JVC

CD RECEIVER
RECEPTOR CON CD
RÉCEPTEUR CD

KD-AHD59/KD-HDR50

Detachable

HD Radio®

SAT RADIO READY

Made for iPod

Works with iPhone

COMPACT disc DIGITAL AUDIO TEXT

MP3 WMA

Amplifier Power Standard CEA-2006 Compliant

For canceling the display demonstration, see page 7.
Para cancelar la demostración en pantalla, consulte la página 7.
Pour annuler la démonstration des affichages, référez-vous à la page 7.

For installation and connections, refer to the separate manual.
Para la instalación y las conexiones, refiérase al manual separado.
Pour l'installation et les raccordements, se référer au manuel séparé.

For customer Use:
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.

Model No.

Serial No.

INSTRUCTIONS
MANUAL DE INSTRUCCIONES
MANUEL D'INSTRUCTIONS

FRANÇAIS   ESPAÑOL   ENGLISH

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 or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

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.

[European Union only]

| CAUTION	ATTENTION	AVISO	VARNING	CAUTION
VISIBLE AND /OR INVISIBLE CLASS 1M LASER RADIATION WHEN OPEN. DO NOT VIEW DIRECTLY WITH OPTICAL INSTRUMENTS. [ENG]	RAYONNEMENT LASER INVISIBLE ET/OU VISIBLE DE CLASSE 1M EN CAS D'OUVERTURE. NE PAS REGARDER DIRECTEMENT AVEC DES INSTRUMENTS OPTIQUES. [FRA]	RADIACIÓN LÁSER VISIBLE Y/O INVISIBLE CLASE 1M CUANDO ESTÁ ABIERTO. NO MIRAR DIRECTAMENTE CON INSTRUMENTAL ÓPTICO. [ESP]	SYNLIG OCH/ELLER OSYNLIG LASERSTRÅLNING KLASS 1M NÄR DENNA DEL ÄR ÖPPNAD. BETRAKTA EJ STRÅLEN MED OPTISKA INSTRUMENT. [SWE]	注意 ここを開くと見える レーザ放射及び見え ないレーザ放射が出 ます。光学器械で直接 見ないこと。[JPN]

For safety...
- Do not raise the volume level too much, as this will block outside sounds, making driving dangerous.
- Stop the car before performing any complicated operations.
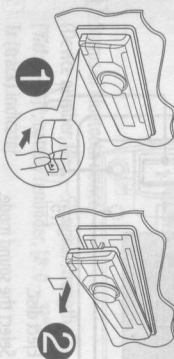
Temperature inside the car...
If you have parked the car for a long time in hot or cold weather, wait until the temperature in the car becomes normal before operating the unit.

Warning:
If you need to operate the unit while driving, be sure to look around carefully or you may be involved in a traffic accident.

CONTENTS
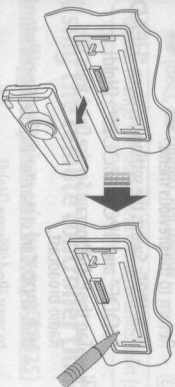
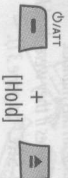## Detaching/attaching control panel
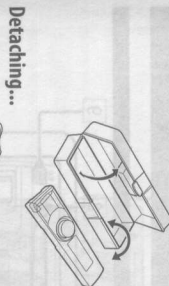
Detaching...

Attaching...

How to reset your unit

- Your preset adjustments will also be erased (except the registered Bluetooth devices, see page 14).

How to forcibly eject a disc

⏏ATT + ▲ [Hold]

- You can forcibly eject the loaded disc even if the disc is locked. To lock/unlock the disc, see page 12.
- Be careful not to drop the disc when it ejects.
- If this does not work, reset your unit.

Caution on volume setting:
Digital devices (CD/USB) produce very little noise compared with other sources. Lower the volume before playing these digital sources to avoid damaging the speakers by the sudden increase of the output level.

Basic operations

Using the control panel

1 • **FM/AM:**
  – Select HD Radio™ multicast channel.
  – Search for HD Radio stations only [Hold].
  • **SIRIUS/XM:** Select category.
  • **CD/USB/CD-CH:** Select folder.
  • **IPOD:** Enter the main menu/Pause playback/Confirm selection.
  • **BT PHONE/BT AUDIO:** Enter/go back to previous Bluetooth menu.

2 • Turn on the power.
  • Attenuate the sound (if the power is on).
  • Turn off the power [Hold].

3 • Select the source.
  FM → AM*[2] → SIRIUS*[3]/XM*[3] → CD*[3]
  **→ USB/USB-IPOD*[3], *[4] → CD-CH*[3]/IPOD*[3] (or
  EXT INPUT) → BT PHONE*[3] → BT AUDIO*[3] →
  AUX IN*[2] → (back to the beginning)**

4 • **FM/AM/SIRIUS/XM/CD/USB/CD-CH:** Enter list operations.
  • Enter Menu setting [Hold].
  • **USB-IPOD:** Enter the main menu of the iPod/iPhone.
  • Control the volume*[5] or select items [Turn].
  • Confirm the selection [Press].
  • **FM/AM:** Enter SSM preset mode [Hold].
  • **CD/USB/USB-IPOD:** Pause/resume playback*[5] [Press].
  • **CD/USB/USB-IPOD/CD-CH/IPOD:** Enter playback mode [Hold].

6 Loading slot

7 Display window

8 Eject disc.

9 Select the sound mode.

10 Detach the panel.

11 • **FM/AM/SIRIUS/XM:** Search for station/channel.
  • **CD/USB/USB-IPOD/CD/CD-CH:** Select track.
  • **IPOD:** Select category/track.
  • **BT PHONE/BT AUDIO:** Select setting item/registered device.

12 Change the display information.

13 • Return to the previous menu.
  • **USB-IPOD:** Switch the setting between "HEAD MODE" and "IPOD MODE"*[6] [Hold].

14 • Tag the PSD (Program Service Data) from HD Radio broadcast.
  • **USB-IPOD:** Cancel transferring the tagged PSD to your iPod/iPhone [Hold].

15 Remote sensor

16 AUX (auxiliary) input jack

17 USB (⟋) terminal

*[1] Also known as "Control dial" in this manual.

*[2] You cannot select these sources if they were disabled in Menu (see "SELECT SRC" on page 31).

*[3] You cannot select these sources if they are not ready or not connected.

*[4] When connecting the iPod/iPhone to the USB (⟋) terminal, "USB" appears on the display first, then "USB-IPOD."

*[5] You can still adjust the volume during pause when the selected source is CD/USB/USB-IPOD.
  Before resume playback, check to be sure that you have not raised the volume too much.

*[6] You can use this function when "IPOD MODE" is not available for the connected iPod/iPhone.

Display window
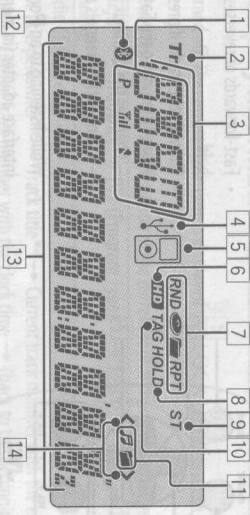
1 Status of Bluetooth device
  (Device number, [P: 1 – 5]; signal strength,
  [▚.0 – 3]*; battery reminder, [▮ 0 – 3]*)

2 Tr (track) indicator

3 Source display / Preset number / Disc number /
  Track number / Folder number / Setting and list
  operation information

4 ⟋ (USB) indicator

5 ▢ (iPod/iPhone) indicator

6 HD (HD Radio™ broadcast) indicator

7 ▶ (disc), ▭ (folder), RPT (repeat)
  Playback mode / item indicators—RND (random),

8 HOLD (reception hold) indicator

9 ST (stereo) indicator

10 TAG (PSD reception) indicator

11 Disc/device information indicators—♫ (track/ ♫
  file) and ▭ (folder)

12 ⓑ (Bluetooth) indicator

13 Main display

14 Menu hierarchy position indicator—⟩ (top),
  ⟨ ⟩ (middle), ⟨ (bottom)

* As the number increases, the signal/battery power becomes stronger.

You can change the display and button illumination (see page 32).

Using the remote controller (RM-RK50)

Installing the lithium coin battery (CR2025)

CR2025
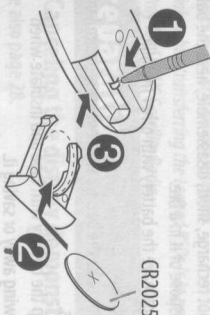
For USA-California Only:
This product contains a CR Coin Cell Lithium Battery which contains Perchlorate Material—special handling may apply.
See www.dtsc.ca.gov/hazardouswaste/perchlorate

Before using the remote controller:

• Aim the remote controller directly at the remote sensor on the unit.
• DO NOT expose the remote sensor to bright light (direct sunlight or artificial lighting).

JVC

Remote sensor

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.

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

4

5

6

7
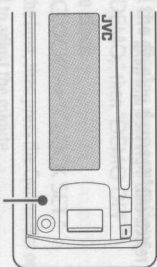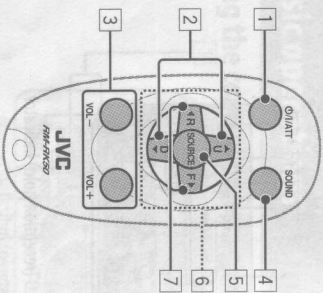
1 • Turns the power on if pressed briefly or attenuates the sound when the power is on.
   • Turns the power off if pressed and held.

2 • Selects the preset radio station if pressed briefly.
   • Selects HD Radio multicast channel if pressed and held.
   • Changes the folder of the MP3/WMA.
   • While playing an MP3 disc on an MP3-compatible CD changer:
     – Changes the folder if pressed briefly.
     – Changes the disc if pressed and held.
   • While listening to the Satellite (SIRIUS or XM) Radio:
     – Changes the categories.
   • While listening to an iPod (connected with the interface adapter):
     – Pauses or resumes playback with D ▼.
     – Enters the main menu with ▲ U.
       (Now ▲ U/D ▼/◄ R/F ► work as the menu selecting buttons.)*

3 • Adjusts the volume level.

4 • Selects the sound mode.

5 • Selects the source.

6 • For Bluetooth cellular phone:
     – Answers calls if pressed briefly.
     – Ends or rejects calls if pressed and held.

7 • Searches for stations if pressed briefly.
   • Fast-forwards or reverses the track if pressed and held.
   • Changes the tracks if pressed briefly.
   • While listening to the Satellite Radio:
     – Changes the channels if pressed briefly.
     – Changes the channels rapidly if pressed and held.
   • While listening to an iPod connected with the interface adapter (in menu selecting mode):
     – Selects an item if pressed briefly. (Then, press D ▼ to confirm the selection.)
     – Skips 10 items at a time if pressed and held.
   • Reverse skip/forward skip for Bluetooth audio player.

* ▲ U : Returns to the previous menu.
  D ▼ : Confirms the selection.

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.

KD-AHD59 is equipped with the steering wheel remote control function.
• See the Installation/Connection Manual (separate volume) for connection.

Changing the display information

(DISP)

• When the power is turned off: The current clock time is displayed if "CLOCK DISP" is set to "CLOCK OFF" (see page 28).
• When the power is turned on: The display information of the current source changes as follows:

FM/AM
Call Sign*1 → Frequency → PTY (Program Type)*2 → Text*3 → Clock → (back to the beginning)

CD/USB /CD-CH
• Audio CD/CD Text:
Disc title/performer*4 → Track title*4 → Current track number with the elapsed playing time → Current track number with the clock time → (back to the beginning)
• MP3/WMA:
Album name/performer (folder name)*5 → Track title (file name)*5 → Current track number with the elapsed playing time → Current track number with the clock time → (back to the beginning)

USB-IPOD
Album name/artist name → Track title → Current track number with the elapsed playing time → Current track number with the clock time → (back to the beginning)

IPOD
Album name/artist name → Track name → Current track number with the elapsed playing time → Current track number with the clock time → (back to the beginning)

SIRIUS/XM
Category name → Channel name → Artist name → Composer name*7 → Song/program name/title → Clock → (back to the beginning)

*1 Displayed only when a Call Sign is received.
*2 When no program type (PTY) is received, "HD RADIO" appears for HD Radio broadcasting, and "ANALOG" appears for conventional FM/AM broadcasting.
*3 "NO TEXT" appears when no text is received.
*4 If the current disc is an audio CD, "NO NAME" appears.
*5 If an MP3/WMA file does not have tag information or "TAG DISPLAY" is set to "TAG OFF" (see page 29), folder name and file name appear.
*6 Only while transferring the tagged PSDs is in progress (see page 24).
*7 Only for SIRIUS Satellite Radio.

Preparation

□ Canceling the display demonstration and setting the clock
• See also page 28.

1 [①/ATT]
Turn on the power.

2 [MENU]
[Hold] Press and hold until Menu is called up.

Cancel the display demonstrations
Select "DEMO," then "DEMO OFF."

Set the clock
Select "CLOCK" → "CLOCK SET."
Adjust the hour, then press the Control dial once to proceed to adjust the minute.

[Turn] → [Press]
• Repeat this procedure.
• To return to the previous menu, press BACK.

Listening to the radio

You can tune in to both conventional and HD Radio broadcasts.

- If you want to search for HD Radio stations only, see "Searching for HD Radio stations only" on page 9.

What is HD Radio™ broadcasting?

HD Radio stations can deliver high-quality digital sound—AM digital will have FM-like sound quality (in stereo) and FM digital will have CD-like sound quality—with static-free and clear reception. Furthermore, stations can offer text and data, such as artist names, song titles, and Program Service Data (PSD).

- HD Radio tuners can also tune in to conventional analog broadcasts.
- Many HD Radio stations offer more than one channel of programming. This service is called multicasting.
- By using PSD, you can easily purchase the songs at iTunes Store.
- To find HD Radio stations in your area, visit <http://www.hdradio.com/>.

SRC

1 Select "FM" or "AM."

2 Search for a station to listen —Auto Search.

When a station is tuned in, searching stops. To stop searching, press the same button again.

- You can also search for a station manually—Manual Search. Hold either one of the buttons until "M" flashes on the display, then press it repeatedly.
- When receiving an FM stereo broadcast with sufficient signal strength, the ST indicator lights up on the display.
- When the TAG indicator lights up on the display, you can tag the song for your future purchase at iTunes Store (see page 24).

Ex.: When receiving a conventional FM station

Ex.: When receiving an HD Radio station

Lights up when a digital audio is broadcast.
Flashes when an analog audio is broadcast.

FM
87.50MHz

Selected frequency

HD WXYZ-FM

Station Call Sign

8

When receiving HD Radio multicast channels...

Select your desired channel.

[Hold]

HD1 WXYZ-FM

Channel number

HD1 ← → HD2 ← → HD8
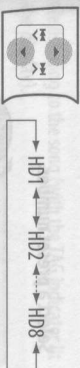
- "LINKING" appears while linking to a multicast channel.

4 Select "MONO ON."

[Turn] → [Press]

Reception improves, but stereo effect will be lost.

- The ST indicator goes off.

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

Changing HD Radio reception mode

While receiving an HD Radio broadcast, the unit receives digital or analog audio automatically due to the receiving condition.

Searching for HD Radio stations only

[Hold]

HD

When a station is tuned in, searching stops.

While listening to an HD Radio station...

- See also page 29.

MENU [Hold] → [Turn] → [Press]

The menu is called up.
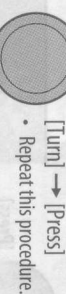
- Repeat this procedure.

Select "TUNER" → "BLEND HOLD"

"AUTO/DIGITAL/ANALOG"

Lights up when holding the digital reception.
Flashes when holding the analog reception.

HD HOLD WXYZ-FM

Improving the FM reception

When an FM stereo broadcast is hard to receive, activate monaural mode for better reception.

- See also page 29.

1 Call up the menu.

MENU [Hold]

2 Select "TUNER."

[Turn] → [Press]

3 Select "MONO."

[Turn] → [Press]

- If no sound can be heard with "AUTO," change the setting to "ANALOG" or "DIGITAL."
- The setting automatically returns to "AUTO" in the following cases;
  - When you tune in to another broadcast.
  - When you change to another source.
  - When you turn off the power.
- This setting cannot take effect for the conventional FM/AM stations.
- If the radio station forces the reception mode to digital, the HOLD indicator flashes.

Storing stations in memory

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

- The HD Radio multicast channels can also be preset.

Automatic presetting —SSM (Strong-station Sequential Memory)

1 While listening to a radio....

[Hold]

2 Select the preset number range you want to store.

[Turn]

- For FM: SSM 01–06 ⟷ SSM 07–12 ⟷
  SSM 13–18
- For AM: SSM 01–06

3

[Press]

SSM

Local stations with the strongest signals are searched and stored automatically.

- To stop searching, press MENU.

To preset other 6 stations, repeat from step **1** again.

Manual presetting

Ex.: Storing FM station of 92.50 MHz into preset number "P04."
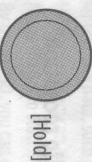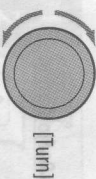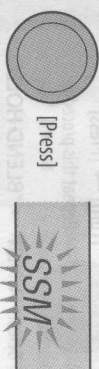
1 Tune in to the station or channel you want to preset.

92.50MHz

2 Select a preset number.

MENU

[Turn]

3

[Hold]

[Turn]

P04
MEMORY
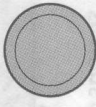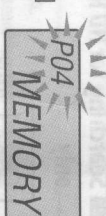
Selecting preset station/channel

MENU
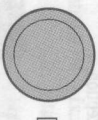
[Press]

[Turn] → [Press]

Tagging your favorite songs

Some HD Radio broadcasts provide PSD (Program Service Data) for a song. You can tag the song and store its PSD (maximum 60 songs) while listening the song—iTunes Tagging.

- For details how to purchase the tagged songs, see page 24.

While listening to the song (with the TAG indicator lit on the display)....

TAG

[Hold]
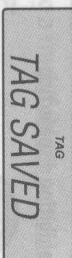
The TAG indicator start flashing, then the PSD of the song is stored into the memory.

TAG
TAG SAVED

- When pressing TAG within 10 seconds before or after the PSD changes, the tags for two songs are stored.

PSD (Program Service Data)

1st song ← (10 sec.) ← → 2nd song → (10 sec.)
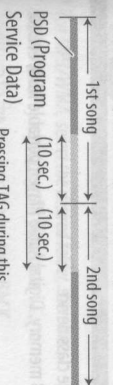
Pressing TAG during this period tags PSD of both 1st and 2nd songs.

- You cannot tag a song in the following cases:
  — When the broadcast currently received does not support the iTunes Tagging.
  — When the broadcast does not provide PSD. (TAG indicator does not light up.)
  — When you try to store the 61st PSD. ("MEMORY FULL" appears.)
  — When you try to tag the song for the 2nd time while receiving one song. ("TAG ALREADY SAVED" appears.)
  — While transferring the tagged PSDs to your iPod/iPhone is in progress.

To check the number of tagged songs stored on the unit

TAG

[Hold]

- See also page 31.

To clear the tagged songs from the unit

MENU

[Hold]
The menu is called up.
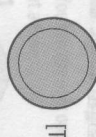
Select "TAG ALL CLR."

[Turn] → [Hold]

See page 36 about warning messages for iTunes Tagging.

Disc/USB operations

Playing a disc

1 ⏻/ATT

2 ▲

Turn on the power.

Insert a disc.

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

Prohibiting disc ejection

[Hold] ▲ + ⏻

To cancel the prohibition, repeat the same procedure.

Stop playing and ejecting the disc

[clip] → [mini] ▲

- "NO DISC" appears.
  Press SRC to listen to another playback source.

Playing a file on USB device

This unit can play MP3/WMA files stored on a USB mass storage class device.

You can connect a USB mass storage class device such as a USB memory, Digital Audio Player, portable HDD, etc. to the unit.

- You can also connect the iPod/iPhone to the USB terminal of the unit. For details of the operations, see page 21.

1 ⏻/ATT

Turn on the power.

2

Connect a USB.

All tracks will be played repeatedly until you change the source or disconnect a device.

- The ⟋ indicator lights up on the display.
- You cannot connect a computer to the USB (⟋) terminal of the unit.

Caution:

- Avoid using the USB device if it might hinder your safety driving.
- Do not pull out and attach the USB device repeatedly while "READING" is flashing on the display.
- Do not start the car engine if a USB device is connected.
- Stop playback before disconnecting a USB device.
- Make sure all important data has been backed up to avoid losing the data.
- Do not leave a USB device in the car, expose to direct sunlight, or high temperature to avoid deformation or cause damages to the device.
- For more details about USB operations, see page 34.

Disc/file operations

Selecting a track/folder

MENU [Turn] → [Press]*
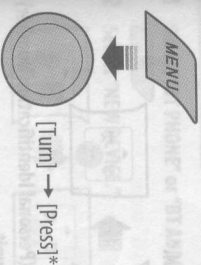
* For MP3/WMA, select the desired folder; then the desired track by repeating this procedure.

- To return to the previous menu, press BACK.

Pressing (or holding) the following buttons allows you to...

[Press]: Pause/resume playback	

MP3/WMA: Select folder

[Press]: Select track	
[Hold]: Reverse/fast-forward track	

Selecting the playback modes

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

1 [Hold]
The playback mode menu is called up.

2 [Turn] → [Press]
REPEAT ↔ RANDOM

3 [Turn] → [Press]

REPEAT	
TRACK RPT	Repeats current track
FOLDER RPT	MP3/WMA: Repeats all tracks of current folder
RANDOM	
FOLDER RND	MP3/WMA: Randomly plays all tracks of current folder, then tracks of next folders
ALL RND	Disc: Randomly plays all tracks

- To cancel repeat play or random play, select "RPT OFF" or "RND OFF."
- To return to the previous menu, press BACK.

Using the Bluetooth® devices

For Bluetooth operations, it is required to connect the Bluetooth adapter (KS-BTA200) (not supplied) to the CD changer jack on the rear of this unit.

- Refer also to the instructions supplied with the Bluetooth adapter and the Bluetooth device.
- Refer to the list (included in the box) to check the countries where you may use the Bluetooth® function.

To use a Bluetooth device through the unit ("BT PHONE" and "BT AUDIO") for the first time, you need to establish Bluetooth wireless connection between the unit and the device.

- Once the connection is established, it is registered in the unit even if you reset your unit. Up to five devices can be registered in total.
- Only one device can be connected at a time for each source ("BT PHONE" and "BT AUDIO").

> See page 35 about warning messages for Bluetooth operations.

■ Registering a Bluetooth device

Registration (Pairing) methods

Use either of the following items in the Bluetooth menu to register and establish the connection with a device.

- Select "BT PHONE" or "BT AUDIO" as the source to operate the Bluetooth menu.

OPEN
Make the unit ready to establish a new Bluetooth connection.
Connection is established by operating the Bluetooth device.

SEARCH
Make the unit ready to establish a new Bluetooth connection.
Connection is established by operating the unit.

Registering using "OPEN"

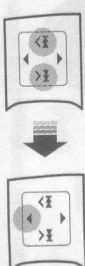**Preparation:** Operate the device to turn on its Bluetooth function.

1 Select "BT PHONE" or "BT AUDIO."

2 Select "NEW DEVICE."

3 Select "OPEN."

4 Enter a PIN (Personal Identification Number) code to the unit.
- You can enter any number you like (1-digit to 16-digit number). [Initial: 0000]
  – Some devices have their own PIN code. Enter the specified PIN code to the unit.
  1 Move to the next (or previous) number position.

  [Turn]
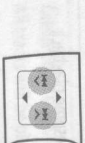
  2 Select a number.
  3 Repeat steps 1 and 2 until you finish entering a PIN code.
  4 Confirm the entry.
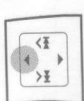
"OPEN." flashes on the display.

5 Use the Bluetooth device to search and connect.
On the device to be connected, enter the same PIN code you have just entered for this unit.
"CONNECTED" appears on the display.
Now connection is established and you can use the device through the unit.

The device remains registered even after you disconnect the device. Use "CONNECT" (or activate "AUTO CNNCT") to connect the same device from next time on. (See the following and page 27.)

Connecting a device

1 Select "BT PHONE" or "BT AUDIO."

2 Select "NEW DEVICE."
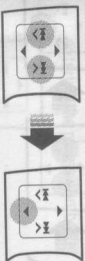
3 To search for available devices:
Select "SEARCH."
The unit searches and displays the list of the available devices. If no available device is detected, "UNFOUND" appears.

To connect a special device:
Select "SPECIAL."
The unit displays the list of the preset devices.

4 Select a device you want to connect.
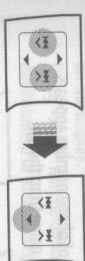
For available devices...
1 Enter the specific PIN code of the device to the unit.
Refer to the instructions supplied with the device to check the PIN code.
2 Use the Bluetooth device to connect.
Now connection is established and you can use the device through the unit.

For special device...
Use "OPEN" or "SEARCH" to connect.

Connecting/disconnecting/deleting a registered device

1 Select "BT PHONE" or "BT AUDIO."

2 Select a registered device you want to connect/disconnect/delete.

3 To connect/disconnect the selected device:
Select "CONNECT" or "DISCONNECT."

To delete the selected device:
Select "DELETE," then "YES."

You can set the unit to connect the Bluetooth device automatically when the unit is turned on. (See "AUTO CNNCT" on page 27.)

Using the Bluetooth cellular phone

1	SRC	Select "BT PHONE."
2		Enter the Bluetooth menu.
3	—	Make a call or setting using the Bluetooth setting menu. (See the following and page 27.)

When a call comes in...

The source is automatically changed to "BT PHONE."

• The display will flash in blue (see "RING COLOR" on page 30).

When "AUTO ANSWER" is activated...

The unit answers the incoming calls automatically, see page 27.

• When "AUTO ANSWER" is deactivated, press any button (except ⏻/ATT/◁/△) to answer the incoming call.

• You can adjust the microphone volume level (see "MIC SETTING" on page 27).

To end the call

Hold any button (except ⏻/ATT/◁/△).

When a text message comes in...

If the cellular phone is compatible with text message (notified through JVC Bluetooth adapter) and "MSG INFO" (message info) is set to "AUTO" (see page 27), the unit rings to inform you of the message arrival.

• "RCV MSG" (receiving message) appears on the display and the display illuminate in blue (see "RING COLOR" on page 30).

* Displays only when your cellular phone is equipped with these functions and is compatible with this unit.

Making a call

You can make a call using the following methods. Select "BT PHONE," then follow the following steps to make a call:

• To return to the previous menu, press ▲.

1 Enter the "DIAL" menu.
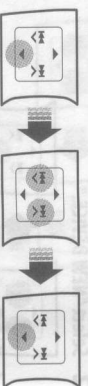
2 Select a calling method.

PHONE BOOK ↔ MISSED ↔ NUMBER
RECEIVED ↔ REDIAL ↔ VOICE

Call history:

1 Select a call history (REDIAL*, RECEIVED*, MISSED*).

2 Then select a name (if it is acquired) or phone number.

Phone book:

1 Select "PHONE BOOK*."

The list of phone number appears.

2 Select a name from the list.

Voice dialing:

1 Select "VOICE."

"SAY NAME" appears on the display.

2 Speak the name you want to call.

• If your cellular phone does not support the voice recognition system, "ERROR" appears on the display.

• Using "VOICE" may be difficult in a noisy environment or at an emergency.

Direct dialing:

1 Select "NUMBER."

2 Select a number.

[Turn]

3 Move to the next (or previous) number position.

4 Repeat steps 2 and 3 until you finish entering the phone number.

5

Using the Bluetooth audio player

	SRC	Select "BT AUDIO." If playback does not start, operate the Bluetooth audio player to start playback.

Reverse skip/forward skip

Pause/start playback*

Enter the Bluetooth menu (see page 27)
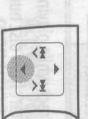
* Operation may be different according to the connected Bluetooth audio player.

• Refer also to page 15 for connecting/disconnecting/deleting a registered device.

• When the sound is stopped or interrupted while using a Bluetooth device, turn off, then turn on the unit.
 — If the sound is not yet restored, connect the device again (see page 15).

Bluetooth Information:

If you wish to receive more information about Bluetooth, visit the following JVC web site:
<http://www.jvc.co.jp/english/car/> (English website only)

Listening to the CD changer

It is recommended to use a JVC MP3-compatible CD changer (not supplied) with your unit. You can connect a CD changer to the CD changer jack on the rear of the unit.

• You can only play conventional CDs (including CD Text) and MP3 discs.

Preparation: Make sure "CH/IPOD" is selected in the "SELECT SRC" → "EXT IN" setting, see page 31.

1 **Select "CD-CH."**

2 **Enter the list mode.**

3 [Turn] → [Press]
• Repeat this procedure.

Select a disc, folder, then the track.
Playback starts automatically.
• If there is no disc on the selected tray, the unit beeps.

• For MP3 disc: To select another folder/track while playing, repeat steps **2** and **3** above until the desired folder/track is selected. The selection always start from disc number first.

MP3: Select folders

[Press]: Select track
[Hold]: Reverse/fast-forward track

Selecting the playback modes

1 [Hold]
The playback mode menu is called up.

2 [Turn] → [Press]

REPEAT ↔ RANDOM

3 [Turn] → [Press]

REPEAT	
TRACK RPT	Repeats current track
FOLDER RPT	MP3: Repeats all tracks of current folder
DISC RPT	Repeats all tracks of the current disc

RANDOM	
FOLDER RND	MP3: Randomly plays all tracks of current folder, then tracks of next folders
DISC RND	Randomly plays all tracks of the current disc
ALL RND	Randomly plays all tracks

• To cancel repeat play or random play, select "RPT OFF" or "RND OFF."
• To return to the previous menu, press BACK.

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Listening to the Satellite Radio

Before operating, connect either one of the following (not supplied) to the CD changer jack on the rear of this unit.

• **JVC SIRIUS Satellite Radio System**, SC-C1 and KS-SRA100, PnP, SC-VD0C1 and KS-SRA100, for listening to the SIRIUS Satellite Radio.
• **XM Satellite Radio System**, JVC Smart Digital Adapter–XMDJVC100, CNP2000UC and CNPJVC1 for listening to the XM Satellite Radio.

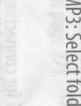### GCI (Global Control Information) update

• If channels are updated after subscription, updating starts automatically. "UPDATING" or "UPDATE XXX%" flashes and no sound can be heard.
• Update takes a few minutes to complete.
• During update, you cannot operate your Satellite Radio.

Activate your SIRIUS subscription after connection

• Only Channel 0, 1, and 247 are available before activation.

1 ⏻/ATT

SRC → SIRIUS →

2 SRC

SIRIUS Satellite Radio starts updating all the SIRIUS channels.
Once completed, SIRIUS Satellite Radio tunes in to the preset channel, CH184.

3 Check your SIRIUS ID (see page 29).

4 Contact SIRIUS on the internet at <http://activate.siriusradio.com/> to activate your subscription, or you can call SIRIUS toll-free at 1-888-539-SIRIUS (7474).
"SUB UPDT PRESS ANY KEY" scrolls on the display once subscription has been completed.

Activate your XM subscription after connection

1 ⏻/ATT

SRC → XM →

2 SRC

XM Tuner* starts updating all the XM channels, "Channel 1" is tuned in automatically.

3 Check your XM Satellite Radio ID labelled on the casing of the XM Tuner, or tune in to "Channel 0" (see page 20).

4 Contact XM Satellite Radio on the internet at <http://xmradio.com/activation/> to activate your subscription, or you can call 1-800-XM-RADIO (1-800-967-2346).
Once completed, the unit tunes in to one of the available channels (Channel 4 or higher).

* XM Tuner: XMDirect™ Tuner Box or XMDirect2 Tuner System

(SIRIUS/XM — continued)

1 **[SRC] Select "SIRIUS" or "XM."**

2 **Select a category.**
SIRIUS: If you select "ALL," you can tune in to all the channels of all categories.

3 **Select a channel to listen.**
• Holding the button changes the channels rapidly.
• While searching, invalid and unsubscribed channels are skipped.
XM: If you do not select a channel within 15 seconds, category selected in step **2** is canceled. You can select all channels of all categories now (including non-categorized channels).

Storing channels in memory

You can preset up to 18 channels for both SIRIUS and XM.

Ex.: Storing channel into preset number "P04."

1 **Tune in to a channel you want to store (see steps 1 – 3 above).**

2 **Select preset number.**

3 [Hold] [MENU] [Turn] "P04" "MEMORY"

Checking the XM Satellite Radio ID

While selecting "XM," select "Channel 0."

The display alternately shows "RADIO ID" and the 8-digit (alphanumeric) ID number.

To cancel the ID number display, select any channel other than "Channel 0."

Selecting SIRIUS/XM preset station

[MENU] [Turn] → [Press]
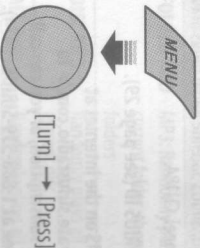
Listening to the iPod/iPhone

You can connect the iPod/iPhone using the following cable or adapter:

Cable/adapter	To operate
USB 2.0 cable (accessory of the iPod/iPhone)	See "When connected with the USB cable" below.
Interface Adapter for iPod—KS-PD100 (not supplied)*	See "When connected with the interface adapter" on page 22.

* You cannot connect the iPhone.

When connected with the USB cable

Preparation: Select the controlling terminal, "HEAD MODE (this unit)" or "IPOD MODE (iPod/iPhone)" for iPod/iPhone playback (see page 31). The operations explained below are under "HEAD MODE."

1 **[SRC] Select "USB-IPOD."**
Playback starts automatically.
• The indicators light up on the display.

2 **Select a song.**
[Press]: Pause/resume playback
Pressing (or holding) the following buttons allows you to....
• To return to the previous menu, press BACK.
• Holding BACK allows you to switch the setting between "HEAD MODE" and "IPOD MODE."

3 **Select the desired track.**
[Turn] → [Press]

Selecting a track from the menu

1 **Enter the main menu.**
[MENU]

2 **Select the desired menu.**
[Turn] → [Press]

PLAYLISTS ↔ ARTISTS ↔ ALBUMS ↔ SONGS ↔ PODCASTS ↔ GENRES ↔ COMPOSERS

3 **Select the desired track.**
[Turn] → [Press]
[Press]: Select track
[Hold]: Reverse/fast-forward track

Selecting the playback modes

1. **ONE RPT** — [Hold]
   The playback mode menu is called up.

REPEAT	
ONE RPT	Functions the same as "Repeat One" of the iPod/iPhone.
ALL RPT	Functions the same as "Repeat All" of the iPod/iPhone.

2. [Turn] → [Press]

RANDOM	
SONG RND	Functions the same as "Shuffle Songs" of the iPod/iPhone.

3. [Turn] → [Press]

REPEAT ↔ RANDOM

- When "Repeat" is set to "Off" for the iPod/iPhone, connecting the iPod/iPhone changes the setting to "ALL RPT." You cannot select "RPT OFF" for the iPod/iPhone connected with the USB cable.
- To cancel random play, select "RND OFF."
- To return to the previous menu, press BACK.

When connected with the interface adapter

Preparation: Make sure "CH/IPOD" is selected in the "SELECT SRC" → "EXT IN" setting, see page 31.

1. Select "IPOD."
   SRC
   - The ◎ indicator lights up on the display.

2. Select a song.
   Playback starts automatically.

Selecting a track from the menu

1. Enter the main menu.

   This mode will be cancelled if no operations are done for about 5 seconds.

2. Select the desired menu.

   PLAYLISTS ↔ ARTISTS ↔ ALBUMS ↔ SONGS ↔ GENRES ↔ COMPOSERS ↔

   - Pressing and holding the button skips 10 items at a time.

3. Confirm the selection.

   - To return to the previous menu, press ▲.
   - If a track is selected, playback starts automatically.

   Pause playback
   - To resume playback, press the button again.

   [Press]: Select tracks
   [Hold]: Reverse/fast-forward track

Selecting the playback modes

1. [Hold]
   The playback mode menu is called up.

2. [Turn] → [Press]

   REPEAT ↔ RANDOM

REPEAT	
ONE RPT	Functions the same as "Repeat One" of the iPod.
ALL RPT	Functions the same as "Repeat All" of the iPod.

3. [Turn] → [Press]

RANDOM	
SONG RND	Functions the same as "Shuffle Songs" of the iPod.
ALBUM RND*	Functions the same as "Shuffle Albums" of the iPod.

- To cancel repeat play or random play, select "RPT OFF" or "RND OFF."
- To return to the previous menu, press BACK.
- *Functions only if you select "ALL" for "ALBUMS" in the main menu.

Purchasing your favorite songs

You can easily purchase the songs you have tagged while listening to HD Radio programs (see page 11) — iTunes Tagging.

For purchasing the tagged songs, you need to perform the following operations:

1 Transfer the PSDs of the tagged songs to the iPod/iPhone. (See "Transferring the tagged PSD to your iPod/iPhone.")

2 Transfer the PSDs of the tagged songs to iTunes, then purchase the songs at iTunes Store. (See "Purchasing songs at iTunes Store.")

- You cannot transfer the tagged PSDs to the iPod/iPhone in the following cases:
  – When the connected iPod/iPhone is not compatible with iTunes Tagging. ("UNSUPPORTED DEVICE FOR TAGGING" appears.)
  – When the memory of the iPod/iPhone is full. ("CAN'T TRANS IPOD FULL" appears.)
  – When disconnecting the iPod/iPhone during data transfer. ("TRANS ERROR" appears.)
- After the data transfer is completed, the tagged PSDs are automatically deleted from the unit.

To cancel the data transfer, press and hold TAG. (Available only when USB-IPOD is selected.)

■ Transferring the tagged PSD to your iPod/iPhone

- For the type of iPod/iPhone compatible with iTunes Tagging, see page 36.
- Your iPod/iPhone must have 32 KB free space, which is required for transferring a tagged PSD.

Connect the iPod/iPhone to the unit after storing the tagged PSDs on the unit.

iPod/iPhone

- While transferring the tagged PSDs...
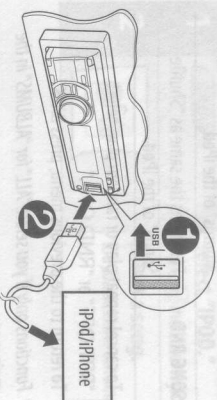
The tagged PSDs are transferred to your iPod/iPhone.

TRANS 02/15

Number of PSDs transferred to the iPod/iPhone
Number of PSDs stored on the unit

- When all tagged PSDs are transferred to the iPod/iPhone...

COMPLETED

■ Purchasing songs at iTunes Store

- iTunes 7.4 or later version is required to purchase the tagged songs.
- For details about your iPod/iPhone and iTunes, refer also to the instructions supplied with the iPod/iPhone or visit <http://www.apple.com>.

1 **Connect the iPod/iPhone to the PC.**
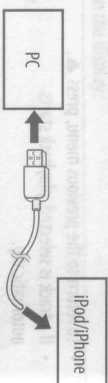
PC → iPod/iPhone

2 **Synchronize the iPod/iPhone to the iTunes.**
The tagged PSDs are transferred to PC, and iTunes displays the list of the tagged songs.
- You can purchase the tagged songs at iTunes store.
- After the data transfer is completed, the stored PSDs are automatically deleted from the iPod/iPhone.

See page 36 about warning messages for iTunes Tagging.

Listening to the other external components

You can connect an external component to:

- **EXT INPUT:** CD changer jack on the rear of this unit using the following adapters (not supplied):
  – **KS-U57:** For connecting the component with pin jacks.
  – **KS-U58:** For connecting the component with stereo mini jack.
  Preparation: Make sure "EXT INPUT" is selected in the "SELECT SRC" → "EXT IN" setting, see page 31.
- **AUX IN:** Input jack on the control panel.
  Preparation: Make sure "AUX ON" is selected in the "SELECT SRC" → "AUX IN" setting, see page 31.

1 [SRC] Select "EXT INPUT" or "AUX IN."

2 Turn on the connected component and start playing the source.

3 [Turn] Adjust the volume.

4 Adjust the sound as you want (see page 26).

Connecting an external component to the AUX input jack

3.5 mm (3/16") stereo mini plug (not supplied)

Portable audio player, etc.
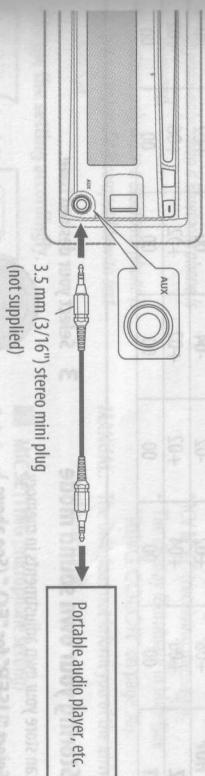
Selecting a preset sound mode

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

EQ

FLAT → USER → ROCK → CLASSIC → POPS ↩
(USER ← JAZZ ← HIP HOP ←)

or

MENU

[Hold]
The menu is called up.

Selecting from Menu. (See also page 28.)

[Hold]
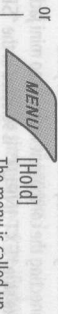
Select "EQ" → "USER/ROCK/CLASSIC/POPS/HIP HOP/JAZZ/FLAT."

[Turn] → [Press]
• Repeat this procedure.

Preset value setting for each sound mode

Mode	Preset value							
Frequency	SUB BASS	BASS	MID BASS	MID	MID HIGH	HIGH	ULTRA HIGH
	60 Hz	150 Hz	400 Hz	1 kHz	2.4 kHz	6 kHz	15 kHz
USER	00	00	00	00	00	00	00
ROCK	+06	+04	+06	00	+04	+04	00
CLASSIC	+02	+06	+02	00	00	+04	+04
POPS	00	+04	00	00	+02	+02	+04
HIP HOP	+08	+02	-02	-04	00	+02	+04
JAZZ	+06	+04	+02	+02	+06	+06	+02
FLAT	00	00	00	00	00	00	00

Storing your own sound mode

You can store your own adjustments in memory.

1 Select "USER" for "EQ." (See above.)

2 While "USER" is shown on the display...
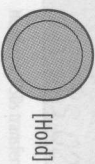
[Hold]

3 Select your desired tone.

[Turn] → [Press]

← SUB BASS ↔ BASS ↔ MID BASS ↔ MID
↔ MID HIGH ↔ HIGH ↔ ULTRA HIGH →
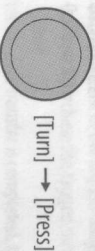
4 Adjust the tone level (–10 to +10).

[Turn] → [Press]
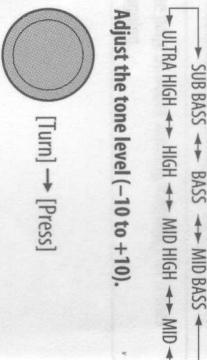
5 Repeat the procedure from steps 3 and 4 to adjust other sound characteristics.

• If no operation is done for about 30 seconds, the operation will be canceled.

Bluetooth settings

You can change the settings listed on the right column according to your preference.

SRC

1 Select "BT PHONE" or "BT AUDIO."

2 Enter the Bluetooth menu.

[Press]

3 Select "SETTINGS."

[Turn] → [Press]

4 Select a setting item.

[Turn] → [Press]

AUTO CNNCT → AUTO ANSWER*1 → MSG INFO*2 ↩
VERSION ← MIC SETTING*1 ←

5 Change the setting accordingly.

[Turn] → [Press]

*1 Appears only when a Bluetooth phone is connected.

*2 Appears only when a Bluetooth phone is connected and it is compatible with text message.

Setting menu (▬: Initial)

■ AUTO CNNCT (connect)
When the unit is turned on, the connection is established automatically with...

OFF: No Bluetooth device.

LAST: The last connected Bluetooth device.

ORDER: The available registered Bluetooth device found first.

■ AUTO ANSWER
Only for the device being connected for "BT PHONE."

ON: The unit answers the incoming calls automatically.

OFF: The unit does not answer the calls automatically. Answer the calls manually.

REJECT: The unit rejects all incoming calls.

■ MSG INFO (message info)
Only for the device being connected for "BT PHONE."

AUTO: The unit informs you of the arrival of a message by ringing and displaying "RCV MSG" (receiving message).
• The display illuminate in blue (see "RING COLOR" on page 30).

MANUAL: The unit does not inform you of the arrival of a message.

■ MIC SETTING (microphone setting)
Only for the device being connected for "BT PHONE."
Adjust the volume of the microphone connected to the Bluetooth adapter.
LEVEL 01/02/03

■ VERSION
The Bluetooth software and hardware versions are shown.

Menu operations

1 Call up the menu.

[Hold] **MENU**

2 Select the desired item.

[Turn] → [Press]

3 Repeat step 2 if necessary.

- To return to the previous menu, press BACK.
- To exit from the menu, press DISP or MENU.

Initial: **Underlined**

Category	Menu items	Selectable settings; [reference page]
DEMO	**DEMO** Display demonstration	• **DEMO ON**: Display demonstration will be activated automatically if no operation is done for about 20 seconds. [7].
		• **DEMO OFF**: Cancels.
CLOCK	**CLOCK DISP***1 Clock display	• **CLOCK ON**: Clock time is shown on the display at all times when the power is turned off.
		• **CLOCK OFF**: Cancels; pressing DISP will show the clock time for about 5 seconds when the power is turned off. [7].
	CLOCK SET Clock setting	Adjust the hour, then the minute. [7]. [Initial: 1:00]
	CLOCK ADJ Clock adjustment	• **AUTO**: The built-in clock is automatically adjusted using the clock data provided via the Satellite Radio channel or the HD Radio broadcast.
		• **OFF**: Cancels.
	TIME ZONE*2 Time zone	Select your residential area from one of the time zones for clock adjustment. **EASTERN, ATLANTIC, NEWFOUND, ALASKA, PACIFIC, MOUNTAIN, CENTRAL**
	DST*2 Daylight savings time	• **DST ON**: Activates daylight savings time if your residential area is subject to DST.
		• **DST OFF**: Cancels.
EQ	**EQ** Equalizer	Select a preset sound mode suitable to the music genre. **USER, ROCK, CLASSIC, POPS, HIP HOP, JAZZ, FLAT**

*1 If the power supply is not interrupted by turning off the ignition key of your car, it is recommended to select "CLOCK OFF" to save the car's battery.

*2 Displayed only when "CLOCK ADJ" is set to "AUTO."

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Category	Menu items	Selectable settings; [reference page]
DISPLAY	**DIMMER** Dimmer	• **DIMMER AUTO**: Dims the display when you turn on the headlights. *3
		• **DIMMER OFF**: Cancels.
		• **DIMMER ON**: Dims the display and button illumination.
	SCROLL*4 Scroll	• **SCROLL ONCE**: Scrolls the displayed information once.
		• **SCROLL AUTO**: Repeats scrolling (at 5-second intervals).
		• **SCROLL OFF**: Cancels. Pressing DISP for more than one second can scroll the display regardless of the setting.
	TAG DISPLAY Tag display	• **TAG ON**: Shows the Tag information while playing MP3/WMA tracks.
		• **TAG OFF**: Cancels.
TUNER	**AREA** Tuner channel interval	• **AREA US**: When using in North/Central/South America. AM/FM intervals are set to 10 kHz/200 kHz.
		• **AREA EU**: When using in any other areas. AM/FM intervals are set to 9 kHz/50 kHz (100 kHz during auto search).
		• **AREA SA**: When using in South American countries where FM interval is 100 kHz. AM interval is set to 10 kHz.
	MONO Monaural mode	• **MONO ON**: Activate monaural mode to improve FM reception, but stereo effect will be lost. [9].
		• **MONO OFF**: Restore the stereo effect.
	SID*5 SIRIUS ID	Your SIRIUS identification number scrolls on the display 5 seconds after "SID" is selected. [19].
	BLEND HOLD*6 HD Radio reception mode	• **AUTO**: Switch between digital and analog audio automatically [9].
		• **DIGITAL**: Tuning to digital audio only.
		• **ANALOG**: Tuning to analog audio only.
	IF BAND Intermediate frequency band	• **AUTO**: Increases the tuner selectivity to reduce interference noises between adjacent stations. (Stereo effect may be lost.)
		• **WIDE**: Subject to interference noises from adjacent stations, but sound quality will not be degraded and the stereo effect will remain.

*3 The illumination control lead connection is required. (See "Installation/Connection Manual.")

*4 Some characters or symbols will not be shown correctly (or will be blanked) on the display.

*5 Displayed only when SIRIUS Satellite Radio is connected.

*6 Displayed only when FM or AM is selected as the source.

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Category	Menu items	Selectable settings, [reference page]
COLOR	COLOR 01 — COLOR 29, USER	Select one of the preset or user color for display and button (except EQ/ϕ/ATT/$\blacktriangle$) illumination. (See also page 32 for USER color setting.)
MENU COLOR	MENU COLOR Menu color	• OFF: Cancels. • ON: Changes the display and button (except EQ/ϕ/ATT/$\blacktriangle$) illumination during menu, list search and playback mode operations.
RING COLOR	RING COLOR*7 Ring color	• OFF: Cancels. • ON: When a call comes in, the display will flash in blue. • The display will change to the original color when you answer the call or the incoming call stops. When the unit receive a text message, the display only illuminate in blue.
AUDIO	FADER*8 Fader	FADER R12 — FADER F12: [Initial: 00] Adjust the front and rear speaker output balance.
	BALANCE*9 Balance	BALANCE L12 — BALANCE R12: [Initial: 00] Adjust the left and right speaker output balance.
	VOL ADJUST Volume adjust	VOL ADJ −10 — VOL ADJ +10: [Initial: VOL ADJ 00] Preset 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 making an adjustment, select the source you want to adjust. • "VOL ADJ FIX" appears on the display if "FM", "BT PHONE", or "BT AUDIO" is selected as the source.
	SUB.W FREQ Subwoofer cutoff frequency	• LOW: Frequencies lower than 72 Hz are sent to the subwoofer. • MID: Frequencies lower than 111 Hz are sent to the subwoofer. • HIGH: Frequencies lower than 157 Hz are sent to the subwoofer.

*7 Displayed only when Bluetooth adapter KS-BTA200 is connected.
*8 If you are using a two-speaker system, set the fader level to "00."
*9 This adjustment will not affect the subwoofer output.

Category	Menu items	Selectable setting, [reference page]
AUDIO	SUB.W LEVEL Subwoofer level	SUB.W 00 — SUB.W 08: [Initial: SUB.W 04] Adjust the subwoofer output level.
	BEEP Keypress tone	• BEEP OFF: Deactivates the keypress tone. • BEEP ON: Activates the keypress tone.
	AMP GAIN*10 Amplifier gain control	• LOW POWER: VOLUME 00 — VOLUME 30 (Select if the maximum power of each speaker is less than 50 W to prevent damaging the speaker). • HIGH POWER: VOLUME 00 — VOLUME 50 Deactivates the built-in amplifier.
	AM*11 AM station	• OFF: • AM OFF: Disable "AM" in source selection. • AM ON: Enable "AM" in source selection, [4].
	EXT IN*12, *13 External input	• CH/IPOD: To use a JVC CD changer, [18], or an Apple iPod, [22]. • EXT INPUT: To connect portable audio player to the CD changer jack, [25].
	AUX IN*14 Auxiliary input	• AUX OFF: Disable "AUX IN" in source selection. • AUX ON: Enable "AUX IN" in source selection, [4].
TAG ALL CLR	TAG ALL CLR Tag all clear	Clears all tag information stored on the unit. • Hold the Control dial to clear all tag information, then "COMPLETED" appears.
IPOD SWITCH	IPOD SWITCH*15 iPod/iPhone control	• HEAD MODE: Controls iPod/iPhone playback through the unit. • IPOD MODE: Controls iPod/iPhone playback through the iPod/iPhone (see page 35).

*10 The volume level automatically changes to "VOLUME 30" if you change to "LOW POWER" with the volume level set higher than "VOLUME 30."
*11 Displayed only when any source other than "AM" is selected.
*12 Displayed only when one of the following sources is selected—FM, AM, CD, BT PHONE, BT AUDIO, or AUX IN.
*13 Not required for SIRIUS/XM tuners and Bluetooth.
*14 Displayed only when any source other than "AUX IN" is selected.
*15 Displayed only when "USB-IPOD" is selected and "IPOD MODE" is available for the connected iPod/iPhone (see page 35).

Color settings

Selecting the color for the display and buttons

- See also page 30.

4

[Hold]
Menu is called up.
- Repeat this procedure.

Select "COLOR" ➡ "COLOR 01"
– "COLOR 29"/"USER"

5 Select a primary color.

[Turn] ➡ [Press]

| DAY COLOR ↔ NIGHT COLOR |

| RED ↔ GREEN ↔ BLUE |

6 Adjust the level (00 to 31) of the selected primary color.

[Turn] ➡ [Press]

If "00" is selected for all the primary colors, nothing appears on the display.

7 Repeat steps 5 and 6 to adjust other primary colors.

8 Exit from the setting.
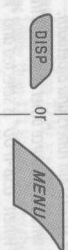
DISP or MENU

Creating your own color —USER Color

You can create your own colors—"DAY COLOR" or "NIGHT COLOR."
- DAY COLOR: color for the display and buttons.
- NIGHT COLOR: color for the display and buttons when display is dimmed.

1 Call up the menu.

MENU [Hold]

2 Select "COLOR" ➡ "USER."

[Turn] ➡ [Press]

Select "USER" to show your own colors for the buttons and display.

3 While "USER" is shown on the display...

[Hold]

- If no operation is done for about 30 seconds, the operation will be canceled.

More about this unit

Basic operations

Turning on the power

- By pressing SRC button on the unit, you can also turn on the power. If the source is ready, playback also starts.

Turning off the power

- If you turn off the power while listening to a track, playback will start from where it had been stopped previously next time you turn on the power.

General

- If you change the source while listening to a disc, playback stops.
Next time you select "CD" as the playback source, playback will start from where it had been stopped previously.
- After ejecting a disc or disconnect a USB device, "NO DISC" or "NO USB" appears and you cannot operate some of the buttons. Insert another disc, reconnect a USB device, or press SRC to select another playback source.
If no operation is done for about 30 seconds after pressing MENU button, the operation will be canceled.

Tuner operations

Storing stations in memory

During SSM search...
– All stations including HD Radio stations are searched and stored for the selected band.
– All previously stored stations are erased and stations are stored newly.
– When SSM is over, the station stored in the lowest preset number will be automatically tuned in.
When a new station is stored with the manual presetting, the previously preset station is erased and the new one is stored in the same preset number.

Listening to a preset station

No sound comes out until a broadcast is tuned in.

Disc operations

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.

General

- This unit has been designed to reproduce CDs/CD Texts, and CD-Rs (Recordable)/CD-RWs (Rewritable) in audio CD (CD-DA), MP3 and WMA formats.
- When a disc is inserted upside down, "PLEASE" and "EJECT" appear alternately on the display. Press ▲ to eject the disc.
- MP3 and WMA "tracks" (words "file" and "track" are used interchangeably) are recorded in "folders."
- While fast-forwarding or reversing on an MP3 or WMA disc, you can only hear intermittent sounds.

Playing a CD-R or CD-RW

- Use only "finalized" CD-Rs or CD-RWs.
- This unit can only play back files of the same type as those detected first if a disc includes both audio CD (CD-DA) files and MP3/WMA files.
- This unit can play back multi-session discs; however, unclosed sessions will be skipped while playing.
- Some CD-Rs or CD-RWs may not play back on this unit because of their disc characteristics, or for the following reasons:
  – Discs are dirty or scratched;
  – Moisture condensation has occurred on the lens inside the unit;
  – The pickup lens inside the unit is dirty;
  – The files on the CD-R/CD-RW are written using the "Packet Write" method.
  – There are improper recording conditions (missing data, etc.) or media conditions (stained, scratched, warped, etc.).

- CD-RWs may require a longer readout time since the reflectance of CD-RWs is lower than that of regular CDs.
- Do not use the following CD-Rs or CD-RWs:
  – Discs with stickers, labels, or a protective seal stuck to the surface.
  – Discs on which labels can be directly printed by an ink jet printer.
  Using these discs under high temperature or high humidity may cause malfunctions or damage to the unit.

Ejecting a disc
- If the ejected disc is not removed within 15 seconds, it is automatically inserted into the loading slot again to protect it from dust. Playback starts automatically.

Playing an MP3/WMA disc
- This unit can play back MP3/WMA files with the extension code <mp3> or <wma> (regardless of the letter case—upper/lower).
- This unit can show the names of albums, artists (performer), and Tag (Version 1.0, 1.1, 2.2, 2.3, or 2.4) for MP3 files and for WMA files.
- This unit can display only one-byte characters. No other characters can be correctly displayed.
- This unit can play back MP3/WMA files meeting the conditions below:
  – Bit rate: 32 kbps – 320 kbps
  – Sampling frequency:
    48 kHz, 44.1 kHz, 32 kHz (for MPEG-1)
    24 kHz, 22.05 kHz, 16 kHz (for MPEG-2)
  – Disc format: ISO 9660 Level 1/Level 2, Romeo, Joliet
- The maximum number of characters for file/folder names vary among the disc format used (includes 4 extension characters—<mp3> or <wma>):
  – ISO 9660 Level 1: up to 12 characters
  – ISO 9660 Level 2: up to 31 characters
  – Romeo: up to 64 characters
  – Joliet: up to 32 characters
- This unit can play back files recorded in VBR (variable bit rate).

- Files recorded in VBR have a discrepancy in elapsed time display, and do not show the actual elapsed time. Especially, after performing the search function, this difference becomes noticeable.
- This unit can recognize a total of 512 files and of 25... folders.
- This unit cannot play back the following files:
  – MP3 files encoded with MP3i and MP3 PRO forma...
  – MP3 files encoded in an inappropriate format.
  – MP3 files encoded with Layer 1/2.
  – WMA files encoded with lossless, professional, an... voice format.
  – WMA files which are not based upon Windows Media® Audio.
  – WMA files copy-protected with DRM.
  – Files which have the data such as WAVE, ATAC3, etc.
- The search function works but search speed is not constant.

■ **USB operations**
- If "NO USB" appears after removing a device, reattac... a device or select another playback source.
- When the USB device has no playable files "NO FILE" appears, or when the files have not been formatted correctly, "NOT SUPPORT" flashes.
- The unit cannot recognize a USB device whose rating is other than 5 V and exceeds 500 mA.
- While playing from a USB device, the playback order may differ from other players.
- This unit may be unable to play back some USB devices or some files due to their characteristics or recording conditions.
- USB devices equipped with special functions such as data security functions cannot be used with the unit.
- Do not use a USB device with 2 or more partitions.
- Depending on the shape of the USB devices and connection ports, some USB devices may not be attached properly or the connection might be loose.
- When connecting a USB device, refer also to its instructions.
- Connect only one USB device to the unit at a time. Do not use a USB hub.
- This unit may not recognize a memory card inserted into the USB card reader.

- When connecting with a USB cable, use the USB 2.0 cable.
- This unit may not play back files in a USB device properly when using a USB extension cord.
- This unit cannot assure proper functions or supply power to all types of USB devices.
- This unit is not compatible with FAT 64 or NTFS. The compatible file system is FAT 32, FAT 16, or FAT 12.
- This unit can recognize a total of 65 025 files and 255 folders (a maximum of 255 files per folder).
- This unit can recognize a total of 63 characters for file/folder names (including the extension cord).

■ **Bluetooth operations**
General
- While driving, do not perform complicated operation such as dialing the numbers, using phone book, etc. When you perform these operations, stop your car in a safe place.
- Some Bluetooth devices may not be connected to this unit depending on the Bluetooth version of the device.
- This unit may not work for some Bluetooth devices.
- Connecting condition may vary depending on the circumstances around you.
- When the unit is turned off, the device is disconnected.

Warning messages for Bluetooth operations
ERROR CNNCT (Error Connection)
The device is registered but the connection has failed. Use "CONNECT" to connect the device again. (See page 15.)
ERROR
Try the operation again. If "ERROR" appears again, check if the device supports the function you have tried.
UNFOUND
No available Bluetooth device is detected by menu.
LOADING
The unit is updating the phone book *.
SEARCH.

- **PLEASE WAIT**
The unit is preparing to use the Bluetooth function. If the message does not disappear, turn off and turn on the unit, then connect the device again (or reset the unit).
- **RESET 8**
Check the connection between the adapter and this unit.

■ **Satellite Radio operations**
- To know more about SIRIUS Satellite Radio or to sign up, visit <http://www.sirius.com>.
- For the latest channel listings and programming information, or to sign up for XM Satellite Radio, visit <http://www.xmradio.com>.

■ **iPod/iPhone operations**
- You can control the following types of iPods/iPhones:
– Through the USB 2.0 cable
  iPod with video (5th Generation) *1
  iPod classic *1, *2
  iPod nano
  iPod nano (2nd Generation) *2
  iPod nano (3rd Generation) *1, *2
  iPod nano (4th Generation) *1, *2
  iPod Touch/iPod Touch (2nd Generation) *1, *2
  iPhone/iPhone 3G *1, *2
– Through the interface adapter
  iPod with dock connector (3rd Generation)
  iPod with Click Wheel (4th Generation)
  iPod mini
  iPod photo
  iPod nano
  iPod with video (5th Generation) *1
  iPod classic *1
  iPod nano (2nd Generation)
  iPod nano (3rd Generation) *1
  iPod nano (4th Generation) *1, *3

*It is not possible to browse video files on the "Videos" menu.
*2 "IPOD MODE" (see page 21) is available.
*3 It is not possible to charge the battery through this unit.

- You can enjoy iTunes Tagging with the following types of iPod/iPhone:
  – iPod classic, software version 1.0 or later
  – iPod nano (3rd Generation), software version 1.0 or later
  – iPod nano (4th Generation), software version 1.0 or later
  – iPod Touch, software version 2.1 or later
  – iPhone/iPhone 3G, software version 2.1 or later
- When you turn on this unit, the iPod/iPhone is charged through this unit.
- The text information may not be displayed correctly.
- If the text information contains more than 11 characters, it scrolls on the display.
  This unit can display up to 40 characters for "iPOD" and up to 33 characters for "USB-iPOD."

Warning messages for iTunes Tagging

- **MEMORY FULL**
  You are trying to store the 61st PSD. Transfer the tagged PSDs to the iPod/iPhone, or clear all tagged PSDs. (See page 11.)
- **TAG ALREADY SAVED**
  You are trying to tag the song for the 2nd time while receiving one song.
- **NO TAG DATA**
  The broadcast currently received does not support the iTunes Tagging or the broadcast does not provide PSD.
- **CAN'T TRANS iPOD FULL**
  The memory of the iPod/iPhone is full.

- **UNSUPPORTED DEVICE FOR TAGGING**
  The connected iPod/iPhone is not compatible with iTunes Tagging.
- **TRANS ERROR**
  The iPod/iPhone is disconnected during data transfer.
- **TRANS OFF**
  Data transfer is canceled.

Notice:

When operating an iPod/iPhone, some operations may not be performed correctly or as intended.
In this case, visit the following JVC web site:
<http://www.jvc.co.jp/english/car/> (English website only)

■ Menu operations

- If you change the "AMP GAIN" setting from "HIGH POWER" to "LOW POWER" while the volume level is set higher than "VOLUME 30," the unit automatically changes the volume level to "VOLUME 30."

JVC bears no responsibility for any loss of data in an iPod/iPhone and/or USB mass storage class device while using this System.

If your iPod/iPhone does not play correctly, please update your iPod/iPhone software to the latest version. For details about updating your iPod/iPhone, visit <http://www.apple.com>.

Troubleshooting

What appears to be trouble is not always serious. Check the following points before calling a service center.

	Symptoms	Remedies/Causes
General	Sound cannot be heard from the speakers.	• Adjust the volume to the optimum level. • Check the cords and connections.
	The unit does not work at all.	Reset the unit (see page 3).
	"AUX IN" cannot be selected.	Check the "SELECT SRC" → "AUX IN" setting (see page 31).
	Nothing appears on the display.	Check the "USER" color setting (see page 32).
	SSM automatic presetting does not work.	Store stations manually.
	Static noise while listening to the radio.	Connect the antenna firmly.
	"AM" cannot be selected.	Check the "SELECT SRC" → "AM" setting (see page 31).
	Sound quality changes when receiving HD Radio stations.	Fix the reception mode either to "DIGITAL" or "ANALOG" (see pages 9 and 29).
	No sound can be heard.	"ANALOG" is selected when receiving all digital broadcast of HD Radio station. Select "DIGITAL" or "AUTO" (see pages 9 and 29). "DIGITAL" is selected when receiving weak digital signals or receiving conventional radio broadcast. Select "ANALOG" or "AUTO" (see pages 9 and 29).
FM/AM	The song cannot be tagged.	The HD Radio broadcast does not support iTunes Tagging function or the broadcast does not contain PSD. You can tag the PSD only when the TAG indicator lights up on the display.
	The clock becomes wrong when receiving HD Radio stations.	Set "CLOCK ADJ" to "OFF" (see page 28).

Disc playback

Symptoms	Remedies/Causes
• Disc cannot be played back.	• Insert the disc correctly.
• CD-R/CD-RW cannot be played back. • Tracks on the CD-R/CD-RW cannot be skipped.	• Insert a finalized CD-R/CD-RW. • Finalize the CD-R/CD-RW with the component which you used for recording.
• Disc can neither be played back nor ejected.	• Unlock the disc (see page 12). • Eject the disc forcibly (see page 3).
• Disc sound is sometimes interrupted.	• Stop playback while driving on rough roads. • Change the disc. • Check the cords and connections.
• "NO DISC" appears on the display.	• Insert a playable disc into the loading slot.
• "PLEASE" and "EJECT" appear alternately on the display.	• Press ▲, then insert a disc correctly.

MP3/WMA playback

Symptoms	Remedies/Causes
• Disc cannot be played back.	• Use a disc with MP3/WMA tracks recorded in a format compliant with ISO 9660 Level 1, Level 2, Romeo, or Joliet. • Add the extension code <.mp3> or <.wma> to the file names.
• Noise is generated.	• Skip to another track or change the disc. (Do not add the extension code <.mp3> or <.wma> to non-MP3 or WMA tracks.)
• A longer readout time is required ("READING" keeps flashing on the display).	• Do not use too many hierarchical levels and folders.
• 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.
• "NO FILE" appears on the display.	• Selected folder is an empty folder *1. Select another folder that contains MP3/WMA tracks.
• 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.

*1 Folder that is physically empty or folder that contains data but does not contain valid MP3/WMA track.

USB playback

Symptoms	Remedies/Causes
• Noise is generated.	• The track played back is not a playable file format. Skip to another file. • Do not add the extension code <.mp3> or <.wma> to non-MP3 or WMA tracks.
• "READING" keeps flashing on the display.	• Readout time varies depending on the USB device. • Do not use too many hierarchy or folders. • Turn off the power then on again. • Do not pull out or connect the USB device repeatedly while "READING" is displayed on the display.
• "NO FILE" appears on the display.	• Check whether the selected folder, the connected USB device, or the iPod/iPhone contains a playable file.
• Tracks/folders are not played back in the order you have intended them to play.	• The playback order is determined by the file name. Folders with numbers on the initial of their names are sorted in numerical order. However, folders with no numbers on the initial of their names are sorted according to the file system of the USB device.
• "CANNOT PLAY" appears on the display. • "NO USB" appears on the display. • The unit cannot detect the USB device.	• Check whether the connected USB device or the iPod is compatible with this unit. • The USB device is not connected properly. Connect the USB device again.
• "NOT SUPPORT" appears on the display.	• Check whether the track is a playable file format.
• 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.
• While playing a track, sound is sometimes interrupted.	• The tracks have not been properly copied into the USB device. Copy tracks again into the USB device, and try again.

Bluetooth*2

Symptoms	Remedies/Causes
• Bluetooth device does not detect the unit.	• The unit can be connected with one Bluetooth cellular phone and one Bluetooth audio device at a time. While connecting a device, this unit cannot be detected from another device. Disconnect the currently connected device and search again.
• The unit does not detect the Bluetooth device.	• Check the Bluetooth setting of the device. • Search from the Bluetooth device. After the device detects the unit, select "OPEN" on the unit to connect the device. (See page 14.)
• The unit does not make pairing with the Bluetooth device.	• Enter the same PIN code for both the unit and target device. • Select the device name from "SPECIAL," then try to connect again. (See page 15.) • Try to pair/connect from the Bluetooth device.
• Echo or noise occurs.	• Adjust the microphone unit position.
• Phone sound quality is poor.	• Reduce the distance between the unit and the Bluetooth cellular phone. • Move the car to a place where you can get a better signal reception.
• The sound is interrupted or skipped during playback of a Bluetooth audio player.	• Reduce the distance between the unit and the Bluetooth audio player. • Disconnect the device connected for "BT PHONE." • Turn off, then turn on the unit. • (When the sound is not yet restored,) connect the device again.
• The connected audio player cannot be controlled.	• Check whether the connected audio player supports AVRCP (Audio Video Remote Control Profile).

CD changer

Symptoms	Remedies/Causes
• "NO DISC" appears on the display.	• Insert a disc into the magazine.
• "NO MAGAZINE" appears on the display.	• Insert the magazine.
• "RESET 8" appears on the display.	• Connect this unit and the CD changer correctly and press the reset button of the CD changer.
• "RESET 1" – "RESET 7" appears on the display.	• Press the reset button of the CD changer.
• The CD changer does not work at all.	• Reset the unit (see page 3).

*2 For Bluetooth operations, refer also to the instructions supplied with the Bluetooth Adapter.

Satellite Radio

Symptoms	Remedies/Causes
• "CALL 1-888-539-SIRIUS TO SUBSCRIBE" scrolls on the display while listening to the SIRIUS Satellite Radio.	• Starts subscribing to SIRIUS Satellite Radio (see page 19).
• No sound can be heard. "UPDATING" or "UPDATE XXX%" appears on the display.	• The unit is updating the channel information and it takes a few minutes to complete.
• "NO SIGNAL" or "ACQUIRING" appears on the display.	• Move to an area where signals are stronger.
• "NO ANTENNA" or "ANTENNA" appears on the display.	• Connect the antenna firmly.
• "NO CHANNEL" appears on the display for about 5 seconds, then returns to the previous display while listening to the SIRIUS Satellite Radio.	• No broadcast on the selected channel. Select another channel or continue listening to the previous channel.
• "NO (information)"*3* scrolls on the display while listening to the SIRIUS Satellite Radio.	• No text information for the selected channel.
• "—" appears on the display while listening to the XM Satellite Radio.	• Selected channel is no longer available or is unauthorized. Select another channel or continue listening to the previous channel.
• "—" appears on the display for about 2 seconds, then returns to the previous channel while listening to the XM Satellite Radio.	• Selected channel is not broadcasting at this time. Select another channel or continue listening to the previous channel.
• "OFF AIR" appears on the display while listening to the XM Satellite Radio.	• Select another channel or continue listening to the previous channel.
• "LOADING" appears on the display while listening to the XM Satellite Radio.	• The unit is loading the channel information and audio. Text information are temporarily unavailable.
• "RESET 8" appears on the display.	• Reconnect this unit and the Satellite Radio correctly and reset this unit.
• Satellite Radio does not work at all.	

3 NO CATEGORY, NO ARTIST, NO COMPOSER, and NO SONG/PROGRAM.

Symptoms / Remedies/Causes

Symptoms	Remedies/Causes
• The iPod/iPhone does not turn on or does not work.	• Check the connecting cable and its connection. • Update the firmware version of the iPod/iPhone. • Charge the battery of the iPod/iPhone. • Reset the iPod/iPhone. • Check whether "IPOD SWITCH" setting is appropriate (see page 31).
• The sound is distorted.	• Deactivate the equalizer either on this unit or the iPod/iPhone.
• "NO IPOD" appears on the display.	• Check the connecting cable and its connection. • Charge the battery of the iPod/iPhone.
• Playback stops.	The headphones are disconnected during playback. Restart the playback operation (see pages 21 to 23).
• "NO FILES" appears on the display.	No tracks are stored. Import tracks to the iPod/iPhone.
• "RESET 1" — "RESET 7" appears on the display.	Disconnect the adapter from both this unit and iPod. Then, connect it again.
• "RESET 8" appears on the display.	Check the connection between the adapter and this unit. Reset the iPod/iPhone.
• The iPod/iPhone's controls do not work after disconnecting from this unit.	Reset the iPod/iPhone.
• The tagged PSD cannot be transferred to the iPod/iPhone.	• The iPod/iPhone does not have enough memory. • The iPod/iPhone connected to the unit is not compatible with the iTunes Tagging function.
• "Tagged Playlist" is not shown on the iTunes after synchronizing the iPod/iPhone with PC.	Update the version of your iTunes to the version 7.4 or later.

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• XM and its corresponding logos are registered trademarks of XM Satellite Radio Inc.
• "SAT Radio," the SAT Radio logo and all related marks are trademarks of SIRIUS Satellite Radio Inc., and XM Satellite Radio, Inc.
• "Made for iPod" means that an electronic accessory has been designed to connect specifically to iPod and has been certified by the developer to meet Apple performance standards.
• "Works with iPhone" means that an electronic accessory has been designed to connect specifically to iPhone and has been certified by the developer to meet Apple performance standards.
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Maintenance

How to clean the connectors

Frequent detachment will deteriorate the connectors. To minimize this possibility, periodically wipe the connectors with a cotton swab or cloth moistened with alcohol, being careful not to damage the connectors.

Connectors

Moisture condensation

Moisture may condense on the lens inside the unit in the following cases:
• After starting the heater in the car.
• If it becomes very humid inside the car.

Should this occur, the unit may malfunction. In this case, eject the disc and leave the unit turned on for a few hours until the moisture has evaporated.

How to handle discs

When removing a disc from its case, press down the center holder of the case and lift the disc out, holding it by the edges.

Center holder

• Always hold the disc by the edges. Do not touch its recording surface.

When storing a disc in its case, gently insert the disc around the center holder (with the printed surface facing up).

• Make sure to store discs in cases after use.

■ To keep discs clean

A dirty disc may not play correctly. If a disc does become dirty, wipe it with a soft cloth in a straight line from center to edge.

• Do not use any solvents (for example, conventional record cleaner, spray, thinner, benzine, etc.) to clean discs.

■ To play new discs

New discs may have some rough spots around the inner and outer edges. If such a disc is used, this unit may reject the disc.

To remove these rough spots, rub the edges with a pencil or ball-point pen, etc.

Do not use the following discs:

Single CD —8 cm (3-3/16") disc	Warped disc
Sticker and sticker residue	Stick-on label
Unusual shape	C-thru Disc (semi-transparent disc)
Transparent or semi-transparent parts on its recording area	

Specifications

AUDIO AMPLIFIER SECTION

Power Output:		**20 W RMS × 4 Channels at 4 Ω** **and ≤ 1% THD+N**	
Signal-to-Noise Ratio:		80 dBA (reference: 1 W into 4 Ω)	
Load Impedance:		4 Ω (4 Ω to 8 Ω allowance)	
Equalizer Control Range:	Frequencies:	60 Hz, 150 Hz, 400 Hz, 1 kHz, 2.4 kHz, 6 kHz, 15 kHz	
	Level:	±10 dB	
Frequency Response:		40 Hz to 20 000 Hz	
Line-Out Level/Impedance:		KD-AHD59:	5.0 V/20 kΩ load (full scale)
		KD-HDR50:	2.5 V/20 kΩ load (full scale)
Subwoofer-Out Level/Impedance:		KD-AHD59:	5.0 V /20 kΩ load (full scale)
		KD-HDR50:	2.5 V/20 kΩ load (full scale)
Output Impedance:			1 kΩ
Other Terminal:			USB input terminal, AUX (auxiliary) input jack, CD changer jack, Steering wheel remote input (only for KD-AHD59), Antenna input

TUNER SECTION (HD Radio System Compatible)

Frequency Range:	FM:	with channel interval set to 100 kHz or 200 kHz	87.5 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 1 710 kHz
		with channel interval set to 9 kHz	531 kHz to 1 602 kHz
FM Tuner	Usable Sensitivity:		8.3 dBf (0.7 μV/75 Ω)
	50 dB Quieting Sensitivity:		14.3 dBf (1.4 μV/75 Ω)
	Alternate Channel Selectivity (400 kHz):		65 dB
	Frequency Response:		40 Hz to 15 000 Hz (HD Radio broadcast) 20 Hz to 20 000 Hz (HD Radio broadcast)
	Stereo Separation:		40 Hz to 15 000 Hz (Conventional broadcast) 70 dB (HD Radio broadcast)
	Capture Ratio		50 dB (Conventional broadcast) 3.5 dB
AM Tuner	Sensitivity:		13 μV
	Selectivity:		80 dB
	Frequency Response:		40 Hz to 15 000 Hz (HD Radio broadcast)
	Stereo Separation:		70 dB (HD Radio broadcast)

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
Dynamic Range:	96 dB
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® Audio) Decoding Format:	Max. Bit Rate: 192 kbps

USB SECTION

USB Standards:	USB 2.0 Full Speed
Data Transfer Rate:	Full Speed: Maximum 12 Mbps Low Speed: Maximum 1.5 Mbps
Compatible Device:	Mass storage class
Compatible File System:	FAT 32/16/12
Max. Current:	DC 5 V ⎓ 500 mA

GENERAL

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 × 159.5 mm (7-3/16" × 2-1/16" × 6-5/16")
	Panel Size:	188 mm × 58 mm × 5 mm (7-7/16" × 2-5/16" × 1/4")
Mass:		1.4 kg (3.1 lbs) (excluding accessories)

Design and specifications are subject to change without notice.

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