

KENWOOD

CD-RECEIVER

KDC-MP333V

INSTRUCTION MANUAL

Kenwood Corporation



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Safety precautions

⚠ WARNING

To prevent injury or fire, take the following precautions:

- To prevent a short circuit, never put or leave any metallic objects (such as coins or metal tools) inside the unit.
- Mounting and wiring this product requires skills and experience. For safety's sake, leave the mounting and wiring work to professionals.

⚠ CAUTION

To prevent damage to the machine, take the following precautions:

- Make sure to ground the unit to a negative 12V DC power supply.
- Do not install the unit in a spot exposed to direct sunlight or excessive heat or humidity. Also avoid places with too much dust or the possibility of water splashing.
- Do not place the faceplate (and the faceplate case) in areas exposed to direct sunlight, excessive heat or humidity. Also avoid places with too much dust or the possibility of water splashing.
- To prevent deterioration, do not touch the terminals of the unit or faceplate with your fingers.
- Do not subject the faceplate to excessive shock, as it is a piece of precision equipment.
- When replacing a fuse, only use a new fuse with the prescribed rating. Using a fuse with the wrong rating may cause your unit to malfunction.
- Do not use your own screws. Use only the screws provided. If you use the wrong screws, you could damage the unit.

Do Not Load 8 cm (3 in.) CDs in the CD slot

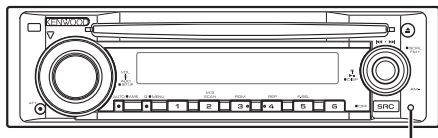
If you try to load a 8 cm (3 in.) CD with its adapter into the unit, the adapter might separate from the CD and damage the unit.

Lens Fogging

When you turn on the car heater in cold weather, dew or condensation may form on the lens in the CD player of the unit. Called lens fogging, this condensation on the lens may not allow CDs to play. In such a situation, remove the disc and wait for the condensation to evaporate. If the unit still does not operate normally after a while, consult your Kenwood dealer.

Notes

- If you experience problems during installation, consult your Kenwood dealer.
- When you purchase optional accessories, check with your Kenwood dealer to make sure that they work with your model and in your area.
- If the unit fails to operate properly, press the Reset button. The unit returns to factory settings when the Reset button is pressed.



Reset button

- The characters which can be displayed by this unit are A-Z 0-9 @ " ' ` % & * + - = , . / \ < > [] () ; ; ^ - { } | ~ .
- Video CD images are displayed on the monitor unit (an optional accessory) connected to the system.
No Video CD image is displayed if the parking brake is released.
Before watching the Video CD images, park your car in a safety place and apply the parking brake.
- The illustrations of the display and the panel appearing in this manual are examples used to explain more clearly how the controls are used. Therefore, what appears on the display in the illustrations may differ from what appears on the display on the actual equipment, and some of the illustrations on the display may be inapplicable.

Cleaning the Unit

If the faceplate of this unit is stained, wipe it with a dry soft cloth such as a silicon cloth.

If the faceplate is stained badly, wipe the stain off with a cloth moistened with neutral cleaner, then wipe it again with a clean soft dry cloth.



- Applying spray cleaner directly to the unit may affect its mechanical parts. Wiping the faceplate with a hard cloth or using a volatile liquid such as thinner or alcohol may scratch the surface or erase characters.

Cleaning the Faceplate Terminals

If the terminals on the unit or faceplate get dirty, wipe them with a dry, soft cloth.

The marking of products using lasers (Except for some areas)

CLASS 1 LASER PRODUCT

The label is attached to the chassis/case and says that the component uses laser beams that have been classified as Class 1. This means that the unit is utilizing laser beams that are of a weaker class. There is no danger of hazardous radiation outside the unit.

About CDs

Handling CDs

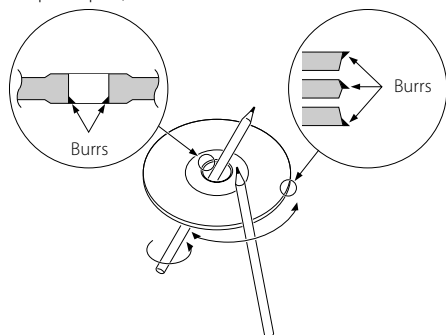
- Do not touch the recording surface of the CD.



- CD-R and CD-RW are easier to damage than a normal music CD. Use a CD-R or a CD-RW after reading the caution items on the package etc.
- Do not stick tape etc. on the CD, or use a CD with tape stuck on it.

When using a new CD

If the CD center hole or outside rim has burrs, use the CD only after removing the burrs with a ballpoint pen, etc.

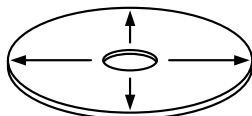


CD accessories

Do not use disc type accessories.

CD cleaning

Clean from the center of the disc and move outward.

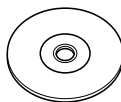


Removing CDs

When removing CDs from this unit, pull them out horizontally.

CDs that cannot be used

- CDs that are not round cannot be used.



- CDs with coloring on the recording surface or CDs that are dirty cannot be used.
- This unit can only play the CDs with



This unit may not correctly play discs which do not have the mark.

- You cannot play a CD-R or CD-RW that has not been finalized. (For the finalization process refer to your CD-R/CD-RW writing software, and your CD-R/CD-RW recorder instruction manual.)

CD storage

- Do not place CDs in direct sunlight (On the seat or dashboard etc.) or where the temperature is high.
- Store CDs in their cases.

About MP3 and WMA

The playable MP3/WMA file (hereafter called Audio file) and the media format has the following limitation. The Audio file, which is not conforming to the specification, may not play normally, or the file and folder names may not display correctly.

Playable Audio file

- MP3, WMA



- Attach the correct extension for the Audio file (MP3: "MP3", WMA: ".WMA")
- Do not attach the extensions to files other than the Audio file. If the extension is attached, the file, which is not the Audio file, will play and outputs a loud noise, causing damage to the speaker.
- The files with copy protection cannot be played.
- The settings of your encoding software and the environment in which it is used may now allow you to play or view specific audio files.
- The unit may not be compatible with upgrade of compression format standard and additional specifications.

Playable MP3 file

- MPEG 1/2 Audio Layer 3 file
- Transfer bit rate: 8-320 kbps
- Sampling frequency: 8, 11.025, 12, 16, 22.05, 24, 32, 44.1, 48 kHz

Playable WMA file

- The file in accordance with Windows Media Audio (Except for the file for Windows Media Player 9 or after which applies the new functions)
- Transfer bit rate: 48-192 kbps
- Sampling frequency: 32, 44.1, 48 kHz

Playable media

- CD-ROM, CD-R, CD-RW



- CD-RW discs which are quick formatted by the writing software cannot be used.
- When recording to the maximum media capacity at once, the writing software is set to "Disc at once".

Playable disc format

- ISO 9660 Level 1/2
- Joliet
- Romeo
- Long file name.

The maximum number of characters for display

File/Folder name: 64 (Joliet: 32) characters

MP3 ID3 Tag/ WMA Contents property: 30 characters



- File/Folder name is the number of the characters including the extensions.
- MP3 ID3 Tag can only display the tag of Ver1.0/ 1.1.

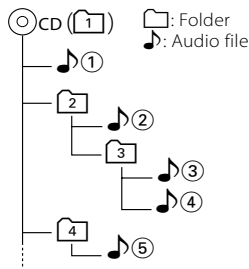
Limitation of structure for the file and the folder

- Maximum number of directory levels: 8
- Maximum number of folders: 50
- Maximum number of files per folder: 255
- Maximum number of files and folders: 512

Playing order of the Audio file

The Audio file plays in the order which is written by writing software. You may be able to set the playing order by writing the play sequence numbers such as "01" to "99" at the beginning of the file name.

Example



• Playing order

Playing order after 1 play.

➡ 2, 3, 4, 5...

• File search

Forward file search during 3 play.

Push the Control knob towards ➡ 4

• Folder search

Forward folder search during 2 play.

Push the Control knob towards [FM] ➡ 3, 4...

• Folder select

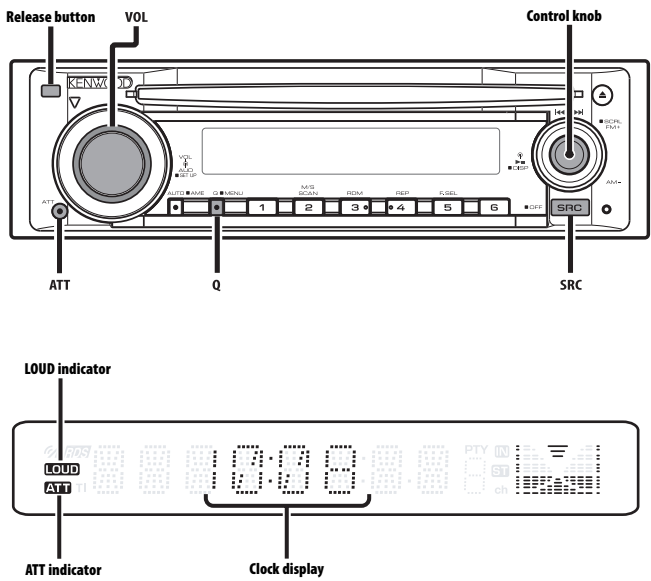
When the selection is set to directory 1, and you want to skip to the folder 2 at the same level.

Push the Control knob towards ➡ 2

When the selection is set to directory 3, moves the level up by folder select.

Push the Control knob towards [AM] ➡ 2

General features



Power

Turning ON the Power

Press the [SRC] button.

Turning OFF the Power

Press the [SRC] button for at least 1 second.

Selecting the Source

Press the [SRC] button.

Source required	Display
Tuner	"TUNER"
CD/VCD	"CD"
Standby (Illumination only mode)	"STANDBY"



- A disc containing Video CD files can also be played back. The Video CD is called the VCD in this manual.

Volume

Increasing Volume

Turn the [VOL] knob clockwise.

Decreasing Volume

Turn the [VOL] knob counterclockwise.

Attenuator

Turning the volume down quickly.

Press the [ATT] button.

Each time you press the button, the Attenuator turns ON and OFF.

When the Attenuator is ON, the "ATT" indicator blinks.

General features

System Q

Selecting the best sound setting preset for different types of music.

1 Select the source to set

Press the [SRC] button.

2 Select the Sound type

Press the [Q] button.

When you press the button once, the current sound setting is displayed.

Each time you press the button, the sound setting alternates.

Sound setting	Display
Natural	"NATURAL"
Rock	"ROCK"
Pops	"POPS"
Easy	"EASY"
Top 40	"TOP40"
Jazz	"JAZZ"



- Change each setting value with the <Speaker Setting> (page 9).
First, select the speaker type with the Speaker setting.
- When the value is set up by <Audio Control> (page 8), "USER" is displayed.

Audio Control

1 Select the source to adjust

Press the [SRC] button.

2 Enter Audio Control mode

Press the [VOL] knob.

3 Select the Audio item to adjust

Press the [VOL] knob.

Each time you press the knob, the item to be adjusted alternates between the items shown in the table below.

4 Adjust the Audio item

Turn the [VOL] knob.

Adjustment Item	Display	Range
Bass level	"BAS L"	-8 — +8
Middle level	"MID L"	-8 — +8
Treble level	"TRE L"	-8 — +8
Balance	"BAL"	Left 15 — Right 15

Fader	"FAD"	Rear 15 — Front 15
Exit Audio Control mode (Volume control mode)		

5 Exit Audio Control mode

Press any button.

Press a button other than the [VOL] knob and [ATT] button.

Audio Setup

Setting the Sound system, such as Volume offset and Loudness.

1 Select the source to adjust

Press the [SRC] button.

2 Enter Audio Setup mode

Press the [VOL] knob for at least 1 second.

3 Select the Audio Setup item to adjust

Press the [VOL] knob.

Each time you press the knob, the item to be adjusted alternates between the items shown in the table below.

4 Adjust the Audio setup item

Turn the [VOL] knob.

Adjustment Item	Display	Range
Volume offset	"V-Off"	-8 — ±0
Loudness	"LOUD"	ON/OFF



- Volume offset: Sets each source's volume as a difference from the basic volume.
- Loudness: Compensates for low and high tones during low volume.
When Loudness is ON, "LOUD" indicator is ON.

5 Exit Audio Setup mode

Press the [VOL] knob for at least 1 second.

Speaker Setting

Fine-tuning so that the System Q value is optimal when setting the speaker type.

1 Enter Standby

Press the [SRC] button.

Select the "STANDBY" display.

2 Enter Speaker Setting mode

Press the [VOL] knob.

3 Select the Speaker type

Turn the [VOL] knob.

Each time you turn the knob, the setting alternates between the settings shown in the table below.

Speaker type	Display
OFF	"SP OFF"
For 5 & 4 in. speaker	"SP 5/4"
For 6 & 6x9 in. speaker	"SP 6*9/6"
For the OEM speaker	"SP OEM"

4 Exit Speaker Setting mode

Press the [VOL] knob.

Switching Display

Changing the information displayed.

1 Enter Switching Display mode

Press the Control knob for at least 1 second.

"DISP SEL" is displayed.

2 Select the Display item

Push the Control knob towards [◀◀] or [▶▶].

In Tuner source

Information	Display
Frequency	"FREQ"
Clock	"CLOCK"

In CD source

Information	Display
Disc title	"D-TITLE"*
Track title	"T-TITLE"*
Track number & Play time	"P-TIME"
Clock	"CLOCK"

In Audio file source

Information	Display
Song title & Artist name	"TITLE"*
Album name & Artist name	"ALBUM"*
Folder name	"FOLDER"
File name	"FILE"
Track number & Play time	"P-TIME"
Clock	"CLOCK"

In VCD source

Information	Display
Track number & Play time	"P-TIME"
Clock	"CLOCK"

In Standby

Information	Display
Source name	"SRC NAME"
Clock	"CLOCK"

3 Exit Switching Display mode

Press the Control knob.



- * If the contents of the information cannot be displayed, Play time is displayed.
- When you select the clock display, the display setting of each source will be changed to the clock display.
- Album name cannot be displayed in WMA file.

General features

Theft Deterrent Faceplate

The faceplate of the unit can be detached and taken with you, helping to deter theft.

Removing the Faceplate

Press the Release button.

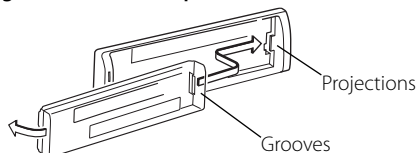
The faceplate unlocks, allowing you to detach it.



- The faceplate is a precision piece of equipment and can be damaged by shocks or jolts.
- Keep the faceplate in its faceplate case while detached.
- Do not expose the faceplate (and the faceplate case) to direct sunlight or excessive heat or humidity. Also avoid places with too much dust or the possibility of water splashing.

Reattaching the Faceplate

- 1 Align the projections on the unit with the grooves on the faceplate.**



- 2 Push the faceplate in until it clicks.**

The faceplate is locked in place, allowing you to use the unit.

TEL Mute

The audio system automatically mutes when a call comes in.

When a call comes in

"CALL" is displayed.

The audio system pauses.

Listening to the audio during a call

Press the [SRC] button.

The "CALL" display disappears and the audio system comes back ON.

When the call ends

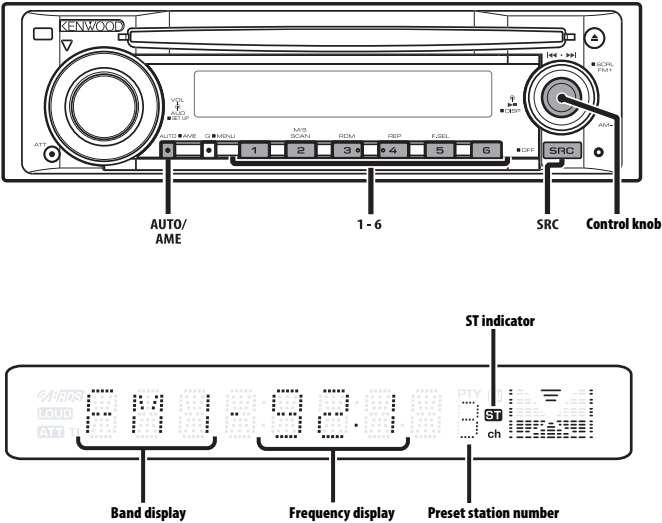
Hang up the phone.

The "CALL" display disappears and the audio system comes back ON.



- To use the TEL Mute feature, you need to hook up the MUTE wire to your telephone using a commercial telephone accessory. Refer to <Connecting Wires to Terminals> (page 20).

Tuner features



Tuning

Selecting the station.

1 Select tuner source

Press the [SRC] button.

Select the "TUNER" display.

2 Select the band

Push the Control knob towards [FM] or [AM].

Each time you push the knob toward [FM], it switches between the FM1, FM2, and FM3 bands.

3 Tune up or down band

Push the Control knob towards [◀◀] or [▶▶].



- During reception of stereo stations the "ST" indicator is ON.

Tuning Mode

Choose the tuning mode.

Press the [AUTO] button.

Each time you press the button, the Tuning mode alternates between the modes shown in the table below.

Tuning mode	Display	Operation
Auto seek	"AUTO 1"	Automatic search for a station.
Preset station seek	"AUTO 2"	Search in order of the stations in the Preset memory.
Manual	"MANUAL"	Normal manual tuning control.

Tuner features

Station Preset Memory

Putting a station in the memory.

- 1 Select the band**
Push the Control knob towards [FM] or [AM].
- 2 Select the frequency to put in the memory**
Push the Control knob towards [◀◀] or [▶▶].
- 3 Put the frequency in the memory**
Press the desired [1] — [6] button for at least 2 seconds.
The preset number display blinks 1 time.
On each band, 1 station can be put in the memory on each [1] — [6] button.

Auto Memory Entry

Putting stations with good reception in the memory automatically.

- 1 Select the band for Auto Memory Entry**
Push the Control knob towards [FM] or [AM].
- 2 Open Auto Memory Entry**
Press the [AME] button for at least 2 seconds.
"A-MEMORY" is displayed.
When 6 stations that can be received are put in the memory Auto Memory Entry closes.

Preset Tuning

Recalling the stations in the memory.

- 1 Select the band**
Push the Control knob towards [FM] or [AM].
- 2 Recall the station**
Press the desired [1] — [6] button.

Frequency Step Setting

Changing the tuning frequency step.

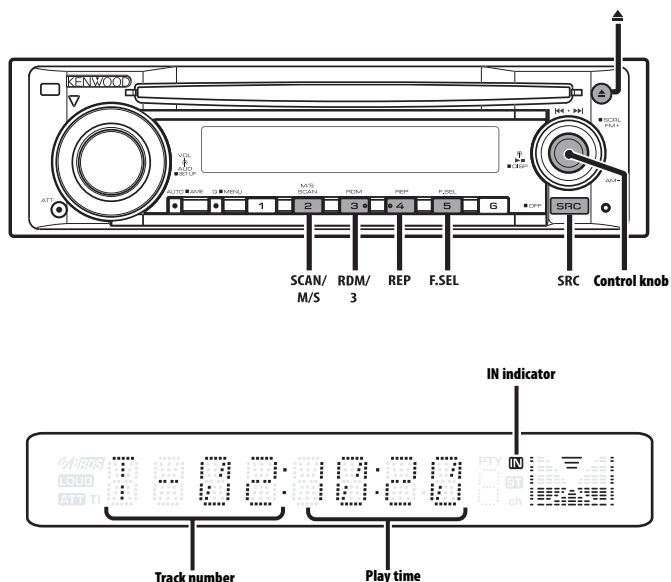
The original setting is 50 kHz for FM band, and 9 kHz for AM band.

- 1 Turn the power OFF**
Press the [SRC] button for at least 1 second.
- 2 Switch the frequency step**
While pressing the [1] and [5] buttons, press the [SRC] button.
Release your fingers from the button after the display appears.
The frequency step changes to 200 kHz for FM band, and 10 kHz AM band.



- When the same operation is repeated, the frequency step returns to the original setting.
- When the frequency step is changed, the frequencies in the memory are deleted.

CD/Audio file/VCD control features



Playing CD, Audio file & VCD

When a disc is inserted

Press the [SRC] button.

Select the "CD" display.



- When a CD is inserted, the "IN" indicator is ON.

Pause and play

Press the Control knob.

Each time you press the knob, the audio pauses or plays.

Eject the CD

Press the [▲] button.



- You can also play a disc containing Video CD files. The Video CD is called the VCD in this manual.
- Data is not displayed and not played back if it is recorded in the VCD title menu area for Playback Control.
- You cannot use the PBC (Playback Control) function even if the media having the PBC function is played back by this system.

Fast Forwarding and Reversing

Fast Forwarding

Hold down the Control knob toward [▶▶].

Release to resume the playback.

Reversing

Hold down the Control knob toward [◀◀].

Release to resume the playback.



- The sound is not output while the Audio file and video track of Video CD is being searched.

Track/File Search

Searching for a song on the disc or in the Audio file folder.

Push the Control knob towards [◀◀] or [▶▶].



- If the remote control with number buttons is used as optional accessories, you can directly select a song you want to listen to with the operation below.
 1. Enter a track/file number.
Press the number buttons on the remote control.
 2. Do the Track/File Search.
Push the Control knob towards [◀◀] or [▶▶].

Function of Audio file

Folder Search

Selecting the folder recorded on the Audio file media.

Push the Control knob towards [FM] or [AM].

Track/File/Folder Repeat

Replaying the song or Audio file folder you are listening to.

Press the [REP] button.

Each time you press the button, the Repeat Play alternates between the modes shown in the tables below.

In CD, VCD source

Repeat play	Display
Track Repeat	"TRAC REP"
OFF	"REP OFF"

In Audio file source

Repeat play	Display
File Repeat	"FILE REP"
Folder Repeat	"FOLD REP"
OFF	"REP OFF"

Scan Play

Playing the first part of each song on the disc or Audio file folder you are listening to and searching for the song you want to hear.

1 Start Scan Play

Press the [SCAN] button.

"TRAC SCN"/"FILE SCN" is displayed.

2 Release it when the song you want to listen to is played

Press the [SCAN] button.



- You cannot use the Scan Play mode for a disc containing Video CD files.

Random Play

Play all the songs on the disc or Audio file folder in random order.

Press the [RDM] button.

Each time you press the button, Random Play turns ON or OFF.

When the Random mode is ON, "DISC RDM"/"FOLD RDM" is displayed.



- When you push the Control knob toward [▶▶], the next random song starts.

Function of Audio file

Folder Select

Quickly selecting the folder you want to hear.

1 Enter Folder Select mode

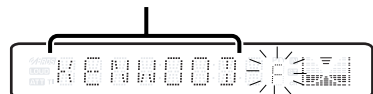
Press the [F.SEL] button.

"FOLD SEL" is displayed.

During Select mode the folder information is displayed as shown below.

Folder name display

Displays the current folder name.



2 Select the folder level

Push the Control knob towards [FM] or [AM].

With the [FM] of the Control knob, you move 1 level down and with the [AM] of the Control knob, 1 level up.

Selecting a folder in the same level

Push the Control knob towards [◀◀] or [▶▶].

With the [◀◀] of the Control knob, you move to the previous folder, and with the [▶▶] of the Control knob, to the next folder.

Returning to the top level

Press the [3] button.

Scrolling the folder name display

Push the Control knob toward [FM] for at least 2 seconds.

3 Decide the folder to play

Press the Control knob.

The Folder Select mode releases, and the Audio file in the folder being displayed plays.

Cancelling the Folder Select mode

Press the [F.SEL] button.

Function of VCD

Audio output select

You can change the audio output to Left or Right STEREO.

Press the [M/S] button.

Display	Operation
"ST"	The stereo sound is output.
"LL"	Outputs the Left channel sound to the right and left speakers.
"RR"	Outputs the Right channel sound to the right and left speakers.



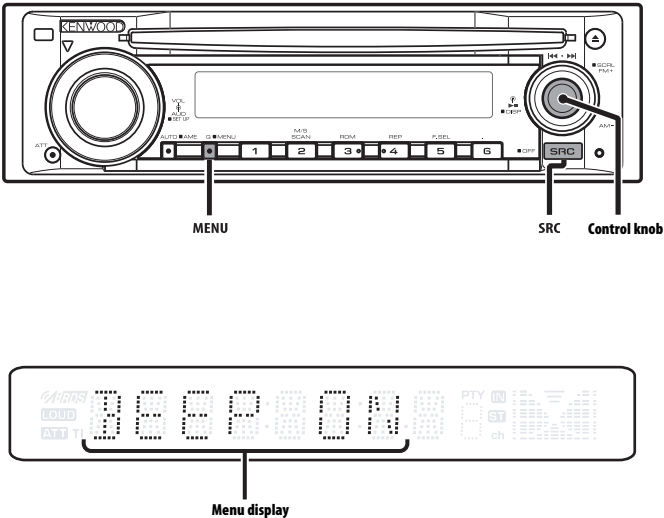
- If you play a disc containing the mixed Video CD and CD-DA signals, the Audio output select function is cancelled when the CD-DA part plays.

Text/Title Scroll

Scrolling the displayed CD text or Audio file text.

Push the Control knob toward [FM] for at least 2 seconds.

Menu system



Menu System

Setting beep sound during operation, etc. functions.

The Menu system basic operation method is explained here. The reference for the Menu items and their setting content is after this operation explanation.

1 Enter Menu mode

Press the [MENU] button for at least 1 second.
"MENU" is displayed.

2 Select the menu item

Push the Control knob towards [FM] or [AM].
Example: When you want to set the beep sound select the "BEEP" display.

3 Set the menu item

Push the Control knob towards [◀◀] or [▶▶].

Example: When you select "BEEP", each time you push the knob it alternates between "BEEP ON" or "BEEP OFF". Select 1 of them as the setting.

You can continue by returning to step 2 and setting other items.

4 Exit Menu mode

Press the [MENU] button.



- When other items those applicable to the basic operation method above are displayed, their setting content chart is entered. (Normally the setting listed at the top of the chart is the original setting.) Also, the explanation for items that are not applicable (<Manual Clock Adjustment> etc.) are entered step by step.

In Standby mode

Touch Sensor Tone

Setting the operation check sound (beep sound) ON/OFF.

Display	Setting
"BEEP ON"	Beep is heard.
"BEEP OFF"	Beep canceled.

In Standby mode

Manual Clock Adjustment

1 Select Clock Adjustment mode

Push the Control knob towards [FM] or [AM].
Select the "CLK ADJ" display.

2 Enter Clock Adjust mode

Press the Control knob for at least 1 second.
The clock display blinks.

3 Adjust the hours

Push the Control knob towards [FM] or [AM].

Adjust the minutes

Push the Control knob towards [◀◀] or [▶▶].

4 Exit Clock adjustment mode

Press the [MENU] button.

In Standby mode

DSI (Disabled System Indicator)

A red indicator will blink on the unit after the faceplate is removed, warning potential thieves.

Display	Setting
"DSI ON"	LED flashes.
"DSI OFF"	LED OFF.

In Standby mode

Dimmer

Dimming this unit's display automatically when the vehicle light switch is turned ON.

Display	Setting
"DIM ON"	The display dims.
"DIM OFF"	The display doesn't dim.

In FM reception

CRSC (Clean Reception System Circuit)

Temporarily have reception alternate from stereo to mono to reduce multi-path noise when listening to the FM station.

Display	Setting
"CRSC ON"	The CRSC is ON.
"CRSC OFF"	The CRSC is OFF.



- Strong electrical fields (such as from power lines) may cause unstable sound quality when CRSC is turned ON. In such a situation, turn it OFF.

Text Scroll

Setting the displayed text scroll.

Display	Setting
"SCL AUTO"	Repeats scroll.
"SCL MANU"	Scrolls when the display changes.



- The text scrolled is listed below.
 - CD text
 - Folder name/ File name/ Song title/ Artist name/ Album name

In Standby mode

CD Read Setting

When there is a problem with playing a CD with special format, this setting plays the CD by force.

Display	Setting
"CD READ1"	Play CD and Audio file.
"CD READ2"	Play CD by force.



- Setting "CD READ2" cannot play Audio file. Some music CDs may not play even in the "CD READ2" mode.

In Standby mode

Switches the NTSC/PAL setting

Alternates to the NTSC broadcast mode or PAL broadcast mode setting.

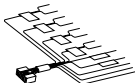
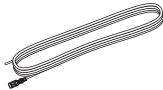
Display	Setting
"P/N PAL"	Set this in the PAL broadcast mode area.
"P/N NTSC"	Set this in the NTSC broadcast mode area.



- The PAL or NTSC setup must match the setup of the connected monitor unit. If they do not match, no image can be played.

Accessories/ Installation Procedure

Accessories

①		1
②		2
③		4
④		4
⑤		1
⑥		1
⑦		1

Installation Procedure

1. To prevent a short circuit, remove the key from the ignition and disconnect the ⊖ battery.
2. Make the proper input and output wire connections for each unit.
3. Connect the speaker wires of the wiring harness.
4. Connect the wiring harness wires in the following order: ground, battery, ignition.

5. Connect the wiring harness connector to the unit.
6. Install the unit in your car.
7. Reconnect the ⊖ battery.
8. Press the reset button.

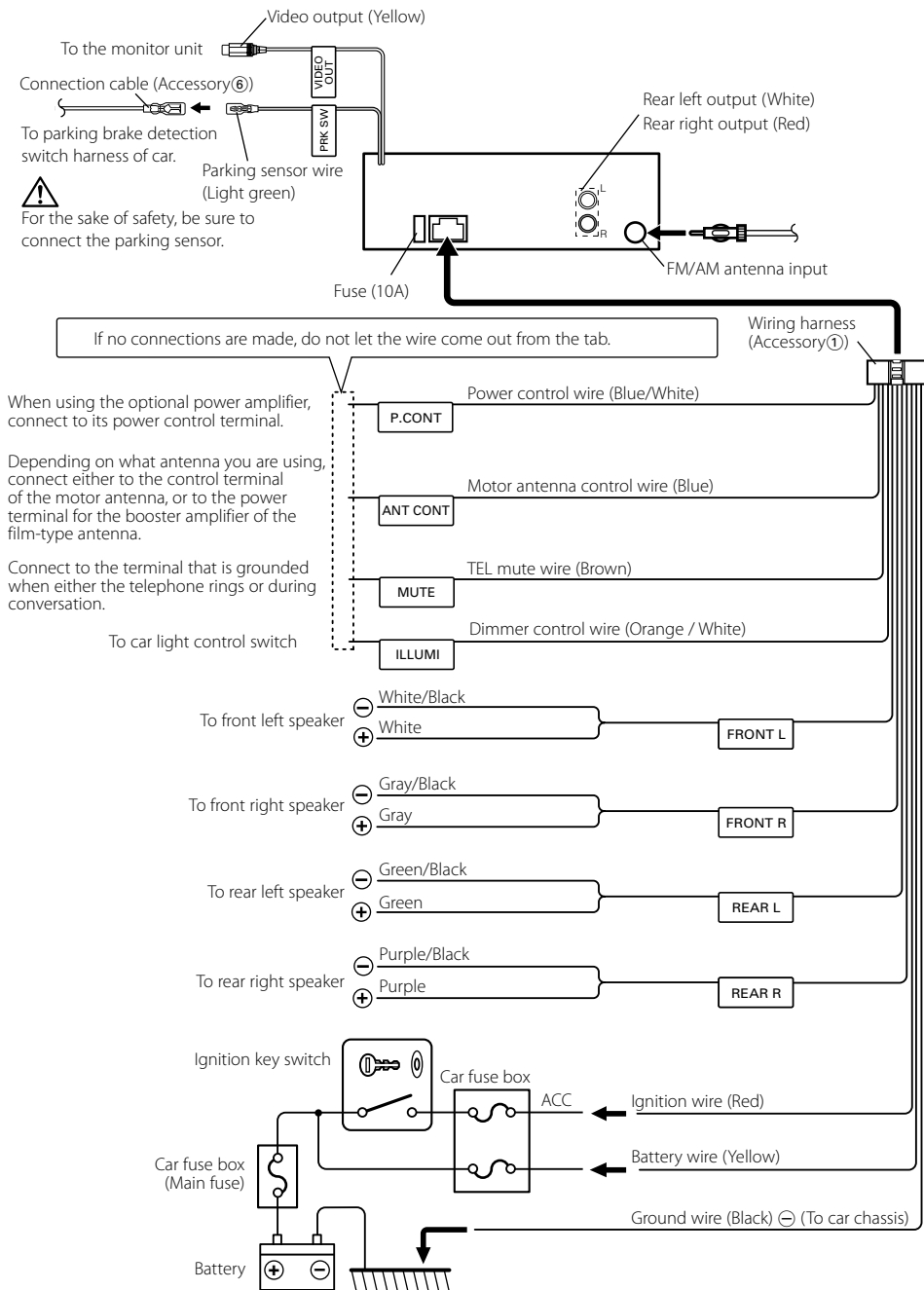
⚠ WARNING

If you connect the ignition wire (red) and the battery wire (yellow) to the car chassis (ground), you may cause a short circuit, that in turn may start a fire. Always connect those wires to the power source running through the fuse box.



- If the power is not turned ON (or it is ON, but will be OFF immediately), the speaker wire may have a short-circuit or touched the chassis of the vehicle and the protection function may have been activated. Therefore, the speaker wire should be checked.
- If your car's ignition does not have an ACC position, connect the ignition wires to a power source that can be turned on and off with the ignition key. If you connect the ignition wire to a power source with a constant voltage supply, as with battery wires, the battery may die.
- If the console has a lid, make sure to install the unit so that the faceplate will not hit the lid when closing and opening.
- If the fuse blows, first make sure the wires aren't touching to cause a short circuit, then replace the old fuse with one with the same rating.
- Insulate unconnected wires with vinyl tape or other similar material. To prevent a short circuit, do not remove the caps on the ends of the unconnected wires or the terminals.
- Connect the speaker wires correctly to the terminals to which they correspond. The unit may be damaged or fail to work if you share the ⊖ wires or ground them to any metal part in the car.
- When only two speakers are being connected to the system, connect the connectors either to both the front output terminals or to both the rear output terminals (do not mix front and rear). For example, if you connect the ⊕ connector of the left speaker to a front output terminal, do not connect the ⊖ connector to a rear output terminal.
- After the unit is installed, check whether the brake lamps, blinkers, wipers, etc. on the car are working properly.
- Mount the unit so that the mounting angle is 30° or less.

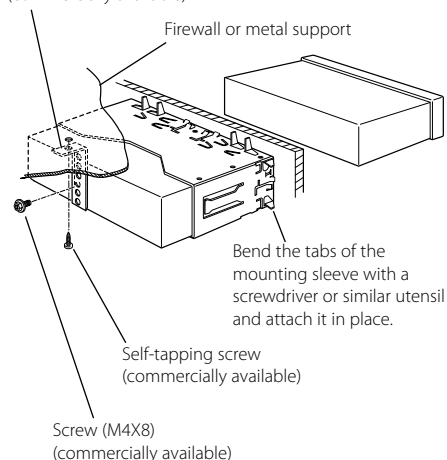
Connecting Wires to Terminals



Installation

non-Japanese cars

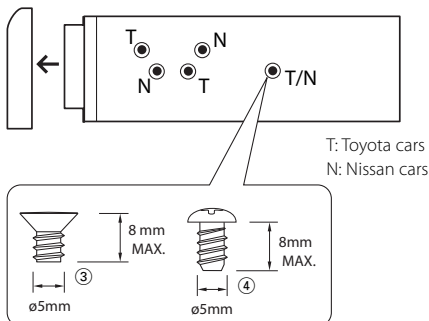
Metal mounting strap
(commercially available)



- Make sure that the unit is installed securely in place. If the unit is unstable, it may malfunction (for example, the sound may skip).

Japanese cars

- Refer to the section <Removing the hard rubber frame> (page 23) and then remove the hard rubber frame.
- Align the holes in the unit (two locations on each side) with the vehicle mounting bracket and secure the unit with the accessory screws.



Accessory③...for Nissan car

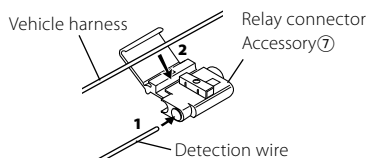
Accessory④...for Toyota car



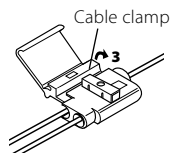
- During installation, do not use any screws except for those provided. The use of different screws might result in damage to the main unit.
- Damage may occur if a screwdriver or similar tool is used with excessive force during the installations.

Using the Relay Connector

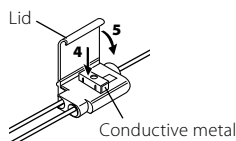
- Plug the vehicle's harness into the relay connector.
- Plug the parking brake detection wire into the relay connector.



- Lock the cable clamp.



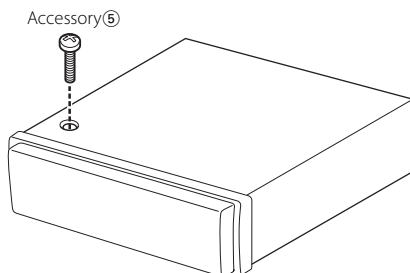
- Press down using pliers until the conductive metal is even with the plastic surface.
- Lock the lid.



Installation

Screwing the Faceplate on the Unit

If you want to fasten the faceplate to the main unit so that it does not fall off, screw in the provided screws in the holes shown below.

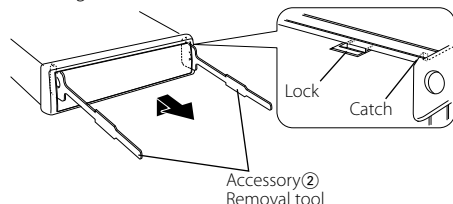


- Never insert the screw in any other screw hole than the one specified. If you screw them in another hole, it will contact and may cause damage to the mechanical parts inside the unit.

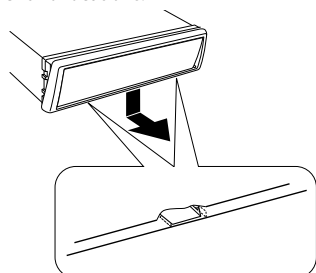
Removing the Unit

Removing the hard rubber frame

- 1 Engage the catch pins on the removal tool and remove the two locks on the upper level. Upper the frame and pull it forward as shown in the figure.



- 2 When the upper level is removed, remove the lower two locations.

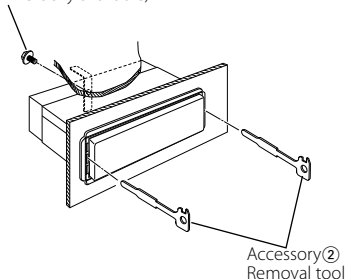


- The frame can be removed from the bottom side in the same manner.

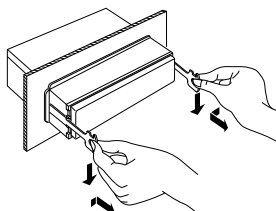
Removing the Unit

- 1 Refer to the section <Removing the hard rubber frame> (page 23) and then remove the hard rubber frame.
- 2 Remove the screw (M4 × 8) on the back panel.
- 3 Insert the two removal tools deeply into the slots on each side, as shown.

Screw (M4X8)
(commercially available)

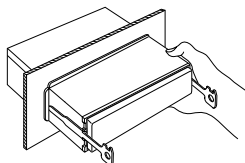


- 4 Lower the removal tool toward the bottom, and pull out the unit halfway while pressing towards the inside.



- Be careful to avoid injury from the catch pins on the removal tool.

- 5 Pull the unit all the way out with your hands, being careful not to drop it.



Troubleshooting Guide

What might seem to be a malfunction in your unit may just be the result of slight misoperation or miswiring. Before calling service, first check the following table for possible problems.

General

? The power does not turn ON.

- ✓ The fuse has blown.
 - ⓘ After checking for short circuits in the wires, replace the fuse with one with the same rating.

? There's a source you can't switch.

- ✓ There's no media inserted.
 - ⓘ Set the media you want to listen to. If there's no media in this unit, you can't switch to each source.

? The memory is erased when the ignition is turned OFF.

- ✓ The ignition and battery wire are incorrectly connected.
 - ⓘ Connect the wire correctly, referring to the section on <Connecting Wires to Terminals> (page 20).

? The TEL mute function does not work.

- ✓ The TEL mute wire is not connected properly.
 - ⓘ Connect the wire correctly, referring to the section on <Connecting Wires to Terminals> (page 20).

? The TEL mute function turns ON even though the TEL mute wire is not connected.

- ✓ The TEL mute wire is touching a metal part of the car.
 - ⓘ Pull the TEL mute wire away from the metal part of the car.

? Even if Loudness is turned ON, high-pitched tone isn't compensated for.

- ✓ Tuner source is selected.
 - ⓘ High-pitched tone isn't compensated for when in Tuner source.

? No sound can be heard, or the volume is low.

- ✓ The fader or balance settings are set all the way to one side.
 - ⓘ Center the fader and balance settings.
- ✓ The input/output wires or wiring harness are connected incorrectly.
 - ⓘ Reconnect the input/output wires or the wiring harness correctly. See the section on <Connecting Wires to Terminals> (page 20).
- ✓ The values of Volume offset are low.
 - ⓘ Turn up the Volume offset, referring to the section on <Audio Setup> (page 8).

? The sound quality is poor or distorted.

- ✓ One of the speaker wires is being pinched by a screw in the car.
 - ⓘ Check the speaker wiring.
- ✓ The speakers are not wired correctly.
 - ⓘ Reconnect the speaker wires so that each output terminal is connected to a different speaker.

? The Touch Sensor Tone doesn't sound.

- ✓ The preout jack is being used.
 - ⓘ The Touch Sensor Tone can't be output from the preout jack.

? The Dimmer function doesn't work.

- ✓ The Dimmer wire isn't connected correctly.
 - ⓘ Check the Dimmer wire connection.
- ✓ The <Dimmer> (page 17) is OFF.
 - ⓘ Turn it ON.

Tuner source

? Radio reception is poor.

- ✓ The car antenna is not extended.
 - ⓘ Pull the antenna out all the way.
- ✓ The antenna control wire is not connected.
 - ⓘ Connect the wire correctly, referring to the section on <Connecting Wires to Terminals> (page 20).

Disc source

? The specified disc does not play, but another one plays instead.

- ✓ The specified CD is quite dirty.
⚙️ Clean the CD.
- ✓ The disc is severely scratched.
⚙️ Try another disc instead.

? Can't remove disc.

- ✓ The cause is that more than 10 minutes has elapsed since the vehicle ACC switch was turned OFF.
⚙️ The disc can only be removed within 10 minutes of the ACC switch being turned OFF. If more than 10 minutes has elapsed, turn the ACC switch ON again and press the Eject button.

? The disc won't insert.

- ✓ There's already another disc inserted.
⚙️ Press the [▲] button and remove the disc.

? Direct Search can't be done.

- ✓ Another function is ON.
⚙️ Turn Random Play or other functions OFF.

Audio file source

? Cannot play an Audio file.

- ✓ The media is scratched or dirty.
⚙️ Clean the media, referring to the CD cleaning of the section on <About CDs> (page 5).

? The sound skips when an Audio file is being played.

- ✓ The media is scratched or dirty.
⚙️ Clean the media, referring to the CD cleaning of the section on <About CDs> (page 5).
- ✓ The recording condition is bad.
⚙️ Record the media again or use another media.

? The Audio file track time isn't displayed correctly.

- ✓ ---
⚙️ There are times when it isn't displayed correctly according to the Audio file recording conditions.

The messages shown below display your systems condition.

TOC ERR:	The CD is quite dirty. The CD is upside-down. The CD is scratched a lot. ⚙️ Clean the CD and load it correctly.
E-05:	The CD is upside-down. ⚙️ Load the CD correctly.
E-99:	The unit is malfunctioning for some reason. ⚙️ Press the reset button on the unit. If the "E-99" code does not disappear, consult your nearest service center.
READING:	The unit is reading the data on the disc.
IN (Blink):	The CD player section is not operating properly. ⚙️ Reinsert the CD. If the CD cannot be ejected or the display continues to flash even when the CD has been properly reinserted, please switch off the power and consult your nearest service center.
PROTECT:	The speaker wire has a short-circuit or touches the chassis of the vehicle, and then the protection function is activated. ⚙️ Wire or insulate the speaker cable properly and press the reset button.
NA FILE:	An Audio file is played with a format that this unit can't support. ⚙️ ----
COPY PRO:	A copy-protected file is played. ⚙️ ----
PRK OFF:	No parking brake is applied during playback of the Video CD.

Specifications

Specifications subject to change without notice.

FM tuner section

- Frequency range (50 kHz space)
 - : 87.5 MHz – 108.0 MHz
- Frequency range (200 kHz space)
 - : 87.9 MHz – 107.9 MHz
- Usable sensitivity (S/N = 30dB)
 - : 9.3dBf (0.8 μ V /75 Ω)
- Quieting Sensitivity (S/N = 50dB)
 - : 15.2dBf (1.6 μ V /75 Ω)
- Frequency response (± 3.0 dB)
 - : 30 Hz – 15 kHz
- Signal to Noise ratio (MONO)
 - : 70 dB
- Selectivity (± 400 kHz)
 - : ≥ 80 dB
- Stereo separation (1 kHz)
 - : 40 dB

AM tuner section

- Frequency range (9 kHz space)
 - : 531 kHz – 1611 kHz
- Frequency range (10 kHz space)
 - : 530 kHz – 1700 kHz
- Usable sensitivity (S/N = 20dB)
 - : 28 dB μ (25 μ V)

Audio section

- Maximum output power
 - : 45 W x 4
- Full Bandwidth Power (at less than 1% THD)
 - : 22 W x 4
- Speaker impedance
 - : 4 – 8 Ω
- Tone action
 - Bass : 100 Hz ± 8 dB
 - Middle : 1 kHz ± 8 dB
 - Treble : 10 kHz ± 8 dB
- Preout level / Load (during disc play)
 - : 2000 mV/10 k Ω
- Preout impedance
 - : $\leq 600 \Omega$

CD player section

- Laser diode
 - : GaAlAs
- Digital filter (D/A)
 - : 8 Times Over Sampling
- D/A Converter
 - : 1 Bit
- Spindle speed
 - : 500 – 200 rpm (CLV)
- Wow & Flutter
 - : Below Measurable Limit
- Frequency response (± 1 dB)
 - : 10 Hz – 20 kHz
- Total harmonic distortion (1 kHz)
 - : 0.01 %
- Signal to Noise ratio (1 kHz)
 - : 93 dB
- Dynamic range
 - : 93 dB
- MP3 decode
 - : Compliant with MPEG-1/2 Audio Layer-3
- WMA decode
 - : Compliant with Windows Media Audio
- Video CD format
 - : Version 1.1
- Color system
 - : NTSC/PAL
- Video output level
 - : 1Vp-p/75 Ω

General

- Operating voltage (11 – 16V allowable)
 - : 14.4 V
- Current consumption
 - : 10 A
- Installation Size (W x H x D)
 - : 182 x 53 x 155 mm
- Weight
 - : 1.40 kg