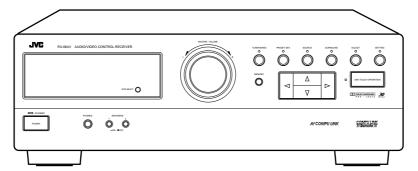
**JVC** 



# **AUDIO/VIDEO CONTROL RECEIVER**

# RX-664VBK





COMPU LINK
|||| Remote || ||

AV COMPU LINK





# **INSTRUCTIONS**

#### For Customer Use:

Enter below the Model No. and Serial No. which are located either on the rear, bottom or side of the cabinet. Retain this information for future reference.

Model No.

Serial No.

# Warnings, Cautions and Others



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK.

DO NOT REMOVE COVER (OR BACK)

NO USER SERVICEABLE PARTS INSIDE.

REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



The lightning flash with arrowhead symbol, within an equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

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.

#### Caution — POWER switch!

Disconnect the mains plug to shut the power off completely. The POWER switch in any position does not disconnect the mains line. The power can be remote controlled.

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

Once you have found the best DVD MULTI playback, DAP, 3D-PHONIC and Surround mode settings for your listening room, note them in the table below for future reference (even though the receiver memorizes the settings until you change them).

For actual setting procedures, see pages 26 to 39.

DVD MULTI Playback Mode	
Center Speaker Level	
Left Rear Speaker Level	
Right Rear Speaker Level	

DAP Mode	Dance Club	Live Club	Hall	Pavilion	Headphones
Rear Speaker Level*					
Effect Level					

3D-PHONIC Mode	3D Action	3D Drama	3D Theater
Effect Level			

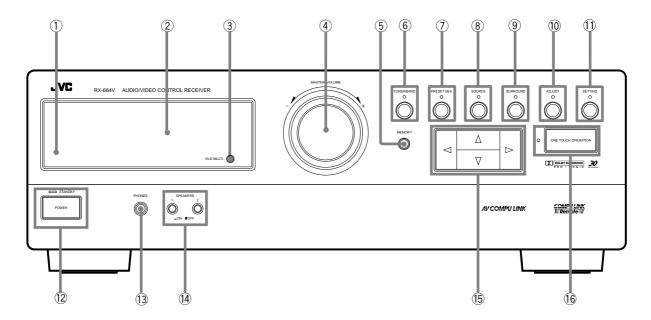
Surround Mode	Dolby Pro Logic	Dolby 3ch Logic	Theater Surround
Center Mode			
Delay Time			
Center Speaker Level			
Rear Speaker Level*			
Effect Level			

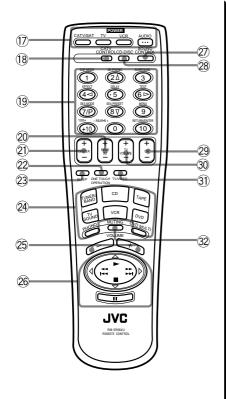
<sup>\*</sup> The left rear speaker level and right rear speaker level for DAP and the surround modes cannot be stored separately.

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# 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 Remote sensor (13)
- ② Display (14)
- ③ DVD MULTI button (38)
- 4 MASTER VOLUME control (15)
- ⑤ MEMORY button (21)
- (6) TUNER/BAND button and lamp (21)
- 7) PRESET SEA button and lamp (24)
- 8 SOURCE button and lamp (14)
- 9 SURROUND button and lamp (27, 29)
- 10 ADJUST button and lamp (27, 29)
- ① SETTING button and lamp (17)
- (2) POWER button and STANDBY lamp (14)
- (13) PHONES jack (16)
- (14) SPEAKERS 1/2 buttons (15)
- (15) Control  $\triangle / \nabla / \triangleleft / \triangleright$  buttons
- (6) ONE TOUCH OPERATION button and lamp (20)

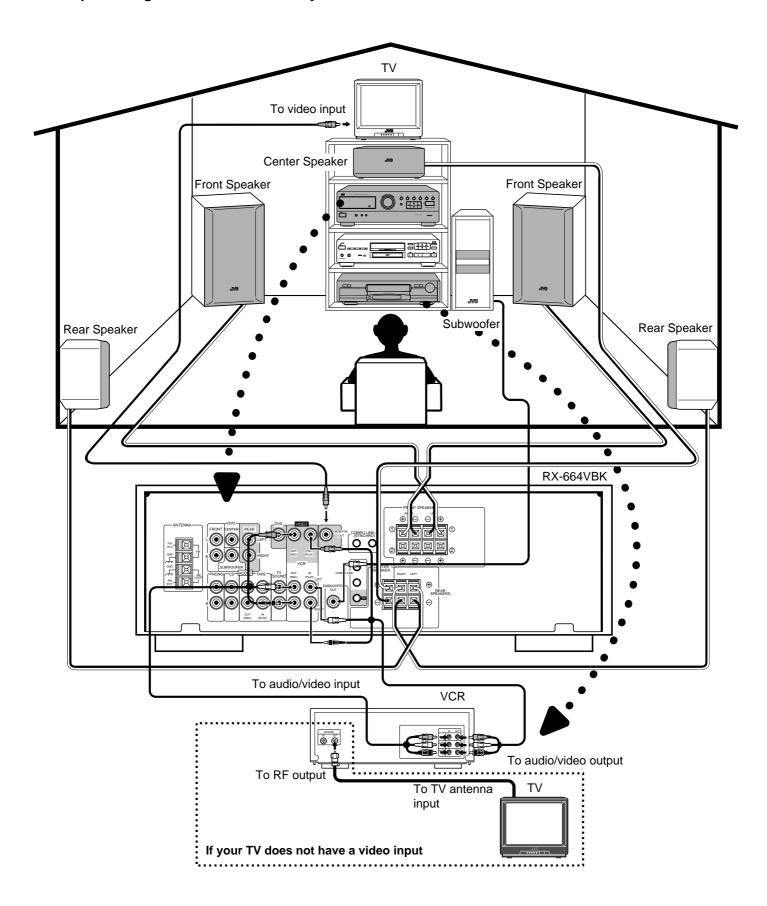
# **Remote Control**

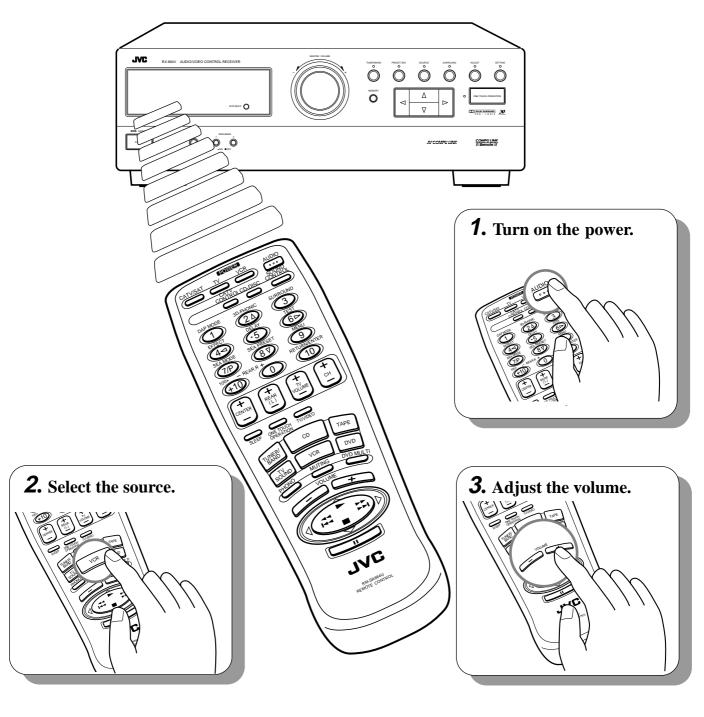
- ① POWER buttons (CATV/SAT, TV, VCR, AUDIO) (14, 45, 46, 47)
- 18 CATV CONTROL button (46)
- (9) 10 keys/Sound control buttons (22, 25, 28, 30, 35, 36, 37, 39)
- 20 REAR (L) buttons (+/-) (36, 39)
- 21 CENTER buttons (+/-) (36, 39)
- 22 ONE TOUCH OPERATION button (20)
- 23 SLEEP button (18)
- ② Source buttons (TUNER/BAND, CD, TAPE, TV SOUND, VCR, DVD, PHONO, DVD MULTI) (14, 39, 43, 44, 45, 47)
- 25 VOLUME buttons (+/-) (15)
- © Operating buttons for JVC audio/video components (43, 44, 47)
- ② SOUND CONTROL button (25, 28, 30, 35, 37, 39)
- 28 CD-DISC button (43)
- ② CH (Channel) buttons (+/-) (44, 45, 46, 47)
- **30** TV VOLUME button (44, 45)
- ③1 TV/VIDEO button (44, 45)
- 32 MUTING button (15)



If you are already familiar with audio components, following four pages give you enough information to operate your RX-664VBK for enjoyment of surround sound in your listening room.

## For Reproducing Surround Sound with your VCR

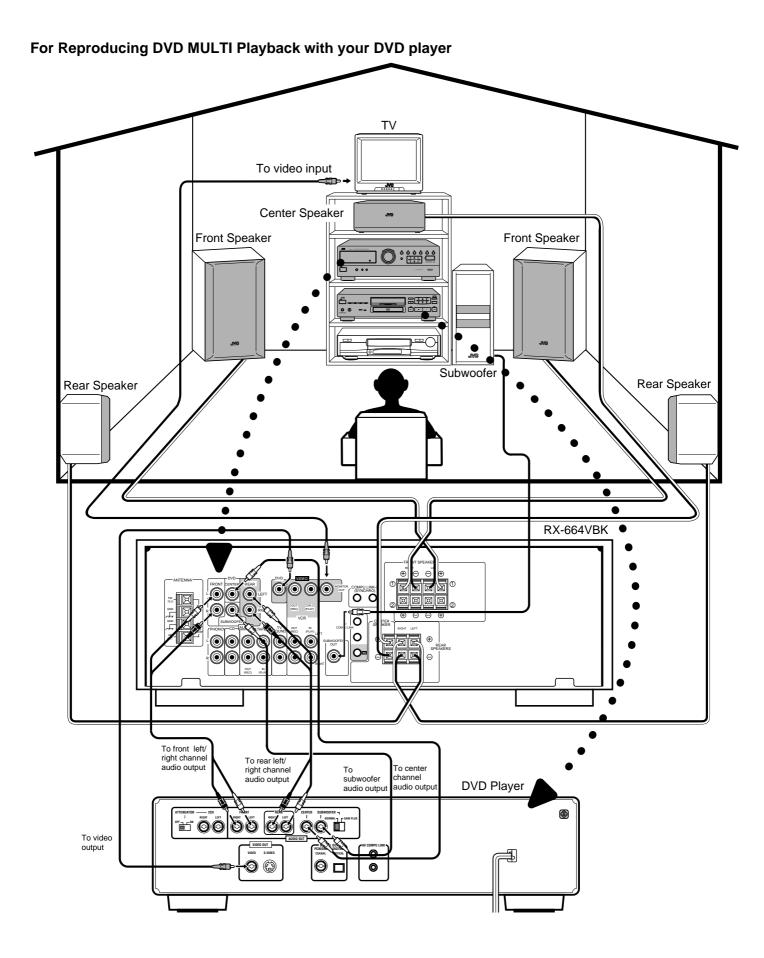


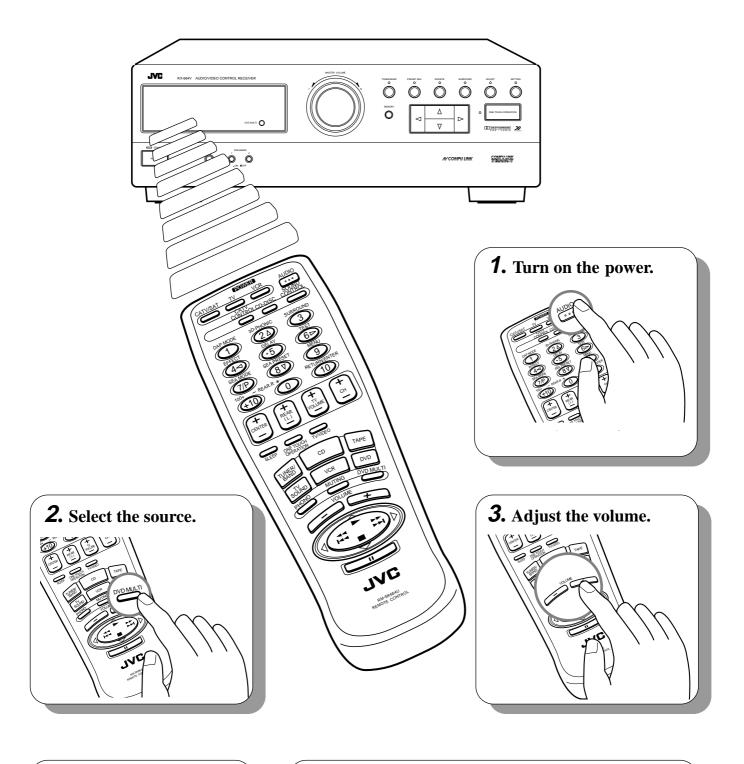




5. Surround settings are preset at the factory. However, if you need to make further adjustments, see pages 26 to 37.

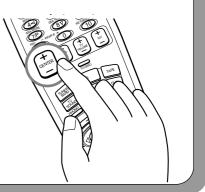
# Easy Set Up & Operations







**5.** Surround settings are preset at the factory. However, if you need to make further adjustment, see pages 38 and 39.



# Getting Started

This section explains how to connect stereo 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 23° and 95° F (-5° and 35° C).
- 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.

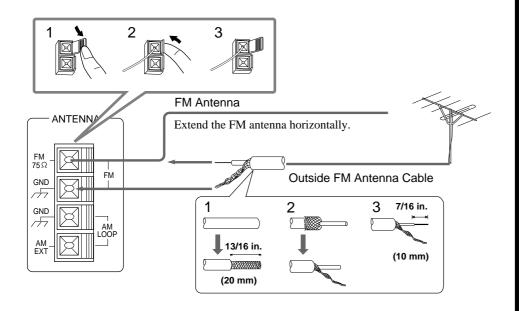
The number in the parentheses indicates quantity of the pieces supplied.

- Remote Control (1)
- Batteries (2)
- AM Loop Antenna (1)
- FM Antenna (1)

If anything is missing, contact your dealer immediately.

# **Connecting the FM and AM Antennas**

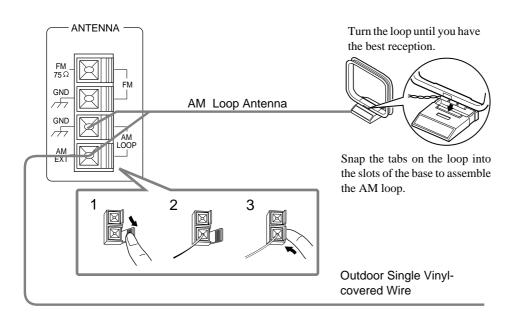
#### **FM Antenna Connections**



# How to strip the 75 $\Omega$ coaxial cable and connect it to the FM terminals

- 1. Strip back the outside covering of the 75  $\Omega$  coaxial cable to expose the braided metallic mesh about 13/16 inches (20 mm).
- 2. Pull the mesh back and twist it into a single connector as shown in the illustration above.
- 3. Strip the insulation about 7/16 inches (10 mm) back from the central wire.
- 4. Insert the twisted mesh and the central wire to the FM terminals, as shown in the illustration above.

#### **AM Antenna Connections**



#### Note:

If reception is poor, connect the outside antenna.

Before attaching a 75  $\Omega$  coaxial cable (the kind with a round wire going to an outside antenna), disconnect the supplied FM wire antenna.

#### 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 loop antenna connected.)

# **Getting Started**

#### **Connecting the Speakers**

You can connect the following speakers:

- Two sets of front speakers to produce normal stereo sound
- One set of rear speakers to enjoy the surround effect
- One center speaker to produce more effective surround effect (to make human voices outstanding)
- · One subwoofer to enhance the bass

For each speaker (except for subwoofer), connect one end of the speaker signal cable (not supplied) to the speaker terminal on the rear panel and the other end to the speaker. (For connecting a subwoofer, see page 10.)

- 1. Open each terminal.
- 2. Insert the end of the speaker signal cable as shown (be sure to remove the insulation at the end of each wire first).



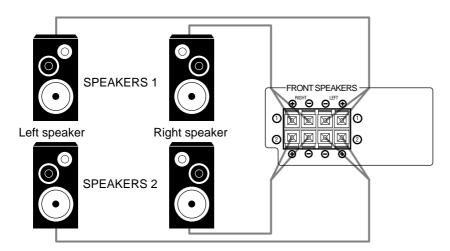


- 3. Close the terminals to clamp the speaker signal cables firmly in place.
- 4. Connect the (-) and (+) terminals on the rear panel to the (-) and (+) terminals marked on the speakers.



#### Connecting the front speakers

Connect the front speakers to the FRONT SPEAKERS terminals.

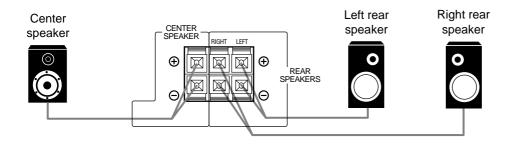


#### **CAUTION:**

When connecting speakers, use speakers with the SAME IMPEDANCE indicated by the speaker terminals.

## Connecting the rear and center speakers

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



#### Connecting the 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.



#### Notes:

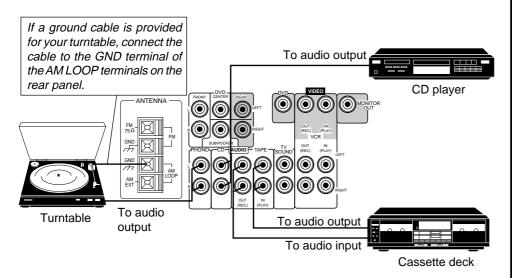
- When you connect rear speakers, make sure that both left and right speakers are connected; otherwise, no sound will come out of the rear speakers.
- You can register the center speaker size after you finish its connection. If you register it, you do not have to set the center speaker mode while setting the surround mode. (If you do not use a center speaker, register that information.) See page 19.

#### **Connecting Audio/Video Components**

You can connect the following components to the receiver using cables with RCA pin plugs.

Audio Components	Video Components
Turntable	• TV
CD player	• VCR
Cassette deck	DVD player

### **Audio component connections**



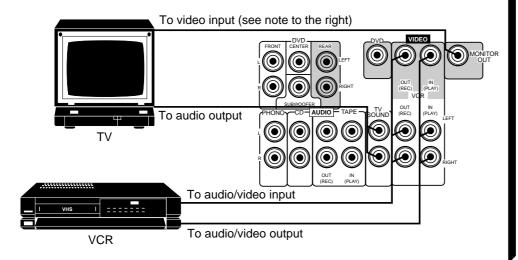
#### If your audio components have a COMPU LINK-3 terminal

The COMPU LINK remote control system allows you to control other JVC audio components from the receiver or vice versa.

For detailed information about the COMPU LINK-3 remote control system, see page 40.

#### Video component connections





#### **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.

#### Note:

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

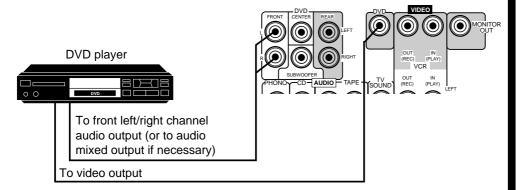
#### Note:

When connecting a JVC TV:

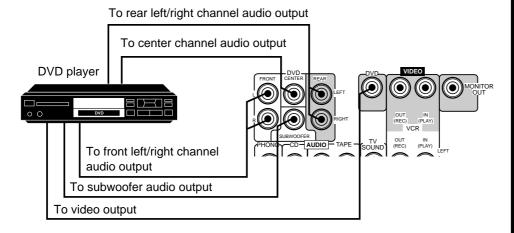
- If you use the AV COMPULINK remote control system to operate the TV, connect the receiver to the Video Input 2 jack on the TV.
- If you do not use the AV COMPU LINK remote control system to operate the TV, connect the receiver to the Video Input 1 jack on the TV.

## DVD player connection

• When you play back a disc on the DVD player in stereo (or the audio output setting of the DVD player is mixed to two front channels):



• When you play back a disc on the DVD player with its analog discrete output mode (5.1 CH reproduction) selected:



#### If your audio components have an AV COMPU LINK terminal

The AV COMPU LINK remote control system allows you to control other JVC video components from the receiver or vice versa.

For detailed information about the connection and the AV COMPU LINK remote control system, see page 41.

# **Getting started**

#### **Connecting the Power Cord**

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

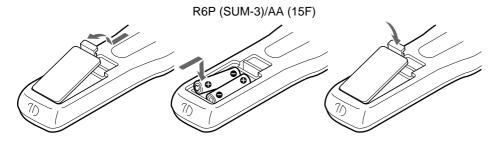
When the power cord is connected, the STANDBY lamp above the POWER button lights up.

Keep the power cord away from the connecting cables for the TV, VCR, and 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.

### **Putting Batteries in the Remote Control**

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

- 1. On the back of the remote control, remove the battery cover as illustrated.
- 2. Insert batteries. Make sure to observe the proper polarity: (+) to (+) and (-) 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.

#### Notes:

- A small amount of power is always consumed even in standby mode. To switch off the power completely, unplug the power cord from the AC outlet.
- If the power cord is unplugged (or a power failure occurs), preset settings will be erased in a few days.

#### **CAUTIONS:**

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

#### **CAUTIONS:**

Follow these precautions to avoid leaking or cracking cells:

- Place batteries in the remote control so they match the polarity indicated: (+) to (+) and (-) 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.

# **B**asic Operations

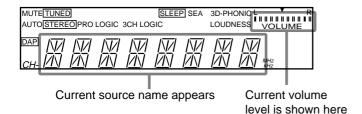
The following operations are commonly used when you play any sound source.

## **Turning the Power On and Off**

### On the front panel:

To turn on the power, press POWER.

The STANDBY lamp goes off. The name of the current source (or station frequency) appears on the display.





To turn off the power, press POWER again.

The STANDBY lamp lights up.

#### 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.



To turn off the power, press AUDIO again.

The STANDBY lamp lights up.

#### Selecting the Source to Play

#### On the front panel:

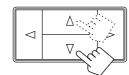
1. Press SOURCE so that the Control  $\triangle$  /  $\nabla$  buttons work for selecting the source.

The lamp above the button lights up.

2. Press Control  $\triangle / \nabla$  until the source name you want appears on the display.







#### From the remote control:

Press one of the source buttons directly.

TUNER/BAND\* Listen to the radio.

Each time you press the button, the band

alternates between FM and AM.

CD\* Listen to the CD player.

TAPE\* Listen to the cassette deck.

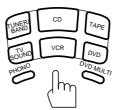
TV SOUND Listen to TV sounds.

VCR View the playback picture from the VCR. DVD Play back a stereo digital video disc.

PHONO\* Listen to a record.

DVD MULTI Play back a digital video disc using the

analog discrete output mode (5.1 CH reproduction) on the DVD player.



### Notes:

- When you press one of the source buttons on the remote control marked with an asterisk (\*), the receiver automatically turns on.
- When connecting this receiver and the DVD player by using the AV COMPU LINK cable, "DVD MULTI" is always selected when you start playing a disc of 5.1 ch surround. You can change it to "DVD" after playback starts.

## **Adjusting the Volume**

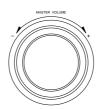
### On the front panel:

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:

**To increase the volume,** press VOLUME +. **To decrease the volume,** press VOLUME -.



#### Selecting the Front Speakers

### On the front panel only:

When you have connected two sets of front speakers, you can select which to use. Pressing SPEAKERS 1 or SPEAKERS 2 activiates the respective set of speakers.



To use the set of speakers connected to the FRONT SPEAKERS ① terminals, press SPEAKERS 1 to set it in the ■ON position, and press SPEAKERS 2 to set it in the ■OFF position.

To use the set of speakers connected to the FRONT SPEAKERS ② terminals, press SPEAKERS 2 to set it in the ■ON position, and press SPEAKERS 1 to set it in the ■OFF position.

To use both set of speakers, press both SPEAKERS 1 and 2 to set them in the ■ON position

**To use neither set of speakers,** press both SPEAKERS 1 and 2 to set them in the ■ OFF position.

#### **Muting the Sound**

#### From the remote control only:

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

"MUTE" appears on the display and the volume turns off.



To restore the sound, press MUTING again.

Turning MASTER VOLUME or pressing VOLUME +/– also restores the sound.

#### **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 "62" (maximum).

#### Notes:

- When only one set of the front speakers is connected to either the FRONT SPEAKERS ① or ② terminals, do not press both SPEAKERS 1 and 2 to set them in the ■ON position. If you do, no sound comes out of the front speakers.
- The SPEAKERS 1 and 2 buttons do not affect the sound output of the center and rear speakers.

## **Recording a Source**

You can record any source playing through the receiver to a cassette deck connected to the TAPE jacks and the VCR connected to the VCR jacks at the same time. While recording, you can listen to the selected sound source at whatever sound level you like, without affecting the sound levels of the recording.

# Listening with Headphones

A standard pair of headphones can be connected to the PHONES jack on the front panel. Be sure to turn down the volume before connecting or putting on headphones, as high volume can damage both the headphones and your hearing.

#### To listen with only headphones

Press both SPEAKERS 1 and 2 to set them in the **■**OFF position.



#### Note:

The following sound modes cannot affect the recording.

- Preset SEA modes: (see page 24)
- 3D-PHONIC modes: (see page 27)
- DAP modes: (see page 29)
- DVD MULTI playback mode: (see page 38)

#### Note:

The SPEAKERS 1 and 2 buttons do not affect the sound output of the center and rear speakers.

# **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.

### **Adjusting the Front Speaker Output Balance**

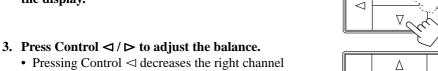
If the sounds you hear from the front right and left speakers are unequal, you can adjust the speaker output balance.

# On the front panel only:

1. Press SETTING so that the Control  $\triangle / \nabla / \triangleleft / \triangleright$ buttons work for adjusting the balance. The lamp above the button lights up.



2. Press Control △ / ▼ until "BALANCE" appears on the display.



- - output.
  - Pressing Control > decreases the left channel output.

# 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:

1. Press SETTING so that the Control  $\triangle / \nabla / \triangleleft / \triangleright$  buttons work for setting the Loudness function.

The lamp above the button lights up.

- 2. Press Control  $\triangle$  /  $\nabla$  until "LOUDNESS" appears on the display.
- - · Select "ON" to activate the Loudness function. The LOUDNESS indicator lights up on the display.
  - Select "OFF" to cancel it. The indicator goes off.

#### **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.

#### On the front panel:

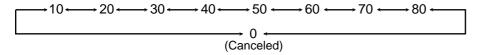
1. Press SETTING so that the Control  $\triangle$  /  $\nabla$  /  $\triangle$  buttons work for setting the **Sleep Timer** 

The lamp above the button lights up.

- 2. Press Control  $\triangle$  /  $\nabla$  until "SLEEP" appears on the display.
- 3. Press Control  $\triangleleft$  /  $\triangleright$  to set the shut-off time.

The SLEEP indicator lights up on the display.

Each time you press the button, the shut-off time on the display changes as follows:



#### Note:

If the balance is not set at the center, "BALANCE⊲" or "BALANCE⊳" will appear in step 2.

#### When the shut-off time comes

The receiver turns off automatically.

#### To check or change the time remaining until the shut-off time

- 1. Press SETTING, if necessary, so that the Control  $\triangle / \nabla / \lhd / \triangleright$  buttons work for setting the Sleep Timer.
- 2. Press Control  $\triangle / \nabla$ , if necessary, until "SLEEP" appears on the display.
- 3. Press Control  $\triangleleft$  /  $\triangleright$ .

The remaining time until the shut-off time appears in minutes.

• To change the shut-off time, press Control  $\triangleleft$  /  $\triangleright$  repeatedly.

#### To cancel the Sleep Timer

Press Control  $\lhd$  /  $\triangleright$  repeatedly in step 3 above until "0" appears on the display. (The SLEEP indicator goes off.)

Turning off the power also cancels the Sleep Timer.

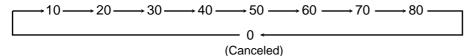
#### From the remote control:

#### Press SLEEP repeatedly.

The SLEEP indicator lights up and the shut-off time appears on the display.



Each time you press the button, the shut-off time on the display changes as follows:



#### 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 "0" appears on the display. (The SLEEP indicator goes off.)

Turning off the power also cancels the Sleep Timer.

# **Basic Settings**

#### Selecting the Center Speaker Size

You can register the information about the center speaker after all connections are completed.

If you do this registration first, you do not have to adjust the center speaker mode when you want to activate the surround sound.

# On the front panel *only*:

- 1. Press SETTING so that the Control  $\triangle$  /  $\nabla$  /  $\triangleleft$  /  $\triangleright$  buttons work for selecting the center speaker size.
  - The lamp above the button lights up.
- 2. Press Control  $\triangle$  /  $\nabla$  until "CNTR SPK" (Center Speaker) appears on the display.
- **3.** Press Control <1/>
  ✓ / > to select the appropriate item about your center speaker.
  Each time you press the button, the display changes to show the following:

$$ightharpoonup$$
SMALL $ightharpoonup$ LARGE $ightharpoonup$ NO $ightharpoonup$ 

SMALL:	Select this mode when the size of the center speaker is smaller than that of the front speakers.
LARGE:	Select this mode when the size of the center speaker is the same as
	that of the front speakers.
NO:	Select this mode when you do not use a center speaker.

#### Note:

This "center speaker size" setting is so related to the center mode setting for surround modes that changing this setting affects and changes the center mode to a relevant mode, and vice versa. For example;

- If you select "SMALL," the center mode is automatically set to "NORMAL," and vice versa.
- If you select "LARGE," the center mode is automatically set to "WIDE," and vice versa.
- If you select "NO,"
- For PRO LOGIC and THEATER, the center mode is set to "PHANTOM."
- For 3CH LOGIC, the center mode is set to "NORMAL."

# One Touch Operation

This receiver can memorize the optimum sound settings for each playing source.

#### **About the 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 15)
- Balance (see page 17)
- Loudness (see page 17)
- Preset SEA modes (see page 24)
- 3D-PHONIC mode settings (see page 27)
- DAP mode settings (see page 29)
- Surround mode settings (see page 37)

#### **Using the One Touch Operation**

#### To store the sound settings

#### 1. Press ONE TOUCH OPERATION.

The ONE TOUCH OPERATION lamp lights up, then the previously memorized settings are recalled and appear on the display in turn.



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 is recalled, and appears on the display 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 TUNER/BAND, the One Touch Operation function memorizes the settings each for the FM and AM band.
- 3D-PHONIC mode, DAP mode, and surround mode cannot be used at the same time.

# Receiving Radio Broadcasts-

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

#### **Tuning in Stations Manually**

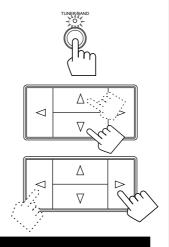
### On the front panel only:

#### 1. Press TUNER/BAND.

The lamp above the button lights up. Each time you press the button, the band alternates between FM and AM.

- 2. Press Control △ / ▼ until "-TUNING+" appears on the display.
- 3. Press Control <1/ > until you find the frequency you want.

  - Pressing Control ▷ increases the frequency.



#### Notes:

- When you hold down Control ⊲
   / ▷ in step 3, the frequency
   keeps changing until you press
   Control ⊲ / ▷ again or a station
   is tuned in
- 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 40 stations at random.

# To store the preset stations

# On the front panel only:

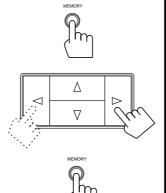
1. Tune in the station you want to preset (see above). If you want to store the FM reception mode for this station, select the FM reception mode you want. See page 23 for details.

#### 2. Press MEMORY.

The channel number starts flashing on the display for about 5 seconds.

- 3. Press Control  $\triangleleft$  /  $\triangleright$  to select a channel number while the channel number position is flashing.
  - Pressing Control  $\triangleleft$  decreases the number.
  - Pressing Control ▷ increases the number.
- 4. Press MEMORY again while the selected channel number is flashing on the display.

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



#### **CAUTION:**

Preset stations may be erased in a few days when power is cut off to the receiver, as when it is unplugged from the AC outlet or a power failure occurs. If the preset stations are lost, simply set the stations again.

#### Note:

You can press 10 keys on the remote control to select a channel number in step 3, if you have pressed TUNER/BAND on the remote control prior to starting this preset procedures.

- 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.

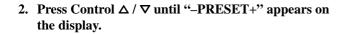
5. Repeat steps 1 to 4 until you store all the stations you want.

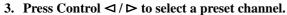
#### To cancel a stored preset station

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

#### To tune in a preset station

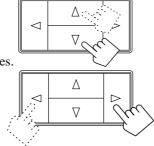
# On the front panel:





Each time you press the button, the preset channels changes.

- Pressing Control < changes preset channels in decreasing order.



#### From the remote control:

1. Press TUNER/BAND.

Each time you press the button, the band alternates between FM and AM.

- 2. Press 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.











#### Note:

If you adjust the sound by using SOUND CONTROL while listening to a station, the 10 keys will work for adjusting the sound. To select a preset channel number after the sound adjustment, press TUNER/BAND again, so the 10 keys will work for selecting the preset channel numbers.

# Receiving Radio Broadcasts

# Selecting the FM Reception Mode

You can change the FM reception mode while receiving an FM broadcast.

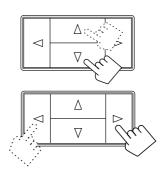
## On the front panel only:

 Press TUNER/BAND so that the Control △ / ▽ / ⊲ / buttons work for tuner settings.

The lamp above the button lights up.



- 2. Press Control △ / ▼ until "FM MODE" appears on the display.
- 3. Press Control <1/ > to select either "FM AUTO" or "FM MONO."
  - Normally select "FM AUTO."
  - When an FM stereo broadcast is hard to receive or noisy, select "FM MONO."



FM AUTO:	When a program is broadcast 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.
FM 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:

You can store the FM reception mode for each preset station.

# Using the Preset SEA Modes

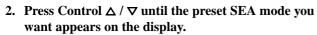
The preset SEA (Sound Effect Amplifier) modes give you control of the way your music sounds.

# **Selecting Your Favorite SEA Mode**

### On the front panel:

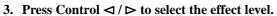
 Press PRESET SEA so that the Control △ / ▽ / ⊲ / buttons work for preset SEA setting.

The lamp above the button lights up.



The SEA indicator also lights up on the display. Each time you press the button, the preset SEA modes change as follows:





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



→ MOVIE 1 ↔ MOVIE 2 ↔ MOVIE 3 ←

When Sports is selected:

→SPORTS1→SPORTS2→SPORTS3←

#### When Music is selected:

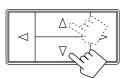
Movie:	Adds breadth to sounds so you feel like you are in a movie theater.	
Sports:	Makes sounds exciting.	
Music:	Select one of	the modes below.
	JAZZ:	Gives a feeling of a live atmosphere. Good for acoustic music.
	ROCK:	Gives a heavy sound. Both high and low frequencies are boosted.
	MUSICAL:	Enhances the mid-frequency range, which the human voice is mostly made up of.
	COUNTRY:	Enhances the high-frequency range so that instruments such the violin and banjo are emphasized.
OFF:	No preset SEA	A mode is applied.

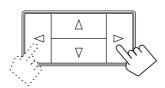
#### To cancel the preset SEA mode

Select "OFF" in step 2 above.

The SEA indicator goes off from the display.







#### Notes:

- The preset SEA modes cannot be used for recording.
- When you turn on the preset SEA mode, the mode with its effect level previously selected is recalled at first.

# Using the Preset SEA Modes

#### From the remote control:

1. Press SOUND CONTROL so that 10 keys work for adjusting the sound.

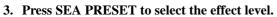


2. Press SEA MODE until the preset SEA mode you want appears on the display.

The previously selected mode is recalled (at its previous effect level) and is shown on the display.

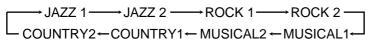
Each time you press the button, the preset SEA modes change as follows:

ightharpoonup	$Music  \longrightarrow $	$Sports  \longrightarrow $	Movie —
		- OFF ←	



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





When Sports is selected:

When Movie is selected:

```
→ MOVIE 1 → MOVIE 2 → MOVIE 3 —
```

#### To cancel the preset SEA mode

Select "OFF" in step 2 above.

The SEA indicator goes off from the display.





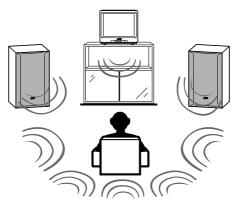


# **Using the Surround Processor**

The built-in surround processor provides three groups of Surround Processor modes — JVC 3D-PHONIC mode, DAP (Digital Acoustic Processor) mode, and surround modes (Dolby Surround and JVC Theater Surround).

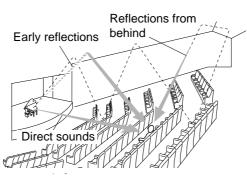
#### On JVC 3D-PHONIC mode

JVC 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. JVC 3D-PHONIC mode is the result of research on sound localization technology carried out at JVC for many years and makes it possible to reproduce the surround sound with only two front speakers.



#### On the DAP mode

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 by using the front speakers and rear speakers.



#### On surround modes

With this receiver, you can use two types of the surround mode.

## **Dolby Surround**

Dolby Surround has been developed to reproduce the important elements of the acoustic surround at home.

To watch the soundtracks of video software bearing the mark DDDOLBY SURROUND \* which includes the same encoded surround information as found in Dolby Stereo films, the receiver can provide you with 2 Dolby Surround modes (Dolby Pro Logic and

Dolby 3ch Logic).

**Dolby Pro Logic:** Select this mode when optional center and rear speakers are

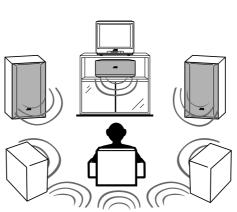
connected.

**Dolby 3ch Logic:** Select this mode when a center speaker is connected without rear

speakers.

#### **JVC Theater Surround**

In order to reproduce a more realistic sound field in your listening room while playing sound tracks of video software bearing the mark DDDOLBY SURROUND, JVC Theater Surround has been designed to give you clear vocals and to create a real "being there" feeling. The sound is reproduced through the front speakers, rear speakers and center speaker.



Manufactured under license from Dolby Laboratories Licensing Corporation. Additionally licensed under Canadian patent number 1,037,877. "Dolby," the double-D symbol and "Pro Logic" are trademarks of Dolby Laboratories Licensing Corporation.

The surround processor has no

The surround processor cannot

You cannot use the two types of the surround processor mode

When you select "DVD MULTI"

as the source to play, you

cannot select or adjust 3D-

PHONIC, DAP or surround

effect on monaural sources.

be used for recording.

at the same time.

modes.

As for the DVD MULTI Playback Mode, see pages 38 and 39.

# **Using the Surround Processor**

# **Using JVC 3D-PHONIC Modes**

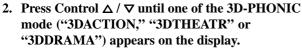
When using JVC 3D-PHONIC modes, you need only two front speakers to reproduce the soundtracks of video software bearing the mark DDDOLBY SURROUND.

The 3D-PHONIC modes give you very realistic surround effects as if the sound is reproduced through the Dolby Surround decoder.

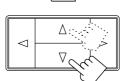
# On the front panel:

Press SURROUND so that the Control △/▽/⊲/
 buttons work for selecting the Surround Processor mode.

The lamp above the button lights up.

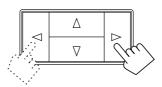


Each time you press the button, Surround Processor mode changes as follows:



- \* As for the DAP modes (see page 29) and the 3D-PHONIC modes, one of the previously selected mode appears on the display.
- 3. Press Control <1/ > until the 3D-PHONIC mode you want appears on the display.

Each time you press the button, the 3D-PHONIC modes change as follows:



→ 3DACTION → 3DTHEATR → 3DDRAMA ←	٦
	ı

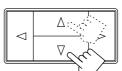
3DACTION	Best for action and war movies — where the action is fast and explosive.
3DTHEATR	Reproduces the sound field of a large theater.
3DDRAMA	Best for dramas and romantic movies — where the action is slow and soft.

4. Press ADJUST so that Control  $\triangle / \nabla$  buttons work for adjusting the effect level.

The lamp above the button lights up.

5. Press Control  $\triangle$  /  $\nabla$  until "-EFFECT+" appears on the display.





#### Note:

When one of the 3D-PHONIC modes is selected, the 3D-PHONIC indicator also lights up on the display.

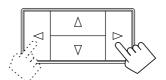
#### Note:

Once you have adjusted the effect level, it is memorized for each 3D-PHONIC mode.

6. Press Control  $\triangleleft$  /  $\triangleright$  to adjust the effect level.

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

$\rightarrow$ EFFECT 1 $\longleftrightarrow$ EFFECT 2 $\longleftrightarrow$ EFFECT	
L EFFECT 5 ←	——→EFFECT 4 ←——



As the number increases the effect of the selected 3D-PHONIC mode becomes stronger.

7. Select and play a sound source which was processed with Dolby Surround and is labeled with Dolby surround mark.

#### To cancel the 3D-PHONIC mode

Select "OFF" in step 2.

The 3D-PHONIC indicator goes off from the display.

#### From the remote control:

1. Press SOUND CONTROL so that 10 keys work for adjusting the sound.



2. Press 3D-PHONIC to select the 3D-PHONIC mode vou want.

The previously selected mode is recalled at first (at its previous effect level) and is shown on the display. The 3D-PHONIC indicator also lights up on the display. Each time you press the button, the 3D-PHONIC modes change as follows:



→ 3DTHEATR → 3DDRAMA → 3DACTION —

3. Press EFFECT to select the effect level.

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



As the number increases, the effect of the selected 3D-PHONIC mode becomes stronger.

4. Select and play a sound source which was processed with Dolby Surround and is labeled with Dolby surround mark.

#### To cancel the 3D-PHONIC mode

Select "OFF" in step 2 above.

The 3D-PHONIC indicator goes off from the display.

#### Note:

The 3D-PHONIC mode is not used with other Surround Processor modes such as Dolby Surround, JVC Theater Surround and the DAP modes. When the 3D-PHONIC mode is turned on, the other Surround Processor mode, if used, will be turned off.

#### Note:

Once you have adjusted the effect level, it is memorized for each 3D-PHONIC mode.

# **Using the Surround Processor**

## **Using the DAP Modes**

You can use five DAP modes — "Dance Club, Live Club, Hall, Pavilion, and Headphones." These modes (except "Headphones") require the front speakers and the rear speakers, but do not require a center speaker to enlarge the sound field.

Among the DAP modes, "Headphones" is very special. It can create the same stereo sound as you listen through the speakers off air while listening to a source using headphones. So, you can feel as if you were not using the headphones and listening to music in a room.

# On the front panel:

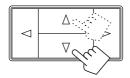
 Press SURROUND so that the Control △ / ▽ / ⊲ / ▷ buttons work for selecting the Surround Processor mode.

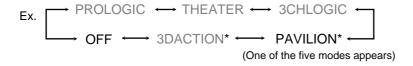
The lamp above the button lights up.



2. Press Control △ / ∇ until one of the DAP mode ("HEAD P," "PAVILION," "HALL," "LIVE C" or "DANCE C") appears on the display.

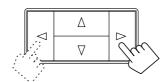
Each time you press the button, the Surround Processor modes change as follows:





- \* As for the 3D-PHONIC modes (see page 27) and the DAP modes, one of the previously selected mode appears on the display.
- 3. Press Control <1/ > until the DAP mode you want appears on the display.

Each time you press the button, the DAP modes change as follows:



$$\begin{array}{c} \longrightarrow & \mathsf{HEAD}\;\mathsf{P}\;\longleftrightarrow\;\mathsf{PAVILION}\;\;\longleftarrow\;\\ \longrightarrow & \mathsf{DANCE}\;\mathsf{C}\;\longleftrightarrow\;\mathsf{LIVE}\;\mathsf{C}\;\longleftrightarrow\;\mathsf{HALL}\;\;\longleftarrow\;\\ \end{array}$$

<b>HEAD Phones*</b> Gives a spacious stereo effect when listening with headphones		
PAVILION	Gives the spacious feeling of a pavilion with a high ceiling.	
HALL	ALL Gives clear vocal and the feeling of a concert hall.	
<b>LIVE Club</b> Gives the feeling of a live music club with a low ceiling.		
DANCE Club	Gives a throbbing bass beat.	

- \* When you select "HEAD P," you cannot go to the following steps. No adjustments can be made for "Headphones."
- 4. Press ADJUST so that the Control  $\triangle / \nabla / \triangleleft / \triangleright$  buttons work for adjusting the selected mode.

The lamp above the button lights up.



#### Note:

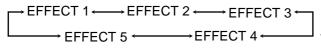
When one of the DAP modes is selected, the DAP indicator also lights up on the display.

#### Note:

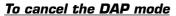
When changing the DAP modes to "PAVILION" or "HALL," a reverberation sound comes out. This is because a long reverberation is applied to these two modes.

- 5. Press Control  $\triangle / \nabla$  until "- REAR +" appears on the display.
- - Pressing Control 
     decreases the output level up to
     -10 dB.
  - Pressing Control 

    increases the output level up to
    +10 dB.
- 7. Press Control  $\triangle / \nabla$  until "-EFFECT+" appears on the display.
- 8. Press Control < 1/ >> to adjust the effect level.
  Each time you press the button, the effect level changes as follows:



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



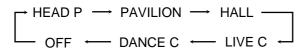
Select "OFF" in step 2.

as follows:

The DAP indicator goes off from the display.

## From the remote control:

- 1. Press SOUND CONTROL so that 10 keys work for adjusting the sound.
- 2. Press DAP MODE to select the DAP mode you want. The previously selected mode is recalled at first (at its previous effect level) and is shown on the display. The DAP indicator also lights up on the display. Each time you press the button, the DAP modes change



- \* When you select "HEAD P" (or "OFF"), you cannot go to the following steps. No adjustments can be made for "Headphones."
- 3. Press REAR (L) +/- to adjust the rear speaker output level.
  - Pressing REAR (L) decreases the output level up to \_10 dR
  - Pressing REAR (L) + increases the output level up to +10 dB.



Continued to the next page.

#### Note:

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

#### Note:

When adjusting the effect level for "PAVILION" or "HALL," a reverberation sound comes out. This is because a long reverberation is applied to these two modes.



Δ

 $\nabla$ 

Δ

 $\nabla$ 

 $\triangleleft$ 

## Note:

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

# **Using the Surround Processor**

#### 4. Press EFFECT to select the effect level.

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





# To cancel the DAP mode

Select "OFF" in step 2.

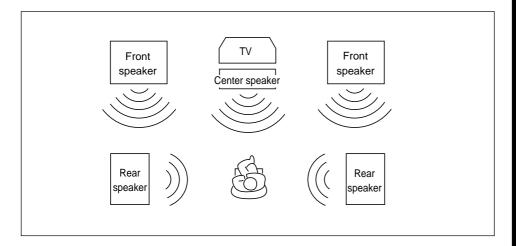
The DAP indicator goes off from the display.

With this receiver, you can use two types of the surround modes — Dolby Surround and JVC Theater Surround.

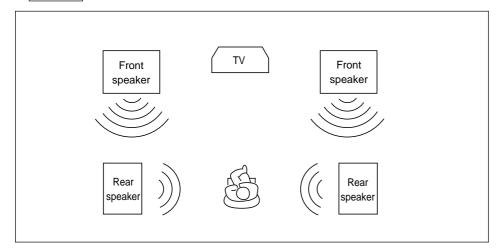
#### **Speaker Arrangements for Surround Modes**

The following illustrations show how to obtain the optimum sound environment for various surround mode settings. Try to find the speaker direction and location to create the optimum sound field.

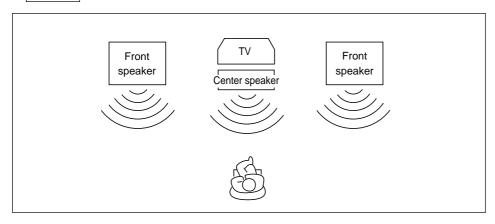
CASE 1 When you have added a center speaker and rear speakers



# CASE 2 When you have added rear speakers (without a center speaker)



# CASE 3 When you have added a center speaker (without rear speakers)



## In this case:

- 1. Select "PROLOGIC" or "THEATER."
- 2. Select "NORMAL" or "WIDE" for center mode.

See pages 33 to 36 for more details.

#### In this case:

- 1. Select "PROLOGIC" or "THEATER."
- 2. Select "PHANTOM" for center mode.

See pages 33 to 36 for more details.

#### In this case:

- 1. Select "3CHLOGIC."
- 2. Select "NORMAL" or "WIDE" for center mode.

See pages 33 to 36 for more details.

# **Using the Surround Processor**

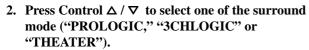
# **Preparing for Surround Modes**

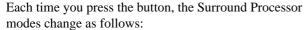
Once you have set the surround modes, you can use the same adjustments every time you want to activate the surround mode you want. The receiver memorizes surround adjustments for each mode.

#### On the front panel:

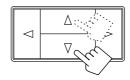
1. Press SURROUND so that the Control △ / ▽ / ⊲ / ⊳ buttons work for selecting the Surround Processor mode.

The lamp above the button lights up.









Ex.	→ PROLOGIC	→ THEATER ←→	3CHLOGIC ←
	└ OFF ←	3DACTION* ←→	PAVILION* ←

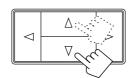
PROLOGIC	Select this mode when you use a center speaker and rear speakers.
THEATER	Select this mode to watch a video source with Dolby Surround when you have connected the rear speakers (and a center speaker). This mode gives you the feeling of a movie theater.
3CHLOGIC	Select this mode when you use a center speaker without rear speakers.
OFF	Select this to turn off the Surround Processor mode.

- \* You cannot select the 3D-PHONIC modes or the DAP modes in this step. For the 3D-PHONIC modes: see pages 27 and 28. For the DAP modes: see pages 29 and 31.
- 3. Press ADJUST so that the Control  $\triangle / \nabla / \lhd / \triangleright$  buttons work for adjusting the selected surround mode.

The lamp above the button lights up.

 Press Control △ / ∇ until "CNT MODE" (Center Mode) appears on the display.



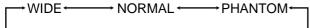


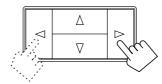
#### Note:

When one of the surround modes is selected, the corresponding indicator lights up on the display.

#### 5. Press Control $\triangleleft$ / $\triangleright$ to select the center mode.

Each time you press the button, the center modes change as follows:





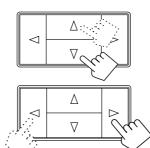
WIDE	Select this mode when the center speaker can reproduce the bass better than the front speakers. All signals of the center channel are output through the center speaker.
NORMAL	Select this mode when the center speaker cannot reproduce the bass better than the front speakers. The bass portions of the center channel signals are output through the front speakers.
PHANTOM	Select this mode when you do not use a center speaker. The center speaker channel signals are output through the front speakers.

## 6. Press Control $\triangle$ / $\nabla$ until "-DELAY +" appears on the display.

## 7. Press Control <1/ > to adjust the delay time of the rear speaker output.

Each time you press the button, the delay time changes as follows:



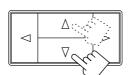


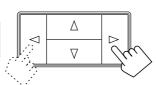
DELAY 1	Select this when the distance from you to your rear speakers is greater than that to the front speakers.
DELAY 2	Select this when the distance from you to your rear speakers is almost equal to that to the front speakers.
DELAY 3	Select this when the distance from you to your rear speakers is less than that to the front speakers.

# 8. Press Control △ / ∇ until "TEST" appears on the display, then press Control ⊲ / ▷ to start checking the speaker output balance.

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

Lef	t front	Center	Right front	
sp	eaker	speaker	speaker	
		_ Rear	,	
		speakers	•	





Continued to the next page.

#### Notes:

- If you have already set the center speaker size following the procedure described on page 19, you do not have to select the center mode in this procedure.
- When you have selected "3CHLOGIC," you cannot select "PHANTOM."

### Note:

When you have selected "3CHLOGIC" or "THEATER," you cannot adjust the delay time.

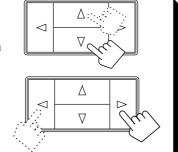
#### Notes:

- No test tone comes out of the rear speakers when you have selected "3CHLOGIC."
- No test tone comes out of the center speaker when you select "PHANTOM" for the center mode.

## **Using the Surround Processor**

## 9. If necessary, adjust the speaker output balance as follows:

- To adjust the rear speaker output level, press Control
   △ / ∇ until "- REAR +" appears on the display, then
   press Control < / / ▷.</li>
- To adjust the center speaker output level, press Control △ / ▽ until "-CENTER+" appears on the display, then press Control ⊲ / ▷.



# 10. Press Control △ / ▽ until "TEST" appears on the display, then press Control ⊲ / ▷ twice to stop the test tone.

If you have selected JVC Theater Surround, go to the following steps.

- 11. Press Control  $\triangle$  /  $\nabla$  until "-EFFECT+" appears on the display.
- 12. Press Control  $\triangleleft/\triangleright$  to adjust the effect level.

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

→ EFFECT 5 ← → EFFECT 4 ←

As the number increases, the effect of the Theater Surround becomes stronger.

### From the remote control:

If you have already set the center speaker size following the procedure described on page 19, you can use the remote control for surround mode preparation.

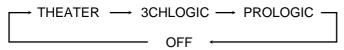
1. Press SOUND CONTROL so that 10 keys work for adjusting the sound.



2. Press SURROUND until the Surround mode you want appears on the display.

The previous mode is recalled (with its previous settings) and is shown on the display.

The indicator for that mode also lights up on the display. Each time you press the button, the Surround modes change as follows:



3. Press DELAY to adjust the delay time of the rear speaker output.

Each time you press the button, the delay time changes as follows:





#### Notes:

- The sound levels of the left and right rear speakers will be the same
- You cannot set the sound level of the rear speakers when you have selected "3CHLOGIC."
- You cannot set the sound level of the center speaker when you select "PHANTOM" for the center mode.

#### Note:

When you have selected "PROLOGIC" or "3CHLOGIC," you cannot select the effect level.

### Note:

When you have selected "3CHLOGIC" or "THEATER," you cannot adjust the delay time.

## 4. Press TEST to start checking the speaker output balance.

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

Left front	Center	Right front
speaker	speaker	speaker
	Rear	
	speakers	

## 5. If necessary, adjust the speaker output balance as follows:

- To adjust the rear speaker output level, press REAR (L) +/-.
- To adjust the center speaker output level, press CENTER +/-.

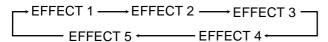
Pressing – decreases the output level up to -10 dB. Pressing + increases the output level up to +10 dB.

### 6. Press TEST again to stop the test tone.

If you have selected JVC Theater Surround, go to the following steps.

### 7. Press EFFECT to adjust the effect level.

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



As the number increases, the effect of the Theater Surround mode becomes stronger.











#### Notes:

- No test tone comes out of the rear speakers when you have selected "3CHLOGIC."
- No test tone comes out of the center speaker when you select "PHANTOM" for the center mode.

### Notes:

- The sound level of the left and right rear speakers will be the same.
- You cannot set the sound level of the rear speakers when you have selected "3CHLOGIC."
- You cannot set the sound level of the center speaker when you select "PHANTOM" for the center mode.

#### Note:

When you have selected "PROLOGIC" or "3CHLOGIC," you cannot select the effect level.

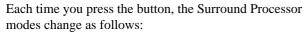
## **Using the Surround Processor**

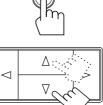
### **Using Surround Modes**

Once you have adjusted the surround mode you can use the same adjustments every time you want to enjoy Surround modes.

### From the front panel:

- 1. Press SURROUND so that the Control  $\triangle$  /  $\nabla$  buttons work for selecting the Surround Processor mode. The lamp above the button lights up.
- 2. Press Control  $\triangle / \nabla$  to select one of the Surround mode ("PROLOGIC," "3CHLOGIC" or "THEATER").







- \* As for the 3D-PHONIC modes (see page 27) and the DAP modes (see page 29), one of the previously selected mode appears on the display.
- 3. Select and play a sound source which was processed with Dolby Surround and is labeled with DDDOLBY SURROUND mark.

#### To cancel Surround mode

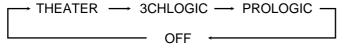
Select "OFF" in step 2 above.

### From the remote control:

- 1. Press SOUND CONTROL so that 10 keys work for adjusting the sound.
- 2. Press SURROUND until the mode you want appears on the display.

The previous mode is recalled (with its previous settings) and is shown on the display. The indicator for that mode also lights up on the display.

Each time you press the button, the surround modes change as follows:



3. Select and play a sound source which was processed with Dolby Surround and is labeled with DDDOLBY SURROUND mark.

#### To cancel surround mode

Select "OFF" in step 2 above.





When one of the surround modes is selected, the corresponding indicator lights up on the display.



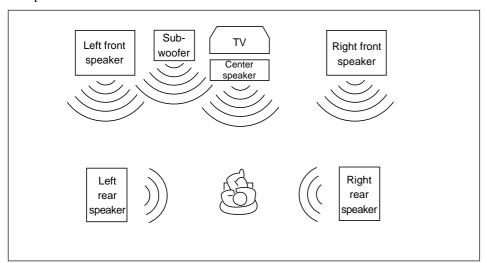
## Using the DVD MULTI Playback Mode—

This receiver provides the DVD MULTI playback mode for reproducing the analog discrete output mode (5.1 CH) of the DVD player.

Before playing back a DVD, refer also to the manual supplied with the DVD player.

### Speaker arrangements for DVD MULTI playback

The following illustration show how to obtain the optimum sound environment for the DVD MULTI playback mode. Try to find the speaker direction and location to create the optimum sound field.



### Note:

You can place the subwoofer anywhere around you.

### **Activating the DVD MULTI playback**

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.

#### On the front panel:

- 1. Press DVD MULTI until "DVD MULTI" appears on the display.
- DVD MULTI
- 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 want to make any adjustment, go to the following steps.

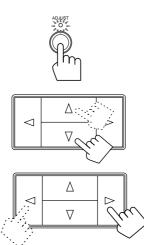
3. Press ADJUST so that the Control  $\triangle / \nabla / \lhd / \triangleright$  buttons work for adjusting the DVD MULTI playback mode.

The lamp above the button lights up.

- 4. Press Control △ / ▽ until "-CENTER+" appears on the display.
- 5. Press Control <1/ ▷ to adjust the center speaker output level.
  - Pressing Control 

    decreases the output level up to

    -10 dB.
  - Pressing Control 
     increases the output level up to +10 dB.



#### Note:

When you select "DVD MULTI" as the source to play, the Surround Processor modes are canceled temporarily.

## Using the DVD MULTI Playback Mode

- 6. Press Control △ / ∇ until "-REAR L+" appears on the display.
- 7. Press Control <1/ > to adjust the left rear speaker output level.
  - Pressing Control 

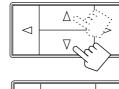
    decreases the output level up to

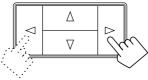
    -10 dB.
  - Pressing Control 

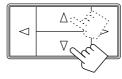
    increases the output level up to +10 dB.
- 8. Press Control  $\triangle$  /  $\nabla$  until "-REAR R+" appears on the display.
- - Pressing Control 

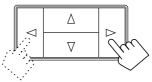
    decreases the output level up to

    -10 dB.
  - Pressing Control 
     increases the output level up to +10 dB.









### From the remote control:

- 1. Press DVD MULTI until "DVD MULTI" appears on the display.
- 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 want to make any adjustment, go to the following steps.

- 3. Press CENTER +/- to adjust the center speaker output level.
  - Pressing CENTER decreases the output level up to –10 dB.
  - Pressing CENTER + increases the output level up to +10 dB.
- 4. Press REAR (L) +/- to adjust the left rear speaker output level.
  - Pressing REAR (L) decreases the output level up to -10 dB.
  - Pressing REAR (L) + increases the output level up to +10 dB.
- 5. Press SOUND CONTROL, then press REAR•R +/- to adjust the right rear speaker output level.
  - Pressing REAR•R decreases the output level up to -10 dB.
  - Pressing REAR•R + increases the output level up to +10 dB.









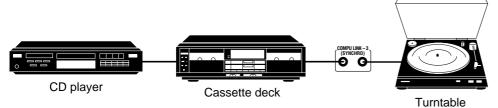




## **COMPU LINK Remote Control System**

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 with the cable (monaural mini-plug supplied with those components):



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

## Remote Control through the Remote Sensor on the Receiver

You can control JVC 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 page 43.

### 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 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 (only possible with the COMPU LINK-3 connection)

Both the CD player and cassette deck turn on and off with the receiver. When you turn on the receiver, the CD player or cassette deck 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 will turn off.

## Synchronized Recording

Synchronized recording means the cassette deck 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, and a disc in the CD player (or a record on the turntable).
- 2 Press the record (●) button and the pause (II) button on the cassette deck at the same time.

This puts the cassette deck into recording pause.

If you do not press the record (•) button and pause (II) button at the same time, the synchronized recording will not start.

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 starts recording. When the play ends, the cassette deck enters recording pause, and stops about 4 seconds later.

#### Notes:

- Without connecting the audio components with RCA pin plugs as described on page 11, the COMPU LINK remote control system cannot operate the components.
- Refer also to the manuals supplied with your audio components.

#### Notes

- During synchronized recording, the selected source cannot be changed.
- If your CD player is playing in program mode, a 4-second blank is recorded between tracks so that the music scan feature of your cassette deck can be used on the recorded tape.
- 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.

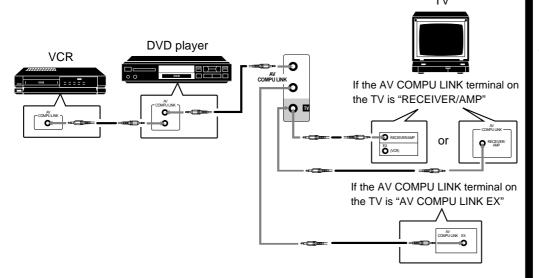


# AV COMPU LINK Remote Control System -

The AV COMPU LINK remote control system allows you to operate JVC video components (TV, VCR, and DVD player) through the receiver.

To use this remote control system, you need to connect the video components you want to operate, following the procedures below.

1. Connect your VCR, DVD player, and TV as follows, using the cables with the monaural mini-plug (not supplied).



2. Connect the VCR, DVD player, and TV using the cables with RCA pin plug, see pages 11 and 12.

If you connect the VCR or DVD player to the TV directly using an S-video cable, leave the corresponding video input on this receiver unplugged — VCR IN (PLAY) for the VCR or DVD for the DVD player.

3. When turning on the TV for the first time after the AV COMPU LINK connection, turn the TV volume to the minimum using the TV volume control on the TV.

#### Notes:

- Without connecting the video components with RCA pin plugs as described on page 11, the AV COMPU LINK remote control system cannot operate the components.
- Refer also to the manuals supplied with your video components.

The AV COMPU LINK remote control system allows you to use the five basic functions listed below.

## Remote Control of the TV, DVD player, and VCR Using This Remote Control

See page 44 for details.

For the DVD player and the VCR:

• Aim the remote control directly at the remote sensor on the each component.

#### For the TV having AV COMPU LINK terminal "RECEIVER/AMP":

 Aim the remote control directly at the remote sensor on the receiver when operating the TV.

### For the TV having AV COMPU LINK terminal "AV COMPU LINK EX":

 Aim the remote control directly at the remote sensor on the TV when operating the TV.

## One-Touch Video Play

Simply by inserting a video cassette without its safety tab into the VCR, you can activate the video playback without setting other switches manually.

The receiver automatically turns on and changes the source to the VCR.

The TV automatically turns on and changes the input mode to the correct position so that you can view the VCR playback.

When you insert a video cassette with its safety tab, press the play (▶) button on the VCR or on the remote control. So, you can get the same result.

## One-Touch DVD Play

Simply by starting playback on the DVD player, you can enjoy the DVD playback without setting other switches manually.

The receiver automatically turns on and changes the source to "DVD" or "DVD MULTI"—DVD playback mode is automatically selected when a disc played in stereo, while DVD MULTI playback mode is automatically selected when a disc is played back using the analog discrete output mode on the DVD player or the audio output setting of the DVD player is mixed to two front channels.

The TV automatically turns on and changes the input mode to the position so that you can view the playback picture.

### Automatic Selection of TV's Input Mode

- When you select TV SOUND as the source to play through the receiver, the TV automatically changes the input mode to the TV tuner.
  - So, you can watch TV, without changing the input mode on the TV.
- When you select "DVD," "DVD MULTI" or "VCR" as the source to play on the receiver, the TV automatically changes the input mode to the correct position (either Video Input 1 or 2) so that you can watch the playback picture.

#### Automatic Power On/Off

The TV, VCR, and DVD player turn on and off along with the receiver. When you turn on the receiver;

- If the previously selected source is "VCR," the TV and VCR will turn on automatically.
- If the previously selected source is "TV SOUND," only the TV will turn on automatically.
- If the previously selected source is "DVD" or "DVD MULTI," the TV and DVD player will turn on automatically.

When you turn off the receiver, the TV, VCR, and DVD player will turn off.

#### Note:

Refer also to the manual supplied with your video components.

#### Note:

When you start playing a disc of 5.1 ch surround, "DVD MULTI" will be selected though you have previously selected "DVD." You can change it to "DVD" after playback starts.

#### Note:

If you turn off the receiver while recording on the VCR, the VCR will not turn off, but continue recording.



## **Operating Other Components**

You can operate JVC audio and video components with this receiver's remote control. To operate these components with the remote control, first select a source with the source buttons on the remote control. Then, operate that source using the remote control.

#### **IMPORTANT:**

#### To operate JVC audio components using this remote control:

- You need to connect JVC audio components through the COMPU LINK-3 (SYNCHRO) jacks (see page 40) in addition to the connections using cables with RCA pin plugs (see page 11).
- Aim the remote control directly at the remote sensor on the receiver.

## ■ After pressing CD, you can perform the following operations on the CD player:

► Starts playing.

■■ Returns to the beginning of the current

(or previous) track.

►►I Skips to the beginning of the next track.

■ Stops playing.

■ Pauses. To resume playing, press ►.

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.

### After pressing CD-DISC, you can perform the following operations on the CD changer:

1 - 6, 7/P Select the number of a disc installed in a CD changer.

Then continue to operate the CD player as described above.

For example: To find a track number 11 of disc 4

- 1. Press CD DISC.
- 2. Press 4.
- 3. Press CD.
- 4. Press +10, then 1.

## ■ After pressing TAPE, you can perform the following operations on the cassette deck:

Starts playback.

Fast winds a tape from right to left.

Fast winds a tape from left to right.

■ Stops operation.

Pauses. To resume playing, press ►.



#### Note

If you choose a source on the front panel, the remote control will not operate that source.

#### **IMPORTANT:**

### To operate JVC video components using this remote control:

- You need to connect JVC video components through the AV COMPU LINK jacks (see page 41).
- When operating the VCR and DVD player, aim the remote control directly at the remote sensor on the each component.
- When operating the TV having AV COMPU LINK "RECEIVER/AMP," aim the remote control directly at the remote sensor on the receiver.
- When operating the TV having AV COMPU LINK "AV COMPU LINK EX," aim the remote control directly at the remote sensor on the TV.

## ■ After pressing VCR, you can perform the following operations on the VCR:

► Starts playback.

Rewinds a video tape.

Fast winds a video tape.

■ Stops operation.

Pauses. To resume playing, press ►. CH +/− Changes the TV channel on the VCR.

You can always do the following on the VCR:

VCR

Turn on and off the VCR

(in the POWER section)

## ■ After pressing TV SOUND, you can perform the following operations on the TV:

CH +/- Changes the channels 1–9, 0, 100+ Selects the channels.

RETURN Selects the channels.

Alternates between the previously

selected channel and the current channel.

You can always do the following on the TV: TV VOLUME +/- Adjust the volume.

TV/VIDEO Sets the input mode (either TV or

VIDEO)

TV Turns on or off the TV

(in the POWER section)

## ■ After pressing DVD or DVD MULTI, you can perform the following operations on the DVD player:

Starts playing.

Returns to the beginning of the current (or previous) track. (When pressed briefly.)

►► Skips to the beginning of the next track. (When pressed briefly.)

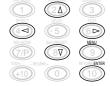
Fast reverse a disc. (When pressed and held.)

Fast foward a disc. (When pressed and held.)

■ Stops playing.

Pauses. To resume playing, press ►.

## 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 and the DVD player.

#### Note:

If you choose a source on the front panel, the remote control will not operate that source.



## **Operating Other Manufacturers' Video Equipment-**

This remote control supplied with the receiver can transmit control signals for other manufacturers' VCRs, TVs, CATV converters and satellite 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 satellite tuner.

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

- 1. Press and hold TV (in the POWER section).
- 2. Press TV SOUND.
- 3. Enter manufacturer's code (two digits) using buttons 1–9, and 0.

See the list below to find the code.

#### 4. Release TV in the POWER section.

The following buttons can be used for operating the TV:

**TV** Turns on and off the TV.

(in the POWER section)

**TV VOLUME** +/- Adjusts the volume.

**TV/VIDEO** Sets the input mode (either TV

or VIDEO).

After pressing TV SOUND, you can perform the

following operations on the TV:

CH +/- Changes the channels. 1-9, 0, 100+ (+10) Selects the TV channels.

100+ (+10) button will function as

the ENTER button if your TV requires pressing ENTER after selecting a channel number.

**RETURN** Alternates between the previously

selected channel and the current channel.

#### 5. Try to operate your TV by pressing TV in the POWER section.

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.

Manufacturer	Code	Manufacturer	Code
HITACHI	10	SAMSUNG	12
JVC	01	SANYO	13
MAGNAVOX	02	SHARP	06
MITSUBISHI	03	SONY	07
PANASONIC	04, 11	TOSHIBA	08
RCA	05	ZENITH	09

Manufacturers' codes are subject to change without notice. If they are changed, this remote control cannot operate the equipment.



Note:

Refer to the manual supplied with your TV.

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

- 1. Press and hold CATV/SAT (in the POWER section).
- 2. Press CATV CONTROL.
- 3. Enter manufacturer's code (two digits) using buttons 1–9, and 0.

See the list below to find the code.

#### 4. Release CATV/SAT (in the POWER section).

Following button can be used for operating the CATV converter or the satellite tuner:

**CATV/SAT (in the POWER** Turns on and off the CATV **section)** converter or satellite tuner.

After pressing CATV CONTROL, you can perform the following operations on the equipment:

CH +/- Changes the channels. 1-9, 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.

**RETURN** Alternates between previously

selected channel and the current channel.

# 5. Try to operate your CATV converter or satellite tuner by pressing CATV/SAT (in the POWER section).

When your CATV converter or satellite 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 satellite tuner, try each one until the correct one is entered.

Manufacturer	Codes
GI JERROLD	01, 02, 03, 04, 05,
	06, 07, 08
HAMLIN/REGAL	15, 16, 17, 18
PIONEER	13, 14
SCIENTIFIC ATRANTA	09, 10
ZENITH	11, 12
RCA	19
SONY	20

Manufacturers' codes are subject to change without notice. If they are changed, this remote control cannot operate the equipment.



#### Note:

Refer to the manual supplied with your CATV converter or satellite tuner.

## Operating Other Manufacturers' Video Equipment -

### To change the transmittable signals for operating another manufacturer's VCR

- 1. Press and hold VCR (in the POWER section).
- 2. Press VCR.
- 3. Enter manufacturer's code (two digits) using buttons 1–9, and 0.

See the list below to find the code.

4. Release VCR (in the POWER section).

Following button can be used for operating the VCR:

VCR (in the POWER Turns on and off the VCR. section)

After pressing VCR, you can perform the following operations on the VCR:

Changes the TV channels on the VCR. CH +/-

Starts playback. Rewinds a video tape. Fast winds a video tape. Stops operation.

п Pauses. To resume playing, press ►.



Note:

Refer to the manual supplied with your VCR.

### 5. Try to operate your VCR by pressing VCR POWER.

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.

Manufacturer	Codes	Manufacturer	Codes
EMERSON	11, 26	PHILIPS	09
FISHER	29	RCA	05, 06
FUNAI	10, 14, 15, 16	SAMSUNG	24
GOLD STAR	12	SANYO	21, 22, 23
HITACHI	04	SHARP	27, 28
JVC	01, 02, 03	SONY	18, 19, 20
MITSUBISHI	13	SHINTOM	30
NEC	25	ZENITH	08
PANASONIC	07, 17		

Manufacturers' codes are subject to change without notice. If they are changed, this remote control cannot operate the equipment.

# 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 to set it in the  ON position.
	An incorrect source is selected.	Select the correct source.
"OVERLOAD" starts flashing on the display.	Speakers are over-loaded because of high volume.	Rotate the MASTER VOLUME control counterclockwise three or four times ther press POWER on the front panel. If "OVERLOAD" does not disappear, unplug the AC power cord, then plug it back again.  Do not use the remote control when "OVERLOAD" is shown on the display.
	Speakers are over-loaded because of short circuit of speaker terminals.	Press POWER on the front panel then check the speaker wiring.  If "OVERLOAD" does not disappear, unplug the AC power cord, then plug it back again.  Do not use the remote control when "OVERLOAD" is shown on the display. If speaker wiring is not short circuited, contact your dealer.
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 17).
Continuous hiss or buzzing during FM reception.	Incoming signal is too weak.	Connect an outside 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.
The analog discrete output sound of the DVD player cannot be	An incorrect source is selected.	Select "DVDMULTI" as the source on the receiver.
reproduced correctly.	The sound setting of the DVD player is incorrect.	Check the sound setting of the DVD player.
Howling during record playing.	Your turntable is too close to speakers.	Move speakers away from the turntable.
Remote control does not work.	There is an obstruction in front of the remote sensor on the receiver.	Remove the obstruction.
	Batteries are weak.	Replace batteries.

# Specifications —

Output Power At Stereo operation

100 watts per channel, min. RMS, driven into 8 ohms, 40 Hz to 20 kHz with no more than 0.8 % total harmonic distortion.

### **Amplifier**

Output Power	. At Surround operation	
	Front channels	100 watts per channel, min. RMS, driven into 8 ohms at 1 kHz, with no more than 0.8% total harmonic distortion.
	Center channel	100 watts, min. RMS, driven into 8 ohms at 1 kHz, with no more than 0.8 % total harmonic distortion.
	Rear channels	100 watts per channel, min. RMS, driven into 8 ohms at 1kHz, with no more than 0.8 % total harmonic distortion.
Total Harmonic Distortion (8 ohms, 1 kHz)		0.8 %* at 100 watts output (* Measured by JVC Audio Analysis System)
Frequency Response (8 ohms)	. PHONO (MM) CD, TAPE, TV SOUND, VCR, DVD	
Audio Input Sensitivity/Impedance (1 kHz)	. PHONOCD, TAPE, TV SOUND, VCR, DVD	
Audio Output Level	. TAPE, VCR	220 mV
Signal-to-Noise Ratio ('66 IHF/'78 IHF)	. PHONOCD, TAPE, TV SOUND, VCR, DVD	
Loudness control (Volume Control at -40 dB)		+5 ±2 dB at 100 Hz
Video Input Sensitivity/Impedance	. VCR, DVD	1 Vp-p/75 ohms
Video Output Level	. VCR, MONITOR OUT	1 Vp-p (at 1 Vp-p input), sync negative
Signal-to-Noise Ratio		45 dB

## FM tuner (IHF)

Tuning Range		. 87.5 MHz to 108.0 MHz
Usable Sensitivity		. 10.8 dBf (0.95 μV/75 ohms)
50 dB Quieting Sensitivity	. Monaural	
Signal-to-Noise Ratio (IHF-A weighted)	. Monaural	
Total Harmonic Distortion	. Monaural	
Stereo Separation at REC OUT		. 40 dB at 1 kHz
Capture Ratio		. 1.5 dB (10 mV)
Alternate Channel Selectivity		. 60 dB: (±400 kHz)
Frequency Response		. 30 Hz to 15 kHz: (+0.5 dB, -3 dB)
AM tuner		
Tuning Range		. 530 kHz to 1,710 kHz
Usable Sensitivity	. Loop antenna	•
Signal-to-Noise Ratio		. 50 dB (100 mV/m)
<u>General</u>		
Power Requirements		. AC 120 V∿, 60 Hz
Power Consumption		. 330 watts/440 VA 5 watts (in standby mode)
Dimensions (W x H x D)		. 17 <sup>3</sup> / <sub>16</sub> x 5 <sup>3</sup> / <sub>4</sub> x 15 <sup>7</sup> / <sub>8</sub> inches (435 x 146 x 403 mm)
Mass		. 20.7 lbs (9.4 kg)

Design & specifications are subject to change without notice.



## HOW TO LOCATE YOUR JVC SERVICE CENTER

TOLL FREE: 1-800-537-5722

#### Dear customer:

In order to receive the most satisfaction from your purchase, read the instruction booklet before operating the unit. In the event that repair is necessary, or for the address nearest your location, please refer to the factory service center list below or within the Continental United States, Call 1-800-537—5722 for your authorized servicer. Remember to retain you Bill of Sale for Warranty Service.

-JVC

## JVC SERVICE & ENGINEERING COMPANY OF AMERICA

DIVISION OF US JVC CORP.

#### FACTORY SERVICE CENTER LOCATIONS

107 Little Falls Road Fairfield, NJ 07004-2105 (201) 808-9279

5665 Corporate Avenue Cypress, CA 90630-0024 (714) 229-8011

230 Eliot Street Ashland, MA 0172-2377 (508) 881-5923

2969 Mapunapuna Place Honolulu, HI 96819-2040 (808) 833-5828

Lawrenceville, GA 30243-5357

1500 Lakes Parkway

(404) 339-2522

(305) 362-6252

14505 Commerce Way Miami Lakes, FL 33016-1512 705 Enterprise Street Aurora, IL 60504-8149 (708) 851-7855

10700 Hammerly, Suite 110 Houston, TX 77043 (713) 935-9331

890 Dubuque Avenue South San Francisco, CA 94080-1804 (415) 871-2666

Sophisticated electronic products may require occasional service. Just as quality is a keyword in the engineering and production of the wide array of JVC products, service is the key to maintaining the high level of performance for which JVC is world famous. The JVC service and engineering organization stands behind our products.

NATIONAL HEADQUARTERS
JVC SERVICE & ENGINEERING COMPANY OF AMERICA
DIVISION OF US JVC CORP.
107 Little Falls Road
Fairfield, NJ 07004-2105

### If you ship the product • • •

Pack your JVC unit in the original carton or one of equivalent size and strength. Enclose, with the unit, a letter stating the problem or symptom that exists and also a copy of the receipt or bill of sale you received when you purchased your JVC unit. Print your home return address on the outside and the inside of the carton. Send to the appropriate JVC Factory Service Center as listed above.

### Don't service it yourself.

### **CAUTION**

To prevent electrical shock, do not open the cabinet. No user serviceable parts inside.

Refer servicing to qualified service personnel.

#### **ACCESSORIES**

To purchase accessories for your JVC product, you may contact your local JVC Dealer. Or from the 48 Continental United States call toll free: 800-882-2345

(0694)



## LIMITED WARRANTY AUDIO-2

JVC COMPANY OF AMERICA warrants this product and all parts thereof, except as set forth below ONLY TO THE ORIGINAL PURCHASER AT RETAIL to be FREE FROM DEFECTIVE MATERIAL AND WORKMANSHIP from the date of original retail purchase for the period as shown below. ("The Warranty Period.")

PARTS	LABOR
2 YRS	2 YRS

THIS LIMITED WARRANTY IS VALID ONLY IN THE FIFTY(50) UNITED STATES, THE DISTRICT OF COLUMBIA AND IN COMMONWEALTH OF PUERTO RICO.

#### WHAT WE WILL DO:

If this product is found to be defective, JVC will repair or replace defective parts at no charge to the original owner. Such repair and replacement services shall be rendered by JVC during normal business hours at JVC authorized service centers. Parts used for replacement are warranted only for the remainder of the Warranty Period. All products and parts thereof may be brought to a JVC authorized service center on a carry-in basis except for Television sets having a screen size 25 inches and above which are covered on an in-home basis.

#### WHAT YOU MUST DO FOR WARRANTY SERVICE:

Return your product to a JVC authorized service center with a copy of your bill of sale. For your nearest JVC authorized service center, please call toll free: (800)537-5722.

If service is not available locally, box the product carefully, preferably in the original carton, and ship, insured, with a copy of your bill of sale plus and letter of explanation of the problem to the nearest JVC Factory Service Center, the name and location of which will be given to you by the toll-free number.

If you have any questions concerning your JVC Product, please contact our Customer Relations Department.

#### WHAT IS NOT COVERED:

This limited warranty provided by JVC does not cover:

- Products which have been subject to abuse, accident, alteration, modification, tampering, negligence, misuse, faulty
  installation, lack of reasonable care, or if repaired or serviced by anyone other than a service facility authorized by JVC to
  render such service, or if affixed to any attachment not provided with the products, or if the model or serial number has
  been altered, tampered with, defaced or removed;
- 2. Initial installation and installation and removal for repair;
- 3. Operational adjustments covered in the Owner's Manual, normal maintenance, video and audio head cleaning;
- 4. Damage that occurs in shipment, due to act of God, and cosmetic damage;
- 5. Signal reception problems and failures due to line power surge;
- 6. Video Pick-up Tubes/CCD Image Sensor, Cartridge, Stylus(Needle) are covered for 90 days from the date of purchase;
- 7. Accessories;
- 8. Batteries (except the Rechargeable Batteries are covered for 90 days from the date of purchase);

There are no express warranties except as listed above.

THE DURATION OF ANY IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTY OF MARCHANTABILITY, IS LIMITED TO THE DURATION OF THE EXPRESS WARRANTY HEREIN.

JVC SHALL NOT BE LIABLE FOR THE LOSS OF USE THE PRODUCT, INCONVENIENCE, LOSS OR ANY OTHER DAMAGES, WHETHER DIRECT, INCIDENTAL OR CONSEQUENTIAL (INCLUDING, WITHOUT LIMITATION, DAMAGE TO TAPES, RECORDS OR DISCS) RESULTING FROM THE USE OF THIS PRODUCT, OR ARISING OUT OF ANY BREACH OF THIS WARRANTY. ALL EXPRESS AND IMPLIED WARRANTIES, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE, ARE LIMITED TO THE WARRANTY PERIOD SET FORTH ABOVE.

Some states do not allow the exclusion of incidental or consequential damages or limitations on how long an implied warranty last, so these limitations or exclusions may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

JVC COMPANY OF AMERICA DIVISION OF US JVC CORP.

41 Slater Drive Elmwood Park, New Jersey 07407

REFURBISHED PRODUCTS CARRY A SEPARATE WARRANTY, THIS WARRANTY <u>DOES NOT</u> APPLY. FOR DETAILS OF REFURBISHED PRODUCT WARRANTY, PLEASE REFER TO THE REFURBISHED PRODUCT WARRANTY INFORMATION PACKAGED WITH EACH REFURBISHED PRODUCT.

For customer use:	
Enter below the Model No. and Serial N information for future reference.	No. which is located either on the rear, bottom or side of the cabinet. Retain this
Model No.:	Serial No.:
Purchase date:	Name of dealer:



