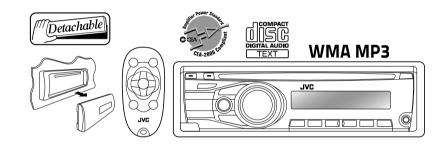
# JVC



# KD-R338/KD-R330

CD RECEIVER



#### For customer Use:

For installation and connections, refer to the separate manual.



Enter below the Model No. and Serial No. which are located on the top or bottom of the cabinet. Retain this information for future reference. <u>Model No.</u> Serial No.

# JVC

Thank you for purchasing a JVC product.

Please read all instructions carefully before operation, to ensure your complete understanding and to obtain the best possible performance from the unit.

#### **INFORMATION (For U.S.A.)**

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

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

### Caution:

Changes or modifications not approved by JVC could void the user's authority to operate the equipment.

#### **IMPORTANT FOR LASER PRODUCTS**

1.CLASS 1 LASER PRODUCT

- 2. CAUTION: Do not open the top cover. There are no user serviceable parts inside the unit; leave all servicing to qualified service personnel.
- 3. CAUTION: (For U.S.A.) Visible and/or invisible class II laser radiation when open. Do not stare into beam.

(For Canada) Visible and/or invisible class 1M laser radiation when open. Do not view directly with optical instruments.

4. REPRODUCTION OF LABEL: CAUTION LABEL, PLACED OUTSIDE THE UNIT.

CAUTION	ATTENTION	AVISO	VARNING	注意	CAUTION
	RAYONNEMENT LASER		SYNLIG OCH/ELLER	ここを聞くと可視	VISIBLE AND/OR
	VISIBLE ET/OU INVISIBLE DE CLASSE		OSYNLIG LASERSTRÅLNING	及び/または不可視 のクラス1M	INVISIBLE CLASS II LASER RADIATION
WHEN OPEN. DO NOT	1M UNE FOIS OUVERT.	CUANDO ESTÁ	KLASS 1M, NÅR DENNA	レーザー放射が	WHEN OPEN.
			del àr oppnad.		DO NOT STARE
OPTICAL INSTRUMENTS. IEC60825-1:2001		DIRECTAMENTE CON INSTRUMENTAL	BETRAKTA EJ STRÅLEN MED OPTISKA	光学装置で直接 目ないぞください	INTO BEAM. FDA 21 CFR
		ÓPTICO. (ESP)	INSTRUMENT. (SWE)	(JPN)	(ENG)

#### Caution:

Adjust the volume so that you can hear sounds outside the car. Driving with the volume too high may cause an accident.

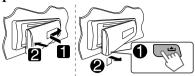
#### WARNING:

Stop the car before operating the unit.

#### Caution on volume setting:

Discs produce very little noise compared with other sources. Lower the volume before playing a disc to avoid damaging the speakers by the sudden increase of the output level.

# How to attach/detach the control panel



### How to reset your unit



Your preset adjustments will also be erased.

### How to forcibly eject a disc



- Be careful not to drop the disc when it ejects.
- If this does not work, reset your unit.

### Maintenance

#### Cleaning the unit

Wipe off the dirt on the panel with a dry silicon or soft cloth. Failure to observe this precaution may result in damage to the monitor or unit.

#### Cleaning the connector

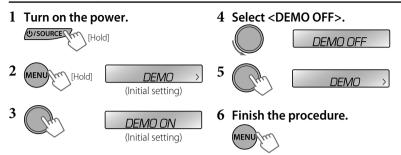
Wipe off dirt on the connector of the unit and panel. Use a cotton swab or cloth.

### Caution for DualDisc playback:

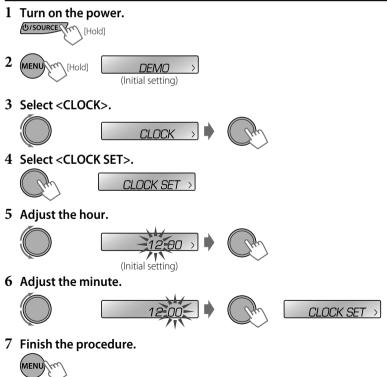
The Non-DVD side of a "DualDisc" does not comply with the "Compact Disc Digital Audio" standard. Therefore, the use of Non-DVD side of a DualDisc on this product may not be recommended. **Condensation :** When the car is airconditioned, moisture may collect on the laser lens. This may cause disc read errors. In this case, remove the disc and wait for the moisture to evaporate.

Temperature inside the car: If you have parked the car for a long time in hot or cold weather, wait until the temperature in the car becomes normal before operating the unit.

### Canceling the display demonstration



# Setting the clock



# Preparing the remote controller

When you use the remote controller for the first time, pull out the insulation sheet.



For USA-California Only:

This product contains a CR Coin Cell Lithium Battery which contains Perchlorate Material special handling may apply.

### If the effectiveness of the remote controller decreases, replace the battery.

### Replacing the lithium coin battery



### Caution:

- Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type.
- Battery shall not be exposed to excessive heat such as sunshine, fire, or the like.

# Warning (to prevent accidents and damage):

- Do not install any battery other than CR2025 or its equivalent.
- Do not leave the remote controller in a place (such as dashboards) exposed to direct sunlight for a long time.
- Store the battery in a place where children cannot reach.
- Do not recharge, short, disassemble, heat the battery, or dispose of it in a fire.
- Do not leave the battery with other metallic materials.
- Do not poke the battery with tweezers or similar tools.
- Wrap the battery with tape and insulate when throwing away or saving it.

# About discs

This unit can only play the CDs with:



### Discs that cannot be used:

- Discs that are not round.
- Discs with coloring on the recording surface or discs that are dirty.
- You cannot play a Recordable/ReWritable disc that has not been finalized. (For the finalization process refer to your disc writing software, and your disc recorder instruction manual.)
- 3-inch CD cannot be used. Attempt to insert using an adapter can cause malfunction.

### Handling discs:

- Do not touch the recording surface of the disc.
- Do not stick tape etc. on the disc, or use a disc with tape stuck on it.
- Do not use any accessories for the disc.
- Clean from the center of the disc and move outward.
- Clean the disc with a dry silicon or soft cloth. Do not use any solvents.
- When removing discs from this unit, pull them out horizontally.
- Remove the rims from the center hole and disc edge before inserting a disc.

### **Basic operations**

	Loading slot	Control	dial	Display wi	ndow	Ejects the disc
DISP 🔅						
						F-AUX
	Remote senso • DO NOT exp					xiliary input jack
Detaches the pan	bright sunlig			Join State	3	

When you press or hold the following button(s)...

Main unit Remote controller		General operation
	_	Turns on/off [Hold].
එ/SOURCE	SOURCE	Selects the sources (FM, CD, F-AUX, BT AUDIO or R-AUX or BT PHONE, AM). • "CD" is selectable only when a disc is loaded.
Control dial	VOL - / +	Adjusts the volume level.
(turn)	_	Selects items.
Control dial (press)	刻	Mutes the sound during playback. If the source is "CD," playback pauses. • Press the button again to cancel muting or resume playback.
	_	Confirms selection.
EQ	SOUND	<ul> <li>Selects the sound mode.</li> <li>Hold the <b>EQ</b> button on the main unit to enter tone level adjustment directly. (page 10)</li> </ul>
Number buttons		<ul> <li>Selects preset stations.</li> <li>Stores the current station into the selected number button [Hold].</li> <li>Press number button 1 ( ) or 2 ( ) to enter REPEAT/ RANDOM setting directly.</li> </ul>
×	_	Enters <brightness> menu directly.</brightness>
_	—	Returns to the previous menu.     Exit from the menu [Hold].
		Changes the display information.     Scrolls the display information [Hold].

# Listening to the radio





⇒ "FM" or "AM"

也/SOURCE

- [Press] Searches for stations automatically.
- [Hold] Searches for stations manually. "M" flashes, then press the button repeatedly.

"ST" lights up when receiving an FM stereo broadcast with sufficient signal strength.

### Improving the FM reception

- 1 MENU [Hold]

⇒ <TUNER> ⇒ <MONO> ⇒ <MONO ON> Reception improves, but stereo effect will be lost.

To restore the stereo effect, repeat the same procedure to select <MONO OFF>.

### Automatic presetting (FM)—

#### SSM (Strong-station Sequential Memory)

You can preset up to 18 stations for FM.

While listening to a station...





 $\Rightarrow$  <TUNER>  $\Rightarrow$  <SSM>  $\Rightarrow$  <SSM 01 – 06 / 07 – 12 / 13 – 18> "SSM" flashes and local stations with the strongest signal are searched and stored automatically.

To preset another 6 stations, repeat the above procedure by selecting one of the other SSM setting ranges.

### Changing the display information DISP



Frequency 👄 Clock

### Manual presetting (FM/AM)

You can preset up to 18 stations for FM and 6 stations for AM.



⇒ Tune in to a station you want to preset.

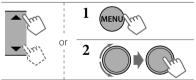
2 (Hold]

"PRESET MODE" flashes.

⇒ Selects preset number. Preset number flashes and "MEMORY" appears.

 Pressing and holding the number buttons (1 – 6) can also store the current station to the selected number buttons (1 – 6).

### Selecting a preset station



 Pressing the number buttons (1 – 6) can also select the preset stations (1 – 6).

#### Using the remote controller

- ▲/▼ : Changes the preset stations.
- ◄/► : [Press] Searches for stations
  - automatically. [Hold] Searches for stations manually.

## Listening to a disc





⇒ "(D"



Playback starts automatically.

All tracks will be played repeatedly until you change the source or eject the disc.

# Stopping playback and ejecting the disc



If the ejected disc is not removed within 15 seconds, it is automatically inserted into the loading slot.

### Selecting a track/folder



Selects folder of the MP3/WMA

[Press]Selects track. [Hold] Fast-forwards or reverses the track.

#### Using the remote controller

- ▲/▼ : Selects folder of the MP3/WMA.
- ◄/► : [Press] Selects track.

[Hold] Fast-forwards or reverses the track.

#### Changing the display information DISP



Disc title/Album name/performer (folder name)\*  $\rightarrow$  Track title (file name)\*  $\rightarrow$  Current track number with the elapsed playing time  $\rightarrow$  Current track number with the clock time  $\rightarrow$  (back to the beginning)

\* "NO NAME" appears for conventional CDs or if not recorded.

# Selecting a track/folder from the list



- If the MP3/WMA disc contains many tracks, you can fast search (±10, ±100) through the disc by turning the control dial quickly.
- $\cdot$  To return to the previous menu, press **\Box**.

### Selecting the playback modes

You can use only one of the following playback modes at a time.





⇒ "REPEAT" 👄 "RANDOM"



REPEAT C TRACK RPT : Repeats current track FOLDER RPT : Repeats current folder

#### RANDOM 🔀

FOLDER RN	ND : Randomly plays all tracks
	of current folder, then
	tracks of next folders
ALL RND	: Randomly plays all tracks

To cancel repeat play or random play, select "RPT OFF" or "RND OFF."

# Connecting the other external components

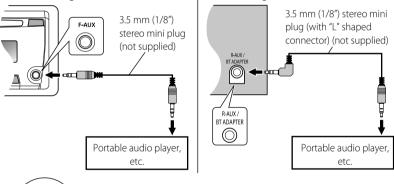
You can connect an external component to the auxiliary input jack on the control panel (F-AUX) and/or on the rear side of the unit (R-AUX).

	Auxiliary input jack	Preparation			Courses	Connecting
External component		Menu setting item	Sub- item	Setting	Source name	cable/device (not supplied)
Portable audio	Front	SRC SELECT	F-AUX	ON	F-AUX	Caalaalaa
player	Rear	SRC SELECT	R-AUX	ON	R-AUX	See below.
Bluetooth device	Rear	SRC SELECT	R-AUX	BT ADAPTER	BT AUDIO/	KS-BTA100
					BT PHONE*	(page 14)

Summary of using the external components through the auxiliary input jacks:

\* "BT PHONE" appears when a Bluetooth phone is in use.

### On the control panel (F-AUX):





Recommended to use a 3-terminal plug head stereo mini plug for optimum audio output.

### Listening to the other external components

For details, refer also to the instructions supplied with the external components.





Turn on the connected component and start playing the source.

On the rear panel (R-AUX):

# Selecting a preset sound mode

You can select a preset sound mode suitable for the music genre.



FLAT  $\rightarrow$  NATURAL  $\rightarrow$ DYNAMIC  $\rightarrow$  VOCAL BOOST  $\rightarrow$ BASS BOOST  $\rightarrow$  USER  $\rightarrow$  (back to the beginning)

While listening, you can adjust the subwoofer and tone level of the selected sound mode.



Adjust the level: SUB.W\* : 00 to 08 BASS/ MID/ TRE : -06 to +06 The sound mode is automatically stored and changed to "USER." \* Subwoofer level is adjustable only when <L/O MODE> is set to <SUB.W>. (page 11)

### Storing your own sound mode

You can store your own adjustments in memory.

1 [Hold]



 $\Rightarrow$  <pro EQ>  $\Rightarrow$  <br/>BASS/ MIDDLE/ TREBLE>

Adjust the sound elements of the selected tone.

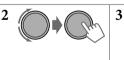
BASS [Initial: 80 Hz, 00, Q1.0]				
Frequency:	60/ 80/ 100/ 200 Hz			
Level:	-06 to +06			
Q:	Q1.0/ 1.25/ 1.5/ 2.0			
MIDDLE [Initi	al: 1.0 kHz, 00, Q1.25]			
Frequency:	0.5/ 1.0/ 1.5/ 2.5 kHz			
Level:	-06 to +06			
Q:	Q0.75/ 1.0/ 1.25			
TREBLE [Initial: 10.0 kHz, 00, Q FIX]				
Frequency:	10.0/ 12.5/ 15.0/ 17.5 kHz			
Level:	-06 to +06			
Q:	Q FIX			

4 Repeat steps 2 and 3 to adjust other tones. The adjustments made is automatically stored and changed to "USER."

### Menu operations

1 [Hold]

If no operation is done for about 60 seconds, the operation will be canceled.



- Repeat step **2** if necessary.
- To return to the previous menu, press **5**.
- To exit from the menu, press **MENU**.

Menu item	Selectable setting, [Initial: Underlined]
DEMO	<b>ON</b> : Display demonstration will be activated automatically if no operation is done for about 20 seconds. / <b>OFF</b> : Cancels. (page 4)
CLOCK For settings, see page 4.	

1	Menu item	Selectable setting, [Initial: Underlined]			
DIMMER	DIMMER SET	<b>AUTO</b> : Changes the display and button illumination between the Day/Night adjustments in <brightness> setting when you turn off/on the car headlights. *1 / <b>ON</b>: Selects the Night adjustments in <brightness> setting for the display and button illumination. / <b>OFF</b>: Selects the Day adjustments in <brightness> setting for the display and button illumination.</brightness></brightness></brightness>			
	BRIGHTNESS	DAY [ <u>31</u> ] / NIGHT [ <u>15</u> ]: Selects the display and button illumination brightness leve [00 — 31] for day and night.			
SCROLL*2		<b>ONCE</b> : Scrolls the displayed information once. / <b>AUTO</b> : Repeats scrolling (at 5-second intervals). / <b>OFF</b> : Cancels. (Pressing <b>DISP</b> for more than one second can scroll the display regardless of the setting.)			
	TAG DISPLAY	<b><u>ON</u></b> : Shows the Tag information while playing MP3/WMA tracks. / <b>OFF</b> : Cancels.			
PRO E	Q	See page 10.			
	FADER*3,*4	RO6 — FO6 [ 00 ] : Adjusts the front and rear speaker output balance.			
	BALANCE *4	LO6 — RO6 [00]: Adjusts the left and right speaker output balance.			
AUDIO	LOUD	<b>ON</b> : Boost low and high frequencies to produce a well-balanced sound at a low volume level. / <b><u>OFF</u></b> : Cancels.			
	VOL ADJUST	-05 — +05 [00] : Presets the volume adjustment level of each source (except "FM"), compared to the FM volume level. The volume level will automatically increase or decrease when you change the source. Before adjustment, select the source you want to adjust. ("VOL ADJ FIX" appears on the display if "FM" is selected as the source.)			
	L/O MODE	<b>SUB.W</b> : Selects if the REAR/SW terminals are used for connecting a subwoofer (through an external amplifier). / <b>REAR</b> : Selects if the REAR/SW terminals are used for connecting the speakers (through an external amplifier).			
	SUB.W LPF*5	LOW 55Hz / LOW 85Hz / LOW 120Hz : Frequencies lower than 55 Hz/85 Hz/120 Hz are sent to the subwoofer.			
	SUB.W LEVEL*5	00 — 08 [ 04 ] : Adjusts the subwoofer output level.			
	HPF	<b>ON</b> : Activates the High Pass Filter. Low frequency signals are cut off from the front/rear speakers. / <b>OFF</b> : Deactivates (all signals are sent to the front/rear speakers).			
	BEEP	<b>ON</b> / <b>OFF</b> : Activates or deactivates the keypress tone.			
	TEL MUTING*6	<b>ON</b> : Mutes the sounds while using the cellular phone (not connected through KS-BTA100). / <b>OFF</b> : Cancels.			

- \*1 The illumination control lead connection is required. (See "Installation/Connection Manual.") This setting may not work correctly on some vehicles (particularly on those having a control dial for dimming). In this case, change the setting to any other than <DIMMER AUTO>.
- \*2 Some characters or symbols will not be shown correctly (or will be blanked) on the display.
- \*3 If you are using a two-speaker system, set the fader level to "00."
- \*4 This adjustment will not affect the subwoofer output.
- \*5 Displayed only when <L/O MODE> is set to <SUB.W>.
- \*6 This setting does not work if <BT ADAPTER> is selected for <R-AUX> of the <SRC SELECT>.

Μ	lenu item	Selectable setting, [Initial: Underlined]			
AUDIO	OP     AMP GAIN*7     LOW POWER : VOLUME 00 - VOLUME 30 (Selects if the maximum power of each speaker is less than 50 W to prevent damaging the speakers.) / HIGH POWER : VOLUME 00 - VOLUME 50				
TUNER	AREA	<b>US</b> : When using in North/Central/South America. AM/FM intervals are set to 10 kHz/200 kHz. / <b>EU</b> : When using in any other areas. AM/FM intervals are set to 9 kHz/50 kHz (50 kHz during auto search). / <b>SA</b> : When using in South American countries where FM interval is 50 kHz. AM interval is set to 10 kHz.			
P MONO*8 See page 7.		See page 7.			
	IF BAND	<b>AUTO</b> : Increases the tuner selectivity to reduce interference noises between adjacent stations. (Stereo effect may be lost.) / <b>WIDE</b> : Subject to interference noises from adjacent stations, but sound quality will not be degraded and the stereo effect will remain.			
<b>AM</b> *9 <b>ON</b> / <b>OFF</b> : Enable or disable "AM" in source selection.		<b><u>ON</u> / OFF</b> : Enable or disable "AM" in source selection.			
ELEC	<b>F-AUX</b> <sup>*9</sup> <b>ON</b> / <b>OFF</b> : Enable or disable "F-AUX" in source selection.				
SRC SELECT	R-AUX*9	<b>ON</b> / <b>OFF</b> : Enable or disable "R-AUX" in source selection. / <b><u>BT ADAPTER</u></b> * <sup>10</sup> : Selects if the rear auxiliary input jack is connected to the Bluetooth adapter, KS-BTA100. (page 9)			

\*7 The volume level automatically changes to "VOLUME 30" if you change to <LOW POWER> with the volume level set higher than "VOLUME 30."

\*8 Displayed only when the source is "FM."

\*9 Displayed only when any source other than "AM/ F-AUX/ R-AUX/ BT AUDIO" is selected separately.

\*10When <BT ADAPTER> is selected, source name is changed to "BT AUDIO" from "R-AUX."

#### Additional information

- This unit can play back multi-session discs; however, unclosed sessions will be skipped while playing.
- This unit can play back files with the extension code <.mp3> or <.wma> (regardless of the letter case—upper/lower).
- This unit can play back the files meeting the conditions below:
  - Bit rate: MP3: 8 kbps 320 kbps
     WMA: 32 kbps 192 kbps
  - Sampling frequency:
     MP3: 48 kHz, 44.1 kHz, 32 kHz
     24 kHz, 22.05 kHz, 16 kHz
     12 kHz, 11.025 kHz, 8 kHz

WMA: 48 kHz, 44.1 kHz, 32 kHz, 22.05 kHz

• This unit can show WMA Tag and ID3 Tag Version 1.0/1.1/2.2/2.3/2.4 (for MP3).

- The search function works but search speed is not constant.
- The maximum number of characters for file/folder names vary depending on the disc format used (includes 4 extension characters—<.mp3> or <.wma>).
   ISO 9660 Level 1 and 2, Romeo: 64 characters, Joliet: 32 characters, Windows long file name: 64 characters
- This unit can play back files recorded in VBR (variable bit rate). (Files recorded in VBR have a discrepancy in elapsed time indication.)
- This unit cannot play back the following files:
  - MP3 files: encoded in MP3i and MP3 PRO format; an inappropriate format; layer 1/2.
  - WMA files: encoded in lossless, professional, and voice format; not based upon Windows Media<sup>®</sup> Audio; copy-protected with DRM.
  - Files which have data such as AIFF, ATRAC3, etc.

# Troubleshooting

	Symptom	Remedy/Cause
	Sound cannot be heard from the speakers.	Adjust the volume to the optimum level. / Make sure the unit is not muted/paused. / Check the cords and connections.
eral	"MISWIRING CHK WIRING THEN RESET UNIT" / "WARNING CHK WIRING THEN RESET UNIT" appears on the display and no operations can be done.	Check to be sure the terminals of the speaker leads are covered with insulating tape properly, then reset the unit. (page 3) If the message does not disappear, consult your JVC car audio dealer or a company supplying kits.
General	The unit does not work at all.	Reset the unit.
0	"F-AUX" or "R-AUX" cannot be selected.	Check the $\langle$ SRC SELECT $\rangle \rightarrow \langle$ F-AUX / R-AUX $\rangle$ setting.
	Sound is sometimes interrupted while listening to an external component connected to the auxiliary input jack.	Check to be sure the recommended stereo mini plug is used for connection.
Σ	SSM automatic presetting does not work.	Store stations manually.
FM/AM	Static noise while listening to the radio.	Connect the antenna firmly.
£	"AM" cannot be selected.	Check the $\langle$ SRC SELECT $\rangle \rightarrow \langle$ AM $\rangle$ setting. (page 12)
	Disc cannot be played back.	Insert the disc correctly.
	CD-R/CD-RW cannot be played back and track cannot be skipped.	Insert a finalized CD-R/CD-RW (finalize with the component which you used for recording).
Disc playback	Disc sound is sometimes interrupted.	Stop playback while driving on rough roads. / Change the disc. / Check the cords and connections.
c pli	"NO DISC" appears on the display.	Insert a playable disc into the loading slot.
Dis	"PLEASE" and "EJECT" appear alternately on the display.	Press $\blacktriangle$ , then insert a disc correctly.
	"IN DISC" appears on the display.	The disc cannot be ejected properly. Make sure nothing is blocking the loading slot.
×	Disc cannot be played back.	<ul> <li>Use a disc with MP3/WMA tracks recorded in a format compliant with ISO 9660 Level 1, Level 2, Romeo, or Joliet.</li> <li>Add the extension code &lt;.mp3&gt; or &lt;.wma&gt; to the file names.</li> </ul>
oacl	Noise is generated.	Skip to another track or change the disc.
1A play	"READING" keeps flashing on the display.	A longer readout time is required. Do not use too many hierarchical levels and folders.
MP3/WMA playback	Tracks do not play back in the order you have intended them to play.	The playback order is determined when the files are recorded.
≥	The elapsed playing time is not correct.	This sometimes occurs during playback. This is caused by how the tracks are recorded on the disc.
	The correct characters are not displayed (e.g. album name).	This unit can only display letters (upper case), numbers, and a limited number of symbols.

## Using Bluetooth® devices

For Bluetooth operations, it is required to connect the Bluetooth adapter, KS-BTA100 (not supplied) to the auxiliary input jack (R-AUX/BT ADAPTER) on the rear of the unit. (page 9)

- For details, refer also to the instructions supplied with the Bluetooth adapter and the Bluetooth device.
- Operations may be different according to the connected device.

### **Preparation**

1 Register (pair) a Bluetooth device with KS-BTA100.

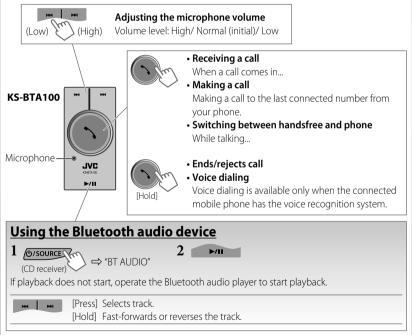
Refer to the instructions manual supplied with KS-BTA100.

2 Change the <SRC SELECT> settings of this unit.



 $\Rightarrow$  <SRC SELECT>  $\Rightarrow$  <R-AUX>  $\Rightarrow$  <BT ADAPTER>

### Using the Bluetooth mobile phone



#### About microphone volume:

• When you turn off the power of the CD receiver, the volume level changes to Normal.

### Specifications

#### AUDIO AMPLIFIER SECTION



**Power Output :** 20 W RMS × 4 Channels at 4  $\Omega$ and  $\leq$  1% THD+N **Signal-to-Noise Ratio :** 80 dBA (reference: 1 W into 4  $\Omega$ ) **Load Impedance :** 4 $\Omega$  (4  $\Omega$  to 8  $\Omega$  allowance) **Frequency Response :** 40 Hz to 20 000 Hz **Line-Out or Subwoofer-Out Level/ Impedance :** 2.5 V/20 k $\Omega$  load (full scale) **Output Impedance :**  $\leq$  600  $\Omega$ **Other Terminal :** Front auxiliary input jack, Rear auxiliary/Bluetooth adapter input jack, Antenna terminal

### TUNER SECTION

#### Frequency Range :

#### FM:

- -with channel interval set to 200 kHz : 87.9 MHz to 107.9 MHz
- -with channel interval set to 50 kHz : 87.5 MHz to 108.0 MHz

#### AM:

- with channel interval set to 10 kHz : 530 kHz to 1 700 kHz
- with channel interval set to 9 kHz : 531 kHz to 1 611 kHz

#### FM Tuner :

**Usable Sensitivity**: 9.3 dBf (0.8 μV/75 Ω) **50 dB Quieting Sensitivity**: 16.3 dBf (1.8 μV/75 Ω)

### Alternate Channel Selectivity (400 kHz) : 65 dB

Frequency Response : 40 Hz to 15 000 Hz Stereo Separation: 40 dB

#### AM Tuner :

Sensitivity/Selectivity: 20 µV/40 dB

#### **CD PLAYER SECTION**

Type : Compact disc player Signal Detection System : Non-contact optical pickup (semiconductor laser) Number of Channels : 2 channels (stereo) Frequency Response : 5 Hz to 20 000 Hz Signal-to-Noise Ratio : 98 dB Wow and Flutter : Less than measurable limit MP3 Decoding Format (MPEG1/2 Audio Layer 3) : Max. Bit Rate: 320 kbps WMA (Windows Media<sup>®</sup> Audio) Decoding Format : Max. Bit Rate: 192 kbps

### <u>GENERAL</u>

Power Requirement : Operating Voltage : DC 14.4 V (11 V to 16 V allowance) Grounding System : Negative ground Allowable Operating Temperature : 0°C to +40°C (32°F to 104°F) Dimensions (W × H × D) : (approx.) –Installation Size : 182 mm × 52 mm × 158 mm (7-3/16" × 2-1/16" × 6-1/4") –Panel Size : 188 mm × 59 mm × 9 mm (7-7/16" × 2-3/8" × 3/8") Mass : 1.2 kg (2.8 lbs) (excluding accessories)

Subject to change without notice.

If a kit is necessary for your car, consult your telephone directory for the nearest car audio speciality shop.

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