAL.:R-21 |············+···········
☞LOUDNESS        :  OFF
  INPUT ATT      :  NORMAL
  SUBWFR LEVEL:     0 dB
          ▼
                  ◁▶:OPERATE
```
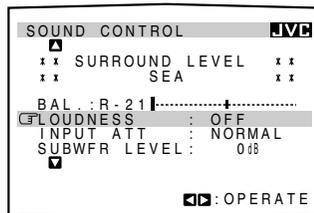
5. When you finish, press EXIT repeatedly until the menu disappears from the TV.

■ Attenuating the Input Signal
(Also see page 11)

1. Press MENU.
   The MAIN MENU appears on the TV.
   • Pressing one of the △ / ▽ / ◁ / ▷ buttons also displays the MAIN MENU.

2. Press △ / ▽ to move ☞ to "SOUND CONTROL," then press ◁ / ▷.
   The SOUND CONTROL menu appears.

3. Press △ / ▽ to move ☞ to "INPUT ATT."

4. Press ◁ / ▷ to turn the Input Attenuator mode "ATT ON" or "NORMAL."
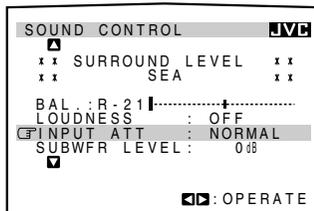
```
SOUND CONTROL          JVC
          ▲
    x x  SURROUND  LEVEL   x x
    x x        SEA          x x

BAL.:R-21 |············+···········
  LOUDNESS        :  OFF
☞INPUT ATT      :  NORMAL
  SUBWFR LEVEL:     0 dB
          ▼
                  ◁▶:OPERATE
```

5. When you finish, press EXIT repeatedly until the menu disappears from the TV.

■ Adjusting the Subwoofer Output Level
(Also see page 11)

1. Press MENU.
   The MAIN MENU appears on the TV.
   • Pressing one of the △ / ▽ / ◁ / ▷ buttons also displays the MAIN MENU.

2. Press △ / ▽ to move ☞ to "SOUND CONTROL," then press ◁ / ▷.
   The SOUND CONTROL menu appears.

3. Press △ / ▽ to move ☞ to "SUBWFR LEVEL."

4. Press ◁ / ▷ to adjust the subwoofer output level.
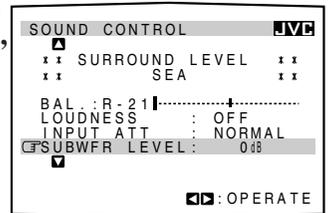
```
SOUND CONTROL          JVC
          ▲
    x x  SURROUND  LEVEL   x x
    x x        SEA          x x

BAL.:R-21 |············+···········
  LOUDNESS        :  OFF
  INPUT ATT      :  NORMAL
☞SUBWFR LEVEL:     0 dB
          ▼
                  ◁▶:OPERATE
```

5. When you finish, press EXIT repeatedly until the menu disappears from the TV.

■ Adjusting the DSP Modes
(Also see pages 26 – 30)

1. Press MENU.
   The MAIN MENU appears on the TV.
   • Pressing one of the △ / ▽ / ◁ / ▷ buttons also displays the MAIN MENU.

2. Press △ / ▽ to move ☞ to "MODE."

3. Press ◁ / ▷ to select the DSP mode you want to adjust.
   • In this example, "THEATER" is selected.

```
MAIN MENU              JVC
          ▲
  SOURCE  :VCR1
  VISUAL  :VCR1
☞MODE    :THEATER

    x x  SOUND  CONTROL   x x
    x x  TUNER  CONTROL   x x
    x x      SETTING       x x
                  ◁▶:OPERATE
  VOLUME  :  20 ▏▎▍·············
```

4. Press △ / ▽ to move ☞ to "SOUND CONTROL," then press ◁ / ▷.
   The SOUND CONTROL menu appears.

```
SOUND CONTROL          JVC
☞ x x SURROUND  LEVEL   x x
    x x        SEA          x x

BAL.:R-21 |············+···········
  LOUDNESS        :  OFF
  INPUT ATT      :  NORMAL
  SUBWFR LEVEL:     0 dB
          ▼
                  ◁▶:ENTER
```

5. Press △ / ▽ to move ☞ to "SURROUND LEVEL," then press ◁ / ▷.
   The SURROUND LEVEL menu appears.

```
SURROUND LEVEL         JVC


          ▲
☞TEST TONE    :  OFF
  CENTER LEVEL:     0 dB
  REAR L LEVEL:    +6 dB
  REAR R LEVEL:    -4 dB
  CENTER TONE :   FLAT
  DSP EFFECT  :    3
          ▼
                  ◁▶:OPERATE
```
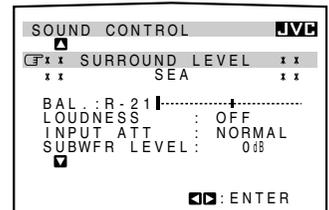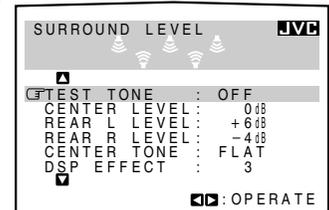
6. Press △ / ▽ to move ☞ to the item you want to set or adjust, then press ◁ / ▷.
   On these adjustment menus, you can do the following:

   For 3D-PHONIC (3D ACTION, 3D DIGITAL, 3D THEATER):
   "DSP EFFECT":   Select the effect level.
   For DAP (LIVE CLUB, DANCE CLUB, HALL, PAVILION):
   "REAR L LEVEL": Adjust the left rear speaker output level. *
   "REAR R LEVEL": Adjust the right rear speaker output level. *
   "DSP EFFECT":   Select the effect level.

For Dolby Pro Logic:
"TEST TONE": Output a test tone.
"CENTER LEVEL": Adjust the center speaker output level. **
"REAR L LEVEL": Adjust the left rear speaker output level. *
"REAR R LEVEL": Adjust the right rear speaker output level. *
"CENTER TONE": Select the center tone level. **

For Dolby Digital, DTS Digital Surround, and MPEG Multichannel:
"TEST TONE": Output a test tone.
"CENTER LEVEL": Adjust the center speaker output level. **
"REAR L LEVEL": Adjust the left rear speaker output level. *
"REAR R LEVEL": Adjust the right rear speaker output level. *
"CENTER TONE": Select the center tone level. **

For JVC Theater Surround:
"TEST TONE": Output a test tone.
"CENTER LEVEL": Adjust the center speaker output level. **
"REAR L LEVEL": Adjust the left rear speaker output level. *
"REAR R LEVEL": Adjust the right rear speaker output level. *
"CENTER TONE": Select the center tone level. **
"DSP EFFECT": Select the effect level.

Notes:
* Not displayed when "REAR SPK" is set to "NONE" (see page 14).
** Not displayed when "CENTER SPK" is set to "NONE" (see page 14).

7. When you finish, press EXIT repeatedly until the menu disappears from the TV.

■ **Activating the DVD MULTI Playback Mode**
(Also see page 32)

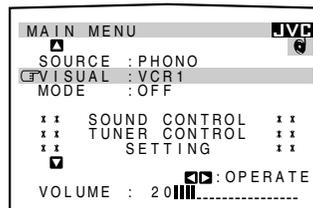**1. Press MENU.**
The MAIN MENU appears on the TV.
• Pressing one of the △ / ▽ / ◁ / ▷ buttons also displays the MAIN MENU.

2. Press △ / ▽ to move ☞ to "SOURCE."

3. Press ◁ / ▷ to select "DVD MULTI."

4. Press △ / ▽ to move ☞ to "SOUND CONTROL," then press ◁ / ▷.
The SOUND CONTROL menu appears.

5. Press △ / ▽ to move ☞ to "SURROUND LEVEL," then press ◁ / ▷.
The SURROUND LEVEL menu appears.

```
SURROUND  LEVEL        JVC
        ▲
  ☞CENTER  LEVEL :    0 dB
    REAR L  LEVEL :  + 6 dB
    REAR R  LEVEL :  − 4 dB
    CENTER  TONE  :  FLAT
        ▼

              ◄►: OPERATE
```

6. Press △ / ▽ to move ☞ to the item you want to set or adjust, then press ◁ / ▷.
On this adjustment menu, you can do the following:

"CENTER LEVEL": Adjust the center speaker output level.
"REAR L LEVEL": Adjust the left rear speaker output level.
"REAR R LEVEL": Adjust the right rear speaker output level.
"CENTER TONE": Select the center tone level.

7. When you finish, press EXIT repeatedly until the menu disappears from the TV.

■ **Selecting Your Favorite SEA Mode**
(Also see page 22)

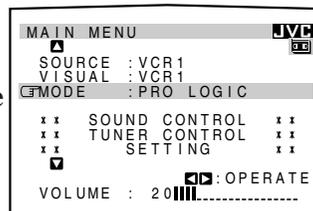**1. Press MENU.**
The MAIN MENU appears on the TV.
• Pressing one of the △ / ▽ / ◁ / ▷ buttons also displays the MAIN MENU.

2. Press △ / ▽ to move ☞ to "SOUND CONTROL," then press ◁ / ▷.
The SOUND CONTROL menu appears.

3. Press △ / ▽ to move ☞ to "SEA," then press ◁ / ▷.
The SEA menu appears.

```
SEA                    JVC
        ▲
  ☞SEA MODE   :ROCK
  x x     SEA ADJUST    x x
        ▼



    100    1k    10kHz
              ◄►: OPERATE
```

4. Press △ / ▽ to move ☞ to "SEA MODE."

5. Press ◁ / ▷ to select the SEA mode you want.

6. When you finish, press EXIT repeatedly until the menu disappears from the TV.

■ **Creating Your Own SEA Mode**
(Also see page 22)

1. Press MENU.
The MAIN MENU appears on the TV.
• Pressing one of the △ / ▽ / ◁ / ▷ buttons also displays the MAIN MENU.

2. Press △ / ▽ to move ☞ to "SOUND CONTROL," then press ◁ / ▷.
The SOUND CONTROL menu appears.

3. Press △ / ▽ to move ☞ to "SEA," then press ◁ / ▷.
The SEA menu appears.

4. **Press △ / ▽ to move ☞ to "SEA ADJUST."**
The SEA ADJUST menu appears.

```
SEA ADJUST          JVC
SEA USERMODE

 ▲
 ▼
       100   1k   10kHz
       ◄        ►
            SET : MEMORY
```
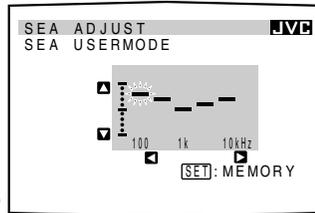
5. **Press △ / ▽ / ◁ / ▷ to adjust the SEA mode as you want.**
◁ / ▷ : Select the frequency ranges.
△ / ▽ : Adjust the frequency levels.

6. **Press SET to store the setting into the SEA USERMODE.**
• If you press EXIT, without pressing SET in this step, you can return to the SEA menu. (The adjustment you have made is active but not stored.)

7. **When you finish, press EXIT repeatedly until the menu disappears from the TV.**

■ **Setting the Basic Setting Items** (Also see pages 12 – 15)

1. **Press MENU.**
The MAIN MENU appears on the TV.
• Pressing one of the △ / ▽ / ◁ / ▷ buttons also displays the MAIN MENU.

2. **Press △ / ▽ to move ☞ to "SETTING," then press ◁ / ▷.**
The SETTING 1 or SETTING 2 menu appears.

```
SETTING 1           JVC
 ▲
SUBWOOFER    : NO
FRONT  SPK   : LARGE
CENTER SPK   : SMALL
REAR   SPK   : LARGE
CNTR DELAY   : 3msec
REAR DELAY   : 5msec
CROSSOVER    : 100Hz
☞xx    NEXT  PAGE    xx
 ▼
            ◄►: ENTER
```
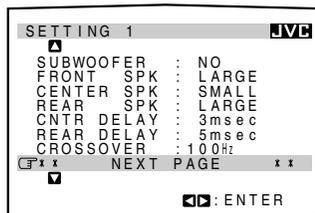
3. **Press △ / ▽ to move ☞ to the item you want to set or adjust, then press ◁ / ▷.**
• To go to the SETTING 2 menu, move ☞ to "NEXT PAGE," then press ◁ / ▷.
• To go back to the SETTING 1 menu, move ☞ to "PREVIOUS PAGE," then press ◁ / ▷.

```
SETTING 2           JVC
 ▲
LFE ATT.     : 0dB
COMP.        : OFF
DIGITAL 1    : DBS
DIGITAL 2    : CD
DIGITAL 3    : MD
FL DISP.     : NORMAL
☞xx  PREVIOUS PAGE  xx
 ▼
            ◄►: ENTER
```
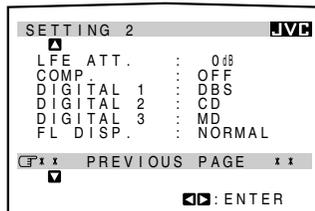
On the SETTING 1 and 2 menus, you can do the following:

"SUBWOOFER": Set the subwoofer information (see page 12).
"FRONT SPK": Set the front speaker information (see page 14).
"CENTER SPK": Set the center speaker information (see page 14).
"REAR SPK": Set the rear speaker information (see page 14).
"CNTR DELAY": Adjust the delay time of the center speaker output (see page 14). *
"REAR DELAY": Adjust the delay time of the rear speaker output (see page 14). **
"CROSSOVER": Set the crossover frequency (see page 15).

"LFE ATT.": Set the low frequency effect attenuator level (see page 15).
"COMP.": Set the dynamic range compression (see page 15).
"DIGITAL 1/2/3": Set the digital input terminal (see page 13).
"FL DISP.": Shows the disc text information on the display (see page 13).

Notes:
* Not adjustable when "CENTER SPK" is set to "NONE" (see page 14).
**Not adjustable when "REAR SPK" is set to "NONE" (see page 14).

4. **When you finish, press EXIT repeatedly until the menu disappears from the TV.**

■ **Operating the Tuner** (Also see pages 17 and 18)
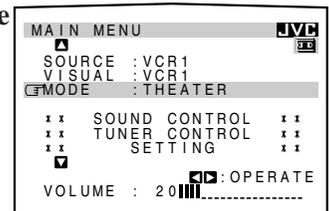
1. **Press MENU.**
The MAIN MENU appears on the TV.
• Pressing one of the △ / ▽ / ◁ / ▷ buttons also displays the MAIN MENU.

2. **Press △ / ▽ to move ☞ to "TUNER CONTROL," then press ◁ / ▷.**
The TUNER CONTROL menu appears.

```
TUNER CONTROL       JVC
 ▲
☞PRESET CH  : 1
 BAND       : FM
 FREQUENCY  : 87.50MHz
 FM MODE    : AUTO

 xx   PRESET MEMORY   xx
 ▼
            ◄►: OPERATE
```
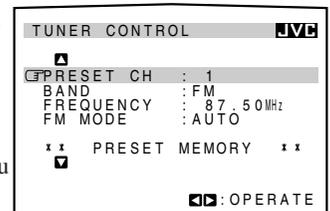
3. **Press △ / ▽ to move ☞ to the item you want to set or adjust, then press ◁ / ▷.**
On the TUNER CONTROL menu, you can do the following:

"PRESET CH": Select a preset channel station.
"BAND": Select the band.
"FREQUENCY": Tune in a station manually.
"FM MODE": Select the FM reception mode.*
"PRESET MEMORY": See "Storing the Preset Stations" on the next page.

Note:
* Not displayed when an AM (MW/LW) station is selected.

4. **When you finish, press EXIT repeatedly until the menu disappears from the TV.**

■ Storing the Preset Stations (Also see page 17)

1. Press MENU.
The MAIN MENU appears on the TV.
• Pressing one of the △ / ▽ / ◁ / ▷ buttons also displays the MAIN MENU.

2. Press △ / ▽ to move ☞ to "TUNER CONTROL," then press ◁ / ▷.
The TUNER CONTROL menu appears.

3. Tune into a station on the TUNER CONTROL menu, referring to "Operating the Tuner" on the previous page.

4. Press △ / ▽ to move ☞ to "PRESET MEMORY," then press ◁ / ▷.
The PRESET MEMORY menu appears.

```
PRESET MEMORY        JVC
  FM   87.50MHz    AUTO
       ▲
☞PRESET CH  : CH 1
  PRESET NAME:
       ▼


              SET :MEMORY
              ◀▶ :OPERATE
```
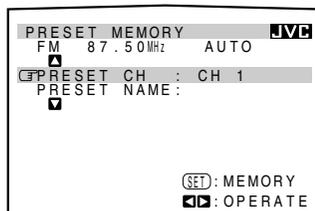
5. Press ◁ / ▷ to select a preset station number you want.

6. Press SET to store the setting.

7. When you finish, press EXIT repeatedly until the menu disappears from the TV.

■ Assigning Names to Preset Stations
(Also see page 18)

1. Press MENU.
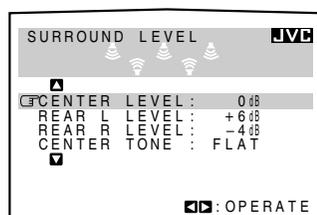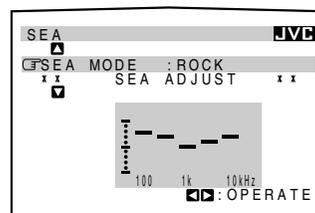The MAIN MENU appears on the TV.
• Pressing one of the △ / ▽ / ◁ / ▷ buttons also displays the MAIN MENU.

2. Press △ / ▽ to move ☞ to "TUNER CONTROL," then press ◁ / ▷.
The TUNER CONTROL menu appears.

3. Press △ / ▽ to move ☞ to "PRESET CH."

4. Press ◁ / ▷ to select a preset station.

5. Press △ / ▽ to move ☞ to "PRESET MEMORY," then press ◁ / ▷.
The PRESET MEMORY menu appears.

```
PRESET MEMORY        JVC
  FM   87.50MHz    AUTO
       ▲
☞PRESET CH  : CH 1
  PRESET NAME:
       ▼


              SET :MEMORY
              ◀▶ :OPERATE
```
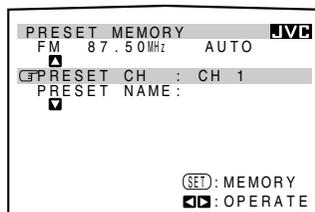
6. Press △ / ▽ to move ☞ to "PRESET NAME," then press SET.
The character entry screen appears.

```
PRESET MEMORY        JVC
  FM  87.50MHz    AUTO

  PRESET CH  : CH 1
  PRESET NAME:
☞A  B  C  D  E  F  G  H  I  J  K
  L  M  N  O  P  Q  R  S  T  U  V
  W  X  Y  Z
  1  2  3  4  5  6  7  8  9  0
 SPACE       ←   →      CANCEL

              SET :ENTER
              ▲▼◀▶:OPERATE
```
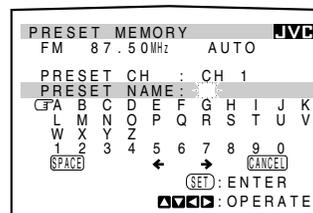
7. Press △ / ▽ / ◁ / ▷ to move ☞ in front of a character you want.
You can also select the following:

SPACE : To enter space
CANCEL : To erase the character
← → : To go back to the previous character position or go to the next character position

8. Press SET to enter the selected character.

9. Repeat steps 7 and 8 to enter up to four characters.

```
PRESET MEMORY        JVC
  FM  87.50MHz    AUTO

  PRESET CH  : CH 1
☞PRESET NAME: ABCD
  A  B  C  D  E  F  G  H  I  J  K
  L  M  N  O  P  Q  R  S  T  U  V
  W  X  Y  Z
  1  2  3  4  5  6  7  8  9  0
 SPACE       ←   →      CANCEL

              SET :MEMORY
              ▲▼◀▶:OPERATE
```

⬇
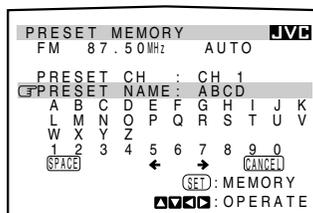
10. Press △ / ▽ / ◁ / ▷ to move ☞ to "PRESET NAME," then press SET to store the setting.
The TUNER CONTROL menu appears again.

```
TUNER CONTROL        JVC
       ▲
  PRESET CH  :  1 ABCD
  BAND       : FM
  FREQUENCY  :  87.50MHz
  FM MODE    :AUTO
☞ ＊＊  PRESET MEMORY   ＊＊
       ▼


              ◀▶ :ENTER
```
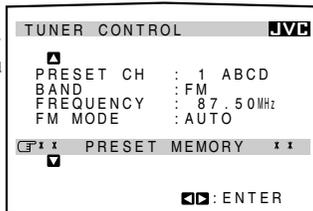
11. When you finish, press EXIT repeatedly until the menu disappears from the TV.

You can show the RDS information on the TV screen.
For details, see page 19.

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■ COMPU LINK Remote Control System ——

The COMPU LINK remote control system allows you to operate JVC audio components through the remote sensor on the receiver.

To use this remote control system, you need to connect JVC audio components through the COMPU LINK-3 (SYNCHRO) jacks (see below) in addition to the connections using cables with RCA pin plugs (see pages 5 and 6).
• Make sure that the AC power cords of these components are unplugged before connection. Plug the AC power cords only after all connections are complete.
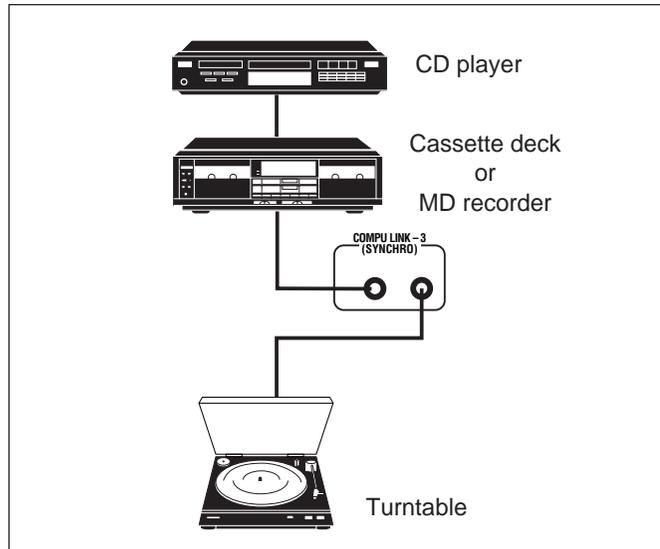

```
                    CD player

                    Cassette deck
                    or
                    MD recorder

        COMPU LINK – 3
        (SYNCHRO)



                    Turntable
```

Notes:

• *If your audio component has two COMPU LINK-3 (SYNCHRO) jacks, you can use either one. If it has only one COMPU LINK-3 (SYNCHRO) jack, connect it so that it is the last item in the series of components. (For example, the turntable or CD player in the diagram above.)*
• *To operate the cassette deck or MD recorder using the COMPU LINK remote control system, set the source name correctly. (See page 12.)*
• *Refer also to the manuals supplied with your audio components.*

This remote control system allows you to use four functions listed below.

Remote Control through the Remote Sensor on the Receiver

You can control the connected audio components through the remote sensor on the receiver using this remote control. Aim the remote control directly at the remote sensor on the receiver. For details, see pages 45 and 46.

Automatic Source Selection

When you press the play (▶) button on a connected component or on its own remote control, the receiver automatically turns on and changes the source to the component. On the other hand, if you select a new source on the receiver or on the remote control, the selected component begins playing immediately.
In both cases, the previously selected source continues playing without sound for a few seconds.

Automatic Power On/Off (Standby): only possible with the COMPU LINK-3 connection

Both the CD player and cassette deck (or MD recorder) turn on and off (standby) along with the receiver.
When you turn on the receiver, the CD player or cassette deck (or MD recorder) will turn on automatically, depending on which component has been previously selected.
When you turn off the receiver, both the CD player and cassette deck (or MD recorder) will turn off (standby).

Synchronized Recording

Synchronized recording means the cassette deck (or MD recorder) starts recording as soon as a CD or a record begins playing.

To use synchronized recording, follow these steps:

1. Put a tape in the cassette deck (or an MD in the MD recorder), and a disc in the CD player (or a record on the turntable).

2. Press the record (●) button and the pause (❚❚) button on the cassette deck (or MD recorder) at the same time.
This puts the cassette deck (or MD recorder) into recording pause.
If you do not press the record (●) button and pause (❚❚) button at the same time, the synchronized recording feature will not operate.

3. Press the play (▶) button on the CD player or on the turntable.
The source changes on the receiver, and as soon as play starts, the cassette deck (or MD recorder) starts recording. When the play ends, the cassette deck (or MD recorder) enters recording pause, and stops about 4 seconds later.

Notes:

• *During synchronized recording, the selected source cannot be changed.*
• *If the power of any component is shut off during synchronized recording, the COMPU LINK remote control system may not operate properly. In this case, you must start again from the beginning.*

TEXT COMPU LINK Remote Control System

The TEXT COMPU LINK remote control system has been newly developed to deal with the disc information recorded in the CD Text* and MDs. Using these information in the discs, you can operate the CD player or MD recorder equipped with the TEXT COMPU LINK remote control system through the receiver.

CONNECTIONS:

To use this remote control system, you need to connect the CD player and/or MD recorder you want to operate, following the procedures below.

1. **If you have already plugged your CD player, MD recorder, and this receiver into the AC outlets, unplug their AC power cords first.**

2. **Connect your CD player, MD recorder, and this receiver as follows, through the COMPU LINK-3 (SYNCHRO) jacks and TEXT COMPU LINK jacks.**

   1) **COMPU LINK-3 (SYNCHRO) jacks:** Use the cables with the monaural mini-plugs (not supplied with this receiver).
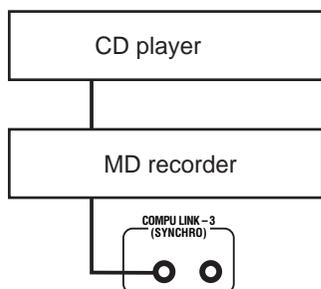
   2) **TEXT COMPU LINK jacks:** Use the cables with the stereo mini-plugs (not supplied with this receiver).
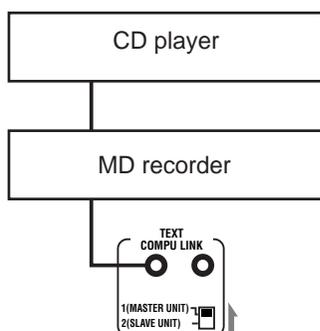
   IMPORTANT:

   Set the Master/Slave Selector on the rear to "1(MASTER UNIT)."
   • "2(SLAVE UNIT)" is just for the serviceman's use. The TEXT COMPU LINK remote control system does not function with the selector set to "2(SLAVE UNIT)."

3. **Connect your CD player, MD recorder and this receiver, using the cables with RCA pin plugs (see page 6).**

4. **Plug the AC power cords of these components above into the AC outlets.**

5. **When turning on these components for the first time, turn on the connected components first, then turn on this receiver.**

FUNCTIONS:

This remote control system allows you to use the functions listed below.

Displaying the Disc Information on the TV screen

Disc information such as its performer and disc title (and track titles only when a CD Text is selected) is shown on the TV screen.

Disc Search: Only for CD Player

This remote control system can allow you to search discs by the performer, disc title, and music genre.
With this disc search, you can easily find the disc you want to play.

Disc Title Input

If your CD player or MD recorder has the disc memory function, you can input the following information about the normal audio CDs or MDs on the TV screen.
• For CDs: Performer, disc title, and music genre
• For MDs: Disc title and song titles

*What is a CD Text?

In a CD Text, some information about the disc (its disc title, performer, composer, arranger, etc.) is recorded.

Notes:

• *If your audio component has two COMPU LINK-3 (SYNCHRO) jacks, you can use either one. If it has only one COMPU LINK-3 (SYNCHRO) jack, connect it so that it is the last item in the series of components. (For example, the CD player in the diagram to the left.)*
• *If your audio component has two TEXT COMPU LINK jacks, you can use either one. If it has only one TEXT COMPU LINK jack, connect it so that it is the last item in the series of components. (For example, the CD player in the diagram to the left.)*
• *"TEXT COMPULINK SOURCE NOT CONNECTED" appears on the display in the following cases:*
   – *When the connections explained to the left are not correctly done.*
   – *When you try to use the TEXT COMPU LINK function a few seconds after you turn on the connected equipment. This is not a malfunction of the units.*
• *Refer also to the manuals supplied with your CD player or MD recorder.*

IMPORTANT:

If you turn on the receiver before turning on the other components after connecting the components, the TEXT COMPU LINK remote control system does not work correctly.
If this happens:
1. **Turn off all the components including this receiver.**
2. **Turn on the connected components.**
3. **Turn on this receiver.**

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OPERATIONS

To use this remote control system, you need to connect the TV to the MONITOR OUT jack on the rear panel (see page 7), and set the TV's input mode to the proper position to which the receiver is connected. **Make sure you have connected the CD player or MD recorder equipped with the TEXT COMPU LINK remote control system. If not, you cannot use the following functions.**

On-Screen Operation buttons (on the remote control)

■ Showing the Disc Information on the TV Screen

Press TEXT DISPLAY while "CD" or "MD" is selected as the source.

The Disc Information screen appears on the TV.
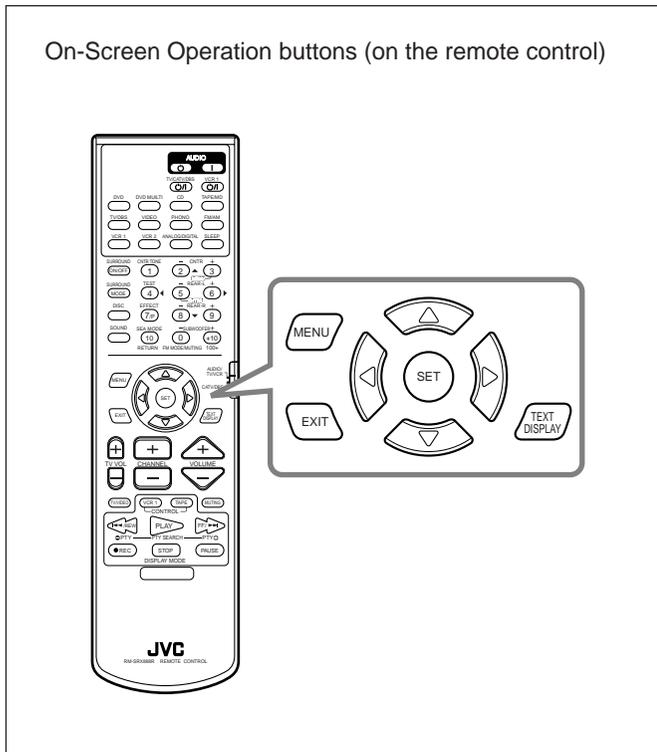
① Source name: CD or MD
② Select ▲ or ▼, then press SET to change the disc.
③ Track numbers and track titles.
 • The current playing (selected) track is indicated in yellow.
 • When you move ☞ to a track number, you can change the track information by pressing ◁ / ▷. Each time you press the button, track information alternates between its track title and its performer. (You can also start playing the track by pressing SET.)
④ Select this (move ☞ in front), then press SET to go to the DISC SEARCH screen (see page 42).
⑤ Select this (move ☞ in front), then press SET to go to the TITLE INPUT screen (see page 43).
⑥ This appears only when a CD Text is selected.
⑦ Disc information such as the disc title, performer, and music genre.
 When this is selected (☞ in front), you can change the disc information by pressing ◁ / ▷. Each time you press the button, disc information (see "Note on ⑦") changes.
⑧ Select ▲ or ▼, then press SET to change the track.
⑨ Usable buttons and their functions for the current selection.
 Indication here will be changed according to what is currently selected (☞ in front) on the screen. See "Note on ⑨."

Note on ⑦*:*

The following information will appear on the display:
• *Disc title*
• *Performer*
• *Genre*
• *Song writer*
• *Composer*
• *Arranger*
• *Message*
Only recorded information will be shown. If there is no data, "NO DATA" will appear.

Note on ⑨*:*

For example, the SET button will be used to start play (PLAY), to go to the next screen (ENTER), and to determine the selection (ENTER).

To exit from the Disc information screen:

Press EXIT.

Notes:

• *The on-screen display will disappear in the following case:*
 – *if no operation is done for about 10 minutes.*
 – *if you do any operation other than explained in this section.*
• *To control the MD recorder using the TEXT COMPU LINK remote control system, you have to change the source name shown on the display from "TAPE" to "MD." (See page 12.)*
• *Some special characters and marks cannot be displayed correctly.*
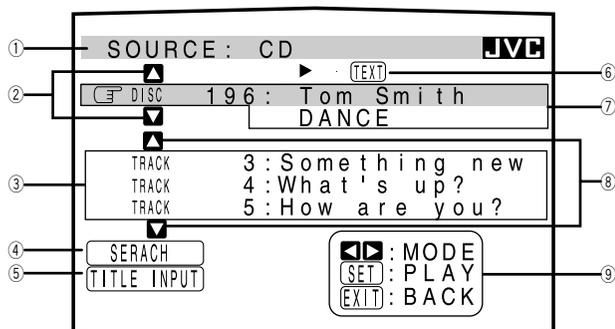
■ Searching for a Disc (Only for the CD player)

Search for a disc by its performer:

1. Press TEXT DISPLAY while "CD" is selected as the source.

The Disc Information screen appears on the TV.

2. Press △ / ▽ to move ☞ to "SEARCH," then press SET.

The DISC SEARCH screen appears .

```
SOURCE: CD              JVC
x x     D I SC  SEARCH     x x
             ▲
☞PERFORMER
  D I SC  T I TLE
  GENRE
             ▼
                    SET : ENTER
                    EXIT : BACK
```

3. Press △ / ▽ to move ☞ to "PERFORMER", then press SET.

The PERFORMER SEARCH screen appears.

```
SOURCE: CD              JVC
x x  PERFORMER  SEARCH   x x

F I RST  CHARACTER : __
☞A  B  C  D  E  F  G  H  I  J  K
  L  M  N  O  P  Q  R  S  T  U  V
  W  X  Y  Z
  1  2  3  4  5  6  7  8  9  0
                    SET : ENTER
                    EXIT : BACK
```

4. Press △ / ▽ / ◁ / ▷ to move ☞ in front of the first character of the performer you want to search, then press SET.

To correct the incorrect entry, press △ / ▽ / ◁ / ▷ to move ☞ in front of the correct character, then press SET.

> **Note:**
>
> *Symbols such as @, # or $ cannot be available for search.*

5. Press SET again.

Disc search starts, then the SEARCH RESULT screen, showing the performers, appears.
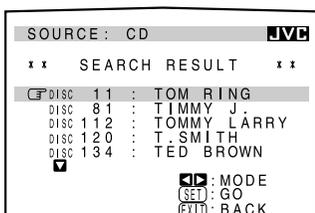
```
SOURCE: CD              JVC
x x    SEARCH  RESULT    x x

☞D I SC  1 1  :  TOM  R I NG
  D I SC  8 1  :  T I MMY  J .
  D I SC  1 1 2  :  TOMMY  LARRY
  D I SC  1 2 0  :  T . SM I TH
  D I SC  1 3 4  :  TED  BROWN
  ▼
                    ◁▷ : MODE
                    SET : GO
                    EXIT : BACK
```

6. On the SEARCH RESULT screen, you can do the following:

- **Changing the indication of the disc information:** Press △ / ▽ to move ☞ to a searched disc, then press ◁ / ▷. Each time you press ◁ / ▷, the disc information alternates between its performer and its disc title.
- **Starting a disc play and going to the Disc Information screen (see page 41):** Press △ / ▽ to move ☞ to a searched disc, then press SET.
- **Showing unseen disc information (if more than 5 discs are listed as a result of the search):** Press △ / ▽ until they appear.
- **Going back to the PERFORMER SEARCH screen:** Press EXIT.

Search for a disc by its disc title:

1. Press TEXT DISPLAY while "CD" is selected as the source.

The Disc Information screen appears on the TV.

2. Press △ / ▽ to move ☞ to "SEARCH," then press SET.

The DISC SEARCH screen appears.

```
SOURCE: CD              JVC
x x     D I SC  SEARCH     x x
             ▲
☞PERFORMER
  D I SC  T I TLE
  GENRE
             ▼
                    SET : ENTER
                    EXIT : BACK
```
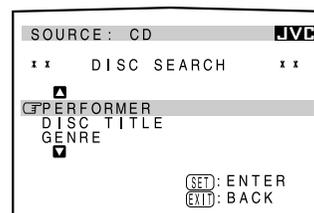
3. Press △ / ▽ to move ☞ to "DISC TITLE, then press SET.

The DISC TITLE SEARCH screen appears.

```
SOURCE: CD              JVC
x x  D I SC  T I TLE  SEARCH  x x

F I RST  CHARACTER : __
☞A  B  C  D  E  F  G  H  I  J  K
  L  M  N  O  P  Q  R  S  T  U  V
  W  X  Y  Z
  1  2  3  4  5  6  7  8  9  0
                    SET : ENTER
                    EXIT : BACK
```
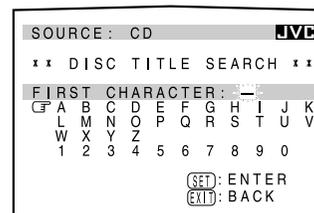
4. Press △ / ▽ / ◁ / ▷ to move ☞ in front of the first character of the disc title you want to search, then press SET.

To correct the incorrect entry, press △ / ▽ / ◁ / ▷ to move ☞ in front of the correct character, then press SET.

> **Note:**
>
> *Symbols such as @, # or $ cannot be available for search.*

5. Press SET again.

Disc search starts, then the SEARCH RESULT screen, showing the disc titles, appears.

```
SOURCE: CD              JVC
x x     SEARCH  RESULT    x x

☞D I SC  1 1  :  BEAUTY
  D I SC  8 1  :  BE  MY  FR I END
  D I SC  1 1 2  :  BE I NG
  D I SC  1 2 0  :  BE  A  MAN
  D I SC  1 3 4  :  B I G  SHOT
  ▼
                    ◁▷ : MODE
                    SET : GO
                    EXIT : BACK
```

6. On the SEARCH RESULT screen, you can do the following:

- **Changing the indication of the disc information:** Press △ / ▽ to move ☞ to a searched disc, then press ◁ / ▷. Each time you press ◁ / ▷, the disc information alternates between its disc title and its performer.
- **Starting a disc play and going to the Disc Information screen (see page 41):** Press △ / ▽ to move ☞ to a searched disc, then press SET.
- **Showing unseen disc information (if more than 5 discs are listed as a result of the search):** Press △ / ▽ until they appear.
- **Going back to the DISC TITLE SEARCH screen:** Press EXIT.

Search for a disc by its genre:

1. Press TEXT DISPLAY while "CD" is selected as the source.

The Disc Information screen appears on the TV.

2. Press △ / ▽ to move ☞ to "SEARCH," then press SET.

The DISC SEARCH screen appears.

```
SOURCE: CD           JVC
 xx       DISC SEARCH      xx
         ▲
 ☞PERFORMER
   DISC TITLE
   GENRE
         ▼
                 SET : ENTER
                 EXIT: BACK
```
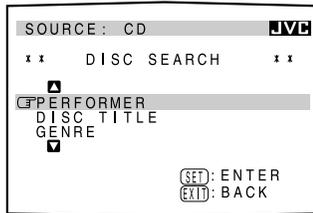
3. Press △ / ▽ to move ☞ to "GENRE", then press SET.

The GENRE SEARCH screen appears.

```
SOURCE: CD           JVC
 xx       GENRE SEARCH     xx
         ▲
 ☞ADULT CONTEMPORARY
   ALTERNATIVE ROCK
   CHILDRENS MUSIC
   CLASSICAL
   CONTEMPORARY CHRISTIAN
         ▼
                 SET : ENTER
                 EXIT: BACK
```
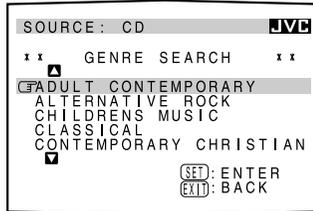
4. Press △ / ▽ to move ☞ to the genre you want to search, then press SET.

To show the unseen genres, press △ / ▽ until they appear.

Disc search starts, then the SEARCH RESULT screen, showing the disc titles, appears.

```
SOURCE: CD           JVC
 xx      SEARCH RESULT     xx
  ☞DISC  11 : BEAUTY
   DISC  81 : BE MY FRIEND
   DISC 112 : BEING
   DISC 120 : BE A MAN
   DISC 134 : BIG SHOT
         ▼
             ◁▷ : MODE
             SET : GO
             EXIT: BACK
```

5. On the SEARCH RESULT screen, you can do the following:

- **Changing the indication of the disc information:** Press △ / ▽ to move ☞ to a searched disc, then press ◁ / ▷. Each time you press ◁ / ▷, the disc information alternates between its disc title and its performer.

- **Starting a disc play and going to the Disc Information screen (see page 41):** Press △ / ▽ to move ☞ to a searched disc, then press SET.

- **Showing unseen disc information (if more than 5 discs are listed as a result of the search):** Press △ / ▽ until they appear.

- **Going back to the GENRE SEARCH screen:** Press EXIT.

■ Entering the Disc Information

For the CD Player with the disc memory function:

You can use the disc memory function through this receiver.
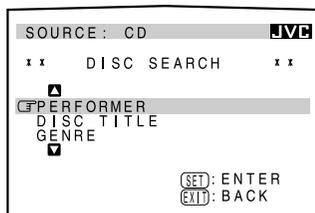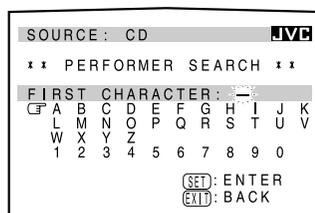The disc information (its performer, disc title, and music genre) of normal audio CDs will be stored into the memory built in the CD player.
For the disc memory function, refer to the manual supplied with your CD player.

- The performer, disc title, and music genre information are usually recorded in a CD Text. However, if a CD Text has no genre information recorded in the disc itself, you can input its music genre by yourself.

Note:

You can enter the TITLE INPUT screens for a CD Text and input its titles. However, you cannot store the titles you have input for a CD Text.

> **Example: Entering the following information for Disc 1**
> **Performer: "MICHAEL"**
> **Disc title: "MY FAVORITE"**

1. Press TEXT DISPLAY while "CD" is selected as the source.

The Disc Information screen appears on the TV.

2. Press △ / ▽ to move ☞ to "TITLE INPUT," then press SET.

The TITLE INPUT: PERFORMER screen appears.

```
SOURCE: CD           JVC
 xx      TITLE INPUT      xx
        PERFORMER
 DISC  1:_
 ☞A B C D E F G H I J K
   L M N O P Q R S T U V
   W X Y Z ! " # $ % & ?
   + , - . / : ; < = > @
   1 2 3 4 5 6 7 8 9 0 @
  SPACE SHIFT  ←   →   CANCEL
             SET : ENTER
             EXIT: BACK
```
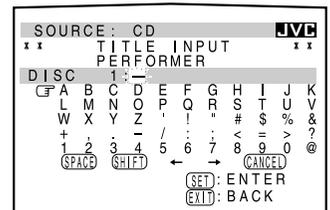
3. Press △ / ▽ / ◁ / ▷ to move ☞ in front of a character you want, then press SET to enter the character.

- If the current CD is a CD Text, go to step 5 without entering the performer.

To use the lower case letters, press △ / ▽ / ◁ / ▷ to move ☞ to SHIFT , then press SET.

To use the upper case letters again, press △ / ▽ / ◁ / ▷ to move ☞ to SHIFT , then press SET.

4. Repeat step 3 until you finish putting a performer name (up to 32 characters).

To insert a space, press △ / ▽ / ◁ / ▷ to move ☞ to [SPACE] , then press SET.

To correct an incorrect character:
1) Press △ / ▽ / ◁ / ▷ to move ☞ to ← or →, then press SET until the incorrect character is selected.
2) Press △ / ▽ / ◁ / ▷ to move ☞ to [CANCEL] , then press SET to erase the character.
3) Press △ / ▽ / ◁ / ▷ to move ☞ in front of the correct character, then press SET to enter a correct character.

```
SOURCE: CD             JVC
xx        TITLE INPUT      xx
            PERFORMER
☞SC   1:MICHAEL
  A  B  C  D  E  F  G  H  I  J  K
  L  M  N  O  P  Q  R  S  T  U  V
  W  X  Y  Z  '  !  "  #  $  %  &
  +  ,  .  -  /  :  ;  <  =  >  ?
  1  2  3  4  5  6  7  8  9  0  @
 (SPACE) (SHIFT)
                        (SET):MEMORY
                        (EXIT):BACK
```
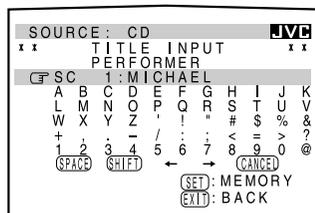
5. Press △ / ▽ / ◁ / ▷ to move ☞ to "DISC 1: MICHAEL (in this example)," then press SET.

The TITLE INPUT: DISC TITLE screen appears.

```
SOURCE: CD             JVC
xx        TITLE INPUT      xx
           DISC TITLE
DISC   1:_
☞A  B  C  D  E  F  G  H  I  J  K
  L  M  N  O  P  Q  R  S  T  U  V
  W  X  Y  Z  '  !  "  #  $  %  &
  +  ,  .  -  /  :  ;  <  =  >  ?
  1  2  3  4  5  6  7  8  9  0  @
 (SPACE) (SHIFT)  ←  →    (CANCEL)
                        (SET):ENTER
                        (EXIT):BACK
```
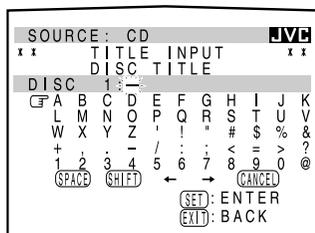
6. Enter the disc title, referring to steps 3 and 4.
• If the current CD is a CD Text, go to the next step without entering the disc title.

```
SOURCE: CD             JVC
xx        TITLE INPUT      xx
           DISC TITLE
☞SC   1:MY FAVORITE
  A  B  C  D  E  F  G  H  I  J  K
  L  M  N  O  P  Q  R  S  T  U  V
  W  X  Y  Z  '  !  "  #  $  %  &
  +  ,  .  -  /  :  ;  <  =  >  ?
  1  2  3  4  5  6  7  8  9  0  @
 (SPACE) (SHIFT)
                        (SET):MEMORY
                        (EXIT):BACK
```
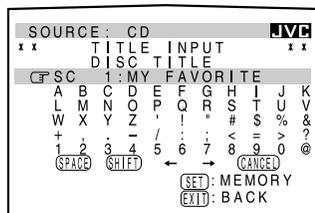
7. Press △ / ▽ / ◁ / ▷ to move ☞ to "DISC 1: MY FAVORITE (in this example)," then press SET.

The TITLE INPUT: DISC 1 GENRE screen appears.

```
SOURCE: CD             JVC
xx        TITEL INPUT      xx
           DISC 1 GENRE
            ▲
☞ADULT CONTEMPORARY
  ALTERNATIVE ROCK
  CHILDRENS MUSIC
  CLASSICAL
  CONTEMPORARY CHRISTIAN
            ▼
                        (SET):ENTER
                        (EXIT):BACK
```
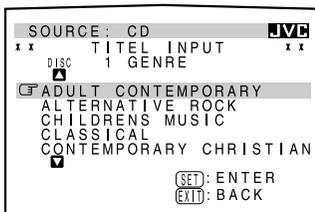
8. Press △ / ▽ to move ☞ to the genre you want, then press SET.

The Disc Information screen appears again.

To show the unseen genres, press △ / ▽ until they appear.

For the MD recorder:

You can write the disc information (disc title and song titles) into the disc. You can only write the song title for the song currently selected.
• If you have the CD-MD combination deck, you can also enter the disc information (its performer, disc title, and its music genre) of normal audio CDs into the memory built in the CD-MD combination deck. (To do this, follow the procedure of "For the CD Player with the disc memory function" to the left.)
• If you change the disc or song title with more than 32 characters, the characters following the 32nd will be erased from the title.

1. Press TEXT DISPLAY while "MD" is selected as the source.

The Disc Information screen appears on the TV.

2. Press △ / ▽ to move ☞ to "TITLE INPUT," then press SET.

The DISC TITLE INPUT screen appears.

```
SOURCE: MD             JVC
        ▲      ■
☞MD         : Hello!
        ▽
  TRACK    1: Heavens
  TRACK    2: Angeles
  TRACK    3: Do it again
        ▼
 (TITLE INPUT)
                        (SET):PLAY
                        (EXIT):EXIT
```
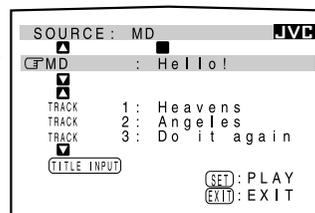
3. Enter the title, referring to steps 3 and 4 of "For the CD Player with the disc memory function" to the left.
• You can enter up to 32 characters for the disc title.

```
SOURCE: MD             JVC
xx    DISC TITLE INPUT     xx
MD    1:_
☞A  B  C  D  E  F  G  H  I  J  K
  L  M  N  O  P  Q  R  S  T  U  V
  W  X  Y  Z  '  !  "  #  $  %  &
  +  ,  .  -  /  :  ;  <  =  >  ?
  1  2  3  4  5  6  7  8  9  0  @
 (SPACE) (SHIFT)  ←  →    (CANCEL)
                        (SET):ENTER
                        (EXIT):BACK
```
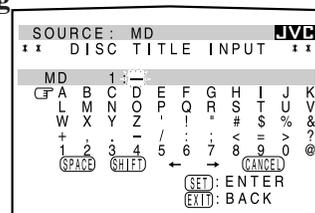
4. Press △ / ▽ / ◁ / ▷ to move ☞ to the disc title you have just entered, then press SET.

The disc title is stored into the memory, and the SONG TITLE INPUT screen for the currently selected song appears.
• You can enter a song title for the song currently selected (indicated in yellow on the TV screen).

```
SOURCE: MD             JVC
xx    SONG TITLE INPUT     xx
☞TRACK   1:_
  A  B  C  D  E  F  G  H  I  J  K
  L  M  N  O  P  Q  R  S  T  U  V
  W  X  Y  Z  '  !  "  #  $  %  &
  +  ,  .  -  /  :  ;  <  =  >  ?
  1  2  3  4  5  6  7  8  9  0  @
 (SPACE) (SHIFT)  ←  →    (CANCEL)
                        (SET):ENTER
                        (EXIT):BACK
```
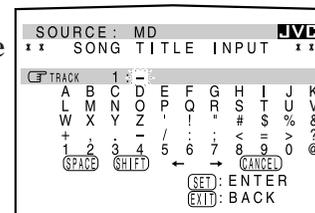
5. Enter the song title, referring to steps 3 and 4 of "For the CD Player with the disc memory function" to the left.
• You can enter up to 32 characters for the song title.

6. Press △ / ▽ / ◁ / ▷ to move ☞ to the song title you have just entered, then press SET.

The song title is stored into the memory, and the Disc Information screen appears again.

Operating JVC's Audio/Video Components

You can operate JVC's audio and video components with this receiver's remote control, since control signals for JVC components are preset in the remote control.

IMPORTANT:

To operate JVC's audio components using this remote control:
• You need to connect JVC audio components through the COMPU LINK-3 (SYNCHRO) jacks (see page 39) in addition to the connections using cables with RCA pin plugs (see pages 5 and 6).
• Aim the remote control directly at the remote sensor on the receiver.
• If you use the buttons on the front panel or the menu function to choose a source, the remote control will not operate that source. To operate a source with the remote control, the source must be selected using source selecting buttons on the remote control.
• To operate the cassette deck or MD recorder using the COMPU LINK remote control system, set the source name correctly. (See page 12.)
• Refer also to the manuals supplied with your components.

Check to see if its remote control mode selector is set to the correct position.
To operate the audio system, TVs, and VCRs, set it to "AUDIO/TV/VCR."
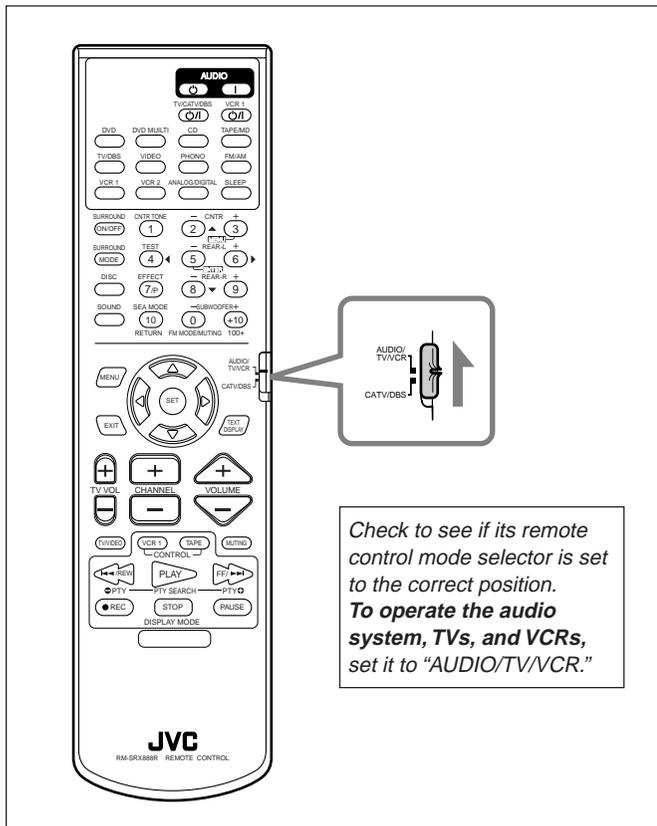
Tuner

After pressing FM/AM (with the remote control mode selector set to "AUDIO/TV/VCR"), you can perform the following operations:

FM/AM:	Alternates between FM and AM (MW/LW).
1 – 10, +10:	Selects a preset channel number directly.
	For channel number 5, press 5.
	For channel number 15, press +10, then 5.
	For channel number 20, press +10, then 10.
FM MODE/MUTING:	Changes the FM reception mode.
PTY SEARCH:	Searches for a program by PTY codes.
PTY – / +:	Selects the PTY codes.
DISPLAY MODE:	Shows the RDS signals.

Sound control section (Amplifier)

You can always perform the following operations (with the remote control mode selector set to "AUDIO/TV/VCR"):

SURROUND ON/OFF: Turns on or off the Surround modes — Dolby Pro Logic, Dolby Digital, DTS Digital Surround, and MPEG Multichannel.
SURROUND MODE: Selects the DSP modes.

After pressing SOUND (with the remote control mode selector set to "AUDIO/TV/VCR"), you can perform the following operations:

SEA MODE:	Changes the SEA modes.
SUBWOOFER – / +:	Adjusts the subwoofer output level.
CNTR – / +:	Adjusts the center speaker output level.
REAR•L – / +:	Adjusts the left rear speaker output level.
REAR•R – / +:	Adjusts the right rear speaker output level.
EFFECT:	Selects the effect level.
TEST:	Turns on or off the test tone output.
CNTR TONE:	Selects the center tone.

Note:

After adjusting sounds, press the corresponding source selecting button or DISC to operate your target source by using the 10 keys; otherwise, the 10 keys cannot be used for operating your target source.

CD player

After pressing CD (with the remote control mode selector set to "AUDIO/TV/VCR"), you can perform the following operations on the CD player:

PLAY:	Starts playing.
⏮:	Returns to the beginning of the current (or previous) track.
⏭:	Skips to the beginning of the next track.
STOP:	Stops playing.
PAUSE:	Pauses playing. To release it, press PLAY.
1 – 10, +10:	Selects a track number directly.
	For track number 5, press 5.
	For track number 15, press +10, then 5.
	For track number 20, press +10, then 10.
	For track number 30, press +10, +10, then 10.

CD player-changer

After pressing DISC (with the remote control mode selector set to "AUDIO/TV/VCR"), you can perform the following operations on a CD player-changer:

PLAY:	Starts playing.
⏮:	Returns to the beginning of the current (or previous) track.
⏭:	Skips to the beginning of the next track.
STOP:	Stops playing.
PAUSE:	Pauses playing. To release it, press PLAY.
1 – 6, 7/P:	Selects the number of a disc installed in a CD player-changer.

After pressing CD (with the remote control mode selector set to "AUDIO/TV/VCR"), you can perform the following operations on the CD player-changer:

1 – 10, +10:	Selects a track number directly.
	For track number 5, press 5.
	For track number 15, press +10, then 5.
	For track number 20, press +10, then 10.
	For track number 30, press +10, +10, then 10.

Turntable

After pressing PHONO (with the remote control mode selector set to "AUDIO/TV/VCR"), you can perform the following operations on a turntable:

PLAY: Starts playing.
STOP: Stops operations.

Cassette deck

After pressing TAPE/MD or TAPE CONTROL (with the remote control mode selector set to "AUDIO/TV/VCR"), you can perform the following operations on a cassette deck:

PLAY: Starts playing.
◀◀:   Fast winds the tape from right to left.
▶▶:   Fast winds the tape from left to right.
STOP: Stops operations.
PAUSE: Pauses playing. To release it, press PLAY.
● REC: Press this button with the PLAY button to start recording.
            Press this button with the PAUSE button to enter recording pause.

MD recorder

After pressing TAPE/MD or TAPE CONTROL (with the remote control mode selector set to "AUDIO/TV/VCR"), you can perform the following operations on the MD recorder:

PLAY: Starts playing.
I◀◀:   Returns to the beginning of the current (or previous) track.
▶▶I: Skips to the beginning of the next track.
STOP: Stops playing.
PAUSE: Pauses playing. To release it, press PLAY.
● REC: Press this button with the PLAY button to start recording.
            Press this button with the PAUSE button to enter recording pause.

Note:

You can use either TAPE/MD button or the TAPE CONTROL button to activate the buttons listed above. If you press TAPE/MD, the playing source also changes. On the other hand, if you press TAPE CONTROL, the playing source does not change.

IMPORTANT:

To operate JVC's video components using this remote control:
• Aim the remote control directly at the remote sensor on the VCR, DVD player or TV, not on the receiver.
• Some JVC VCRs can accept two types of the control signals — remote code "A" and "B." Before using this remote control, make sure that the remote control code of the target VCR is set to code "A."

VCR

You can always perform the following operations (with the remote control mode selector set to "AUDIO/TV/VCR"):

VCR 1 ⏻/| :   Turns on or off the VCR.

After pressing VCR 1 or VCR 1 CONTROL (with the remote control mode selector set to "AUDIO/TV/VCR"), you can perform the following operations on the VCR:

1 – 9, 0:   Selects the TV channels on VCR.
PLAY: Starts playing.
◀◀:   Rewinds a tape.
▶▶:   Fast winds a tape.
STOP: Stops operations.
PAUSE: Pauses playing. To release it, press PLAY.
● REC: Press this button with the PLAY button to start recording.
            Press this button with the PAUSE button to enter recording pause.
CHANNEL +/–:   Changes the TV channels on the VCR.

Note:

You can use either VCR 1 button or the VCR 1 CONTROL button to activate the buttons listed above. If you press VCR 1, the playing source also changes. On the other hand, if you press VCR 1 CONTROL, the playing source does not change.

DVD player

After pressing DVD or DVD MULTI (with the remote control mode selector set to "AUDIO/TV/VCR"), you can perform the following operations on a DVD player:

PLAY: Starts playing.
I◀◀:   Returns to the beginning of the current (or previous) track.
▶▶I: Skips to the beginning of the next track.
STOP: Stops playing.
PAUSE: Stops playing temporarily. To release it, press PLAY.

After pressing DVD or DVD MULTI, these buttons can be used for the DVD menu operations.
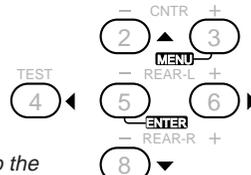
Note:
For detailed menu operations, refer to the instructions supplied with the discs or the DVD player.

TV

You can always perform the following operations (with the remote control mode selector set to "AUDIO/TV/VCR"):

TV/CATV/DBS ⏻/| : Turns on or off the TV.
TV VOL +/–:   Adjusts the volume.
TV/VIDEO: Sets the input mode (either TV or VIDEO).

After pressing TV/DBS (with the remote control mode selector set to "AUDIO/TV/VCR"), you can perform the following operations on a TV:

CHANNEL +/–: Changes the channels.
1 – 9, 0, 100+: Selects the channels.
RETURN: Alternates between the previously selected channel and the current channel.

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Operating Other Manufacturers' Video Equipment

This remote control supplied with the receiver can transmit control signals for other manufacturers' VCRs, TVs, CATV converters and DBS tuners. By changing the transmittable signals from preset ones to the other manufacturers', you can operate the other manufacturer's components using this remote control.

When operating the other manufacturers' components, refer also to the manuals supplied with them. To operate these components with the remote control, first you need to set the manufacturer's code each for VCR, TV, CATV converters, and DBS tuner.

Check to see if its remote control mode selector is set to the correct position.
To operate the audio system, TVs, and VCRs, *set it to "AUDIO/TV/VCR."*
To operate the CATV converter and DBS tuner, *set it to "CATV/DBS."*

To change the transmittable signals for operating another manufacturer's TV

1. **Set the remote control mode to "AUDIO/TV/ VCR."**

2. **Press and hold TV/CATV/DBS ⏻/|.**

3. **Press TV/DBS.**

4. **Enter manufacturer's code (three digits) using buttons 1 – 9, and 0.**
   See the list on pages 49 to 51 to find the code.

   Examples: For a JVC product, press 0, 3, then 6.
   For a Hitachi product, press 0, 3, then 2.

5. **Release TV/CATV/DBS ⏻/|.**
   The following buttons can be used for operating the TV (with the remote control mode selector set to "AUDIO/TV/VCR"):

   TV/CATV/DBS ⏻/|:
   　　　　　　Turns on and off the TV.
   TV VOL +/–:　Adjusts the volume.
   TV/VIDEO:　　Sets the input mode (either TV or VIDEO).

   After pressing TV/DBS (with the remote control mode selector set to "AUDIO/TV/VCR"), you can perform the following operations on a TV:

   CHANNEL +/–:　　　　Changes the channels.
   1 – 10, 0, 100+ (+10): Selects the channels.
   　　　　　　　　　　100+ (+10) button will function as the ENTER button if your TV requires pressing ENTER after selecting a channel number.

   Note:
   Refer to the manual supplied with your TV.

6. **Try to operate your TV by pressing TV/CATV/ DBS ⏻/|.**
   When your TV turns on or off, you have entered the correct code.
   If there are more than one code listed for your brand of TV, try each one until the correct one is entered.

To change the transmittable signals for operating a CATV converter or DBS tuner

1. **Set the remote control mode to "CATV/DBS."**

2. **Press and hold TV/CATV/DBS ⏻/|.**

3. **Press TV/DBS.**

4. **Enter manufacturer's code (three digits) using buttons 1 – 9, and 0.**

   See the list on pages 51 and 52 to find the code.

   Examples: For a JVC product, press 5, 1, then 5.
   For a Philips product, press 2, 0, then 0.

5. **Release TV/CATV/DBS ⏻/|.**

   After setting the remote control mode selector to "CATV/DBS," you can perform the following operations on the CATV convertor or on the DBS tuner:

   TV/CATV/DBS ⏻/|: Turns on and off the CATV converter or DBS tuner.
   CHANNEL +/–: Changes the channels.
   1 – 10, 0, 100+ (+10): Selects the channel.
   100+ (+10) button will function as the ENTER button if your equipment requires pressing ENTER after selecting a channel number.

   Note:

   Refer to the manual supplied with your CATV converter or DBS tuner.

6. **Try to operate your CATV converter or DBS tuner by pressing TV/CATV/DBS ⏻/|.**

   When your CATV converter or DBS tuner turns on or off, you have entered the correct code.
   If there are more than one code listed for your brand of CATV converter or DBS tuner, try each one until the correct one is entered.

To change the transmittable signals for operating another manufacturer's VCR

1. **Set the remote control mode to "AUDIO/TV/ VCR."**

2. **Press and hold VCR 1 ⏻/|.**

3. **Press VCR 1.**

4. **Enter manufacturer's code (three digits) using buttons 1–9, and 0.**

   See the list on pages 52 and 53 to find the code.

   Examples: For a JVC product, press 0, 0, then 8.
   For a Funai product, press 0, 0, then 0.

5. **Release VCR 1 ⏻/|.**

   Following button can be used for operating the VCR (with the remote control mode selector set to "AUDIO/TV/VCR"):

   VCR 1 ⏻/|: Turns on and off the VCR.

   After pressing VCR 1 or VCR 1 CONTROL (with the remote control mode selector set to "AUDIO/TV/VCR"), you can perform the following operations on the VCR:

   CHANNEL +/–: Changes the TV channels on the VCR.
   1 – 10, 0, 100+ (+10): Selects the TV channels.
   100+ (+10) button will function as the ENTER button if your VCR requires pressing ENTER after selecting a channel number.
   PLAY: Starts playback.
   ◄◄: Rewinds a video tape.
   ►►: Fast winds a video tape.
   STOP: Stops operation.
   PAUSE: Pauses.
   ● REC: Starts recording or enters recording pause.

   Notes:

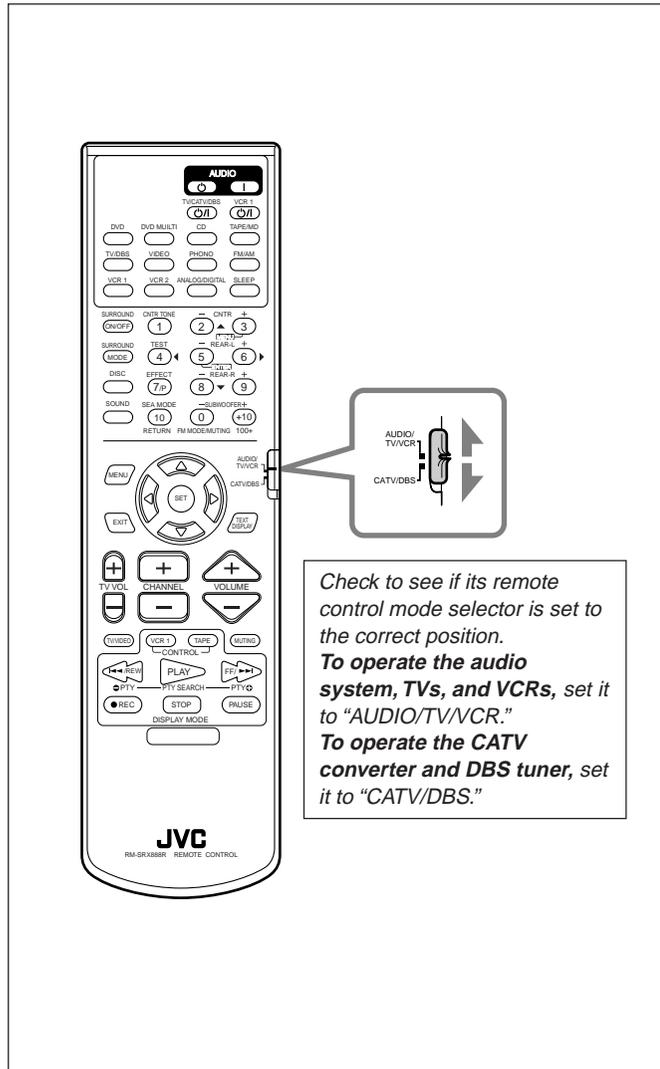   * *Refer to the manual supplied with your VCR.*
   * *You can use either VCR 1 button or the VCR 1 CONTROL button to activate the buttons listed above. If you press VCR 1, the playing source also changes. On the other hand, if you press VCR 1 CONTROL, the playing source does not change.*

6. **Try to operate your VCR by pressing VCR 1 ⏻/|.**

   When your VCR turns on or off, you have entered the correct code.
   If there are more than one code listed for your brand of VCR, try each one until the correct one is entered.

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Manufacturers' codes for TV

Acura	009	Elin	037, 548
Admiral	087, 163, 213	Elite	218, 320
Adyson	032, 217	Elta	009
AGB	516	Emerson	087, 213, 361
Akai	208, 361, 516	Erres	012, 037
Akura	218, 264, 369	Europhon	516
Alba	009, 036, 037, 211, 218, 235, 371	Expert	206
Allorgan	294	Ferguson	005, 037, 073, 109, 190, 238, 287, 335,
Amplivision	217, 400		343
Amstrad	009, 037, 171, 177, 354, 362, 369, 371,	Fidelity	216, 361, 372
	412, 433, 516	Finlandia	208, 346, 359
Anitech	009, 068, 076	Finlux	037, 070, 072, 087, 105, 179, 346, 411,
Arcam	216, 217		516
ASA	087	Firstline	009, 216, 217, 247, 294, 321
Asberg	076	Fisher	208, 217, 303, 370
Asuka	218	Flint	455
Atlantic	206	Formenti	037, 087, 213, 320
Audiosonic	037, 109	Frontech	163, 247, 264, 431, 448
Autovox	076, 087, 206, 336	Fujitsu	072, 206
Baird	343, 557	Funai	179, 264, 294, 303
Bang & Olufsen	087	GEC	037, 043, 072, 205, 217, 516, 557
Barco	380	Geloso	009, 213
Basic Line	009, 218	Genexxa	163, 218
Baur	010, 037, 349, 361, 505, 512, 535, 554	Goldstar	037, 109, 217, 290
Beko	370, 486	Goodmans	036, 037, 072, 179, 217, 235, 257, 317,
Beon	037		343, 371, 374, 499
Binatone	217	Gorenje	370
Blaupunkt	191, 195, 200, 213, 327, 328, 535, 554	GPM	218
Blue Sky	218	Graetz	163, 361, 557
Blue Star	282	Granada	037, 072, 146, 201, 208, 217, 339, 359,
Bondstec	247		516
Boots	217	Grandin	282
BPL	282	Grundig	070, 191, 195, 205, 487, 535, 554
Brandt	109, 196, 198, 205, 333, 335	Hanseatic	037, 320, 361, 556
Brionvega	087, 362	Hantarex	516
Britannia	216	Harwood	257
Bruns	087	HCM	009, 282, 412
BSR	294	Hinari	009, 036, 037, 179, 218
BTC	218	Hisawa	282, 400, 455
Bush	009, 036, 037, 211, 218, 282, 294, 349,	Hitachi	032, 036, 043, 044, 105, 109, 163, 196,
	355, 371, 374, 519		198, 217, 225, 227, 306, 349, 481, 548,
Carrefour	036		557
Cascade	009	Huanyu	216, 374
Cathay	037	Hypson	037, 264, 282
Centurion	037	ICE	217, 264, 371
Century	087, 213	ICeS	218
CGE	074, 076, 084, 247, 306	Imperial	074, 076, 084, 247, 370, 418
Cimline	009	Indiana	037
Clarivox	037	Ingelen	163, 557
Clatronic	076, 247, 370	Inno Hit	072, 516
Clayton	385	Interbuy	068
Condor	320, 370	Interfunk	037, 163, 247, 361, 512, 557
Contec	009, 036, 216	Intervision	037, 068, 102, 217, 264
Continental Edison	196, 198, 205, 333, 399	Isukai	218
Crosley	074, 076, 084, 087, 213	ITS	371
Crown	009, 037, 076, 370, 418, 579	ITT	163, 361, 548, 557
Crystal	431	JVC	036, 053, 094, 190, 192, 371, 800
CS Electrinics	216	Kaisui	009, 216, 217, 218, 282
CTC	247	Kapsch	163, 206, 557
Cybertron	218	Kathrein	556
Daewoo	009, 037, 374, 499	Kendo	037, 235, 362
Dainichi	215, 218	Kingsley	216
Dansai	037	Kneissel	259, 435
Dayton	009	Korpel	037
De Graaf	208, 227, 548	Korting	087
Decca	037, 072, 249, 516	Koyoda	009
Dixi	009, 037	Leyco	037, 072, 264, 294
Dual	336, 352, 519	Liesenk & Tter	037
Dual Tec	217	Lloytron	032
Dumont	070, 087	Loewe	075, 087, 512
Elbe	259	Luma	206

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Luxor	349, 361
M Electronic	009, 037, 068, 105, 109, 163, 217, 287, 346, 374, 480
Magnadyne	087, 102, 247, 516
Magnafon	076, 102, 213, 516
Manesth	217, 235, 264, 320
Marantz	037, 556
Marelli	087
Mark	037
Matsui	009, 011, 035, 036, 037, 072, 177, 208, 211, 217, 235, 294, 354, 355, 371, 443, 487, 516, 579
McMichael	043
Mediator	012, 037
Memorex	009
Memphis	337
Metz	087, 213, 367, 535
Minerva	070, 487, 535, 554
Minoka	369, 412
Mitsubishi	036, 087, 108, 150, 201, 354, 512, 535
Mivar	216, 290, 291, 292, 516
Motion	076
MTC	349, 512
Multitech	009, 076, 102, 216
Neckermann	037, 087, 191, 213, 349, 505, 554, 556
NEI	037, 337, 431
Nesco	179
Nikkai	032, 035, 037, 072, 216, 218, 264, 337
Nobliko	076, 102
Nokia	361, 480, 548
Nordmende	109, 196, 198, 213, 287, 343
Oceanic	163, 215, 361
Onwa	433
Orion	037, 177, 235, 294, 320, 321, 355, 443, 516
Osaki	032, 072, 217, 218, 257, 264, 412
Oso	218
Osume	032, 072, 157
Otake	317
Otto Versand	010, 036, 037, 191, 213, 217, 320, 343, 349, 505, 512, 535, 554, 556
Palladilum	370, 418
Panama	217, 264
Panasonic	100, 126, 163, 213, 214, 226, 250, 340 367, 557
Pathe Cinema	213, 216, 238, 320
Pathe Marconi	196, 198, 205, 333
Pausa	009
Perdio	320
Phase	032
Philco	074, 076, 084, 087, 213, 247
Philips	012, 037, 043, 087, 323, 374, 554, 556
Phoenix	087
Phonola	012, 037, 087
Pioneer	109, 163, 287
Prandoni Prince	516
Profex	009 ,076, 361
Proline	321
Protech	009, 037, 102, 217, 247, 264, 337, 418, 431
Pye	012
Quelle	010, 011, 037, 070, 074, 084, 200, 213, 306, 327, 328, 361, 505, 512, 535, 554
Questa	036
R-Line	037
Radiola	012, 037, 323
Radiomarelli	087, 516
Rank Arena	036
RBM	070, 089
Rediffusion	201, 361
Revox	037

Rex	163, 206, 259, 264
RFT	087
Roadstar	009, 218, 264, 418
Saba	075, 087, 109, 163, 196, 198, 205, 213, 287, 335, 343, 557
Saccs	238
Saikou	257
Saisho	009, 011, 177, 211, 235, 264, 354, 431, 516
Salora	163, 349, 359, 361, 548
Sambers	076, 102, 213, 516
Samsung	009, 037, 090, 217, 264, 290, 370, 488, 556
Sandra	216
Sanyo	011, 036, 072, 146, 157, 208, 213, 339
Schaub Lorenz	361, 557
SBR	012, 037, 043
Schneider	037, 218, 247, 303, 323, 336, 352, 371, 394
SEG	036, 076, 217, 264
SEI	087, 102, 177, 213, 294
Sei-Sinudyne	010, 516
Seleco	163, 206, 259, 362, 411
Sentra	035
Sharp	036, 093
Shorai	294
Siarem	087, 102, 213, 516
Siemens	037, 157, 191, 195, 200, 213, 327, 328, 535, 554
Silver	036
Singer	087
Sinudyne	087, 102, 177, 213, 235, 294
Solavox	032, 163
Sonitron	208
Sonoko	009, 037
Sonolor	163, 208, 215
Sontec	037
Sony	010, 011, 036, 505
Soundwave	037, 418
Standard	009, 217, 218
Stern	163, 206, 259
Sunkai	294, 321, 355
Susumu	218
Sysline	037
Tandy	072, 163, 217, 218
Tashiko	036, 043, 217, 359
Tatung	037, 072, 217, 249, 516
Tec	217, 247
Technema	320
Technics	250
Technol Ace	179
Teleavia	205, 333, 343
Telefunken	005, 074, 084, 101, 109, 213, 262, 306, 335, 343, 471, 498, 625
Telemeister	320
Teletech	009
Teleton	206, 217, 349
Tensai	218, 294, 317, 320
Texet	216, 218
Thomson	109, 196, 198, 205, 287, 333, 343, 349, 399
Thorn	035, 037, 072, 074, 084, 190, 192, 343, 361, 499, 505, 512, 535, 553
Tomashi	282
Toshiba	035, 036, 070, 089, 243, 508, 553
Triumph	177, 243, 516
Uher	206, 303, 320
Ultra	192
Ultravox	102
Universum	037, 105, 264, 346, 370, 421, 492, 535

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Vestel	037
Videosat	247
Videotechnic	217
Vision	320
Voxson	087, 163
Waltham	217
Watson	037, 320
Watt Radio	102
Wega	036, 087
White Westinghouse	037, 216, 320
Yoko	037, 217, 264, 431
Zanussi	206

Manufacturers' codes for DBS tuner

Akai	515
Alba	362, 421, 455, 515, 613
Aldes	288
Amstrad	080, 252, 345, 461, 501, 509, 689
Ankaro	220, 288, 369, 519
Anttron	183, 421
Armstrong	243
AST	351
Astra	108
Astro	173, 501, 520
Avalon	396
Axis	369, 530
BT	515, 668
Beko	189
Best	369
Blaupunkt	173
Boca	243, 513
Brain Wave	332
Bush	067, 522
Cambridge	344, 515
Channel Master	362
CNT	520
Commlink	288
Connexions	396
Conrad	607
Crown	243
Cyrus	200
DDC	362
DNT	200, 396
Echostar	396, 713
Emanon	421
Ferguson	067, 183, 189, 336
Fidelity	252
Finlux	108, 344, 397, 455
Freecom	421
Fuba	369, 396, 421
G-Sat	183
Galaxis	288
Gooding	571
Goodmans	189
Grundig	173, 189, 328, 571, 750
Hinari	183
Hirschmann	173, 397, 501, 502, 573
Hitachi	455
Houston	668
Huth	220, 243, 288, 346
IRTE	609
Intervision	592
ITT	108
Johansson	332
JVC	515, 571
Kathrein	092, 173, 200, 442, 504, 622, 658

Kreiselmeyer	173
Kyostar	421
La Sat	513, 520, 607
Lenco	421
Lennox	592
Lupus	369
Luxor	108, 573
Manhattan	455, 520, 592
Marantz	200
Maspro	092, 328, 336, 750
Matsui	344, 571
Mediamarkt	243
Minerva	571
Mintec	578
Morgan's	243, 513
Navex	332
Neuhaus	501
Newhaus	220
Nikko	360, 713
Nokia	108, 328, 397, 455, 573
Nordmende	362
Orbitech	501
Orion	522
Oxford	344
Pace	067, 183, 328, 336, 455, 795
Palladium	571
Palsat	501
Panda	455
Philips	200, 292, 328, 455, 571, 750
Phonotrend	288, 592
Promax	455
Prosat	288
Quadral	362, 519, 628
Radiola	200
Radix	396
RFT	200, 220, 288
Saba	336, 520
Sabre	455
Salora	108
SAT	351, 461
Satcom	346, 605
Satec	183, 328
Satmaster	346
SatPartner	332, 421, 502, 520
Schwaiger	183, 504
Seemann	396, 530, 578, 626
SEG	369, 421
Siemens	173
Skymaster	288, 519, 605, 628
SM Electronic	713
Sony	704
Sunstar	513
Tantec	336, 455
TechniSat	501
Techniland	346
Telefunken	421
Teleka	243, 613
Telesat	605
Thomson	455
Tonna	346, 668
Triad	351
Triasat	501
Unitor	332
Universum	173, 571
Ventana	200
Vortec	421
Vtech	351
Winersat	332
Wisi	173, 351, 396, 455
Zehnder	520

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Manufacturers' codes for CATV converters

Brigminghan Cable Communications	276
British Telecom	003, 105
Decsat	423
Filmnet	443
France Telecom	451
Jerrold	003, 276
MNet	443
PVP Stereo Visual Matrix	003
Salora	382
Scientific Atlanta	008, 277
Tele+1	443
United Cable	003
Westminster	105
Zenith	000

Manufacturers' codes for VCR

Aiwa	000, 307, 348, 352
Akai	041, 049, 053, 106, 281, 288, 315
Akiba	072
Akura	271
Alba	020, 072, 209, 278, 295, 315, 333, 334, 352
Ambassador	020
Amstrad	000, 278, 325, 332
Anitech	072
ASA	037, 081
Asuka	037
Baird	000, 041, 104, 107
Basic Line	020, 072, 278
Blaupunkt	003, 006, 016, 034, 154, 162, 195, 226, 227, 403
Brandt	187, 320, 321
Brandt Electronic	041
Brionvega	344
Bush	072, 209, 278, 333, 334, 352
Catron	020
CGE	000
Cimline	072
Clatronic	020
Combitech	352
Condor	020
Crown	020, 072, 278
Cyrus	081
Daewoo	020, 278
Dansai	072
De Graaf	042, 166
Decca	000, 081
Denon	042
Dual	041
Dumont	000, 081, 104, 105
Elbe	038
Elcatech	072
ESC	240, 278
Ferguson	041, 084, 098, 107, 320, 321
Fidelity	000
Finlandia	081, 104
Finlux	000, 042, 081, 104, 105
Firstline	037, 043, 045, 072, 209
Fisher	046, 047, 054, 104
Frontech	020
Funai	000
GEC	081
General	020
GoldHand	072
GoldStar	037, 225
Goodmans	000, 020, 037, 072, 278, 403
Graetz	005, 041, 104, 240, 344

Granada	046, 081, 104
Grandin	000, 037, 072
Grundig	003, 006, 007, 016, 072, 081, 195, 207, 226, 347, 349, 403
Hanseatic	037
HCM	072
Hinari	004, 072, 208, 240, 352
Hitachi	000, 004, 041, 042, 105, 166, 235, 240
Hypson	072
Imperial	000
Ingersol	004
Interfunk	081
ITT	005, 041, 046, 104, 106, 240, 344, 384
ITV	037, 278
JVC	008, 041, 067, 084, 206, 207, 384, 486
Kaisui	072
Kendo	106, 209
Kenwood	041
Korpel	072
Lenco	278
Leyco	072
Loewe	004, 006, 037, 081
Logik	004, 240
Luxor	043, 046, 048, 104, 106
M Electronic	000
Manesth	045, 072
Marantz	003, 006, 081, 295
Matsui	004, 036, 088, 208, 209, 295, 348, 352
Melectronic	038
Memorex	000, 037, 046, 104
Memphis	072
Metz	003, 006, 037, 162, 195, 227, 347
Minerva	006, 016, 195
Mitsubishi	043, 067, 081
Multitech	000, 072
Murphy	000
NEC	038, 041, 067
Neckermann	081, 344
Nesco	072
Nokia	041, 046, 104, 106, 240, 344
Nordmende	041, 297, 320, 321, 384
Oceanic	000, 041
Okano	315, 348
Orion	004, 036, 088, 208, 209, 295, 333, 334, 348, 352
Osaki	000, 037, 072
Otto Versand	081
Palladium	006, 037, 041, 072
Panasonic	162, 226, 227
Pathe Cinema	036
Pathe Marconi	041
Pentax	042, 105
Perdio	000
Philco	038
Philips	081, 384, 403
Phonola	081
Pioneer	067, 081, 235
Portland	020
Profex	322
Profitronic	240
Proline	000
Pye	081
Quartz	046
Quelle	081, 344
Radiola	081
Rex	041, 384
RFT	403
Roadstar	037, 072, 240, 278
Saba	041, 206, 207, 297, 320, 321, 384
Saisho	004, 036, 088, 208, 209
Salora	043, 046, 106

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Samsung	240, 432
Sansui	041, 067, 271
Sanyo	046, 104
Saville	352
SBR	081
Schaub Lorenz	000, 005, 041, 104, 344
Schneider	000, 072, 081
SEG	240, 322
SEI	004, 081
Seleco	041
Sentra	020
Sharp	048
Shintom	072, 104
Shorai	004
Siemens	003, 006, 016, 037, 054, 081, 104, 195
Silva	037
Singer	045
Sinudyne	004, 081
Solavox	020
Sonolor	046
Sontec	037
Sony	011, 032, 033, 034
Sunkai	348
Sunstar	000
Suntronic	000
Tashiko	000
Tatung	000, 041, 081
Tec	020
Technics	162, 226
Teleavia	041
Telefunken	041, 187, 320, 321,384
Tenosal	072
Tensai	000, 322
Thomson	041, 320, 384
Thorn	036, 041, 084, 104
Toshiba	041, 043, 045, 081, 384
Towada	322
Triumph	208
Uher	240, 344
Ultravox	049, 344
Universum	000, 006, 016, 037, 049, 081, 106, 195, 240, 325
White Westinghouse	344
Yamishi	072
Yokan	072
Yoko	020, 240

Manufacturers' codes listed on pages 49 to 53 are subject to change without notice. If they are changed, this remote control cannot operate the equipment.

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Troubleshooting

Use this chart to help you solve daily operational problems. If there is any problem you cannot solve, contact your JVC service center.

PROBLEM	POSSIBLE CAUSE	SOLUTION
The display does not light up.	The power cord is not plugged in.	Plug the power cord into an AC outlet.
No sound from speakers.	Speaker signal cables are not connected.	Check speaker wiring and reconnect if necessary.
	The SPEAKERS 1 and 2 buttons are not set correctly.	Press SPEAKERS 1 and 2 correctly.
	An incorrect source is selected.	Select the correct source.
	Muting is activated.	Press MUTING to cancel the mute.
Sound from one speaker only.	Speaker signal cables are not connected properly.	Check speaker wiring and reconnect if necessary.
	The balance is set to one extreme.	Adjust the balance properly (see page 12).
Continuous hiss or buzzing during FM reception.	Incoming signal is too weak.	Connect an outdoor FM antenna or contact your dealer.
	The station is too far away.	Select a new station.
	An incorrect antenna is used.	Check with your dealer to be sure you have the correct antenna.
	Antennas are not connected properly.	Check connections.
Occasional cracking noise during FM reception.	Ignition noise from automobiles.	Move the antenna farther from automobile traffic.
No colors on the on-screen display.	The color system of the connected TV is not PAL.	Connect a PAL- or multi-color system TV.
Howling during record playing.	Your turntable is too close to speakers.	Move speakers away from the turntable.
"OVERLOAD" starts flashing on the display.	Speakers are overloaded because of high volume.	Rotate the MASTER VOLUME control counterclockwise three or four times, then press STANDBY/ON ⏻/| on the front panel. If "OVERLOAD" does not disappear, unplug the AC power cord, then plug it back again.
	Speakers are overloaded because of short circuit of speaker terminals.	Press STANDBY/ON ⏻/| on the front panel, then check the speaker wiring. If "OVERLOAD" does not disappear, unplug the AC power cord, then plug it back again. If speaker wiring is not short-circuited, contact your dealer.
Remote control does not work.	The remote control mode selector is not set correctly.	Set the selector correctly either to "AUDIO/ TV/VCR" or to "CATV/DBS."
	There is an obstruction in front of the remote sensor on the receiver.	Remove the obstruction.
	Batteries are weak.	Replace batteries.

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Specifications

Amplifier

Output Power

At Stereo operation:

Front channels:	100 watts per channel, min. RMS, driven into 4 ohms, 1 kHz with no more than 0.8% total harmonic distortion. (IEC268-3/DIN)

At Surround operation:

Front channels:	70 watts per channel, min. RMS, driven into 4 ohms at 1 kHz with no more than 0.8% total harmonic distortion.
Center channel:	70 watts, min. RMS, driven into 4 ohms at 1 kHz, with no more than 0.8% total harmonic distortion.
Rear channels:	70 watts per channel, min. RMS, driven into 4 ohms at 1 kHz, with no more than 0.8% total harmonic distortion.

Total Harmonic Distortion (8 ohms): 0.02%* at 50 watts output (20 Hz to 20 kHz)
(* Measured by JVC Audio Analysis System)

Audio

Audio Input Sensitivity/Impedance (1 kHz): PHONO (MM): 2.5 mV/47 kohms
CD, TAPE/MD, TV SOUND/DBS, VCR 1, VCR 2, VIDEO, DVD:
200 mV/47 kohms

Audio Input (DIGITAL IN)* : Coaxial: DIGITAL 1 (DBS): 0.5 Vp-p/75 ohms
Optical: DIGITAL 2 (DVD), DIGITAL 3 (CD): –21 dBm to –15 dBm (660 nm ±30 nm)

* Corresponding to Linear PCM, Dolby Digital, DTS Digital Surround, and MPEG
Multichannel (with sampling frequency — 32 kHz, 44.1 kHz, 48 kHz).

Audio Output Level: TAPE/MD, VCR 1, VCR 2: 200 mV

Signal-to-Noise Ratio ('66 IHF/DIN): PHONO: 70 dB/66 dB (at REC OUT)
CD, TAPE/MD, TV SOUND/DBS, VCR 1, VCR 2, VIDEO, DVD:
91 dB/67 dB

Frequency Response (8 ohms): PHONO: 20 Hz to 20 kHz (±1 dB)
CD, TAPE/MD, TV SOUND/DBS, VCR 1, VCR 2, VIDEO, DVD:
20 Hz to 20 kHz (±1 dB)

RIAA Phono Equalization: ±1.0 dB (20 Hz to 20 kHz)

Loudness Control (Volume Control at –30 dB): +6 ±1.0 dB at 100 Hz
+4 ±1.0 dB at 10 kHz

SEA: Center frequencies: 100 Hz, 1 kHz, 10 kHz
Control range: ±10 dB ±2 dB

Video

Video Input Sensitivity/Impedance:
Composite video: TV SOUND/DBS, VCR 1, VCR 2, VIDEO, DVD: 1 Vp-p/75 ohms
S-video: TV SOUND/DBS, VCR 1, VIDEO, DVD: (Y: luminance): 1 Vp-p/75 ohms
(C: chrominance, burst): 0.286 Vp-p/75 ohms

Video Output Level:
Composite video: VCR 1, VCR 2, MONITOR OUT: 1 Vp-p/75 ohms
S-video: VCR 1, MONITOR OUT: (Y: luminance): 1 Vp-p/75 ohms
(C: chrominance, burst): 0.286 Vp-p/75 ohms

Synchronization: Negative

Signal-to-Noise Ratio: 45 dB

On-Screen Color System: PAL

FM tuner (IHF)

|		
Tuning Range:	87.50 MHz to 108.00 MHz	
Usable Sensitivity:	Monaural:	12.8 dBf (1.2 µV/75 ohms)
50 dB Quieting Sensitivity:	Monaural:	21.3 dBf (3.2 µV/75 ohms)
	Stereo:	41.3 dBf (31.5 µV/75 ohms)
Signal-to-Noise Ratio (IHF-A weighted):	Monaural:	78 dB at 85 dBf
	Stereo:	73 dB at 85 dBf
Total Harmonic Distortion:	Monaural:	0.4% at 1 kHz
	Stereo:	0.6% at 1 kHz
Stereo Separation at REC OUT:	35 dB at 1 kHz	
Alternate Channel Selectivity:	45 dB: (±400 kHz)	
Frequency Response:	30 Hz to 15 kHz: (+0.5 dB, –3 dB)	

AM (MW/LW) tuner

Tuning Range:	MW:	522 kHz to 1,629 kHz
	LW:	144 kHz to 288 kHz
Usable Sensitivity:	Loop antenna	400 µV/m
Signal-to-Noise Ratio:		50 dB (100 mV/m)

General

Power Requirements:	AC 230V $\sim$, 50 Hz
Power Consumption:	250 watts (at operation)
	2 watts (in standby mode)
Dimensions (W x H x D):	435 x 157 x 412.5 mm
	(17 $^3/_{16}$ x 6 $^3/_{16}$ x 16 $^1/_4$ inches)
Mass:	11.3 kg (25.0 lbs)

Designs & specifications are subject to change without notice.
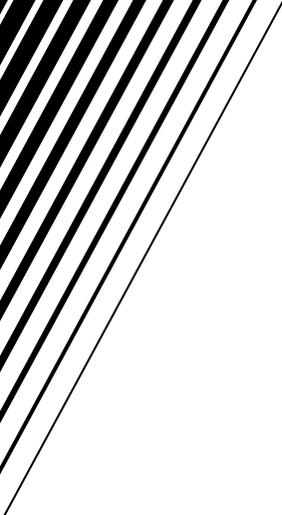
JVC

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